Final Report

The links between labour markets and housing markets in Melbourne

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EXECUTIVE SUMMARY

The research found strong and stable geographic links between housing markets and labour markets within the Melbourne metropolitan area at the regional level. Most connections between job and house are made within a region; if people travel outside their own region for work, it is often to an adjoining region. Residential moves, too, are mostly either circumscribed within the region where people already live, or involve a move to an adjoining region.

These regional scale linkages attest to the importance of the geography of employment as an influence upon the structure of a metropolitan area, and the need for metropolitan policy to incorporate employment matters into the creation of policy on housing location. Suburban development is the outcome of a complex set of labour market and housing market linkages. It is not 'sprawl', but an ordered process whereby households find housing in locations where it is possible to reach jobs, and re-arrange those links as housing and job circumstances change.

The linkage between jobs and houses is in part shaped by the residential re-location of people in particular industries and occupations from one region to another, often involving a move toward regions where those industries or occupations are particularly prominent.

This is not a trouble free process. In a number of cases shifts in housing location are associated with limited job availability. It is now apparent that metropolitan policy has contributed to significant spatial re-alignments in the socio-economic character of the metropolitan area during the 1990s. Areas of old-economy specialisation, for example, recorded a net in-movement of old-economy workers. The outcome of this process has been detected in particular in the north and west of Melbourne.

These outcomes can affect overall regional development. The Inner North/Inner West region, for example, has been losing share of total employment in Melbourne. The activities that we have classified as the old economy involve lower-skilled employees in vulnerable industries which means there is potential for localised concentrations of workers with low incomes and little long-term job security. Although the Inner South East region has localised concentrations of labour-market disadvantage, the region as a whole has been gaining jobs and has job opportunities in a broader range of activities. This broad insight corroborates an increasing body of research that points to a growing spatial disparity of wealth and opportunity in Australian metropolitan areas.

A consequence of the 1990s policy of promoting Melbourne as an international city has been the increasing spatial separation of specific labour-market groups within the Melbourne metropolitan area. In this way, policy has helped reshape the structure of labour market housing market links so that the Core region has become more socially and economically distinctive and separate from the suburbs. In many respects, the Core is job and skill rich, housing-expensive and an increasingly exclusive region. A major contradiction within contemporary metropolitan Melbourne is the existence of an economically significant region that is becoming increasingly inaccessible as a place of residence. The analysis of residential re-location data suggests that the boom in medium-density residential development, much of which occurred within the Core during the 1990s, has intensified this exclusiveness, largely reflecting the growth of the high-level service industries and the attendant shift in job structure towards the lifestyle servicing activities associated with them.

The data also suggest that the spatial distinctiveness of the Core region involves more than simply differences relating to industry and occupational make-up and labour-market restructuring in a narrow sense, but also a shift in the politico-cultural

character of inner Melbourne relative to the remainder of the metropolitan area. That shift emanates from the spatial concentration of what could be called a new-economy elite who have the potential to exert disproportionate influence upon urban policy development. The potential for inner Melbourne to become a region at significant cultural variance with the lifestyle and values of suburban Melbourne is significant. The frequent and often vague criticism of suburbia being 'sprawl' appears to be an expression of such a cultural divide. This interpretation of policy change helps explain why contemporary urban policy has altered so decisively from past practice without having substantial popular support or an overwhelming body of empirical evidence to recommend it.

The research suggests that the commonly held view that the shift in residential development from single, detached housing in favour of alternative, usually higher-density residences is a more or less simple and direct reflection of demographic changes in the population is problematic. A more adequate explanation of the apparent acceptance of alternative, medium-density housing in the Core region needs to recognise spatial disparities in job availability and new job generation. An analysis of journey-to-work data for 1996 shows that the Core region offered job-resident ratios far in excess of any other region. The rapid up-take of medium-density housing in the Core almost certainly reflected the attractiveness of the region as a unique and prosperous labour market within the metropolitan context. Further, it is difficult to distinguish the much-emphasised cultural appeal of many Core areas from the region's labour-market appeal, as many of the available jobs are associated with the servicing of lifestyle activities.

The research findings are also relevant to how metropolitan fringe development is understood. It is significant that regions of obvious concentration of labour-market disadvantage are not fringe regions. Rather, they are older industrial areas embedded in mid-suburban areas. This means that the old notion that all the metropolitan labour market and housing market problems were on the fringe is misleading. This is significant because anti-'sprawl' advocates frequently assume that low-density suburban growth on the metropolitan fringe is synonymous with under servicing and the creation of relative disadvantage. As the data examined in the regional case study of the Inner South East region suggest, residential re-location from that region to outer suburban areas was likely to be linked to an upgrading of housing stock by persons, some of whom may not otherwise have been able to afford to do so, while retaining a job in the middle suburbs.

In turn, the observation that particular middle-suburban areas are the most socio-economically depressed challenges the view that labour market disadvantage in depressed suburban areas reflects poor proximity to available jobs. This observation also underscores the inherent weakness of new-urbanist policy perspectives that focus one-sidedly upon increasing residential densities as central to solving perceived social, economic and cultural problems in contemporary society.

The thrust of the research reported here is that housing policy cannot be expressed independently of an adequate understanding of the spatiality of jobs and the nature of job-housing links. There has been a serious inadequacy in urban policy, particularly during the period of continued rapid economic restructuring of the 1990s. Policy in the housing market cannot simply proceed on the basis of residential numbers and density. Rather, knowledge of the number, type and location of jobs needs to be taken into account in any decision associated with the distribution of suburban housing.

While a return to a multi-nodal approach to metropolitan development would be a significant advance, the success of such a policy would be limited if the focus of policy attention remained fixed on population growth, and residential location and

densities. A more pro-active approach by the Victorian Government in influencing industry location and job growth would help counter the significant spatial inequalities that have come to characterise the Melbourne metropolitan area. The focus of such an approach would need to be upon industries that are not directly linked to the routine servicing of local populations and local population size, but which are broader in scope such as high-level business services and manufacturing.

A pro-active approach by government to business location has the potential to enhance regional self-containment rates beyond their present levels. This research has shown that industry over-representation (specialisation) within a region is strongly associated with high self-containment rates for the industries concerned. Therefore, problems of air quality and road traffic congestion might be alleviated by an approach which seeks to concentrate appropriate industry sectors in designated regions. If such initiatives were linked to housing development, work journeys might thereby be minimised. The high rates of residential churning observed in the data suggest that deliberate industry concentrations would likely be reflected relatively quickly in the residential movement of those sections of the work force who stand to benefit from employment in the industry concerned.

Such an approach to job location might also be used to counter the affects of stagnation in job growth in some of the more depressed suburbs of Melbourne. A broadening of the socio-economic mix in depressed areas is a goal that might at least in part be achieved by the locational targeting of job creation.

A serious problem associated with the largely mono-nodal approach of the 1990s has been that the region of greatest job growth, the Core, has become increasingly residentially exclusive. Burke and Hayward (2000) have shown very clearly that the explosion of medium and higher-density residential development in the Core during the 1990s has not delivered low-cost housing. Should the Victorian Government assume greater control over the location of jobs through new approaches to commercial and industrial zoning, greater state intervention may be required to ensure the provision of low-cost housing in designated job growth areas. It may be beneficial if the state assumed greater control over the provision of low-cost housing within the job-rich Core region, as the private housing market has not proven very effective in this respect. But, such provision would need to extend beyond present state involvement in housing for the most socially distressed and encompass a much broader range of low-income households.

Such intervention may be necessary to reduce overall journey-to-work distances and enhance regional labour-market self-containment, while countering the growing spatial socio-economic disparities of the 1990s and alleviating some of the environmental problems associated with urban development.

INTRODUCTION

The new technical and structural dimensions associated with knowledge and information in the rapidly emerging “new economy”, along with new organisational and social dimensions in the form of part-time work and labour market flexibility are changing the geography of labour markets. This new geography is reflected in changes in the pattern of jobs in metropolitan areas. Along with a broad range of social and demographic factors, the new geography of employment has contributed to changes in housing demand.

Paradoxically, this perspective seems to play a very small part in the analysis of urban development trends and the development and application of policy for the management of metropolitan development, including decisions on the location of housing. These areas of concern have drawn most of their ideas from the analysis of population and density, inspired in part from architectural concerns relating to housing styles. At the heart of this understanding lies the perception of a process called *urban sprawl*, that allegedly produces a range of urban problems. It is believed this process can best be controlled by increasing population densities within established areas through changes in controls over the location of housing.

Labelled “compact city”, “urban consolidation” or smart growth” and involving growth boundaries and new planning attitudes to inner area residential development, recent urban policy has attempted to stimulate population density through changes in housing density, design and location. As a result, housing supply has shifted from an emphasis upon fringe and corridor expansion to infill on old sites and higher-density use of existing sites, especially in the inner city.

Higher densities are expected to provide physical benefits (in the form of energy savings) economic benefits (cheaper infrastructure provision) as well as social and community benefits (in the form of interpersonal contact and local network support). There has also been the widespread assumption amongst anti-sprawl advocates that higher urban residential densities will facilitate more equitable social outcomes, particularly in terms of access to jobs and affordable housing for low-income groups. This claim is premised upon the more general idea that higher-density residential development is inherently more sensitive to demographic complexity and, therefore, social diversity than the conformity of design characteristic of the traditional, low-density suburban development of the past. This view is strongly associated with the urban village ideal found in much of the new-urbanist literature. Although frequently reiterated, these assumptions ignore any understanding of the role that job location may play in residential change and housing demand.

Much of this policy is predicated just on an analysis of population trends and location. This is illustrated in the famous work of Newman and Kenworthy (1989). Rogers (1997) has suggested that there is a set of local links between population and employment and that population density increases will generate local employment opportunities, but no reasons are given for these links. It is unlikely however, that, metropolitan areas are shaped primarily by forces acting upon patterns of population growth and, second, that population trends and job location trends are contemporaneous and geographically aligned. In fact, the location of work could be a major influence upon the pattern of population and may need to be a significant consideration in both the analysis of metropolitan change and the development of policy tools for housing location.

This research uses the geography of employment to show that metropolitan areas are changing not because of a shift in the density of their residential populations, but because of a structural shift in the links between jobs and residences. The link between jobs and houses is one of the key dimensions in the structure and day-to-

day operation of a metropolitan region. The character of that link both in terms of its geography and the transport technology it uses has important implications for equity in housing accessibility. It is possible these links may be becoming more occupationally and industrially stratified and, in turn, more geographically polarised than in the past. Policy to reshape housing density may in fact be contributing to a change in the geography and the sociology of housing market-labour market links.

Hence, a real challenge for both urban analysis and for policy makers is to develop a stronger socio-economic understanding of the links between housing and labour markets: the research reported here is a step in that direction. This report outlines the results of a detailed analysis of the geography of employment in Melbourne, and its links with the locations of housing.

Background

The research reported here is positioned at the knot in two strands in housing and urban research within metropolitan areas. The first strand involves the geography of housing. Its thread is shaped primarily by the types of houses and the price of housing in different locations in a metropolitan area. The second strand is the distribution of jobs of different types across the metropolitan area. The intertwining of these strands provides the structure of the metropolitan area. As the weave of housing seems to have unravelled across a larger and larger area in most cities many commentators call the outcome *urban sprawl* and hope to change the outcome by changing the density of housing. That view ignores the warp of jobs, and the way it is inter-woven with housing. Indeed the unravelling of the pattern of housing could be related to an unravelling in the pattern of jobs. Ignoring the part that jobs play in metropolitan structure policy can be both mistaken and perhaps less effective in managing change in metropolitan areas.

The core idea of the project is that new economic and social forces acting on the location of jobs, along with different attitudes to housing location, have changed the way they interweave and so shape the structure of a metropolitan region. The research emphasises the geography of jobs in part as it seems to have attracted less attention compared to that directed toward housing market change. That limited attention reflects in part the difficulty of obtaining information on employment numbers in parts of many cities, while housing numbers and local population estimates are more readily available.

The starting point of the project is with familiar job–housing links in metropolitan areas. The first is between central city jobs and suburban housing; the numbers travelling by public transport or by car in congested morning and evening peaks provide an indication of the significance of that connection. That link is shaped by a variety of factors, including income, family size, housing preferences and the provision of subsidised public transport. The second link involves local area or sub-regional connections between houses and jobs, often associated with manufacturing and service activities like retailing. This link, in the past, was seen in the short work trips of inner city manufacturing workers, but is now found in middle and outer suburbs as well. The scale of these two different links varies from city to city, but in many cities local and sub- regional connections between jobs and houses have become steadily more important in the overall daily movement of labour. It is that outcome that could account for the steady unravelling of population patterns that so concerns many metropolitan planners.

New Job Locations in a New Economy?

Over the last two decades, there was a major change in the structure of the economy. Summaries of this change have suggested there is now a "new economy"; a term which refers to the greater emphasis upon research and development and greater use of information technology and telecommunications in modern production systems (The Economist 1999). This outcome was labelled a "fourth wave of economic development" by Clarke and Gaile (1998). There has been a lot of scepticism expressed concerning the significance and meaning of this terminology, (The Economist 1999) but there is general agreement that some new conditions have been experienced, and productivity gains recorded in a period of rapid economic growth.

Reich (1992) provided a way to understand these changes by expressing them in terms of the occupations involved in the new forms of production. His approach isolated those activities that involve creating or using knowledge in a non-standard way (the symbolic analysts) from those that routinely apply or disseminate it (the routine production worker). He drew attention to the type of work rather than the type of product (or sector of the economy) as the key determinant of the vitality of local economies. This makes it possible to understand, for example, that the presence of modern high technology activity will have more impact on a location's prosperity if it involves research into and the creation of software (employing symbolic analysts) than if it involves call centre jobs (employing routine production workers). In turn, too, the local housing market impacts are likely to be very different in these two scenarios. That difference will emerge not only from the very different income levels associated with these activities, but from the possible clustering of other services (and hence jobs) that are more likely around software firms than around call centres. These perspectives are incorporated into the research reported here by the creation of classes of industry called the new economy and mass goods and services sector.

The Reich ideas help understand the shifts that have taken place in the character of the inner city labour market in many cities. Substantial commercial redevelopment of the CBD and its surrounding locations has provided buildings for the advanced corporate services and especially the finance sector. This occurred even though change has reduced the number of banks. Complex de-skilling has occurred as electronic forms of negotiation and transaction take the place of traditional banking. Working on US data Immergluk (1999) shows these changes create decentralisation forces on jobs in the cores of large cities (confirmed by Rosen and Murray (1997) and O'Cleireacain (1997) for New York City). However most of this job loss has been in the routine and service part of the industry, as the symbolic analysts, represented by the information providers, traders and deal negotiators have expanded in the finance communities of selected cities. The outcome of these changes is a more specialised (and probably larger) finance economy in the CBD of places like New York, and as related work has shown in London. For the UK, Gillespie (1999) found that financial services now account for a large share of employment in a number of towns ringing London, although in absolute terms inner London is still the dominant employer of people in the finance industry.

Research on the location of office space in 13 of the largest US commercial real estate markets between 1979 and 1999, by Lang (2000), showed that in aggregate the cities' share of metropolitan office space significantly diminished by 1999. However, the outcome varied from city to city, and only New York and Chicago still had "the majority of (metropolitan) office space located in the primary downtown" (Lang 2000:1). Four other cities were described as balanced, with equal central city and suburban shares of space: these were Boston, Washington, Denver, Los Angeles and San Francisco.

Hence, the emergence of a different economy has changed the labour market characteristics of the inner parts of some cities. It means that the scale and diversity of the CBD labour market is primarily shaped by its competitive position in national and global networks, rather than by its accessibility from the surrounding metropolitan area. It also reiterates the fact that housing-job linkages in a global financial city like New York or London for example will be different to those in a regional manufacturing or distribution city like Atlanta or Birmingham. In the Australian case it is possible that differences of function and major economic activity between Sydney (with a strong financial sector shown in Daly (1999)) and Melbourne (with a strong manufacturing and distribution role as shown in O'Connor (1999)) may be reflected in some distinctive patterns in suburban labour and housing markets.

The new economic structure suggested by Reich may also be associated with rapid job growth in the suburban parts of many metropolitan economies. The needs of new firms could be met in new suburban industrial zones and business parks. Gordon et. al. (1998) suggest in fact that the agglomeration economies needed by modern businesses are now available anywhere within the metropolis rather than simply at its core, where they were once concentrated. They believe the ubiquity of the transport system has freed up labour as well as component and other service delivery and that suburban sites are as good as downtown for many businesses. This is an observation confirmed by Guilano and Small's (1999) study of clusters of jobs in local centres in Los Angeles.

A significant influence upon the scale of suburban employment growth has been the provision of commercial land and buildings that meets the needs of modern business. Hartshorn and Muller (1992:152) have suggested that "the office park and the freeway oriented industrial park" acted as an attraction for firms looking for space. However as commercial space diversified from simple shopping malls to include offices and entertainment facilities, and later research activities and warehouses, some locations matured along the lines described by Erickson (1983) into the "edge cities" identified by Garreau (1991). The provision of particular forms of commercial space in suburban sites by developers remains a significant force in firm location decisions today. Gillespie (1999) also recognises that the long established influence of population re-location continues to be an incentive for new jobs to establish in suburban locations, and also acts as an incentive for firms that are seeking labour to move to suburban sites.

The consequence of the way the new economic structure has impacted upon job location can be seen in a wide range of circumstances. An OECD review of urban trends in Germany shows that the suburban counties of that country's large and small urban regions accounted for 45 per cent of the total number of jobs in the old states or *lander* in 1994. They also grew at double the rate of the central areas between 1989 and 1993 (OECD, 1999). Breheny (1999) reports that in the UK there was a shift in jobs from the inner parts of the big cities toward middle rings and also beyond the city to smaller towns. Katz (2000:8) has recently quoted a study that shows 97 per cent of new firm starts between 1991 and 1993 in 77 metropolitan areas were located outside central cities and observes "the bulk of cities did gain jobs but at a slower pace than their suburban neighbours". Summarising these observations Katz (2000: 8) has noted that the "new economy is an exit ramp economy", meaning that the new firms are attracted to the exits off the interstate highway systems, most of which are in the suburbs.

Hence, there are good reasons to believe that there is a new geography of employment within many metropolitan areas. This geography is new as it has more specialised inner city activity and more diversified suburban activity. The impact of this new geography on the pattern of activity in the metropolitan area depends upon the way it influences housing market behaviour.

New Job-Housing Links?

Job location has been considered a general influence upon housing location for some time (see Warne's (1972) studies of commuting behaviour, for example). Job location plays a key role in models of job search behaviour where the employee is seen scanning jobs within a radius of a residential site (as in Simpson 1980). Empirical research carried out over a considerable period, and in a large number of situations, has confirmed that there has been a close pairing of suburban job growth in manufacturing and retailing and suburban housing. That has been shown in Melbourne (O'Connor and Maher 1979), in US cities as reviewed by Cervero (1995) and in the UK, Spence and Frost (1995).

This research does not establish causality, and there has long been debate on Kain's (1975) query whether jobs follow people or people follow jobs, an issue that was explored in the work of Steinnes (1977) and Simpson (1980). This old issue perhaps requires a new investigation as people are now more mobile due to higher levels of car ownership and new arrangements of work are common. It is also possible that new perspectives have entered the housing choice decision.

Hints of these new perspectives are captured by Guilano and Small's (1999) negative answer to the question "Is the journey to work explained by urban structure". It is apparent that other factors come into play as "many locational pairs have the same travel time enabling a wide variety of choice of housing and jobs with the same travel (dis) utility" (Levinson 1998:20). Levinson further observes that it is "the suburbanisation of jobs creating a polycentric or dispersed urban form (which serves to balance jobs and housing) rather than the further suburbanisation of houses (which creates more imbalance) which enables the commuting times to fall or remain steady". Work on job-house links in Holland recently has explored this new perspective a little further by utilising the concept of 'commuting tolerance' (Hooimeijer et al 2000). This research found that optimal sites for housing, given a dispersal of employment among the main cities of the Randstaat, were the suburban areas of these large cities, and locations between them, not their centres.

Another influence on housing-job links has been changes in work practices (Gillespie 1999). Research has shown part time employees generally have shorter work trips than full-time employees, so it is possible that the rise of part-time work could be felt in more intra suburban work trips if employers move closer to the home location of staff . However, the availability of part-time work will not necessarily have a suburban focus. It is likely in fact that large numbers of part-time jobs are in the inner city (in tourism and entertainment and cleaning for example).

Hence, it would seem that changes in job location allied to changes in the organisation of work and the mobility of workers may be reshaping the links between jobs and houses. However, job location is just one of the factors considered in housing site selection. Phe and Wakely (2000) indicate price, the status of an area and dwelling quality are as relevant. They argue that with higher levels of car ownership workers can search over a larger area, and so seek out particular attributes in housing with less consideration given to the location of their work.

Some new influences on housing location relate to attitudes to living space as individuals and families expect homes with more rooms and more features to carry out their daily lives than was the case a generation before them. Attitudes to living space can be illustrated from Australian experience. Maher (1995:8-9) observed that the "average size of new housing … increased from 130 square metres in the early 1970s to 180 square metres now' reflecting "the need on the part of some households for large houses to cope with space demands contingent upon life cycle changes". That perspective is reinforced by the observation that the average size of house in Australia has increased "by 24 percent in the past four years" (BIS Shrapnel

quoted in '*The Age*' March 9 1998 page 3). Many aspirations involving the size of a home have a suburban focus, consistent with Wulff's (1993) review of housing preferences in Australia. In a number of cases these preferences call for a larger new home, built on a planned estate incorporating recreational facilities and subject to strict local architectural controls (Johnson 1997). These outcomes have been found in many locations. For example, Brun and Fagnani (1994) working on suburban Paris, Filion (1999) researching Kitchener, Canada and Guilano (1999) reporting on suburban Orange County in California all found preferences for outer area residential locations, a perspective incorporated into broader scale analysis of housing dispersal in Swedish (Warneryd 1999) and Italian (Dematteis and Governa 1999) and US (Downs 1999) cities.

The upshot is that the suburban emphasis in new home construction remains a significant one. In the US for example, von Hoffman (1991:1) showed "….more than 80 percent of the new housing took place in the suburbs" in 39 of that country's largest cities in 1986, 1991 and 1999. Monitoring of house construction in Melbourne (O'Connor 1999), Sydney (Daly 1999) and Brisbane (Stimson 1999) confirmed that the majority of Australian housing is still built in the outer suburbs.

Notwithstanding the strong suburban bias in housing development statistics, and the suggestion of a stronger suburban links to jobs, it is essential to recognise that the inner parts of almost all metropolitan areas have attracted high levels of demand for existing homes, a very major effort at renovation and repair, and more recently an increase in new housing stock (in some cases as office, factory and warehouse space has been converted to housing). In many locations these changes have been accompanied by a very rapid rise in house prices. There are a number of possible reasons for this recent pattern of inner area housing change. Wyly and Hammels (1999) ascribe what they term a "truly staggering" recent wave of gentrification in US cities to changes in housing finance. A broader perspective suggests the increase in inner area housing demand was influenced by the fashion of inner city living as captured in the image of the *café society* (Department of Infrastructure 1998). Berry (1999), looking back to work he did on inner area change several decades ago believes that "well paying white collar occupations" are the main influence. Whatever the reason the outcome suggests that housing market labour market links developed a new level of complexity in the metropolitan area of the 1990s. The research reported here was a step toward unravelling that complexity.

The change in the character and location of jobs, shifts in residential preferences and higher levels of mobility mean that the links between home and work locations may involve a number of new trade-offs and compromises. What we may be looking at is not simply decentralisation or suburbanisation of jobs and residences, but a more complex set of interdependencies that depend upon job type, location and rate of pay. If so, employment location may be re-shaping the pattern of metropolitan development in a number of new and different ways. The current project addresses this issue by identifying the character of intra-regional housing – labour market links not only in terms of travel between job and house but also as reflected in residential re-location decisions.

THE APPROACH

The study reviewed a number of ways in which the Melbourne metropolitan area can be subdivided before arriving at the set of regions displayed in Figure 1. This particular configuration of regions provides a large region that will capture change in the old inner area as well as in some mid-suburban high-status suburbs. The justification of this Core region was based on a recent report into the social and economic structure of Australia's metropolitan areas (Baum 1999; Brain, 1999) These reports illustrate the strong similarities between former old industrial inner suburbs and high-status mid-suburban suburbs. This regionalisation also facilitates an analysis of two very significant suburban areas in the east and south-east where job growth is known to have been important in the past twenty years or so. This pattern of regional boundaries also makes it possible to differentiate between an old inner and new outer west and north, thereby capturing the waves of industrial development that occurred in the inner region up until around 1960 and in the outer region more recently. This regionalisation reduced the number of individual areas from 74 Statistical Local Areas (SLAs) to 10 regions (listed below and identified in more detail in Appendix F) which not only expedited analysis, but also reflected the contemporary socio-economic structure of the Melbourne metropolitan area.

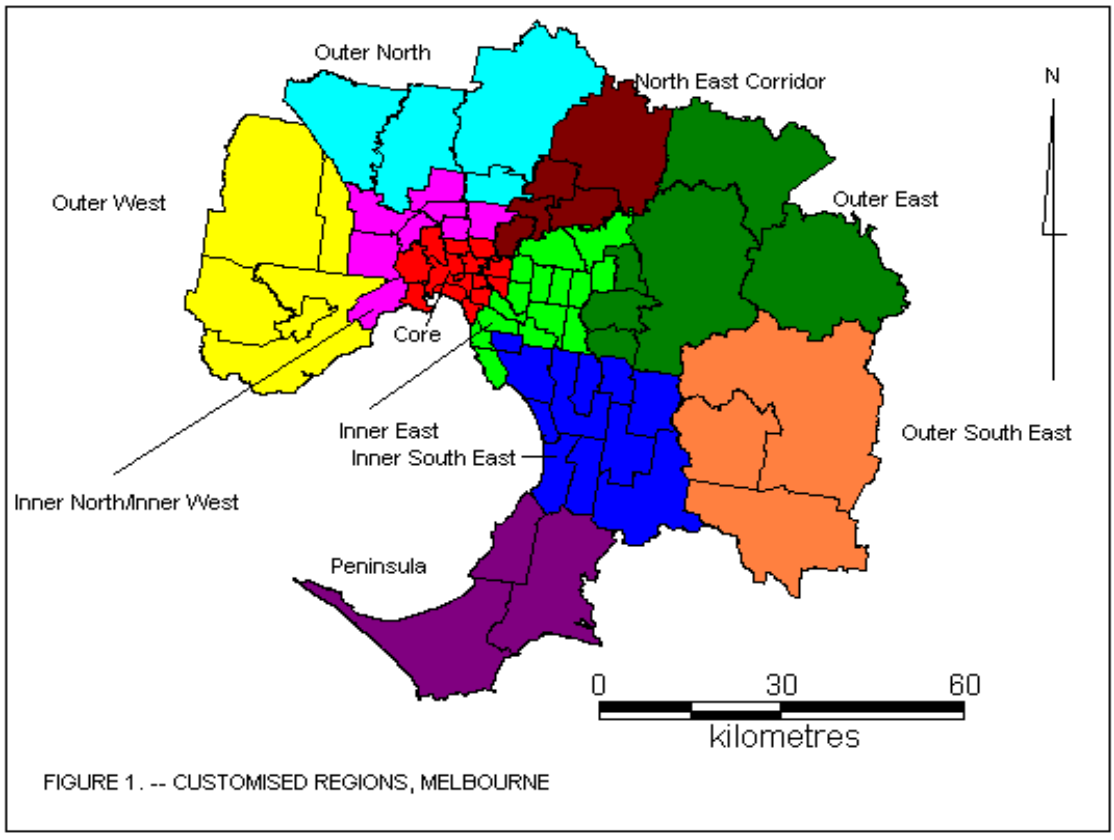


FIGURE 1. -- CUSTOMISED REGIONS, MELBOURNE

At the same time, it was necessary to reduce the number of industries to manageable number. The approach to this classification drew upon the experience of Reich (1991) and Clarke and Gaile (1998) who have carried out similar analyses using employment data. The present study created five classes of industry as listed below and outlined in more detail in Appendix G. This classification isolates for closer attention those activities that reflect new-economy or business service activity, in contrast to an older manufacturing-based economy. In addition, the industry categories used allowed greater insight into service-related work with some key distinctions within that area of activity.

SECTION 1: A BROAD OVERVIEW

The first steps of the project were to establish the scale of regional change in the location of jobs, and then to explore the regional-level links between jobs and houses. The study identified the linkages in three ways. The first was by measuring the proportion of workers who found work in their residential region; the second was the share of regional jobs taken by regional residents. These are measures of self-containment, and form the major focus of the study. Once those aspects were identified and analysed, the research then explored the extent to which these measures were reflected in residential re-location within the metropolitan area. This last step was designed to show whether the movement of people from one region to another corresponded to the links between jobs and houses.

Table 1 shows that the basic geography of employment shifted marginally between 1986 and 1996 as 263,000[1] additional jobs were added to the region. This growth has reduced the role the central region plays in the overall pattern, as the share of employment in all suburban regions increased. Study of the pattern of commercial construction showed how new office, factory and warehouse building favoured some of the suburban regions where increases in share of jobs is registered in Table 1 (See O'Connor and Healy, 2001: 25-31, www.ahuri.edu.au/pubs/index.html). Although direct comparisons were hampered by changes in industrial classification, it was possible to see that the shift in the geography of employment varied by industry. Activities associated with the new economy built up in the Core while mass goods and service employment, along with old-economy jobs favoured suburban regions.

TABLE 1 JOBS AND JOBS GROWTH 1986-1996 BY REGION, MELBOURNE

REGION	1986 NOS	1986%	1996 NOS	1996%	CHANGE NOS	CHANGE %
CORE	401832	40.2	479784	38.0	77952	19.4
INNER EAST	192629	19.3	238595	18.9	45966	23.9
INNER SOUTH EAST	136086	13.6	184127	14.6	48041	35.3
INNER NORTH/INNER WEST	119895	12.0	131452	10.4	11557	9.6
OUTER NORTH	24880	2.5	38370	3.0	13490	54.2
NORTH EAST CORRIDOR	33580	3.4	39430	3.1	5850	17.4
OUTER EAST	58235	5.8	92249	7.3	34014	58.4
OUTER WEST	13790	1.4	22975	1.8	9185	66.6
OUTER SOUTH EAST	741	0.1	8636	0.7	7895	1065.5
PENINSULA	18400	1.8	27574	2.2	9174	49.9
TOTAL	1000068	100.0	1263192	100.0	263124	26.3

Source: ABS Customised matrices, 1986 and 1996 Censuses

Table 2 shows the residential location of the workers represented in Table 1. The second and fourth column of data shows the shares of the metropolitan area's working population living in each region. As can be seen, the share living in the Core and the Inner East region fell up to 1996 even though the total numbers living in these regions increased. These declines are matched by increases in shares of population in outer metropolitan regions.

[1] This table and the ones that follow are derived from 1986 and 1996 Census data that only include employed persons 15 years or more and who reside and work in the Melbourne metropolitan area.

TABLE 2 RESIDENTS* AND RESIDENTIAL GROWTH 1986-1996 BY REGION, MELBOURNE

REGION	1986 NOS	1986%	1996 NOS	1996%	CHANGE NOS	CHANGE %
CORE	171835	17.2	213231	16.9	41396	24.1
INNER EAST	262705	26.3	307632	24.4	44927	17.1
INNER SOUTH EAST	167592	16.8	212982	16.9	45390	27.1
INNER NORTH/INNER WEST	151295	15.1	164033	13.0	12738	8.4
OUTER NORTH	37810	3.8	60879	4.8	23069	61.0
NORTH EAST CORRIDOR	58280	5.8	73038	5.8	14758	25.3
OUTER EAST	94983	9.5	132785	10.5	37802	39.8
OUTER WEST	28909	2.9	44075	3.5	15166	52.5
OUTER SOUTH EAST	2175	0.2	15983	1.3	13808	634.9
PENINSULA	24484	2.4	38554	3.1	14070	57.5
TOTAL	1000068	100.0	1263192	100.0	263124	26.3

Source: ABS Customised matrices, 1986 and 1996 Censuses

*Employed persons 15+ years

Table 3 ranks and compares the numbers of workers in regional journey-to-work movements for 1996, 1991 and 1986. It shows the stability in the rank of these movements at the regional level over time and the relative strength of internal regional movements. Of the ten largest movements in each of these years, five movements involved people residing and working in the same region. This is graphically represented by the circular arrows displayed for 1996 in Figure 2. This provides an initial insight on regional self containment, that is regional job-housing links.

TABLE 3 MAJOR INTRA- AND INTER-REGIONAL JOURNEY-TO-WORK MOVEMENTS, MELBOURNE 1996

	1996		1991		1986	
	PERSONS	RANK	PERSONS	RANK	PERSONS	RANK
CORE TO CORE	161377	1	140263	1	130625	1
INNER EAST TO INNER EAST	129265	2	122200	2	112497	2
INNER SOUTH EAST TO INNER SOUTH EAST	119959	3	109725	4	93483	4
INNER EAST TO CORE	118107	4	113979	3	103985	3
INNER NORTH/INNER WEST TO CORE	76189	5	72431	5	70361	5
INNER NORTH/INNER WEST TO INNER NORTH /INNER WEST	65171	6	68781	6	65063	6
OUTER EAST TO OUTER EAST	63603	7	59315	7	42667	7
INNER SOUTH EAST TO INNER EAST	40854	8	37548	8	34133	8
INNER SOUTH EAST TO CORE	36214	9	35992	9	31692	9
OUTER EAST TO INNER EAST	32472	10	29748	10	14474	10

Sources: ABS, Customised 1986, 1991 and 1996 Journey-to-Work matrices.
Employed persons 15+ yrs

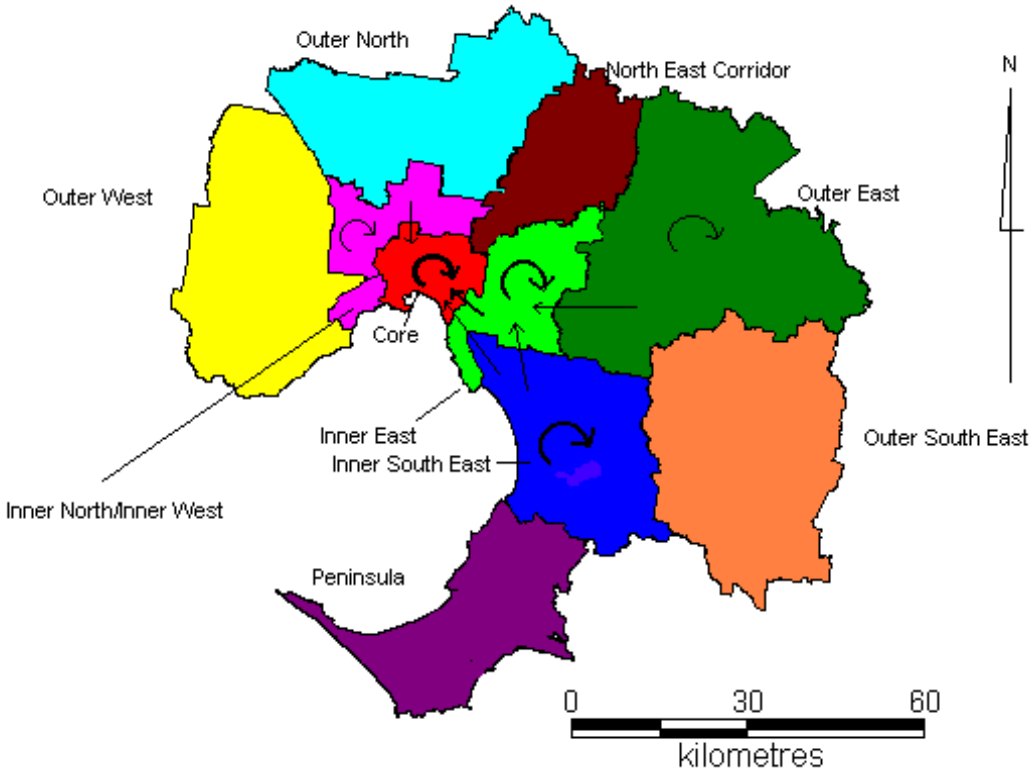


FIGURE 2. MAJOR INTRA AND INTER-REGIONAL JOURNEY-TO-WORK MOVEMENTS, MELBOURNE 1996

1.1: Job Housing Links measured by Labour Market Self containment

1.1.1 Where do Residents of a Region Work?

Table 4 shows the distribution of each region's resident workforce between other regions in 1996. The highlighted values along the diagonal provide a good indicator of the strength of the links between jobs and residents in each region. The most self-contained is the large Core region; several other regions employ around 50 percent of their resident workforce. In a number of cases, an apparently low level of self-containment (for the outer north for example) is made more significant by the fact that a high share of workers actually travel to the adjoining Inner north-inner west region, so that the effective level of self-containment in that sector of the metropolitan area is around 60 percent. A similar outcome can be seen in the links between the Inner East and the Outer East, a sector of the metropolitan area that accounts for over 60 per cent of the Outer East's workers. So, housing-market and labour-market linkages seem to be high, although regionally variable.

TABLE 4 SHARE OF RESIDENTS EMPLOYED IN REGIONS (%), MELBOURNE 1996

	WORK REGION										
RESIDENTIAL REGION	CORE	INNER EAST	INNER SOUTH EAST	INNER NORTH/INNER WEST	OUTER NORTH	NORTH EAST CORRIDOR	OUTER EAST	OUTER WEST	OUTER SOUTH EAST	PENIN.	**TOTAL**
CORE	**75.7**	8.3	2.4	8.8	1.6	1.4	0.7	1.0	0.0	0.1	100.0
INNER EAST	38.4	**42.0**	9.4	2.5	0.7	1.6	5.1	0.2	0.1	0.1	100.0
INNER SOUTH EAST	17.0	19.2	**56.3**	0.9	0.2	0.2	3.5	0.1	0.6	2.0	100.0
INNER NORTH/INNER WEST	46.4	2.6	1.1	**39.7**	5.4	1.7	0.3	2.6	0.0	0.0	100.0
OUTER NORTH	30.5	3.1	0.9	29.8	**28.9**	5.7	0.5	0.6	0.0	0.0	100.0
NORTH EAST CORRIDOR	33.9	9.7	1.5	14.0	6.5	**32.5**	1.7	0.2	0.0	0.0	100.0
OUTER EAST	16.5	24.5	8.2	1.2	0.3	0.9	**47.9**	0.1	0.4	0.1	100.0
OUTER WEST	42.4	2.1	1.1	18.1	2.0	0.4	0.4	**33.5**	0.0	0.1	100.0
OUTER SOUTH EAST	7.7	10.8	30.6	0.5	0.1	0.1	9.0	0.0	**40.6**	0.6	100.0
PENINSULA	7.2	6.0	27.4	0.4	0.1	0.1	1.0	0.1	0.2	**57.6**	100.0

1.1.2 Who Takes Each Region's Jobs?

Table 5 shows the source of each region's workers. Again, the diagonal provides a direct measure of the way that workers have matched regional jobs and regional residences. On this measure, the Core is the least self-contained, as it draws workers from many regions. In contrast, the outer suburban regions record high levels of self-containment; for example, 80 per cent of the jobs in the Peninsula region are taken by workers who live in that region.

TABLE 5 SHARE OF WORKERS FROM RESIDENT REGIONS (%), MELBOURNE 1996

	WORK REGION										
RESIDENTIAL REGION	CORE	INNER EAST	INNER SOUTH EAST	INNER NORTH/INNER WEST	OUTER NORTH	NORTH EAST CORRIDOR	OUTER EAST	OUTER WEST	OUTER SOUTH EAST	PENIN.	TOTAL
CORE	**33.6**	7.5	2.7	14.3	8.8	7.3	1.7	9.6	0.7	0.8	16.9
INNER EAST	24.6	**54.2**	15.7	5.8	5.3	12.1	16.9	2.9	2.6	1.7	24.4
INNER SOUTH EAST	7.5	17.1	**65.2**	1.4	0.9	1.1	8.1	1.3	14.5	15.5	16.9
INNER NORTH/INNER WEST	15.9	1.8	0.9	**49.6**	23.2	7.0	0.6	18.8	0.2	0.2	13.0
OUTER NORTH	3.9	0.8	0.3	13.8	**45.8**	8.8	0.3	1.6	0.1	0.1	4.8
NORTH EAST CORRIDOR	5.2	3.0	0.6	7.8	12.4	**60.2**	1.3	0.6	0.2	0.1	5.8
OUTER EAST	4.6	13.6	5.9	1.2	1.1	2.9	**68.9**	0.6	5.8	0.6	10.5
OUTER WEST	3.9	0.4	0.3	6.1	2.3	0.5	0.2	**64.3**	0.1	0.1	3.5
OUTER SOUTH EAST	0.3	0.7	2.7	0.1	0.0	0.0	1.6	0.0	**75.2**	0.4	1.3
PENINSULA	0.6	1.0	5.7	0.1	0.1	0.1	0.4	0.2	0.7	**80.6**	3.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1.1.3 Changes Over the Past Decade

Tables 6 and Table 7 provide a perspective on change from 1986 to 1996 on both self-containment measures. It is important to remember that this period corresponded to the addition of a quarter of a million new workers and jobs. Yet, the two self-containment measures barely changed. Some small declines were recorded; reflecting the fact that job growth in a number of regions drew labour from further afield.

TABLE 6
PERCENTAGE OF RESIDENTS WHO WORK IN REGION

	1986	1991	1996
CORE	76	76	75.7
INNER EAST	42.8	42.4	42
INNER SOUTH EAST	55.8	56.3	56.3
INNER NORTH/INNER WEST	43	43.3	39.7
OUTER NORTH	27.5	29.2	28.9
NORTH EAST CORRIDOR	33.2	31.7	32.5
OUTER EAST	44.9	47.5	47.9
OUTER WEST	32.5	32.6	33.5
OUTER SOUTH EAST	16.8	35.9	40.6
PENINSULA	59.3	60	57.6

Source: ABS Customised Journey-to-Work matrices, 1986, 1991 and 1996.

*Based on movement of persons who live and work in Melbourne only

TABLE 7
PERCENTAGE OF JOBS IN REGION HELD BY RESIDENTS

	1986	1991	1996
CORE	32.5	31.4	33.6
INNER EAST	58.4	56.3	54.2
INNER SOUTH EAST	68.7	67.5	65.2
INNER NORTH/INNER WEST	54.3	53.1	49.6
OUTER NORTH	41.8	43.7	45.8
NORTH EAST CORRIDOR	57.6	61	60.2
OUTER EAST	73.3	73.3	68.9
OUTER WEST	68.1	70.7	64.3
OUTER SOUTH EAST	49.3	79.6	75.2
PENINSULA	79	80.5	80.6

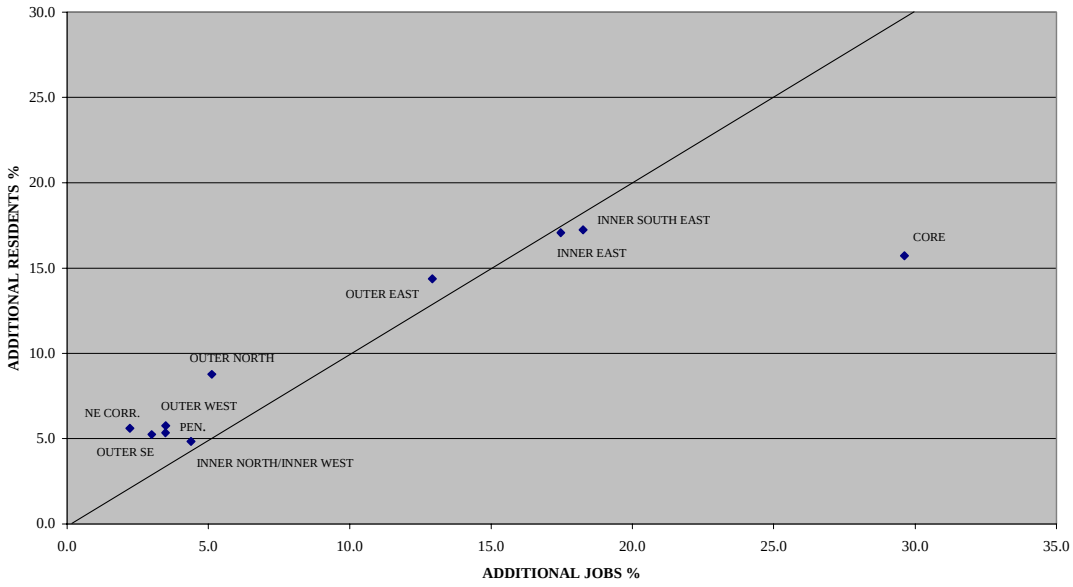
Source: ABS Customised Journey-to-Work matrices, 1986, 1991 and 1996.

*Based on movement of persons who live and work in Melbourne only

One reason why these rates have remained the same is that there have been similar changes in the number of workers and the number of jobs within each region. Graph 1 provides an insight into this aspect for the 1986 -1996 period. It shows the regional shares of additional jobs and additional resident workers[2] in Melbourne.

[2] The data used here refer to employed persons 15 years and over who both reside and work in the Melbourne Statistical Division.

GRAPH 1 SHARE OF ADDITIONAL JOBS AND RESIDENTS BY REGION 1986-1996, MELBOURNE



It is apparent that the relative shares of additional jobs and resident workers in each region are scattered around the diagonal which represents equal levels of change in the two measures. It would seem that a small number of suburban locations are emerging as work intensive (those above the line), while the rest are resident intensive (those below the line). Put simply, with the exception of the Core, the suburbanisation of employment and the suburbanisation of resident workers are following the same broad trend, although there are important differences in particular regions.

For the decade 1986 to 1996, the Core recorded the greatest increase in additional jobs, but ranked third in its share of additional residents, behind the Inner East and Inner South East regions. It received 30 per cent of additional jobs and 16 per cent of additional residents.

Although not applying equally in every region, these observations suggest some strong forces are linking the geography of jobs and the geography of employment within the Melbourne metropolitan area. To begin to understand these forces, the research explored the factors that might account for levels of self-containment within each region in more detail.

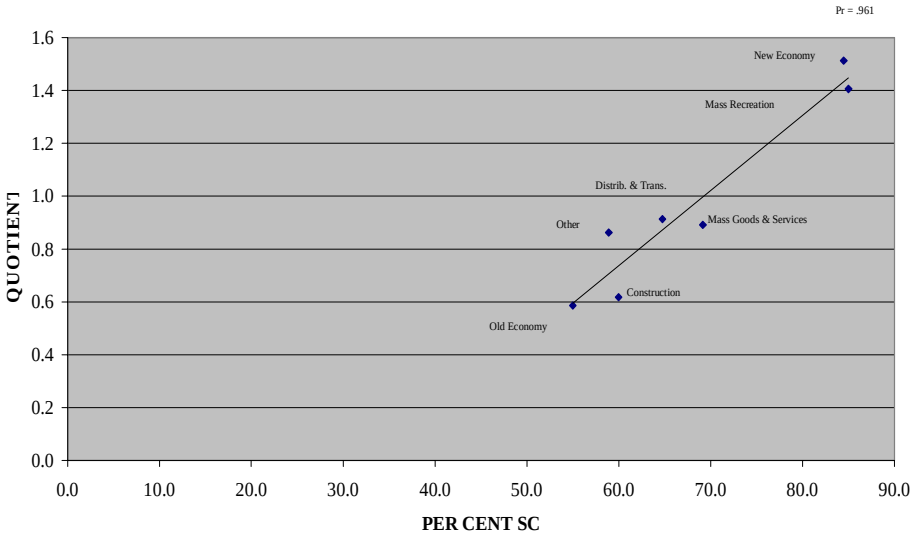
1.2 Accounting for Regional Self-Containment Levels.

The results discussed above illustrate that there are strong housing market-labour market linkages at the regional level within the metropolitan area, but that they vary from region to region. Accounting for these levels became the first focus of the research. The research explored the association between self-containment and a number of measures of employment, including different types of industry and occupation, and the mix of part-time and full-time work.

1.2.1 Industry Specialisation

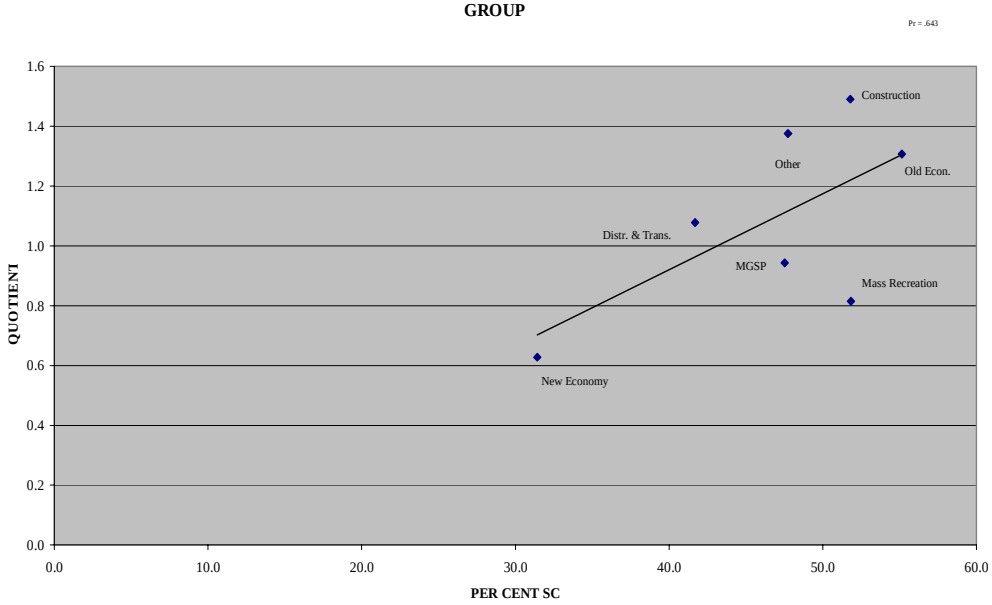
The strongest explanatory factor of regional labour-market self-containment was the level of specialisation of an industry group within a region. This is measured by the location quotient of each industry in each region[3]. The significance of this factor can be seen in the series of graphs 2 to 11 which display the level of regional labour market self-containment of workers in a particular industry and the degree of specialisation of that industry within that region as expressed by the location quotient. In all regions there is a strong positive association between the two variables. When studying the figures it is important to note that the order of display of the industry groups varies from region to region. In the Core the new economy group has the highest self-containment and the largest location quotient, and the old economy appears at the bottom of the graph; the pattern is reversed for the Inner South East region. Yet the link between the two measures is the same – as a region develops an industry specialisation, the workers in that industry seem to have negotiated within the housing market to find housing, so that self-containment levels are high. When the location quotients are low, and hence job opportunities not so apparent, regional housing market-labour market links are weaker.

GRAPH 2 CORE - SELF-CONTAINMENT BY JOB LOCATION QUOTIENT BY INDUSTRY GROUP

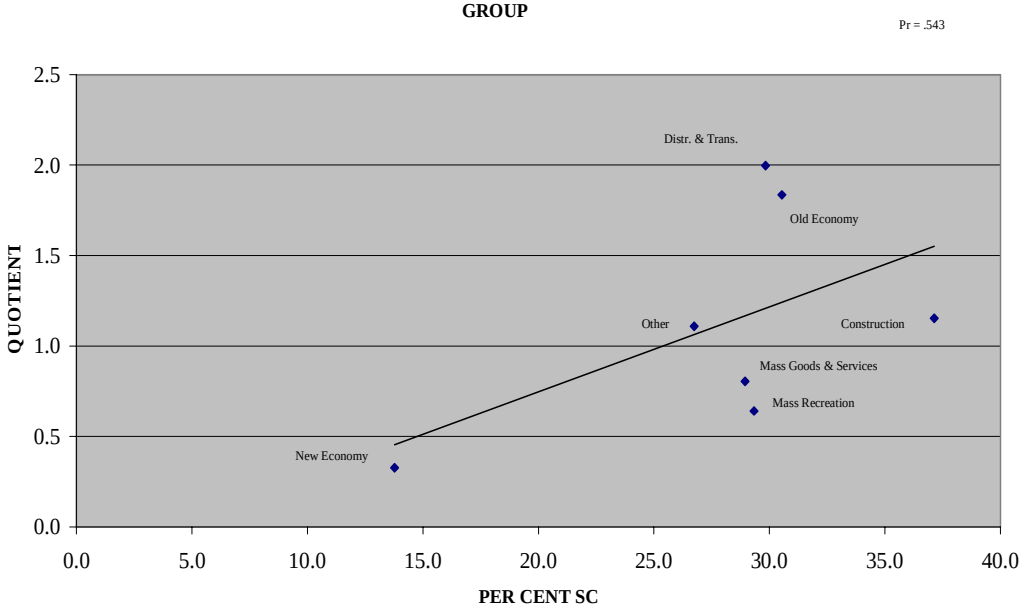


[3] Here, the location quotient can be understood as the extent of regional over or under-representation of an industry group relative to Melbourne overall. For example, if new economy workers constitute 38 per cent of all jobs with Melbourne, but new-economy workers constitute 58 per cent of jobs within a particular region, then, the location quotient for the new economy in that region is 58/38 = 1.5. That is to say, that region is over-represented in the new economy relative to Melbourne overall.

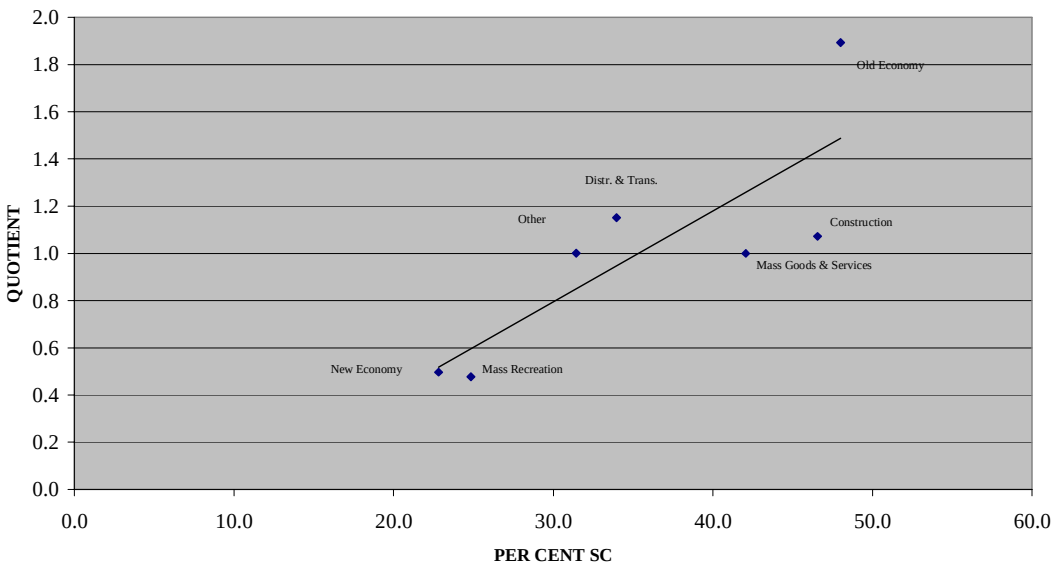
GRAPH 3 OUTER EAST - SELF CONTAINMENT BY JOB LOCATION QUOTIENT BY INDUSTRY GROUP



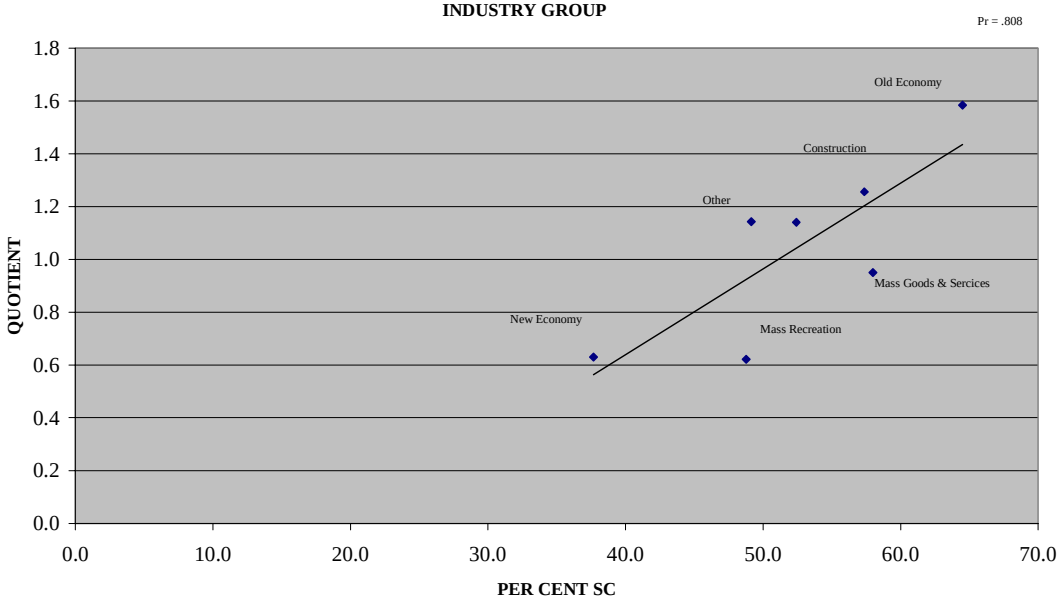
GRAPH 4 OUTER NORTH - SELF-CONTAINMENT BY JOB LOCATION QUOTIENT BY INDUSTRY GROUP



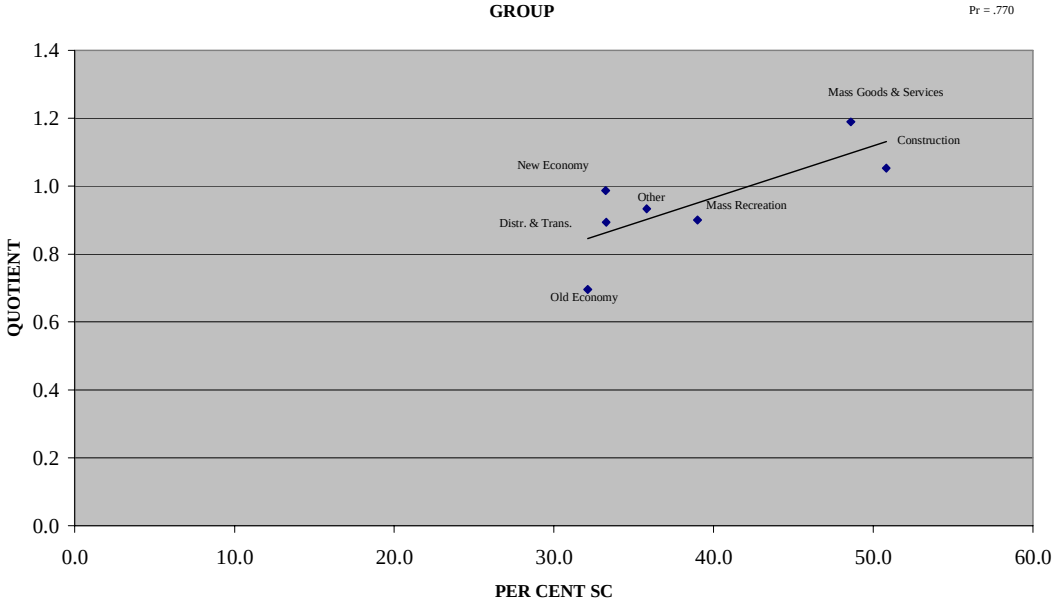
GRAPH 5 INNER NORTH/INNER WEST - SELF-CONTAINMENT BY JOB LOCATION QUOTIENT BY INDUSTRY GROUP



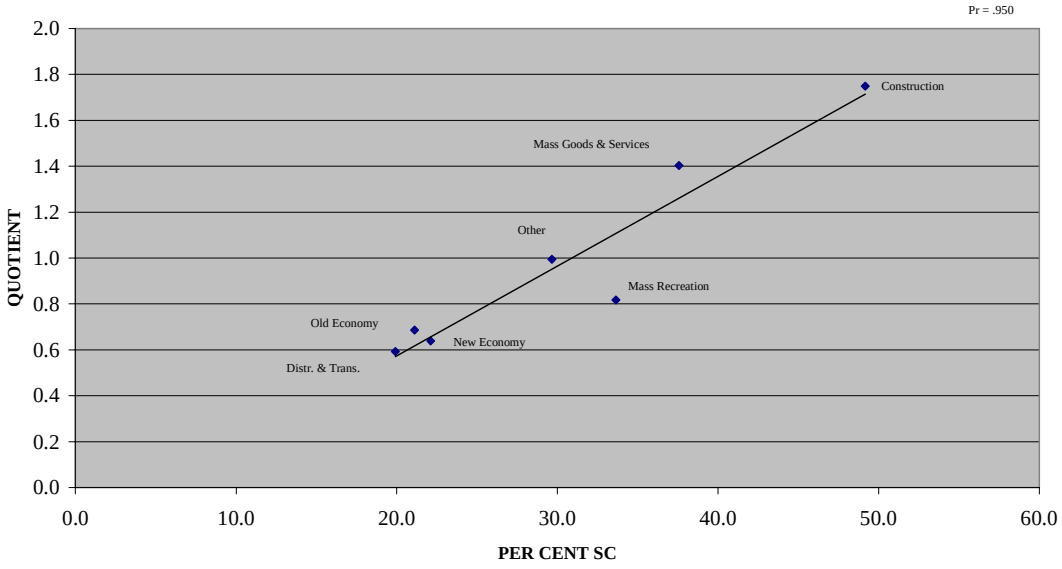
GRAPH 6 INNER SOUTH EAST - SELF CONTAINMENT BY JOB LOCATION QUOTIENT BY INDUSTRY GROUP



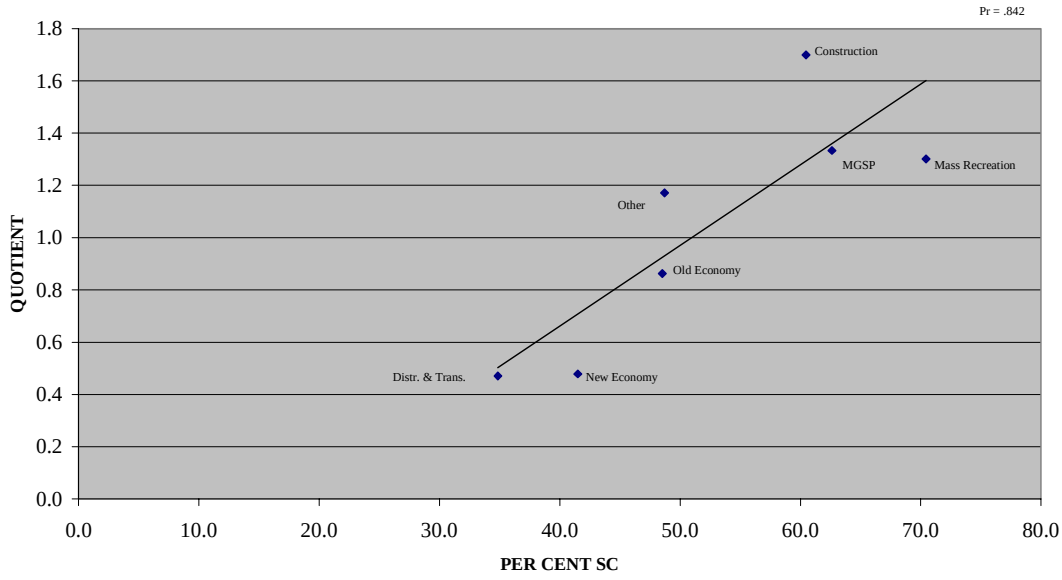
GRAPH 7 INNER EAST - SELF CONTAINMENT BY JOB LOCATION QUOTIENT BY INDUSTRY GROUP



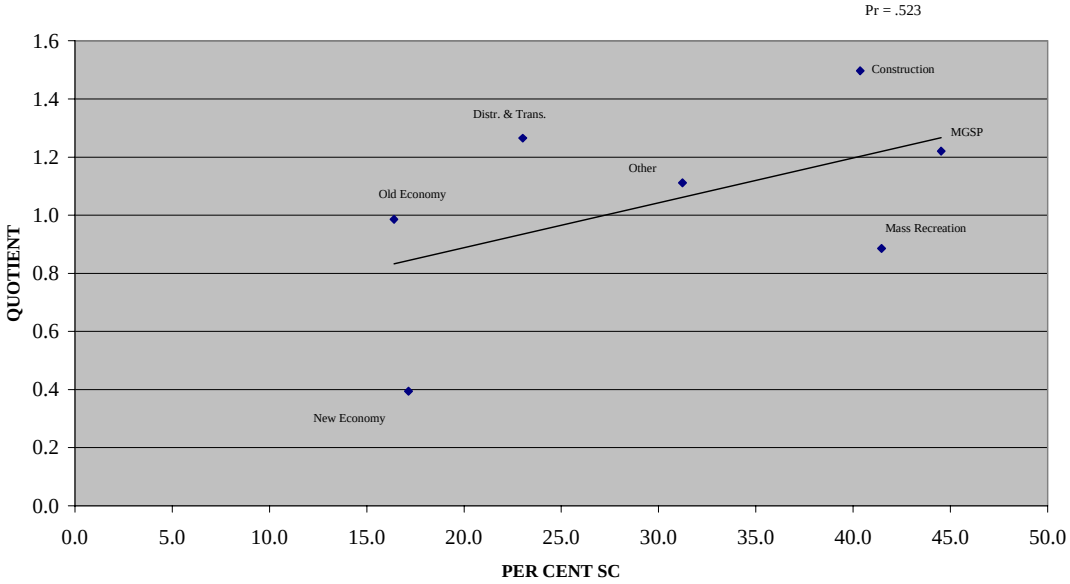
GRAPH 8 NORTH EAST CORRIDOR - SELF CONTAINMENT BY JOB LOCATION QUOTIENT BY INDUSTRY GROUP



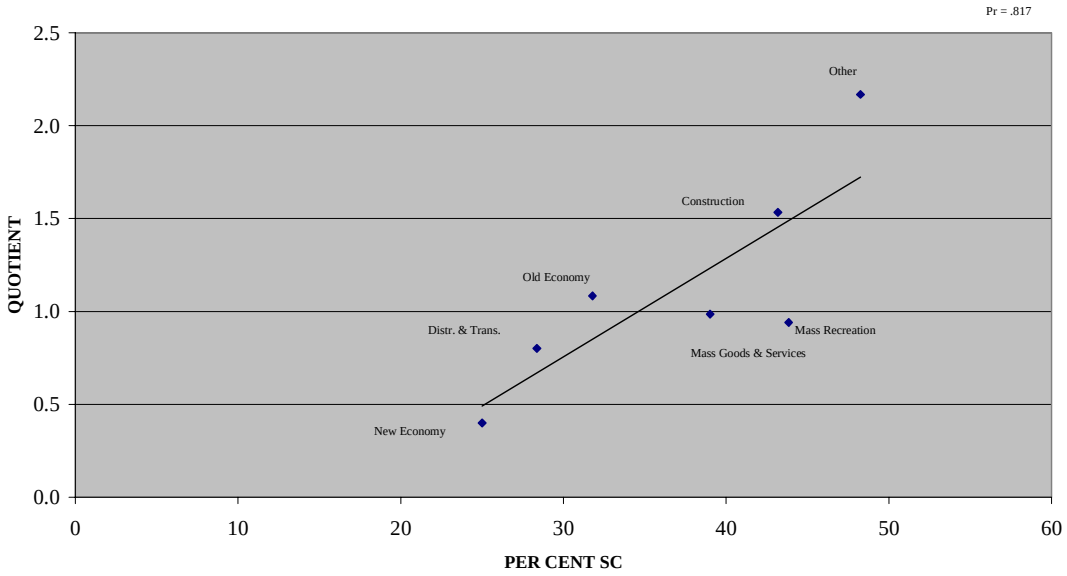
GRAPH 9 PENINSULA - SELF CONTAINMENT BY JOB LOCATION QUOTIENT BY INDUSTRY GROUP



GRAPH 10 OUTER WEST - SELF-CONTAINMENT BY JOB LOCATION QUOTIENT BY INDUSTRY GROUP



GRAPH 11 OUTER SOUTH EAST - SELF CONTAINMENT BY JOB LOCATION QUOTIENT BY INDUSTRY GROUP



This information implies that the presence of job concentrations (like the new economy in the Core and the old economy in the Inner South East) is reflected in the residential choice of workers, providing strong initial evidence that the geography of employment influences metropolitan development.

1.2.2 Type of Industry

Apart from industry specialisation, the type of industry also influences the level of regional self-containment. The data displayed in Table 8 shows that especially in mass goods and services provision, the share of a region's jobs taken by regional residents is generally higher than in other groups.

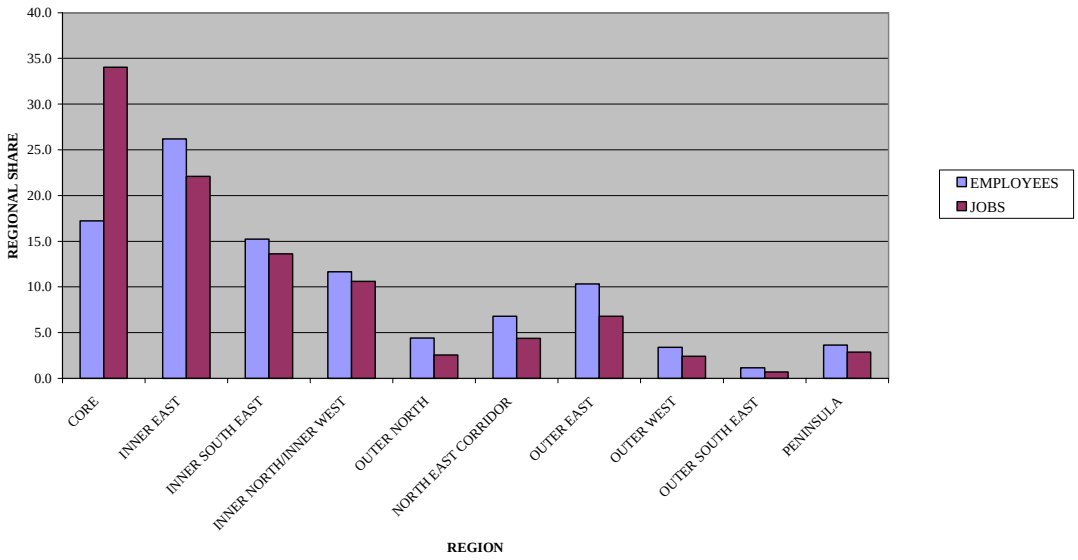
TABLE 8 PERSONS WHO RESIDE AND WORK IN SAME REGION BY INDUSTRY GROUP, MELBOURNE 1996

	NEW ECONOMY	DISTR. & TRANS.	OLD ECONOMY	MASS GOODS & SERVICES PROVISION	CONSTR.	MASS REC.	OTHER	Total
CORE	30.0	7.6	6.6	33.3	2.1	12.0	8.5	100.0
INNER EAST	20.8	7.4	6.8	44.3	4.8	6.2	9.7	100.0
INNER SOUTH EAST	12.4	10.5	21.7	33.0	5.6	4.3	12.4	100.0
INNER NORTH/INNER WEST	9.7	10.7	25.6	33.9	5.7	3.4	11.0	100.0
OUTER NORTH	7.9	12.8	22.1	32.5	6.9	4.6	13.3	100.0
NORTH EAST CORRIDOR	14.3	5.5	6.3	48.4	8.6	5.9	10.9	100.0
OUTER EAST	12.9	9.3	15.5	34.7	7.1	5.5	14.9	100.0
OUTER WEST	8.9	9.5	8.0	46.3	7.0	6.9	13.4	100.0
OUTER SOUTH EAST	9.0	8.5	12.7	31.0	7.5	5.3	26.1	100.0
PENINSULA	10.4	4.8	9.9	46.3	7.6	8.7	12.3	100.0
TOTAL	18.2	8.6	13.1	37.0	5.0	7.0	11.1	100.0

Source: ABS, Customised Journey-to-work matrix, 1996 Census.

The activities within this category which include public utilities, retailing, health and education (are related in large part to the routine needs of a local or regional population. So the job opportunities in this category of work are likely to be more closely allied to the distribution of population. This provides opportunities for regional residents to find regional jobs, as can be seen in Chart 1. This is an instance of jobs following population, a generally different outcome to that associated with the location of new and old economy industries. The fit between the distribution of jobs and the distribution of employees is a very close one, except in the Core region. The weaker match in this case probably reflects the fact that the average employee within this activity is unable to pay the cost of housing in the Core region.

CHART 1 RESIDENTIAL AND WORKPLACE DISTRIBUTION OF MASS GOODS AND SERVICES PROVISION EMPLOYEES BY REGION, MELBOURNE 1996



1.2.3 Job Growth

The link between jobs in the mass goods and services category of employment (which as explained above is influenced by population growth) and self-containment suggests that regional job growth itself could influence self-containment. The results of the research confirm that outcome. Table 9 shows the percentage change in jobs and the percentage change in the number of persons living and working within a region between 1986 and 1996.

TABLE 9 SELF-CONTAINMENT CHANGE BY JOB GROWTH 1986 TO 1996, MELBOURNE

	CHANGE IN SELF-CONTAINMENT 1986-1996 ** %	JOB CHANGE 1986-1996 %
CORE	23.5	19.4
INNER EAST	14.9	23.9
INNER SOUTH EAST	28.3	35.3
INNER NORTH/INNER WEST	0.2	9.6
OUTER NORTH	69.1	54.2
NORTH EAST CORRIDOR	22.8	17.4
OUTER EAST	49.1	58.4
OUTER WEST	57.3	66.6
OUTER SOUTH EAST	1678.6	1065.5
PENINSULA	52.9	49.9

Source: ABS, 1986 and 1996 Censuses

**Change in Number of Persons Who Live and work in Same Region 1986-1996, as a Percentage of Number of Persons Living and Working in Same Region in 1986.

This data illustrates that the regions where job growth has been rapid have also been regions where there have been large increases in the number of workers who both live and work in the region. This shows further evidence of strong links between job location and residential location decisions.

1.2.4 Part-time Work

The research also explored differences in regional self-containment between workers employed part-time and full-time. Table 10 shows this information. It is commonly observed (Pisarski, 1987) that part-time workers have shorter trips to work, so that part-time employment might be more regionally self-contained. This observation is consistent with the Melbourne experience, especially in the suburban regions. So, for example, the self-containment levels in the Outer East labour market for part-time workers are all higher than for full-time workers. Therefore, the increasing work force participation of married women in Australia over the past two decades, approximately half of whom work part-time, together with the declining participation rates of men who have traditionally predominated in full-time work, are factors that may contribute to a strengthening of regional self-containment in the future (Healy, 2000).

This difference in regional self-containment between part-time and full-time workers is less apparent for the Core. This suggests that the work-residence links in the Core have a number of distinctive characteristics, which will be explored below.

It is important to note, however, that differences in industry group seem to be a more important influence on the level of self-containment than hours worked. For the under 16 hours group in the Core, for example, there is a 30 percentage point difference in self-containment levels; the largest difference due to hours is 8 percentage points. A similar observation applies in a number of the suburban regions.

TABLE 10 REGIONAL SELF CONTAINMENT: INDUSTRY BY WEEKLY HOURS WORKED (%) MELBOUNRE 1996

	CORE	INNER EAST	INNER SOUTH EAST	INNER NORTH/INNER WEST	OUTER NORTH	NORTH EAST CORRIDOR	OUTER EAST	OUTER WEST	OUTER SOUTH EAST	PENINSULA	MELB. AVERAGE
<16 HRS											
NEW ECONOMY <16 HRS	81.0	48.5	45.2	28.3	19.8	38.0	42.6	27.1	48.6	52.2	43.1
DISTRIBUTION AND TRANSPORT <16 HRS	63.7	37.2	53.7	36.7	41.0	27.2	52.3	35.5	43.1	45.2	43.6
OLD ECONOMY <16 HRS	59.1	44.9	67.8	48.5	35.2	43.9	60.1	26.6	46.9	62.1	49.5
MASS GOODS AND SERVICES PROVISION <16 HRS	69.8	61.8	68.3	52.9	41.0	49.8	61.3	59.6	54.0	67.8	58.6
CONSTRUCTION <16 HRS	51.4	58.2	58.5	53.1	43.8	61.2	57.0	50.5	53.5	64.3	55.1
MASS RECREATION <16 HRS	78.6	49.2	56.5	30.8	37.2	46.2	63.2	55.3	49.1	69.6	53.6
16-34 HRS											
NEW ECONOMY 16-34 HRS	83.1	46.2	49.1	27.8	21.1	34.5	41.5	23.7	43.4	52.8	42.3
DISTRIBUTION AND TRANSPORT 16-34 HRS	57.0	39.1	55.6	36.1	30.1	26.9	48.8	28.7	35.3	41.1	39.9
OLD ECONOMY 16-34 HRS	58.3	39.8	67.8	50.4	35.2	27.6	58.0	20.0	37.6	48.8	44.3
MASS GOODS AND SERVICES PROVISION 16-34 HRS	68.2	52.9	61.3	44.9	32.4	41.4	51.0	46.8	39.0	61.1	49.9
CONSTRUCTION 16-34 HRS	54.7	50.8	51.1	46.7	43.5	50.4	46.7	43.2	37.1	50.8	47.5
MASS RECREATION 16-34 HRS	82.3	42.3	52.2	26.3	32.4	35.4	54.5	42.5	44.1	73.0	48.5
>34 HRS											
NEW ECONOMY >34 HRS	83.9	28.8	34.1	20.9	11.6	17.7	27.5	14.3	17.7	35.3	29.2
DISTRIBUTION AND TRANSPORT >34 HRS	63.0	30.6	49.4	31.8	27.5	17.3	38.0	20.3	23.7	30.5	33.2
OLD ECONOMY >34 HRS	54.2	30.1	63.9	47.8	29.7	18.8	54.1	15.1	30.1	47.3	39.1
MASS GOODS AND SERVICES PROVISION >34 HRS	68.7	41.7	52.3	37.2	23.4	31.8	40.2	38.6	33.3	60.6	42.8
CONSTRUCTION >34 HRS	51.1	39.1	44.7	36.3	27.0	36.8	37.8	30.6	28.7	44.0	37.6
MASS RECREATION >34 HRS	86.1	31.0	42.2	20.9	23.1	24.6	41.2	32.4	39.9	68.6	41.0

Source: ABS, Customised Journey-to-Work matrix, 1996 Census.

Taken together, the information discussed in this section shows that the number and type of jobs plays a very big role in shaping the job-housing links within Melbourne's regions. It also suggests that workers involved in the job housing links have to be able to purchase or rent housing in a variety of circumstances, but especially within regions that have the jobs they are seeking. What this suggests is that the regional self-containment of a labour market is the result of a sorting process within housing and labour markets, where workers in particular industries seek out housing in places where those industries provide jobs consistent with their own skills and education, and subject to their ability to pay for housing.

If this process of social and industrial workplace sorting is the key to the self-containment measures displayed above, then it provides a new way to view metropolitan development, and recognises that 'urban sprawl' is in fact a highly ordered process. In addition, it suggests that the management of metropolitan development needs to draw upon an understanding of the location of jobs and requires more than actions designed to change the pattern of population density and growth alone.

1.3 Residential Re-location as a Labour Market-Housing Market Link

The above claim could be made even more firmly if it were possible to show that the pattern of residential re-location between regions reflects the industry specialisation of jobs at the regional level and, in turn, regional self-containment. The information at hand does not show that work location necessarily shapes home location and it provides no insight into individual worker decision-making. Nevertheless, what can be explored is the extent to which aggregate patterns of residential movement reflect aggregate patterns of job location and self-containment. To identify this outcome, Table 11 displays the correlation coefficients between regional measures of regional industry specialisation and residential net gain and loss.

TABLE 11 CORRELATION COEFFICIENTS BETWEEN REGIONAL RESIDENTIAL NET GAIN/LOSS 1991-1996 AND 1. REGIONAL INDUSTRY SPECIALISATION 1996 AND 2. REGIONAL SELF-CONTAINMENT 1996, MELBOURNE

	1. REG. IND. SPECIALISATION	2.REG. SELF-CONTAINMENT
CORE	0.915	0.945
INNER EAST	0.018	-0.407
INNER SOUTH EAST	0.869	0.493
INNER NORTH/INNER WEST	0.786	0.386
OUTER NORTH	0.709	0.398
NORTH EAST CORRIDOR	0.161	-0.111
OUTER EAST	0.441	-0.099
OUTER WEST	0.127	-0.729
OUTER SOUTH EAST	0.179	-0.37
PENINSULA	-0.115	-0.331

Sources: ABS, Customised Journey-to Work matrix, 1996 Census; Customised Internal Migration matrix, 1996 Census

These data make it possible to ascertain whether regional industry specialisation is also associated with a net inward residential movement of persons working in that industry group. This relationship was tested by plotting the regional residential net gain/loss for each industry group against regional location quotients (industry specialisation) and against regional self-containment rates for each industry group. The columns of data in Table 11 show the Pearson r correlations for each of these relationships.[4]

The data show a very strong association in the Core between residential net gain/loss and both self-containment and industry specialisation, respectively. This means that, for the Core, residential re-location is associated with that region's industry specialisations and the strength of the local labour market-housing market links for those specialised industry groups. These relationships are stronger in the Core than in any other region. This suggests that the new economy (which has been central to economic change in the Core) is reshaping both residential re-location decisions and home-work links in a way that distinguishes the Core from the broader metropolitan context.

In the remaining regions, the strength of relationship of residential net gain/loss to industry specialisation, and residential net gain/loss to self-containment, respectively, varies. Nevertheless, a general pattern emerges which suggests that the relationship between residential re-location and the strength of regional job-housing links is stronger in the inner regions than in the outer (the Inner East and Outer North being exceptions to this pattern). This means that the net effect of residential re-location upon these inner regions is to reinforce the positive relationship between industry specialisation and self-containment. By contrast, in some of the outer metropolitan regions, the effect of residential re-location seems to be a weakening of job-housing links, seen in the negative correlation found between self-containment and residential net gain/loss in some of these regions, for example in the Outer West.

The differences observed between the more established inner and the newer outer suburbs suggest that residential movement to the inner regions more closely reflects the regionally specific job opportunities there, while residential movement to the outer suburbs may be motivated by factors other than jobs. These could include the availability of relatively inexpensive housing, open space and other lifestyle options associated with fringe development. The more that residential movement to the outer suburbs is motivated by such considerations and not by job links, the

[4] In Table 11, each of the variables used to produce the correlation coefficients was a quotient -- the degree to which each variable is either over or under-represented in a region compared with either the measure for the region as a whole or, in the case of industry group, Melbourne overall.

weaker the regional job-housing links (self-containment rates) are likely to be, at least initially.

While it appears that industry specialisation and residential re-location help determine[5] self-containment in inner regions in a way that they do not in the outer regions, the remoteness of a region may also influence the strength of job-housing links in outer regions in ways that do not apply in the inner metropolitan area. In outer regions, the distance to alternative job locations may account for high regional self-containment.

Overall, it is clear that residential re-location can influence the strength of regional job-housing links. However, a basic factor determining regional self-containment is the degree of industry specialisation. So it seems that once a regional specialisation in a particular type of job emerges, residential re-location flows begin, which in turn influence the strength of regional self-containment of the industry group within the region. Table 12 provides data to illustrate this idea.

This table explores the relationship between the degree to which industry groups are under or over-represented relative to Melbourne in a region, with i) the degree to which the region experienced a net gain or loss of residents through residential re-location (1991-1996) and ii) the degree to which each industry group is either more or less regionally self-contained. In many cases, it was found that residential re-location mirrored an existing positive relationship within a region between relatively high self-containment and specialisation in a particular industry group. In these regions people appear to be following jobs. For example, in the Core region a net residential gain of new-economy workers is associated with regional over-representation of the new economy and high self-containment rates for new-economy workers. Similarly, in the Inner East, where there was a net residential gain of mass goods and services workers, mass goods and services is over-represented relative to Melbourne overall and self-containment for this industry group is high. The Inner North/Inner West provides a further and instructive example. In this case, there is a net residential gain of old-economy workers, some of which had come from the Core region. This gain of old-economy workers was associated with an over-representation in the old-economy and a high self-containment rate for that industry group.

It is also possible to identify cases where net residential loss is associated with industry under-representation relative to Melbourne and low self-containment. The figures relating to old-economy workers in the Core region provide a clear example. Taken together, these results show that over a large part of the metropolitan area, the geography of employment is tightly connected to residential re location patterns, and that changes in employment (by type and number) has a powerful effect on change in the residential location of particular workers.

[5] It is understood that correlations say nothing about cause and effect.

TABLE 12 INDICES OF REGIONAL INDUSTRY OVER/UNDER REPRESENTATION (SPECIALISATION) 1996, RESIDENTIAL NET GAIN/LOSS 1991-1996, AND SELF-CONTAINMENT 1996 BY INDUSTRY GROUP

CORE	RESIDENTIAL RELOCATION	INDUSTRY SPECIALISATION	SELF CONT.
NEW ECONOMY	1.9	1.5	1.1
DISTRIBUTION AND TRANSPORT	0.7	0.9	0.9
OLD ECONOMY	-0.4	0.6	0.7
MASS GOODS & SERVICES PROV.	0.7	0.9	0.9
CONSTRUCTION	0.1	0.6	0.8
MASS RECREATION	3.1	1.4	1.1
OTHER	0.4	0.9	0.8
INNER EAST	RESIDENTIAL RELOCATION	INDUSTRY SPECIALISATION	SELF CONT.
NEW ECONOMY	9.4	1.0	0.8
DISTRIBUTION AND TRANSPORT	-1.2	0.9	0.8
OLD ECONOMY	-0.3	0.7	0.8
MASS GOODS & SERVICES PROV.	1.2	1.2	1.2
CONSTRUCTION	-10.6	1.1	1.2
MASS RECREATION	-7.9	0.9	0.9
OTHER	-5.9	0.9	0.9
INNER SOUTH EAST	RESIDENTIAL RELOCATION	INDUSTRY SPECIALISATION	SELF CONT.
NEW ECONOMY	0.3	0.6	0.7
DISTRIBUTION AND TRANSPORT	1.4	1.1	0.9
OLD ECONOMY	3.5	1.6	1.1
MASS GOODS & SERVICES PROV.	0.3	0.9	1
CONSTRUCTION	0.8	1.3	1
MASS RECREATION	-1.8	0.6	0.9
OTHER	1.2	1.1	0.9
INNER NTH/INNER W.	RESIDENTIAL RELOCATION	INDUSTRY SPECIALISATION	SELF CONT.
NEW ECONOMY	-2.1	0.5	0.6
DISTRIBUTION AND TRANSPORT	-1.5	1.2	0.9
OLD ECONOMY	1.5	1.9	1.2
MASS GOODS & SERVICES PROV.	-1.7	1	1.1
CONSTRUCTION	-1.8	1.1	1.2
MASS RECREATION	-1.2	0.5	0.6
OTHER	-0.7	1	0.8
OUTER NORTH	RESIDENTIAL RELOCATION	INDUSTRY SPECIALISATION	SELF CONT.
NEW ECONOMY	0.7	0.3	0.5
DISTRIBUTION AND TRANSPORT	1.1	2	1
OLD ECONOMY	1.7	1.8	1.1
MASS GOODS & SERVICES PROV.	0.7	0.8	1
CONSTRUCTION	1.4	1.2	1.3
MASS RECREATION	0	0.6	1
OTHER	1.1	1.1	0.9
NORTH EAST CORRIDOR	RESIDENTIAL RELOCATION	INDUSTRY SPECIALISATION	SELF CONT.
NEW ECONOMY	0	0.6	0.7
DISTRIBUTION AND TRANSPORT	1.5	0.6	0.6
OLD ECONOMY	1.9	0.7	0.6
MASS GOODS & SERVICES PROV.	0.3	1.4	1.2
CONSTRUCTION	1.1	1.7	1.5
MASS RECREATION	-21.6	0.8	1
OTHER	-2.5	1	0.9
OUTER EAST	RESIDENTIAL RELOCATION	INDUSTRY SPECIALISATION	SELF CONT.
NEW ECONOMY	-1.1	0.6	0.7
DISTRIBUTION AND TRANSPORT	1.2	1.1	0.9
OLD ECONOMY	4.6	1.3	1.2
MASS GOODS & SERVICES PROV.	-1.7	0.9	1
CONSTRUCTION	-1.6	1.5	1.1
MASS RECREATION	-16	0.8	1.1
OTHER	0	1.4	1

TABLE 12 CONTINUED:

OUTER WEST	RESIDENTIAL RELOCATION	INDUSTRY SPECIALISATION	SELF CONT.
NEW ECONOMY	1.2	0.4	0.5
DISTRIBUTION AND TRANSPORT	1.8	1.3	0.7
OLD ECONOMY	2.1	1	0.5
MASS GOODS & SERVICES PROV.	0.4	1.2	1.3
CONSTRUCTION	1.3	1.5	1.2
MASS RECREATION	-0.1	0.9	1.2
OTHER	0.7	1.1	0.9
OUTER SOUTH EAST	RESIDENTIAL RELOCATION	INDUSTRY SPECIALISATION	SELF CONT.
NEW ECONOMY	1.2	0.4	0.6
DISTRIBUTION AND TRANSPORT	2	0.8	0.7
OLD ECONOMY	2.8	1.1	0.8
MASS GOODS & SERVICES PROV.	0.2	1	1
CONSTRUCTION	2.3	1.5	1.1
MASS RECREATION	-3.9	0.9	1.1
OTHER	1.2	2.2	1.2
PENINSULA	RESIDENTIAL RELOCATION	INDUSTRY SPECIALISATION	SELF CONT.
NEW ECONOMY	0.6	0.5	0.7
DISTRIBUTION AND TRANSPORT	0.4	0.5	0.6
OLD ECONOMY	1.2	0.9	0.8
MASS GOODS & SERVICES PROV.	1.9	1.3	1.1
CONSTRUCTION	0.3	1.7	1
MASS RECREATION	-1.6	1.3	1.2
OTHER	1	1.2	0.8

Source: ABS Customised Journey-to-Work matrix, 1996 Census; Customised Internal Migration matrix, 1991 Census.

These are the broad results of our work. However, they mask some revealing complexities in the way houses and jobs are connected in different parts of metropolitan areas, and the following section explores those special features in more detail.

The links between self-containment, job specialisation and type and residential re-location mean that the overall picture of stability in regional self-containment displayed in tables 6 and 7 above must be interpreted with some caution. These figures suggested regional housing-market and labour-market links remained steady over time. What now appears to be the case is that there have been changes in jobs and in the residents of regions as workers adjust to new opportunities. It is striking that regional self-containment levels remain virtually unchanged in face of the great change in jobs and housing demand. Such stability suggests stronger links in the way that housing markets and labour markets operate than is often recognised. To develop a better understanding of this dynamic situation, detailed analyses of two regions were carried out. The first was the Core, significant because it accounts for 32 per cent of all of Melbourne's jobs, and 58 per cent of Melbourne's new-economy jobs. The second was a large middle suburban region the Inner South East,

SECTION 2: REGIONAL CASE STUDIES

2.1 The Melbourne Core region.

This region is a large part of inner and central Melbourne, taking in the central business district and its fringe, an old industrial and now gentrified ring of suburbs and a number of higher-status suburbs to the east and south. The region has stood out as a unit in a number of the analyses done on Melbourne in recent years which were reviewed in the regional identification phase of the initial project (Baum, 1999;Brain, 1999). The Core is the premier site for highly-paid and rapidly developing new-economy activity, largely in the business services section of the new economy and in a narrow range of other industries and occupations. For this reason, it provides a good location to study the housing market-labour market links in a region where job specialisation is taking place,

2.1.1 Jobs, Houses, and Self-Containment in the Core

It is important to understand that the Core has long been a job-rich region with an oversupply of jobs relative to residents. This has translated into a high level of self-containment for the region with 76 per cent of residents finding work within the Core. At the same time, this abundance of jobs relative to other regions means that only a small proportion of all Core jobs are filled by residents – 33.6 per cent in 1996. As displayed in Table 13, in 1996, this job surplus was experienced in a wide range of industry areas, although especially in the new economy activities, which made it a desirable not only as a job destination, but possibly also as a residential destination.

TABLE 13 REGIONAL JOB/RESIDENT RATIOS BY INDUSTRY GROUP, MELBOURNE 1996

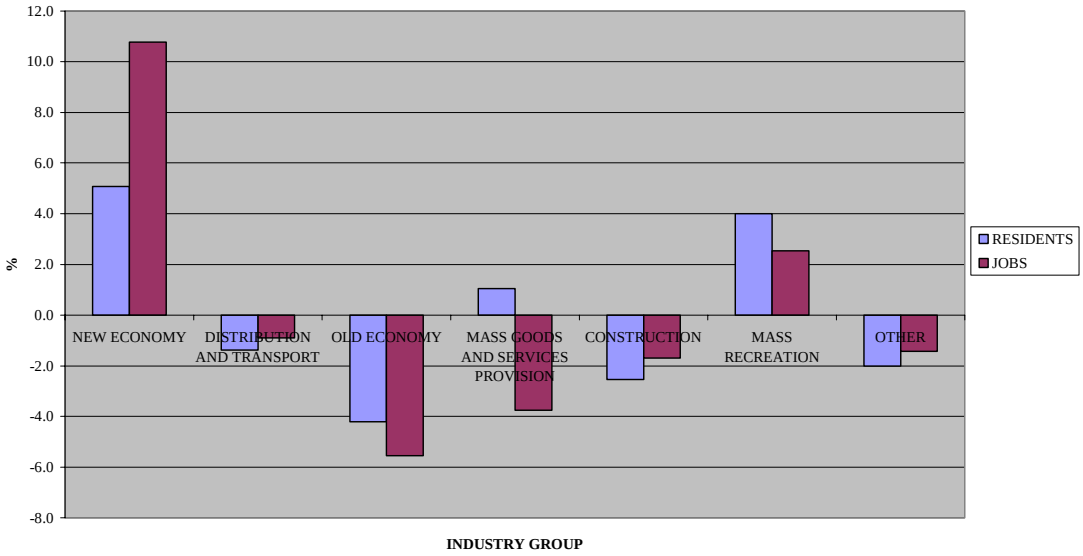
	NEW ECONOMY	DISTR. AND TRANS.	OLD ECONOMY	MASS GOODS & SERV. PROV.	CONSTR.	MASS REC.	OTHER
CORE	2.7	2.3	2.0	1.9	2.0	1.9	1.8
INNER EAST	0.6	0.7	0.8	0.8	0.8	0.6	0.6
INNER SOUTH EAST	0.6	0.9	1.0	0.9	0.7	0.7	0.7
INNER NORTH/INNER WEST	0.5	0.8	1.0	0.9	0.7	0.4	0.6
OUTER NORTH	0.3	1.1	0.8	0.6	0.5	0.6	0.5
NORTH EAST CORRIDOR	0.3	0.4	0.5	0.6	0.6	0.5	0.4
OUTER EAST	0.5	0.7	0.9	0.6	0.5	0.7	0.6
OUTER WEST	0.3	0.5	0.5	0.7	0.5	0.6	0.4
OUTER SOUTH EAST	0.3	0.4	0.5	0.6	0.4	0.7	0.6
PENINSULA	0.5	0.4	0.7	0.8	0.6	0.8	0.6

Source: ABS Customised Journey-to-Work matrix, 1996 Census

As the supply of jobs is greater than the number of residents in most industries, it is likely that the region will be a favourable destination for inward residential re-location; as will be shown below, that movement is very economically and socially selective.

The outcome of the job imbalances displayed in Table 13 can be seen in the housing and labour market measures shown in Chart 2**.** It shows that the Core region's jobs and residential population is over-represented in new economy and the mass recreation activities relative to the industry group composition of Melbourne overall. In contrast, all other industry groups are under-represented (except for residents who work in mass goods and services). The new economy and mass recreation industry groups were both found to exhibit the highest self-containment rates in the Core, regardless of hours worked. This highlights the industrially selective nature of the development of the Core in recent years.

CHART 2 INDUSTRY UNDER/OVER-REPRESENTATION IN CORE REGION RELATIVE TO MELBOURNE, 1996; PERCENTAGE POINT DIFFERENCE BETWEEN REGION AND METROPOLITAN SHARES



The significance of the new economy in the Core region was not unexpected, as a similar tendency has been observed in many cities, even where suburbanisation is very strong. Whereas Core employment growth is often seen as associated with new-economy development, the Core also accounts for 54 per cent of mass recreation jobs within the metropolitan area, compared with the sector's 38 per cent of all jobs generally. This industry group consists of a range of cultural and in-person service jobs, professional, semi-skilled and unskilled in nature, including work in accommodation, cafes and restaurants; motion picture, radio and television services; libraries, museums and the arts; and sport and recreation. These activities are associated with new-economy development, in part servicing the lifestyle preferences of broader sections of the urban intelligentsia, sometimes discussed under the rubric of the 'café society' (DOI, 1998). Many of the jobs in the mass-recreation sector involve serving business visitors, tourists and suburban residents who use the inner city, not for employment, retail or other services, but as a site for recreation.

2.1.2 Residential Re-location to and from the Core and Self-Containment

The levels of self-containment of the Core have been maintained by industrially selective residential re-location as displayed in Table 14. The table shows major differences in the shares of each industry group of in-movers and out-movers. The balance tips in favour of the new economy and mass recreation workers on the inflow, but to the old economy on the outflow.

TABLE 14 INTERNAL MIGRATION 1991-1996 TO AND FROM CORE REGION BY INDUSTRY GROUP, MELBOURNE

	INFLOW TO CORE		OUTFLOW FROM CORE	
	%	NOS	%	NOS
NEW ECONOMY	28.5	20433	22.7	14395
DISTRIBUTION AND TRANSPORT	9.1	6494	9.9	6243
OLD ECONOMY	6.0	4279	11.0	6946
MASS GOODS AND SERVICES PROVISION	31.9	22851	33.7	21367
CONSTRUCTION	2.6	1853	3.2	2050
MASS RECREATION	12.9	9268	8.3	5286
OTHER	9.0	6443	11.2	7080
TOTAL	100.0	71621	100.0	63367

Source: ABS, Customised Internal Migration matrix, 1996 Census

Data does not include persons who were residing overseas in 1991, but who were residing in Core in 1996.

An analysis of residential re-location to and from the Core by occupation further corroborates the view that the continual shuffling of job-housing links through residential re-location acts in a spatially selective manner so far as some of the most advantaged and disadvantaged labour-market fractions are concerned. The Core has the highest proportion of its jobs in the professional and associate professional categories (38.3 per cent) and also accounts for the highest proportion of Melbourne's jobs in these occupations (46.1 per cent). At the same time, the Core has the lowest proportion of its jobs in the trades, intermediate production, transport and labouring occupations compared with other regions. Table 15 shows how this skewed occupational make-up of Core jobs is reflected in the occupational composition of residential re-location to and from the region. In turn, this suggests that residential re-location is reinforcing already strong occupationally specific job-housing links within the Core.

TABLE 15 INTERNAL MIGRATION 1991-1996 TO AND FROM CORE REGION BY OCCUPATION, MELBOURNE

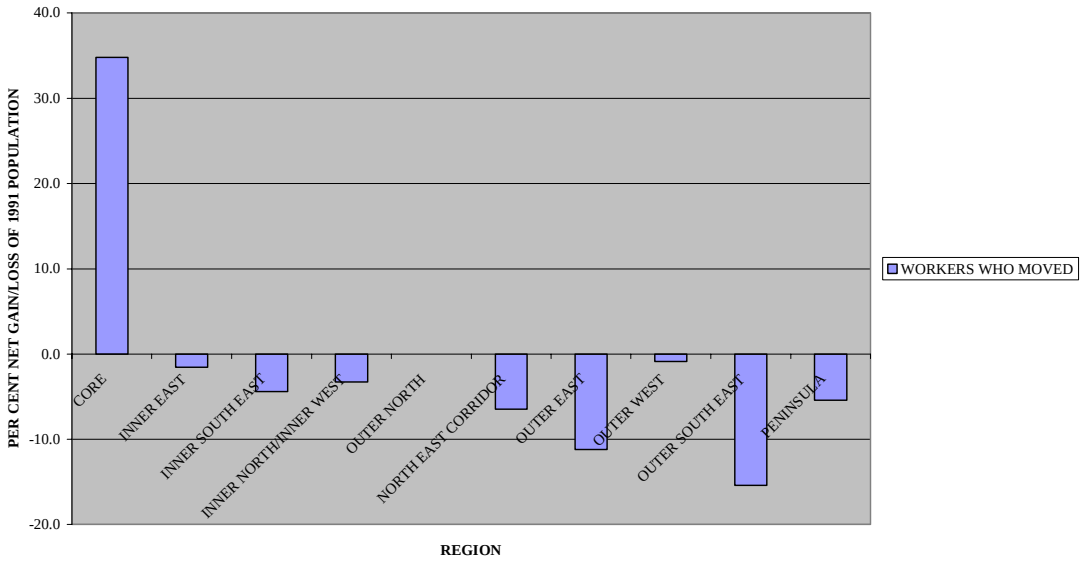
	INFLOW TO CORE		OUTFLOW FROM CORE	
	%	NOS	%	NOS
MANAGERS AND ADMINISTRATORS	8.9	6402	8.7	5542
PROFESSIONALS AND ASSOC. PROFESSIONALS	44.2	31637	40.6	25745
ADV, CLERICAL AND SERVICE WKRS	4.9	3506	4.2	2672
INT. CLERICAL, SALES AND SERVICES WKRS	18.5	13231	14.8	9353
ELEM. CLERICAL, SALES AND SERVICE WKRS	8.6	6127	6.7	4269
TRADES, INT. PROD., TRANSP. WKRS	10.0	7171	16.8	10674
LABOURERS AND RELATED WKRS	3.6	2562	6.0	3831
INAD. DESCR./NOT STATED	1.4	985	2.0	1281
TOTAL	100.0	71621	100.0	63367

Source: ABS, Customised Internal Migration matrix, 1996 Census

Data does not include persons who were residing overseas in 1991, but who were residing in Core in 1996.

This outcome can be seen in the inter-regional residential movement of workers in the mass-recreation category. Chart 3 shows the regional net gain/loss of mass-recreation workers in this period.

CHART 3 RESIDENTIAL RE-LOCATION OF EMPLOYEES IN MASS RECREATION, MELBOURNE 1991-1996



The net residential gain of mass recreation workers in the Core, accompanied by a net loss of these workers in every other Melbourne region, underscores the influence that work opportunities in the Core have upon the decisions of workers to re-locate.

The high demand for these workers within the Core relative to the rest of Melbourne is also evident in the weekly hours worked by mass recreation workers in the Core relative to other regions. Although much mass-recreation work is part-time, this is less the case in the Core than elsewhere. Whereas 47 per cent of mass recreation jobs in Melbourne are less than 34 hours per week, only 40 per cent fall within these hours in the Core. Further, whereas 25 per cent of jobs in this industry group within Melbourne are less than 16 hours per week, the proportion in the Core is 19 per cent (See Appendix E).

In brief, the data show that, while new-economy activity is a key characteristic of job-housing links in the Core region, there is also residential re-location and journey-to-work patterns to the Core of other categories of workers, particularly those linked to the fast growing, in-person service sector. While it is not unexpected to see a growth in in-person jobs in the core region, the residential relocation of these workers who are often lower income and casual is surprising. More detailed analysis of this matter is needed. This information also shows that the steady level of regional labour-market self-containment results from workers and residents moving in different directions as the character of jobs in the region, and the economy more generally changes. Whereas the Core at one time was self-contained largely because it housed many old economy jobs and workers, today it achieves self-containment by accommodating different jobs and housing the workers who fill them. This illustrates the way that changes in job location and job type can contribute to reshaping the structure of a metropolitan area by influencing housing-market dynamics.

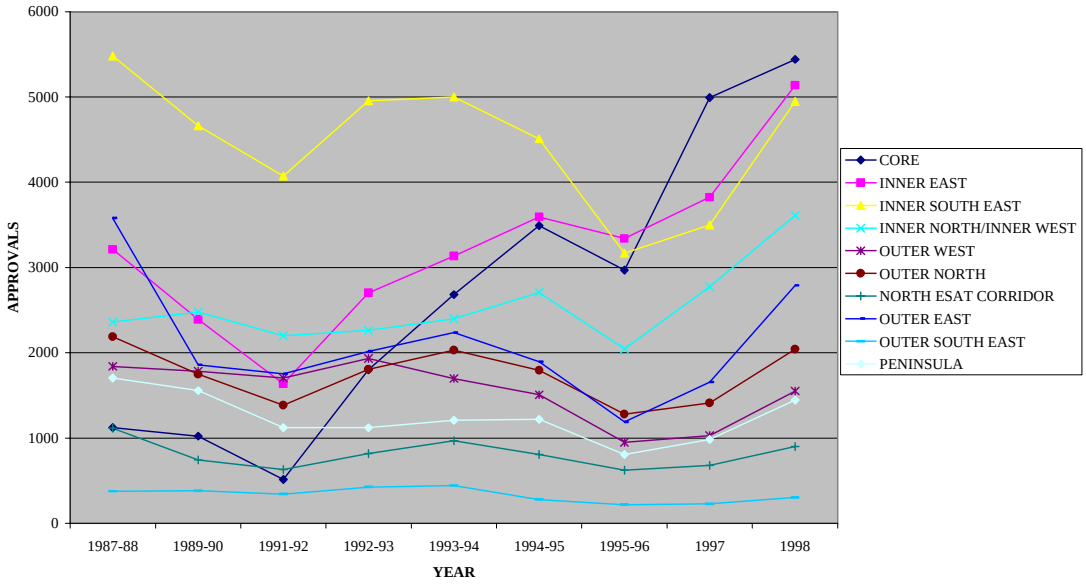
2.2.1 Core Region Housing Market Dynamics

A peculiarity of Melbourne's recent housing market dynamics has been the adoption of a government policy that promotes medium-density, multi-unit housing. Though the purpose of this policy was to accommodate urban population increase in a period of government infrastructure funding constraint and to slow suburban fringe development, perhaps its most obvious outcome was to provide housing in the Core region that has contributed to the outcomes displayed above. The new policy that aimed to establish 'as-of-right' higher-density development provided developers with the opportunity to increase densities on existing lots with less space between buildings and smaller set backs from the street.

The new regulatory framework facilitated a dramatic increase in dwelling construction in some established suburban areas, including those that comprise the Core region. Chart 4 shows the number of dwelling approvals in each region for the period 1987-88 to 1998. Although referring to approvals, the data nevertheless provide a good indication of building commencements because most approvals are acted upon. The housing downturn associated with the early 1990s economic recession is clearly evident. As the recession abated, the scale of building activity rapidly increased and was most marked in the Core.

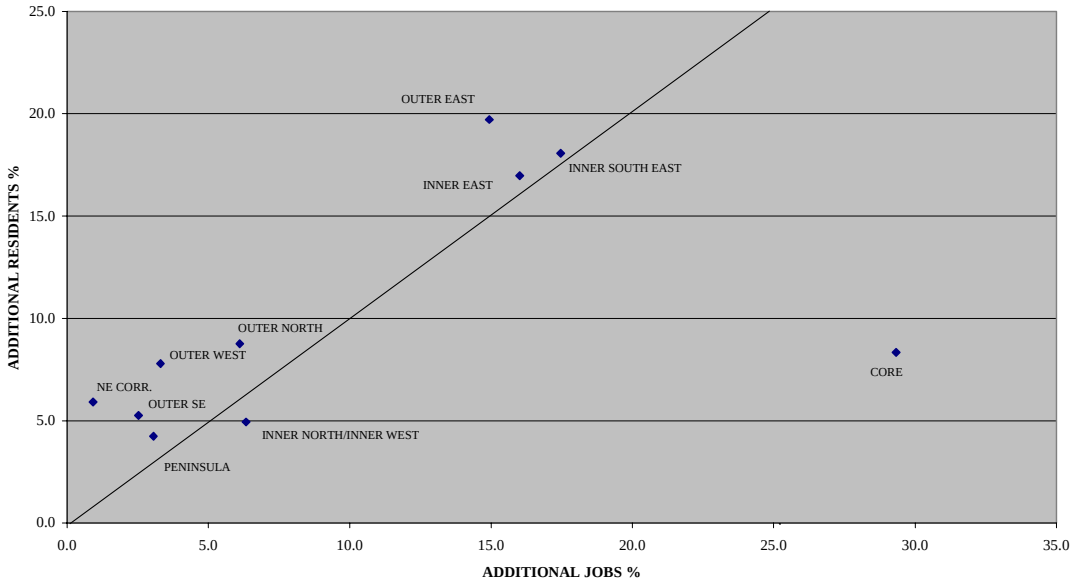
At this time, too, the government promoted the Core region as a privileged location for economic growth as part of a global city strategy, providing funds for very substantial concentration of new public and private facilities in and near the central business district, and at the same time stimulating business services growth through an aggressive privatisation and out-sourcing policy. The joint impact of a higher-density urban development policy and internationally-orientated place marketing policy lead to a disproportionate share of new residential growth approvals (compared to earlier years) being registered within the Core, while job opportunities in business services and mass recreation accelerated. A cycle appears to have been established whereby liberalised building regulations facilitated house construction within the Core which in turn encouraged further residential re-location to the Core where there was also job abundance across a broad spectrum of jobs.

CHART 4 DWELLING APPROVALS BY REGION 1987-88 TO 1998, MELBOURNE

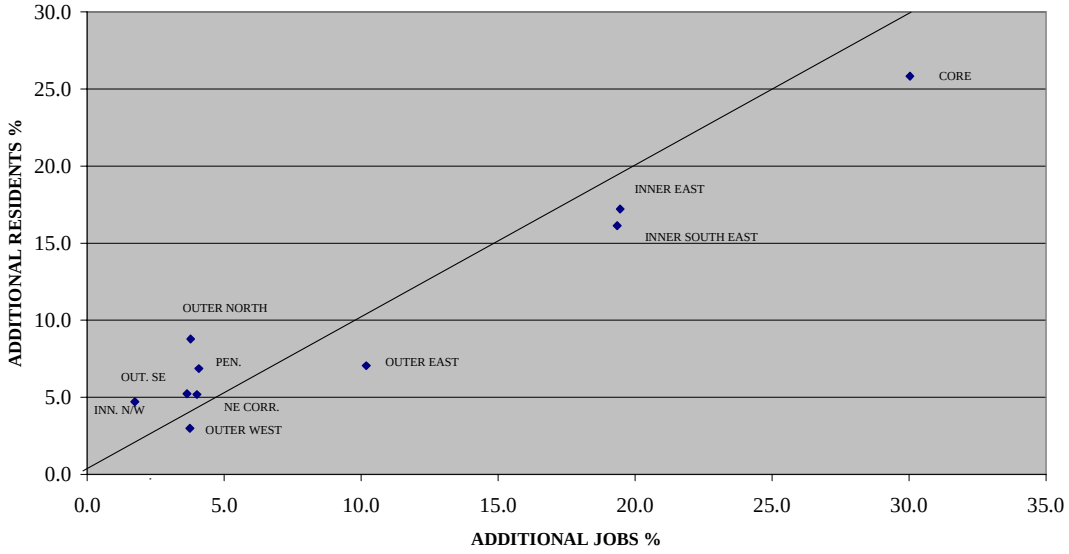


The impact of a pro-active government policy of increasing medium-density residential development combined with a city-centre orientated investment and development strategy during the 1990s is evident in the shift in the regional distribution of additional jobs and residents between 1986 to 1991 and 1991 to 1996. A comparison of graphs 12 and 13 shows the dramatic shift in the share of additional residents in the Core region during the 1991-1996 period compared with the previous five years. The diagonal line in each graph represents situations where the numbers of additional jobs and residents would be equal. In 1986-1991, the Core fell well below this line as residential growth was less than job growth. In 1991-1996, this outcome changed.

GRAPH 12 SHARES OF ADDITIONAL JOBS AND RESIDENTS BY REGION 1986-1991, MELBOURNE



GRAPH 13 SHARES OF ADDITIONAL JOBS AND RESIDENTS BY REGION 1991-1996, MELBOURNE



2.2.2 House Prices and Core Region Change

One outcome has been that the Core has become increasingly exclusive in terms of real estate values. Burke and Hayward (2000) have documented the extent to which inner Melbourne suburbs have undergone disproportionate increases in property values relative to many other suburban areas. They conclude that '...the housing market is polarising in a way that we haven't seen before' and observe that, over time, the listing of Melbourne's top twenty median priced suburbs has become more inclusive of the inner suburbs (Burke and Hayward, 2000: 41). Whereas only six of the suburbs in the top twenty listing fell within the Core region, as defined in this study, in 1979, by 1999 it has come to include twelve suburbs. The authors further point to the rapid spatial polarisation of low-cost housing stock in Melbourne during the 1990s, particularly the latter half of this decade. The supply of low-cost housing stock has declined very rapidly in inner[6] urban areas since 1995. By 1999:

> ...the entire inner region – with one-third of all stock – only had 8 per cent of metropolitan Melbourne's low-cost stock... At the other end, 84 per cent of top end stock was in the inner region...the inner region accounted for 56 per cent of the net loss of ...low-cost properties in metropolitan Melbourne between 1995 and 1999. (Burke and Hayward, 2000: 45)

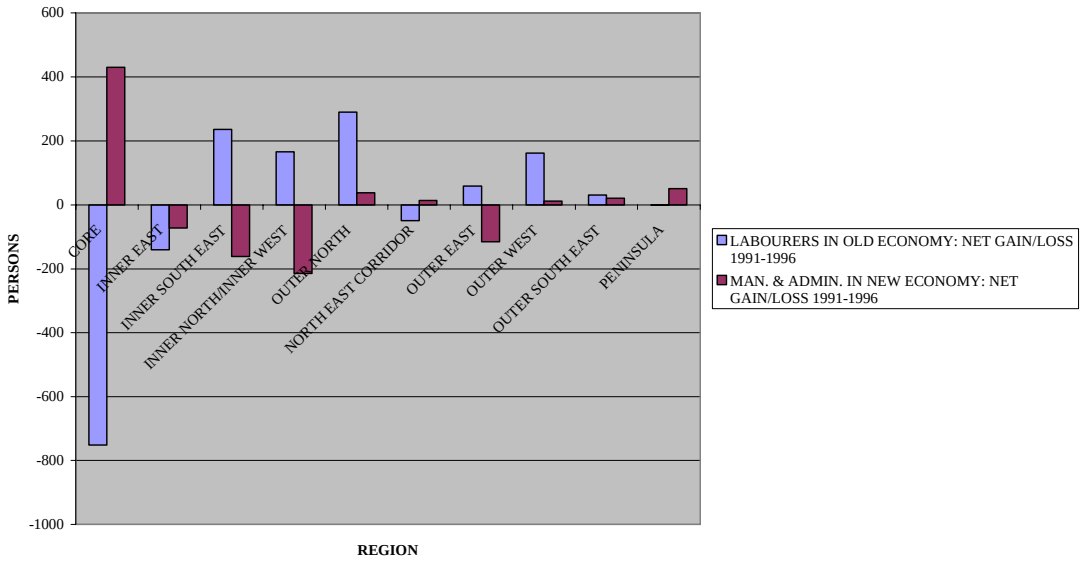
2.3 Changes in the Core: Impacts on Other Parts of the Metropolitan Area

The Core is the largest single labour market in the metropolitan region, with the most obvious specialisation in its labour market opportunities. These two facts mean that any significant change in its character will probably be felt in the housing and labour market circumstances in other regions. This effect is felt in particular when selective residential re-location, as displayed above, changes the patterns of residential development. The inter-relationship between the change in the Core and character of surrounding regional labour markets can be seen in the differences in the job-housing linkages for two diametrically opposed labour-market groups. The first group, designated here as 'High Status', is a high income and fast growth job category consisting of Managers and Administrators who work in the New Economy. The second group, referred to as 'Low Status', involves lower paid, low growth occupations and activities, represented by labourers who work in the Old Economy. As the journey-to-work and residential re-location patterns of these two groups are charted, an important insight is gained into the changing spatiality of job-housing links. These patterns expose differences in job housing links by social class and will provide a pointer to longer-term socio-economic outcomes as the economy shifts toward higher-skilled workers who live in particular regions.

Chart 5 summarises the internal migration of these two groups between Melbourne's regions for the period 1991-1996.

[6] 'Inner' Melbourne is smaller than the Core region used here.

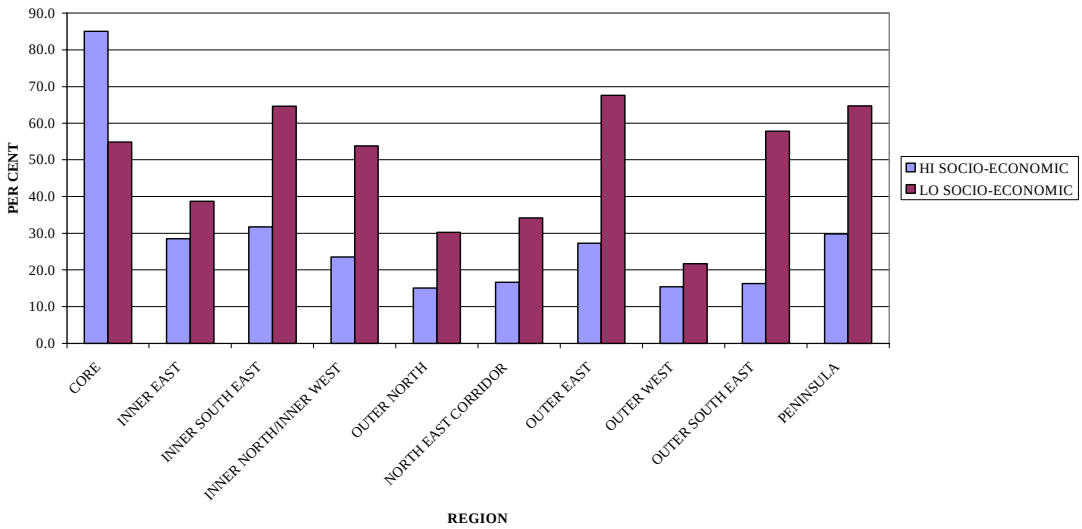
CHART 5 RESIDENTIAL RELOCATION OF HIGH AND LOW-SOCIO-ECONOMIC WORKERS 1991-1996, MELBOURNE



It shows regions' residential net gain/loss for each group. In the Core, a net gain of managers and administrators in the new economy is accompanied by a net loss of labourers in the old economy. Conversely, the Inner North/Inner West, Inner South East and Outer North, regions which are over-represented in old-economy jobs, each had a net gain of labourers in the old economy. The Outer North also had a small net gain in new-economy managers and administrators, which may reflect the lifestyle preferences of some in this group for lower-density living in this region that is still well within reach of the inner suburbs where new-economy jobs are concentrated.

These patterns of residential re-location have strengthened regional job-housing links for each group, as can be seen in their journeys to work. Chart 6 shows the proportion of the 'high' and 'low' status workers who found work within their region of residence in 1996

CHART 6 REGIONAL SELF-CONTAINMENT OF HIGH AND LOW SOCIO-ECONOMIC POPULATIONS, MELBOURNE, 1996



High-status workers have very strong home-work links in the Core where more than 80 per cent find work in their home region. Of those low-status workers who do live in the Core, only about 55 per cent are able to find work within their region. For the remainder of Melbourne's regions, the converse is the case. In non-Core regions, including the Inner North/Inner West and the Inner South East, low-status workers are much more likely to find work within their region of residence than high-status workers who often travel to the Core to work.

Another impact that the Core region's labour-market strength has upon the rest of the metropolitan area can be seen in its links with the old industrial region that surrounds it to the north and west. This region has long been the location of a significant part of Melbourne's industrial activity and has the metropolitan area's highest proportion of its jobs in the old economy (25.4 per cent) in 1996. In 1996, old-economy self-containment in the Inner North/Inner West was 50 per cent.

As noted above, old economy workers are leaving the Core. The foremost residential destination of these workers was the Inner North/Inner West, which accounted for 38 per cent of these out movers. An examination of the journey-to-work movements of new and old-economy workers between the Core and the Inner North/Inner West further demonstrates the spatial linkages that have emerged as changes in job location and residential re-location have occurred.

TABLE 16 JOURNEY TO WORK MOVEMENTS BETWEEN CORE AND INNER NORTH/INNER WEST REGIONS BY OCCUPATION, MELBOURNE 1996

	Core to Inner North/Inner West		Inner North/Inner West to Core	
	New Economy	Old Economy	New Economy	Old Economy
	Per cent			
Managers & Administrators/Prof's & Assoc. Prof's	52.0	27.7	36.5	12.8
Advanced/Interm./Element. Clerical & Service Wkrs	26.3	10.0	48.6	10.8
Trades/Intermed. Prod./Transp./Labourers & Rel.	21.0	60.3	13.5	73.6
Indadequ. Desc./Not Stated	0.8	2.0	1.4	2.8
Total	100.0	100.0	100.0	100.0
	Persons			
Managers & Administrators/Prof's & Assoc. Prof's	1032	1167	6669	1459
Advanced/Interm./Element. Clerical & Service Wkrs	522	420	8887	1231
Trades/Intermed. Prod./Transp./Labourers & Rel.	417	2545	2474	8373
Indadequ. Desc./Not Stated	15	86	256	316
Total	1986	4218	18286	11379

Source: ABS, Customised Journey-to-Work matrix, 1996 Census.

When journey-to-work movements between these two regions are compared in Table 16, some marked differences in occupational composition become evident. The higher-level occupations in the old economy account for a significantly larger proportion of the outward movement from the Core than is the case for the inward movement. Conversely, the proportion of new-economy workers in lower-level occupations who travel to the Core is less than for those reverse commuting. These observations reflect the status of the Core as a preferred residential location for people in higher-level occupations and the Inner North/Inner West as a location of increasing old-economy residential concentration, despite the relative and absolute decline in old-economy employment.

When the journey-to-work movements of new-economy workers between these regions are compared, the outflow from the Core again has a greater proportion of higher-level occupations than the inflow from the Inner North/Inner West. Inflow to the Core, however, is not particularly weighted to low-level occupations. This difference may in part reflect the fact that persons in lower-level occupations who reside in the Core are less likely to be employed in the old economy compared with the Inner North/Inner West and other regions of old-economy specialisation (See Appendix C).

Trades and intermediate production workers are the main group moving both ways. Those who still live in the Core seek jobs in the other region, while some residents of that region travel into the Core. This pattern of flows illustrates that the old economy remains an important employer in the Core, and that many old economy workers have retained residential sites in the Core even in the face of the changes in social composition discussed above. These complex patterns of movement illustrate the churning of job location and residential location that characterise a broad range of occupations and industries in very different regions. This churning maintains regional labour-market self-containment even though there has been very substantial change in the character of industries and of residential areas. In turn, this reinforces the role of jobs shaping metropolitan outcomes.

A more detailed insight into the socio-economic disparities that have been developing between the Core and regions characterised by old-economy specialisation can be seen in Table 17. It compares the residential net gain or loss between 1991-1996, for a variety of socio-economic indicators, for the two central SLAs of the Core region ('Melbourne') and a number of other SLAs/LGAs (Local Government Areas) in the metropolitan area. The results are based on residential net gain/loss as a proportion of the 1991 population and it is possible to observe whether the net gain or loss on a particular measure is proportionately more or less than the total change. The contrast between the Core and Broadmeadows reflects the growing disparity between the Core and Inner North/Inner West regions overall. Whereas 'Melbourne' had a disproportionate loss of lower income persons, Broadmeadows had a disproportionate loss of high-income persons. Further, the relative residential loss for Broadmeadows increases as one proceeds up the occupational scale, confirming the observation of Birrell et al. (1999) that the concentration of poverty in specific metropolitan areas involves the out movement of better off elements of the population as well as the in movement of poorer persons.

TABLE 17 RESIDENTIAL NET GAIN/LOSS 1991-1996 AS A PER CENT OF 1991 POPULATION*
BY SELECTED SLA/LGA BY SELECTED SOCIO-ECONOMIC CHARACTERISTICS

	MELBOURNE	B'MEADOWS	KINGSTON	CASEY-BERWICK	MOONEE VALLEY
FAMILY TYPE					
couples w dep children	-48.6	-4.1	-4.5	40.3	-7.9
couples no dep children	-5.5	-7.7	-0.9	48.1	-2.9
single-parent families	-22.5	-0.4	1.0	29.1	-5.8
not applic/not stated (single-persons)	33.8	-18.6	0.2	22.0	5.9
total	-1.1	-6.4	-1.7	39.5	-3.2
INCOME (MALES 25 YRS PLUS)					
<$300 per week	-22.6	-5.3	-4.4	22.5	-5.5
$300-$599 per week	-24.8	-4.6	-2.7	49.2	-5.7
$600-$999 per week	-7.1	-10.8	-1.1	53.0	-6.2
$1000 + per week	11.9	-18.4	-4.2	32.9	3.5
not applicable/not stated	-34.7	-3.5	-3.8	49.3	-5.9
total	-14.1	-7.0	-3.0	42.8	-4.7
QUALIFICATIONS					
degree & diploma	-5.2	-14.6	-2.4	38.2	1.6
skilled vocational	-23.4	-9.8	-1.0	51.5	-6.9
basic vocational	-8.7	-14.6	-0.2	38.2	4.1
inad. desc., not stated, not applicable	-3.7	-5.2	-1.8	38.0	-4.0
total	-1.1	-6.4	-1.7	39.5	-3.2
OCCUPATION					
managers & administrators	10.8	-12.5	-1.3	30.4	-1.9
professionals & associate prof's	-3.1	-18.1	-0.9	44.2	2.0
tradespersons and related workers	-23.8	-7.6	1.1	51.4	-3.9
adv, inter, & elem. cler. sales & service	38.9	-9.6	1.7	47.5	1.0
intermediate prod. & trans.& labourers	-20.6	-2.8	-1.6	51.4	-7.0
inad. desc., not stated, inapplicable	-8.0	-4.4	-3.3	32.2	-5.4
total	-1.1	-6.4	-1.7	39.5	-3.2
BIRTH					
Australia	8.5	-9.2	-1.3	37.4	-2.6
main Eng-sp. countries	-10.4	-14.3	-4.6	35.8	-4.1
nesb	-20.8	0.5	-2.4	61.0	-4.6
not stated	-23.2	-6.7	5.1	37.8	-1.3
total	-1.1	-6.4	-1.7	39.5	-3.2
AGE					
5-14	-35.3	-3.5	-4.0	32.8	-7.5
15-24	109.8	-8.5	2.5	35.1	7.9
25-44	-23.3	-7.5	-3.9	55.0	-5.8
45-64	-1.3	-6.2	-1.2	25.4	-3.9
65 +	-11.5	-3.4	0.2	25.2	-2.6
total	-1.1	-6.4	-1.7	39.5	-3.2

SOURCE: ABS CUSTOMISED INTERNAL MIGRATION MATRIX 1996 CENSUS

* EMPLOYED PERSONS 15 PLUS YEARS; DATA DO NOT INCLUDE PERSONS WHO WERE OVERSEAS IN 1991, BUT IN MELBOURNE IN 1996

Table 17 also enables a comparison of the type of change we see in the Core with two relatively prosperous middle suburban localities, Moonee Valley and Kingston. A further comparison is also facilitated by the inclusion of Casey-Berwick, an SLA on Melbourne's metropolitan fringe. The pattern of residential net gain/loss for these three areas is more balanced than for either 'Melbourne' or Broadmeadows, with a more even spread of residents' income and occupational levels. Here we gain a glimpse of the more inclusive neighbourhood structures alluded to by Gregory and Hunter (1995), something which they argue had become severely eroded by the 1990s. For example, whereas 'Melbourne' has relatively high residential losses in the low-income groups and a gain in high-income residents, Kingston has an equal rate of loss in both high and low-income groups and the least loss in the middle income group. Moonee Valley, while having the least residential loss in the high-income group, has fairly even rates of loss across the remaining income groups. Casey – Berwick, with a net residential gain between 1991 and 1996, has the highest rates of residential gain in the middle-income groups. Considering differences in the qualification and occupational profiles of the residential movement into and out of

these areas, Moonee Valley, Kingston and Casey-Berwick all have less exaggerated gains and losses compared with 'Melbourne'. The more balanced socio-economic character of these areas relative to 'Melbourne' and Broadmeadows is further evident in Table 18 which shows the educational profile of each area in 1996.

TABLE 18 SELECTED MELBOURNE SLAs/LGAs BY EDUCATIONAL PROFILE, 1996

	MELBOURNE		KINGSTON		CASEY - BERWICK		MOONEE VALLEY		BROADMEADOWS	
DEGREE AND DIPLOMA	9300	35.4	14512	13.5	4084	10.9	16479	17.9	3487	6.4
SKILLED VOCATIONAL	928	3.5	10923	10.1	4529	12.0	7850	8.5	4444	8.1
BASIC VOCATIONAL	442	1.7	2341	2.2	803	2.1	1827	2.0	798	1.5
INAD. DESCR., NOT STATED, NOT APPLIC.	15595	59.4	80025	74.2	28188	75.0	65700	71.5	45799	84.0
TOTAL	26265	100.0	107801	100.0	37604	100.0	91856	100.0	54528	100.0

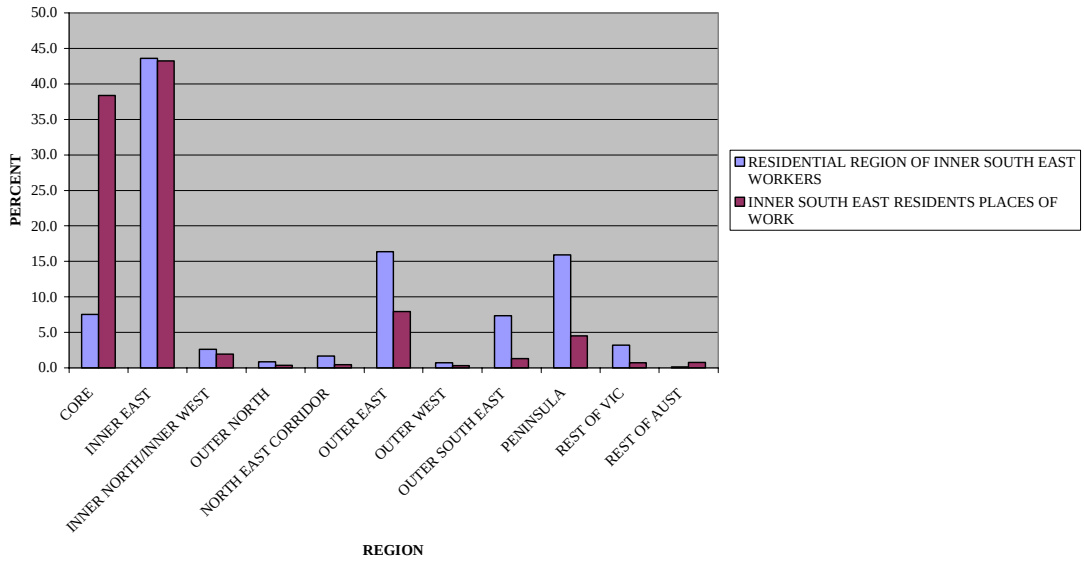
Source: ABS Customised internal migration matrix, 1991 Census.
Data include persons more than 4 years of age

The data in Tables 17 and 18 illustrate how the Core region is becoming distinctive in socio-economic terms relative to the rest of Melbourne. The region gained in high-income residents while it lost low-income residents. The region's greatest loss was amongst those with skilled vocational qualifications, an outcome reflected in the occupational data which shows the greatest loss in the trades, production workers and labourers. At the same time, there was a net gain of managers and administrators. Concerning age and family type, the Core had a strong influx of persons 15-24 years of age and a significant loss of persons 5-14 years, an outcome consistent with the net gain of single persons and the significant net loss of couples with dependent children. More detailed analysis of the housing circumstances of this group would be revealing.

2.4 The Inner South East – A Middle Suburban Region

In this section we examine the characteristics of job-housing links in the Inner South East, a region which encompasses a range of middle suburban localities and extends from about 10 to 35 kilometres from the city centre (See Figure 1 above). It accounted for 14 per cent of the metropolitan area's jobs in 1996, making it the largest suburban region in employment terms. Having noted the spatial selectivity in the social and economic character of job-housing links in the Core region it is important to establish whether that same sorting process is at work in the middle suburbs. As a starting point, it is important to recognise that 56 per cent of the workforce living in this region also worked there in 1996, a level virtually unchanged since 1986. Another insight into the very broad links between jobs and houses in the region is that regional residents took 65 per cent of the jobs in 1996. The broad pattern of housing job links can be seen in the pattern of jobs and residents connected to the Inner South East displayed in Chart 7 below.

CHART 7 RESIDENTIAL REGION OF INNER SOUTH EAST WORKERS AND WORK REGIONS OF INNER SOUTH EAST RESIDENTS (%), MELBOURNE 1996



This shows that Inner South East workers are drawn primarily from the Core and the Inner East, and two outer regions (Outer East and Peninsula). In contrast, the residents work mainly in the Inner East and the Core. The fact that the Inner East is a more important job destination is a significant finding which will figure in the analysis below.

2.4.1 Jobs, Houses and Self-Containment in the Inner South East

These links are in fact shaped by strong connections between workers and their houses in a few industry groups. Table 19 shows the industry composition of the region's residents, the jobs performed there and the jobs of those residents who also work in the region. It also shows the proportion of residents in each industry group who also work in the Inner South East region.

TABLE 19 INNER SOUTH EAST REGION BY INDUSTRY GROUP (%) MELBOURNE 1996

	NEW ECONOMY	DISTRIBUTION AND TRANSPORT	OLD ECONOMY	MASS GOODS AND SERVICES PROVISION	CONSTRUCTION	MASS RECREATION	OTHER	TOTAL
JOBS*	13.2	11.6	21.2	32.7	5.5	3.9	11.8	100
EMPLOYED RESIDENTS	17.4	10.8	17.5	29.8	6.3	4.6	13.7	100
INDUSTRY GROUP COMPOSITION OF RESIDENTS WHO WORK IN THEIR OWN REGION	12.4	10.5	21.7	33	5.6	4.3	12.4	100
INDUSTRY GROUP SELF CONTAINMENT**	37.7	52.4	64.5	58	57.4	48.8	49.1	56.3

Source: ABS Customised matrix, 1996 Census*

* Data include persons who reside outside Melbourne Statistical Division, but who work in Inner South East region.

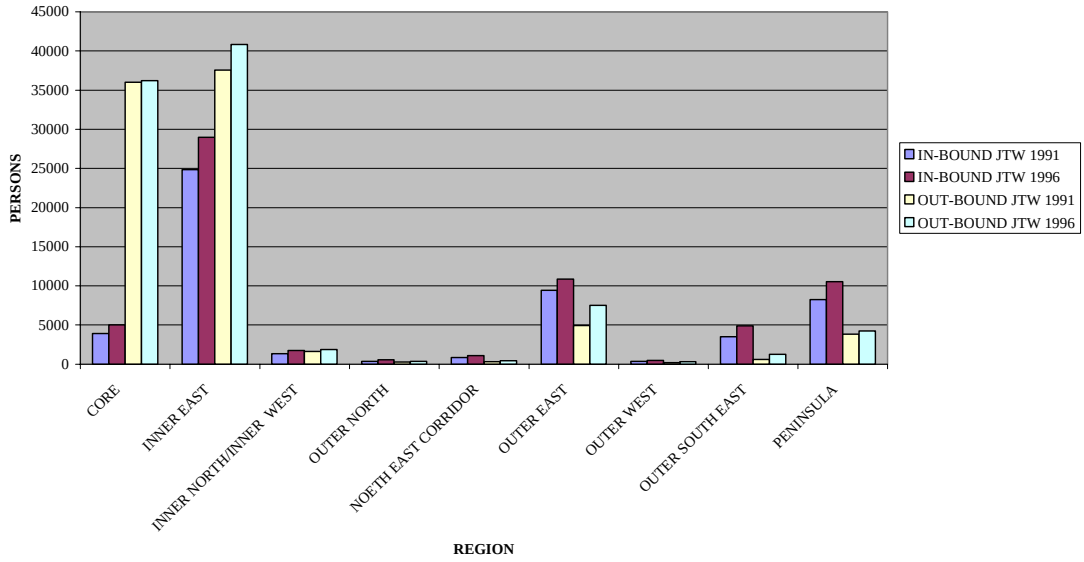
** For example, of the 17.4 per cent of residents who work in the new economy, 37.7 per cent work in the Inner South East.

The old economy and mass goods and services provision are the two largest employers in the Inner South East. The proportion of residents who work in the old economy is less than that group's share of all jobs. The converse is the case for the new economy which accounts for a higher proportion of residents than jobs; like many other regions, many new economy employees in the Inner South East travel to the Core to work. Compared to Melbourne overall, the Inner South East is markedly over-represented in the old economy and under-represented in the new economy (See O'Connor and Healy, 2001, 114, www.ahuri.edu.au/pubs/index.html). Here, we see the link, frequently found within Melbourne's regions, between industry over- or under-representation and self-containment rates. The bottom row of data in Table 19 shows that in three industry groups around 60 percent (and more) of the workers find

jobs in the region. In contrast, the new economy has the lowest self-containment rate.

As noted in the introductory section, the level of regional self-containment is strengthened when the analysis is broadened to include neighbouring regions. This wider perspective brings into focus the strength of job-housing links within the suburbs. Chart 8 shows the in-bound and out-bound job-housing links between the Inner South East and its adjoining regions for 1991 and 1996, with the first two columns showing the number travelling to the region in 1991 and 1996, respectively, and the second two columns showing the number travelling from the region in 1991 and 1996, respectively. The broad pattern of job-housing links between the Inner South East and other regions changed little between 1991 and 1996.

CHART 8 IN-BOUND AND OUT-BOUND JOURNEY-TO-WORK MOVEMENT BETWEEN THE INNER SOUTH EAST AND OTHER METROPOLITAN REGIONS, MELBOURNE 1991 AND 1996



The chart clearly illustrates that the metropolitan area is in fact a number of distinct labour markets, as the Inner South East has very few links with those regions in the west and north of the metropolitan area. The data also show that the Inner South East region has strong links with the Inner East adjoining it to the north. In fact, these links (in effect intra-suburban travel) involve more people than travel to the core. The number moving in both directions has increased between 1991 and 1996, whereas the link to the core has not changed to the same extent.

Clearly the opportunity to link a suburban job and a suburban residence has been taken by an increasing number of people in this part of Melbourne in the past 5 years. The intra-suburban link has also become more important with other south and east suburban regions, especially the outer east, also to the north of this region. Although the numbers involved are smaller, there has been a rise in the number commuting to the Inner South East, and some increase in the reverse flow as well. Taken together, this information illustrates that there is a very distinctive geography to the job-housing links in the suburbs. This means that the regional housing market outcomes that can be seen in the tables are closely tied to regional labour-market influences.

It is important to understand that the intra-suburban links of this region have a distinctive character in terms of the industry group of the commuters. Table 20 provides the data to illustrate this situation.

TABLE 20 INDUSTRY PROFILE (%) OF INBOUND AND OUTBOUND JOURNEY-TO-WORK TRAFFIC FROM INNER SOUTH EAST REGION AND OUTER EAST, PENINSULA AND OUTER SOUTH EAST REGIONS, MELBOURNE 1996

	OUTBOUND				INBOUND			
	INNER EAST	OUTER EAST	OUTER SOUTH EAST	PENINSULA	INNER EAST	OUTER EAST	OUTER SOUTH EAST	PENINSULA
NEW ECONOMY	19.7	13.8	6.6	9.2	14.7	15.0	11.6	13.6
DISTRIBUTION AND TRANSPORT	12.1	18.3	8.7	5.2	13.3	15.0	13.8	10.7
OLD ECONOMY	18.0	27.0	18.2	19.4	20.6	22.2	21.6	16.4
MASS GOODS AND SERVICES PROVISION	32.1	19.8	43.7	44.2	34.2	27.8	32.6	39.9
CONSTRUCTION	3.8	6.2	4.1	6.6	4.1	6.3	4.7	4.7
MASS RECREATION	4.5	3.4	7.6	5.3	3.1	2.6	3.6	3.8
OTHER	9.7	11.5	11.1	10.1	10.0	11.2	12.2	10.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: ABS, Customised Journey-to-Work matrix, 1996 Census

The table shows the profile of the commuters to and from the main adjoining suburban regions discussed earlier. It shows that the new economy worker is very prominent in the flow to the Inner East, where office-based development has been rapid in the 1991-1996 period. However, this is not so for the other regions. The old economy and especially mass goods and services provision are the main industrial groups of commuters to other suburban regions. This shows that the geography of jobs shapes the pattern of linkages between regions. The contrast between industry groups is less apparent on the in-bound side; here the broad range of work available within the Inner South East draws a broad range of workers from all four regions.

It is important to note that there is a significant new-economy component of middle and outer suburban job-housing links. This is because there is some new-economy activity located in middle and outer suburban areas, and some new-economy employees have a preference for an outer suburban lifestyle. The commuting flow from the Peninsula region illustrates that some higher-level workers prefer to reside in outer suburban areas and to access appropriate employment in middle suburbia. Of the 10,557 Peninsula residents who travelled to the Inner South East to work, 44 per cent were either managers and administrators, professionals and associate professionals, or advanced clerical and services workers. Further, of the 1,440 new-economy Peninsula residents who travelled to the Inner South East to work, 54 per cent were in these occupations. This means that opportunities for new-economy work, and the residential choice of new-economy workers is not focussed solely on the Core, although the largest numbers of workers and work travel is of course focussed there.

This information shows the residents and the workplaces of the Inner South East region have a geographically structured set of connections with neighbouring regions, favouring nearby suburban areas along with outer areas in terms of change, and favouring old economy and mass service sector work. This illustrates the role that the middle suburbs play in shaping residential development in more distant locations and shows that the old images of the outer area workers being forced to take long commutes to the core of the metropolitan area is a largely mistaken interpretation of the current circumstances. In turn, it illustrates that the suburban development of houses and jobs is not really ‘sprawl’, but is a process with a strong structure and a predictable set of links. This structure can also be seen in the residential relocation decisions of Inner South East region residents. As with the Core region examined above, there are in effect overlapping geographies of regional residential re-location and journey-to-work movements for the Inner South East.

2.4.2 Residential Re-location to and from the Inner South East Region

There is obviously a wide range of factors that can potentially affect decisions about residential relocation. However, a study of the data on the residential movement of workers in industry groups to and from the Inner South East region between 1991 and 1996, as displayed in Table 21a, shows that residential movements reflect the strength of intra-suburban journey-to-work patterns discussed earlier.

As an illustration, the Inner South East lost 408 new-economy workers to the Core in this period, but 294 old-economy workers left the Core to reside in the Inner South East. This means that, between 1991 and 1996, the Core and the Inner South East regions each had a net gain from the other of residents who matched the receiving regions' industry specialisations, an outcome that would strengthen industry-specific self-containment rates. The Inner South East also gained residents from the Inner East: the net gains were mainly workers in the old economy along with mass goods and services provision. Significantly, the net gain from the Inner East is the largest in the table. As was noted earlier, the journey-to-work connection with this region was also the largest. These movements show that the geography of employment opportunities, along with knowledge gained from journey-to-work connections, shapes residential re-location movement.

The next three rows of the table display the residential exchanges with outer suburban regions; people have left the Inner South East to move to two of these regions; they are employed in a range of industries. The availability of relatively inexpensive, new housing in these two outer regions may mean that persons from a broad spectrum of labour-market situations can upgrade their housing by relocating to these areas.

In most cases however, the net gains are small relative to the number who move in both directions. This means that workers move to and from middle and outer suburban regions, broadly in response to job opportunities, but obviously weighing up a number of other factors. The important issue is that intra-suburban housing demand does not depend upon a simple outward sprawl movement, but is created by a complex set of links between middle and outer suburban areas. This complexity is best illustrated in the exchanges with the outer east, shown in the last row of Table 21a. There the 512 net gain is small relative to the 3,000 plus employed persons that moved in and out; there was no single industry that dominated this flow and the gains were recorded for a number of different regions.

The complexity in the pattern of movement is also apparent in the occupational differences of in and out movers (see Table 21b). The movement into the Core is largely of high-status occupations; the movement out is largely tradespersons and labourers. The intra-suburban links are more even though the region is losing managers and administrators to almost all other regions.

TABLE 21a RESIDENTIAL RE-LOCATION 1991-1996, INNER SOUTH EAST AND SELECTED REGIONS BY INDUSTRY GROUP, MELBOURNE

	NEW ECONOMY	DISTRIBUTION AND TRANSPORT	OLD ECONOMY	MASS GOODS AND SERVICES PROVISION	CONSTRUCTION	MASS RECREATION	OTHER	TOTAL
CORE TO INNER SOUTH EAST	937	383	572	1207	101	267	474	3941
INNER SOUTH EAST TO CORE	1345	449	278	1295	107	480	405	4359
INNER SOUTH EAST GIAN/LOSS	**-408**	**-66**	**294**	**-88**	**-6**	**-213**	**69**	**-418**
INNER EAST TO INNER SOUTH EAST	3184	1695	1985	4279	763	723	1720	14349
INNER SOUTH EAST TO INNER EAST	2856	1083	1096	3355	475	624	1181	10670
INNER SOUTH EAST GIAN/LOSS	**328**	**612**	**889**	**924**	**288**	**99**	**539**	**3679**
PENINSULA TO INNER SOUTH EAST	452	322	387	978	203	150	385	2877
INNER SOUTH EAST TO PENINSULA	612	370	511	1336	329	234	565	3957
INNER SOUTH EAST GIAN/LOSS	**-160**	**-48**	**-124**	**-358**	**-126**	**-84**	**-180**	**-1080**
OUTER SOUTH EAST TO INNER SOUTH EAST	203	150	194	407	108	96	223	1381
INNER SOUTH EAST TO OUTER SOUTH EAST	290	298	347	585	194	95	334	2143
INNER SOUTH EAST GIAN/LOSS	**-87**	**-148**	**-153**	**-178**	**-86**	**1**	**-111**	**-762**
OUTER EAST TO INNER SOUTH EAST	655	479	627	1021	288	137	519	3726
INNER SOUTH EAST TO OUTER EAST	674	365	498	893	219	141	424	3214
INNER SOUTH EAST GIAN/LOSS	**-19**	**114**	**129**	**128**	**69**	**-4**	**95**	**512**

Source: ABS, Customised internal migration matrix, 1996 Census

TABLE 21b RESIDENTIAL RE-LOCATION 1991-1996, INNER SOUTH EAST REGION AND SELECTED REGIONS BY OCCUPATION, MELBOURNE

	Managers & Administrators	Professionals and Assoc. Professionals	Advanced Clerical & Service Wkrs	Int Clerical Sales Service Wkrs	Elem Clerical Sales Service Wkrs	Tradespersons and Intermed Prod and Transport Workers	Labourers & Related Workers	Inadequately described	Not stated	Total
CORE TO INNER SOUTH EAST	232	1415	184	607	303	840	290	27	43	3941
INNER SOUTH EAST TO CORE	334	1882	239	938	323	424	147	39	33	4359
INNER SOUTH EAST GAIN/LOSS	**-102**	**-467**	**-55**	**-331**	**-20**	**416**	**143**	**-12**	**10**	**-418**
INNER EAST TO INNER SOUTH EAST	888	4321	720	2630	1117	3493	874	153	153	14349
INNER SOUTH EAST TO INNER EAST	970	3940	535	1817	777	1890	537	84	120	10670
INNER SOUTH EAST GAIN/LOSS	**-82**	**381**	**185**	**813**	**340**	**1603**	**337**	**69**	**33**	**3679**
PENINSULA TO INNER SOUTH EAST	185	770	131	482	268	754	220	28	39	2877
INNER SOUTH EAST TO PENINSULA	362	1085	235	550	367	986	290	33	49	3957
INNER SOUTH EAST GAIN/LOSS	**-177**	**-315**	**-104**	**-68**	**-99**	**-232**	**-70**	**-5**	**-10**	**-1080**
OUTER SOUTH EAST TO INNER SOUTH EAST	94	317	67	237	116	393	135	12	10	1381
INNER SOUTH EAST TO OUTER SOUTH EAST	157	464	126	316	180	628	204	42	26	2143
INNER SOUTH EAST GAIN/LOSS	**-63**	**-147**	**-59**	**-79**	**-64**	**-235**	**-69**	**-30**	**-16**	**-762**
OUTER EAST TO INNER SOUTH EAST	248	895	157	623	323	1107	283	51	39	3726
INNER SOUTH EAST TO OUTER EAST	229	941	162	563	258	758	234	30	39	3214
INNER SOUTH EAST GAIN/LOSS	**19**	**-46**	**-5**	**60**	**65**	**349**	**49**	**21**	**0**	**512**

Source: ABS, Customised internal migration matrix, 1996 Census.

These industrially and occupationally selective residential movements can be linked to changes in journey-to-work patterns. A proportional decline in in-bound journey-to-work movement from the Inner East region, for example, might be associated with the net gain in residents now living in the Inner South East region in 1996. Similarly, the increased journey-to-work flow from the Outer regions to the Inner South East is mirrored by a residential relocation in favour of these regions.

2.4.3 Implications of Mid-suburban Housing and Job Linkages

The analysis of the interdependent changes in jobs and housing in this middle suburban region reinforces some of the findings of the Core region analysis reported above. It is clear that the regional scale linkages between houses and jobs within the metropolitan region have been strong in the past and remain so. The experience of this region also indicates that the links are becoming further refined in the sense that they are expressed more sharply through selected social and industrial groups. The complexity of the results at the regional level illustrates the important role that the geography of employment plays in suburban development. This suggests that concerns about job mix and job accessibility may be as important in the planning of metropolitan development and the future of housing markets than housing density and population numbers.

The results also confirm that the suburban development process is the result of some important links between job availability, job numbers and housing opportunities, and that the growth process involves as much movement between established suburbs as it does between suburbs and the fringe.

It is also clear that the middle suburban job market has some impact on the outer suburban housing market, both through the decisions of commuters who find an outer area house and travel to a mid-suburban job, and also through the decisions of mid-suburban residents to seek outer-suburban housing. The numbers involved here are smaller than the numbers moving between the larger labour and housing markets within the middle suburbs, but the trends in the change suggest that outer area development will continue as long as mid-suburban job growth remains buoyant.

This perspective involves a broader set of questions concerning metropolitan development and policy which are outlined in the final section of this report.

3. SUMMARY AND IMPLICATIONS

3.1 Introduction

This project has found that there are strong and stable geographic links between housing markets and labour markets within the Melbourne metropolitan area. These links are of two kinds. First, most connections between job and house are made within a region; if people travel outside their own region for work, it is often to an adjoining region. Second, people move residence and these moves, too, are mostly either circumscribed within the region where people already live, or involve a move to an adjoining region. Closer study of these aspects shows that the number of jobs and regional specialisation in particular types of jobs have a significant impact on the strength of housing market-labour market links. It is also apparent that the linkage between jobs and houses is in part shaped by the residential re-location of people in particular industries and occupations from one region to another, often involving a move toward regions where those industries or occupations are particularly prominent. These regional scale linkages attest to the importance of the geography of employment as an influence upon the structure of a metropolitan area, and the need for metropolitan policy to incorporate employment matters into the creation of policy on housing location.

The strength and direction of the change in these linkages varies across a metropolitan area, primarily because the number and mix of jobs varies. This means there are two very general processes that are shaping and reshaping the structure of a metropolitan region. On the one hand, there are regions that have high self-containment. These are usually specialised in a particular type of work, which induces residential re-location of workers in that activity, which maintains the self-containment ratio. This suggests *people follow jobs*, and in the case study on Melbourne this could be seen in the location of jobs and employees in the new economy in the Core and in the old economy in some middle suburbs. At the same time, there are regions that have lower self- containment, and these often have fewer jobs, and a diversity of jobs; residential relocation occurs here also, but it is not as obviously shaped by the geography of employment.

These are regions where population growth is running ahead of job growth. However, in these cases the population growth induces expansion in a range of population serving jobs. Local jobs, therefore, become available and are largely taken by regional residents, so that over time the self-containment level will begin to rise.

These findings have a number of implications which are discussed in the following sections.

3.2.1 Metropolitan Development in a Global World: A New role for the Core

During the 1990s, the Australian Government, Victorian Government, and government departments involved in urban planning, together with various business interests enthusiastically promoted an international role for Melbourne.

Labor Prime Minister, Paul Keating, posited the challenge of making Australia one of the '…best places in the world to live and do business…' (Keating, 1994: 5). For Keating, a central problem was how to create cities that were at once 'livable', economically relevant to the international market place, and able to attract international firms and corporate elites.

The Federal Government's view of the role of Australian cities was mirrored in *Creating Prosperity*, a report that was prepared jointly in 1994 by the Victorian Government and the Melbourne City Council (Victorian Government and Melbourne City Council, 1994). *Creating Prosperity* provides an insight into the underlying

perspective of the Victorian Liberal Government and sections of the business establishment as to the contemporary role of Melbourne as a capital city. The report emphasised the need to make Melbourne internationally competitive in attracting the globally 'footloose' sectors of the new economy, particularly in the information sector, and focused on a range of concerns important to the promotion of Melbourne as an international city "…that is exciting and *welcoming to all people*…", including the provision of attractive retailing, environmental quality, the marketing of education to an international clientele, and the staging of 'world-class' cultural and sporting events (Victorian Government and Melbourne City Council, 1994: 2-3)(our emphasis).

Therefore, central to the task of making Melbourne internationally relevant was the reincarnation of inner Melbourne as an attractive place for internationally orientated new-economy elites. In part, the promotion of higher-density residential development within the central city area reflected the goal of generating international appeal:

> ... the City is *strengthened as a place for business by the increasing availability of a* wide choice *of housing*. (Neilson, 1995: 33)(Our emphasis)

There is no doubt that the internationalist place-marketing strategies of the Victorian Government during the 1990s facilitated the transformation of the Melbourne Core region into a distinctive socio-economic entity, increasingly characterised by a new-urban elite with a cosmopolitan cultural outlook and lifestyle. This is both advocated and reflected in the widely disseminated 1998 Victorian Department of Infrastructure publication *From Doughnut City to Cafe Society* which promoted medium-density, new-urbanist, residential development in inner Melbourne as a necessary response to international economic and cultural trends (DOI, 1998).

The tendency for the job and housing locations of persons employed in Melbourne's ascendant and declining industry sectors to become more spatially distinct appears to be consistent with international developments associated with economic globalisation and the emphasis given to the marketing of cities as global nodes or international gateways. Sassen, for instance, argues that the operation of the contemporary global economy, rather than dispersing the functions of power and command, relies upon a continued concentration of power, exercised through a 'worldwide grid of strategic places' for the servicing and financing of international trade and investment (Sassen, 1998). This power structure sets in motion a 'whole series of new dynamics of inequality'. A 'new geography of centrality and marginality' emerges, not simply between cities integrated into the new grid of global command and those still reliant upon traditional economic sectors, but within the new command centres themselves. Old inequalities are reproduced, as well as those 'specific to current types of economic growth' (Sassen, 1998: XXII – XXV):

> ...cities that are strategic sites in the global economy tend, in part, to become disconnected from their region and even nation... metropolitan business centers receive massive investments in real estate and telecommunications while low-income city areas are starved for resources...Highly educated workers in leading sectors see their incomes rise to unusually high levels whole low- or medium skilled workers in those same sectors see theirs sink... These trends are evident, with different levels of intensity, in a growing number of major cities in the developed world and increasingly in major cities of some of the developing countries... (Sassen, 1998: XXVI-XXVII)

Consistent with Sassen's argument, a consequence of the 1990s policy of promoting Melbourne as an international city has been the increasing spatial separation of specific labour-market groups within the Melbourne metropolitan area. In this way, policy focussed on inner area residential density has led to the Core

region becoming socially and economically distinctive and separate from the suburbs.

Although much attention on the Core focuses on employees in the new economy, the pattern of residential re-location of mass recreation employees described earlier reinforces the distinctiveness of the Core compared with the remainder of metropolitan Melbourne in terms of lifestyle and industry structure. Such an influx of employees in service jobs that are often person-to-person in nature is in part attributable to the Core's specialisation in the new economy. The coupling of a specialisation in high-end new-economy job growth with growth in in-persons services, including considerable lower level, part-time service employment, fits squarely with Reich's (1991) analysis of these two categories of jobs. Reich emphasised the growing importance of person-to-person services that develop in conjunction with the ascendancy of an elite within the new economy, which he labelled symbolic analysts. Reich used the term 'symbolic analyst' to signify the growing category of analytic personnel who specialised in strategic problem solving and the manipulation of abstract information in a non-standard way, closely linked to the activities of multinational corporations, and who were in a position to trade their skills globally.

It is not implied that only the new-economy elite utilises the services of those who work in the mass recreation sector. So do many others, including a broad spectrum of workers who deal with information in a more routine way, -- predominantly made up of university-trained professionals -- who often share the cosmopolitan values and lifestyle of those who are symbolic analysts in the strict sense. In person and other lifestyle services are also utilised by an increasing volume of international travellers. As cities like Melbourne become host to an ever-larger temporary population – including visiting and temporary-resident business persons and tourists – demand grows for an ever-broader range of in-person services.

The growing spatial demarcation between new and old-economy jobs and residential locations within the Melbourne metropolitan area means that the Core region is increasingly separate from the remainder of the metropolitan area in functional and cultural terms. The image of a metropolitan Core, the primary function of which is to serve the interests of the metropolitan area as a whole, is now largely outdated. In many respects, the Core is job and skill rich, housing-expensive and an increasingly exclusive region. Indeed, a major contradiction within contemporary metropolitan Melbourne is the existence of an economically significant region that is becoming increasingly inaccessible as a place of residence. The residential re-location data outlined above suggest that the boom in medium-density residential development, much of which occurred within the Core during the 1990s, has intensified this exclusiveness, largely reflecting the growth of the high-level service industries and the attendant shift in job structure towards the lifestyle servicing activities that are associated with them.

The existence of an increasingly job and skill rich, but residentially exclusive Core region raises further issues concerning the nature of spatial polarisation within metropolitan Melbourne. As suggested above, the spatial distinctiveness of the Core region involves more than simply differences relating to industry and occupational make-up and labour-market restructuring in a narrow sense, but also involves a shift in the politico-cultural character of inner Melbourne relative to the remainder of the metropolitan area.

This outcome reflects Sassen's idea that the structural shift from a manufacturing and mass production based economy to a service-dominated economy (along with the dispersion of income and occupational outcomes) has contributed to the emergence, not only of new work relations, but new social strata and cultural forms

(Sassen, 1989: 61). While acknowledging that inner city concentrations of wealthy residents within cities are not new, she argues that contemporary large-scale residential and commercial gentrification within cities, along with the demand for low-cost goods and services to meet changed life-style preferences, is new (Sassen, 1989: 64).

The urban policy shift in Australia that has contributed to the new core outlined here appears to have been linked to the values and interests of two distinct social forces -- free market advocates and elements of the left-liberal intelligentsia who have largely driven urban gentrification. Arguably, these interests converged in context of the inner-city place marketing agenda of the 1990s. The common ideological ground for these social groups centred on the notions of 'flexibility', 'diversity' and 'openness' and the idea that society had entered a period of accelerated cultural and economic change associated with new information and communication technologies. For free-market advocates, these terms denoted an historic opportunity to overcome the perceived economic burden of inherited regulatory practices. For many amongst the new urban gentry on the other hand, these ideals represented an opportunity for cultural emancipation and for harnessing the perceived potential of a host of previously suppressed social and cultural tendencies.

From the standpoint of many critics of inherited urban form, greater diversity of housing styles, perceived as better reflecting contemporary demographic diversity, represented a form of 'resistance' to the strictures of 'modernist' conformity. Diversity-sensitive notions of urban form, including higher-density residential development, were typically set against stereotyped images of an homogenous, impersonal and culturally moribund suburbia.

Harvey has noted the potential for the alignment of the above two perspectives:

> A...case can be made that the trend away from urban based modernism in design, cultural forms and life style towards postmodernism is also connected to the rise of urban entrepreneurialism [a market orientated, entrepreneurial approach to the development of cities as opposed to a traditional managerial approach]. (Harvey, 1989: 51)

Arguably, the shift in urban policy in favour of medium-density residential development, and the associated condemnation of 'sprawl', has been largely an artefact of the political and ideological concerns of these distinct and influential social strata. The specific interests and preferences characteristic of the new-economy elite have had a disproportionate influence upon urban policy development. They derive power from their structural position within the national and global economies and from the very nature of their activity – symbolic manipulation and interpretation central to strategic corporate and governmental activity. The interests of this group are also strongly represented in government place-marketing and other policy areas. Indeed, the redefinition of cities as essentially international in part reflects the cosmopolitan world-view and values of the new-economy elite. As a consequence, the potential for inner Melbourne to become a region at significant cultural variance with the lifestyle and values of suburban Melbourne is significant. As Sassen argues, the globalisation of cities can lead to an 'unmooring' of identities:

> Major cities have emerged as a strategic site not only for global capital but also for the transnationalization of labor and the formation of transnational identities. (Sassen, 1998: XXX)

The frequent and often vague criticism of suburbia being 'sprawl' appears to be an expression of such a cultural divide.

Many policy makers and advisers now fall within these social strata. This interpretation of policy change helps explain why contemporary urban policy has altered so decisively from past practice without having substantial popular support or an overwhelming body of empirical evidence to recommend it. As Breheny (1996) has pointed out in the UK context, policy makers and governments, in pursuing urban consolidation, have raced ahead of academic debate about how effective consolidation measures are likely to be in achieving 'sustainability' and '...it is not yet possible to say with any confidence which policies will have what effects' (Breheny, 1996: 13). According to Breheny, the implications of urban consolidation policy are far reaching indeed:

> ...when the broader economic, social and cultural repercussions are taken into account, it soon becomes apparent that nothing less than the future of western lifestyles is at stake. (Breheny, 1996: 13)

There is the risk that the spatial distinction that has now emerged between the Core region and the remainder of the Melbourne metropolitan area will extend beyond differences in labour-market structure, to cultural and political differences of a more fundamental and oppositional kind. It is, in a sense, a challenge to the future of a Melbourne lifestyle with strong roots in the past. When seen from this perspective, and supported by the journey-to-work and residential re-location data analysis here, it is apparent that metropolitan policy has contributed to very serious re-alignments in the socio-economic character of the metropolitan area. Refinements of the present policy perspective to incorporate a better understanding of the geography of employment are needed. This is especially relevant given the impact of this policy perspective, together with housing-market and labour-market trends, upon the development of the suburbs.

3.3 The Development of the Suburbs

This project has made clear that in the suburbs of Melbourne there are very geographically constrained linkages between regional housing and labour markets. In effect, this means there is a well-ordered process underpinning suburban growth. Perhaps the strongest evidence of this is the very small amount of commuting from one sector of the metropolitan area to another. At the sector level, the north and the west of Melbourne have little to do with the east and the south. At that level individuals make house and job location decisions on information limited to a part of the metropolitan area. Secondly, as noted above, the Core region is increasingly operating as a separate unit with strong regional interdependencies of its own. Third, the results showed strong regional scale links between two parts of middle suburban eastern and southern Melbourne. Finally, there are links between the middle and the outer suburbs. These observations mean that suburban development emerges from a complex set of interdependencies expressed at a regional scale.

One important consequence is that policy development designed to reduce the rate of suburban growth (usually based on the notion that it is sprawl and so is problematic) will need to be complimented with actions associated with the location and type of employment to be really effective.

This consideration has another aspect. The linkages displayed here have definite occupational and industrial features, in that the inter-suburban links between the middle, outer and fringe areas are shaped largely by the employment opportunities in the old economy and the population-related jobs in mass services. This is not to say that new-economy jobs do not exist there, nor that new-economy workers do not move to the outer and fringe areas, but that they are smaller in number. A more serious consequence emerges from the link between job specialisation and

residential relocation. The research found that areas of old-economy specialisation, for example, recorded a net in-movement of old-economy workers. These two features of the suburban development process lay the foundation for spatial inequality as residents of outer suburban areas have access to what are probably less well-paid and less secure jobs, and their re-location behaviour might add more labour of the same industry type over time. The outcome of this process has been detected in particular in the north and west of Melbourne.

This insight corroborates an increasing body of research that points to a growing spatial disparity of wealth and opportunity in Australian metropolitan areas, as a number of researchers have shown how an increasingly job rich and residentially-exclusive Core region (displayed by Brain and Baum et al.) is paralleled by the concentration of disadvantage in some middle suburban regions.

Gregory and Hunter (1995) who showed growing household income inequality in Australia between 1976 and 1991 presented initial insight on this matter. Conducting their analysis at the census 'collector district' or neighbourhood level, the authors concluded that there was one Australia for the work and income rich and another Australia which was becoming economically marginalised and spatially isolated (Gregory and Hunter, 1995). The authors pointed to the operation of '... a continual geographic sorting process '... whereby households undergoing declining incomes shift residence to poorer areas and vice versa' (Gregory and Hunter, 1995: 5). This argument is consistent with the patterns of residential relocation displayed here. The authors also suggest that the significant loss of manufacturing sector jobs had had a disproportionate negative impact on employment in low socio-economic neighbourhoods (Gregory and Hunter, 1995: 21). The more recent research by Baum et al. (1999) ranked these localities by level of social opportunity or disadvantage.

In this study, the category deemed the most severely disadvantaged was the one most closely identified with traditional manufacturing employment. Five of the nine localities within the Melbourne metropolitan area identified by Baum et al. 1999: 48) with 'extremely vulnerable old manufacturing economy' fell within the Inner North/Inner West region used in the present study. Two other localities so identified fell within the Inner South East region.

The present study found these two regions had a net gain of labourers in the old economy through residential re-location between 1991 and 1996, and both had an over-representation of old economy jobs and old economy workers as residents relative to Melbourne overall (O'Connor and Healy, 2001: 114-115, www.ahuri.edu.au/pubs/index.html).

These outcomes can affect overall regional development. The Inner North/Inner West region, for example, has been losing share of total employment in Melbourne, as its overall job growth in the recent past has been slow. The long-term potential is for localised concentrations of seriously disadvantaged labour-market groups. This prospect is less likely in the Inner South East region as it has been gaining jobs and has job opportunities in a broader range of activities.

The contrast between these two areas, perhaps contributes to an observation in the Baum study that Melbourne was the:

> ... metropolitan city region in Australia with the greatest extremes in the distribution of its SLAs [Statistical Local Areas] along the community opportunity-vulnerability continuum...it is the city with the greatest degree of social polarisation. (Baum et al. 1999: 127).

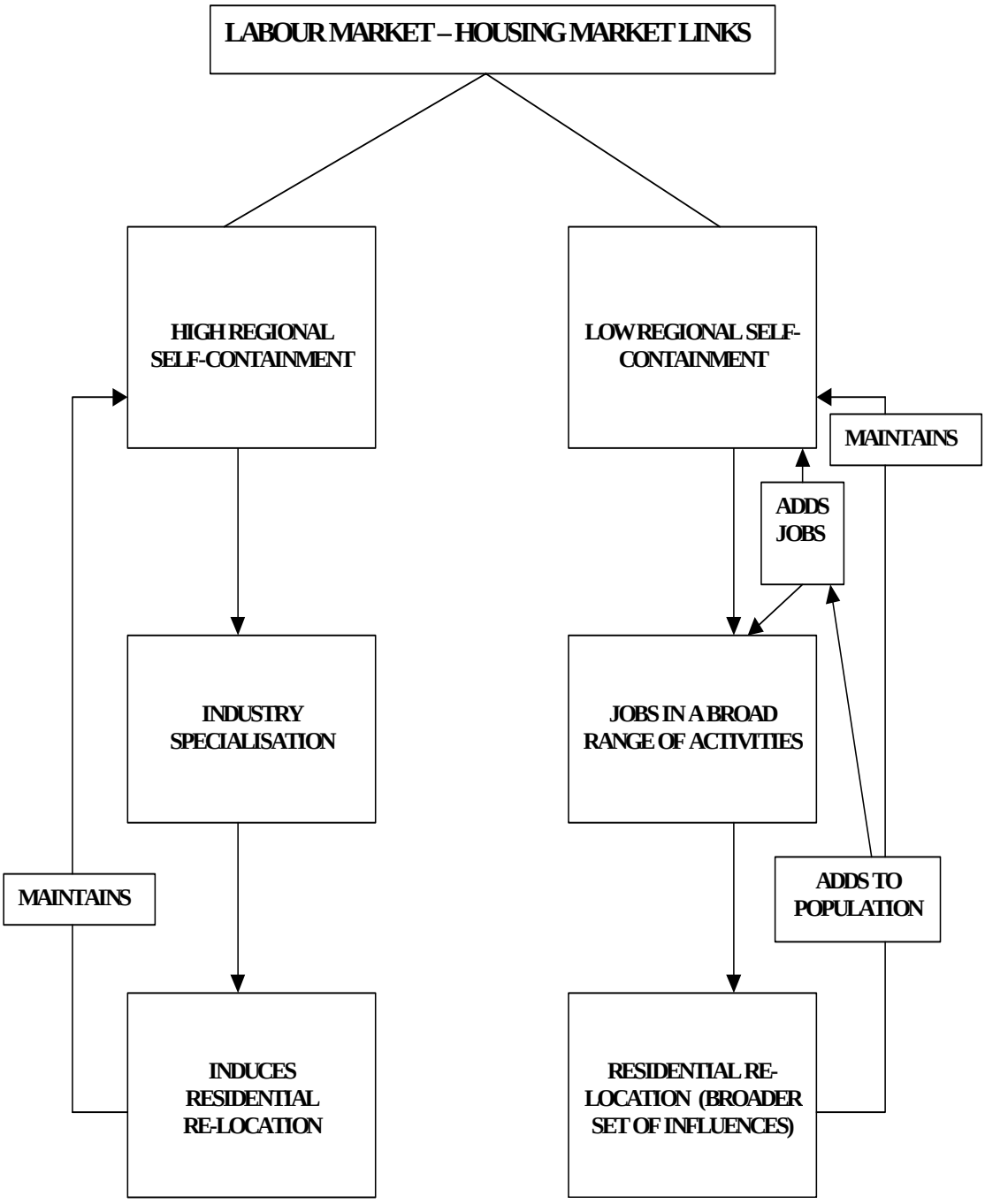
It is important to note that the two regions discussed here are not fringe regions. Rather, they are older industrial areas embedded in what are now mid-suburban areas as development of new residential suburbs and new commercial and industrial

zones has moved beyond them. This means that the old notion that all the metropolitan labour market and housing market problems were on the fringe is misleading. More serious problems exist in some of the older middle and outer suburbs.

Hence, suburban development is the outcome of a complex set of labour market and housing market linkages. It is not really 'sprawl', but an ordered process whereby households find housing in locations where it is possible to reach jobs, and re-arrange those links as housing and job circumstances change. This is not a trouble free process however, and in a number of cases shifts in housing location are associated with limited job availability. This means that policy in the housing market, which attempts to deal with the price, and availability of homes cannot simply proceed on the basis of numbers and density. Rather, knowledge of the number, type and location of jobs needs to be taken into account in any decision associated with the distribution of suburban housing.

DIAGRAM 1. MELBOURNE LABOUR MARKET-HOUSING MARKET LINKS

'PEOPLE FOLLOW JOBS'	**'JOBS FOLLOW PEOPLE'**
***NEW-ECONOMY IN CORE**	***MASS SERVICES IN OUTER**
***OLD ECONOMY IN MIDDLE SUBURBS**	**REGIONS**



3.4 General Implications

3.4.1 The Demographic Imperative for Higher-Density Housing?

The consolidation of a metropolitan Core region that is job and skill-rich, lifestyle-orientated and underpinned by a strong specialisation in new economy activity compared with other metropolitan regions raises questions about the validity of a position that is now widely taken for granted in urban policy debate. It is the view that the shift in residential development away from single detached housing in favour of alternative, usually higher-density, residences, including multi-unit apartments, units and flats is a more or less simple and direct reflection of demographic changes in the population. Population ageing, greater longevity, declining fertility rates, the increased incidence of non-marriage, childlessness, and single parenthood are cited,

mantra-like, as the drivers of changing housing preferences. As society becomes more demographically diverse, so needs and preferences become more diverse, and so housing choice, too, must become more diverse – and so the story goes. Increased residential densities, according to this logic, are pretty much an automatic outcome of diversifying preferences and greater market choice. Essentially, according to this view, the market has followed demography, or, the market, in having created the possibility of greater choice, has liberated the hitherto constrained potential of demographic diversity. This type of explanation of the dramatic shift in urban policy and available housing types can be found in almost any government or departmental policy or discussion paper on metropolitan development in the past decade (See EV, 1996; DOI, 1998).

This simple causal scenario usually pays scant, if any, attention to the shifts in the location and number of jobs outlined here. It also ignores major political interventions that were necessary to bring about these housing changes, including the widespread suspension of elected municipal governments. Similarly, little attention is usually given to the intensive marketing and promotion of medium-density inner city living that accompanied and responded to political intervention. The shake out of the early 1990s recession lead to the involvement of influential new players in the Victorian housing market who a had a special interest in the promotion of multi-unit, medium-density housing (Burke and Hayward, 2000: 27-28). Indeed, the very idea of a simple, uncomplicated linkage between demographic complexity and new directions in housing provision might be better understood as a conceptual marketing device, rather than as an unclouded observation of social change. The functions of builder and developer, which previously had been mostly separate, were now often combined, in a process that was more obviously speculative, '...the larger builders...[using] their marketing muscle to pre-sell sufficient units to minimise the risk...' (Burke and Hayward, 2000: 28). Rather than being the expression of some pervasive demographic imperative, the speculative environment, in itself, created by the deregulation of building codes and the conspicuous involvement of new medium-density builders/developers, appears to be important in explaining the ready market for alternative housing types as they appeared. As Burke and Hayward point out, similar shifts in demography overseas have lead to very different housing responses:

> Consumers are the key actors in the system of provision in that their preferences and expenditures determine where and what housing is provided. However, they do not do this in isolation from the economic and institutional contexts in which they operate. Thus while many western countries have similar age, household and lifecycle patterns, there are considerable variations in how this translates into tenure, housing type and locational outcomes. (Burke and Hayward, 2000: 30)

A more adequate explanation of the apparent acceptance of alternative, medium-density housing in the Core region, where the greater proportion of this construction has occurred, may be developed by considering the importance of job availability and new job generation. As noted above, an analysis of journey-to-work data for 1996 shows that the Core region offered job-resident ratios far in excess of any other region. This was not simply for high-level new-economy jobs, but across a wide range of industries and skill levels, including the high-growth mass goods and services and mass recreation sectors. So far as job availability is concerned, the Core is the place to be. Apart from the demographic factors typically cited, and the highly speculative environment surrounding Core real estate development during the 1990s, the rapid up-take of medium-density housing in the Core almost certainly reflected the attractiveness of the region as a unique and prosperous labour market within the metropolitan context. The up-take of alternative housing may not have reflected the changing demographic 'needs' of a diversifying population, so much as

the sorts of housing compromises or trade-offs people were willing to make in order to gain residential access to a uniquely job rich, but residentially expensive region. If an additional supply of standard, detached housing could have been created in the Core, it may have been taken up just as enthusiastically as the new medium-density forms. This insight could be confirmed by further research on the tenure and housing type of movers. Further, it is difficult to distinguish the much-emphasised cultural appeal of many Core areas from the region's labour-market appeal, as many of the available jobs are associated with the servicing of lifestyle activities.

3.4.2 Metropolitan Fringe Development.

The socio-economic disparities, which are evident in the changing nature of job-housing links, are not primarily expressed in a contrast between the metropolitan Core and fringe areas. The data discussed above show that specific old-economy localities within the middle suburbs are the areas within Melbourne most adversely affected in socio-economic terms. This is significant because anti-'sprawl' advocates frequently assume that low-density suburban growth on the metropolitan fringe is synonymous with under servicing and the creation of relative disadvantage.

Even though residential movement to the metropolitan fringe may often be motivated by the availability of relatively inexpensive housing rather than job opportunities, it should not be assumed that this option is linked to disadvantage in the way that anti-'sprawl' arguments often suggest. As Maher (1994) has argued, the choice of a suburban fringe location does not necessarily involve locational disadvantage. In choosing a fringe residential location, many people may substitute mobility for proximity to work in a complex set of trade-offs between limited local job availability on the one hand, and open space, the newness of an area, cultural compatibility and access to various other amenities and lifestyle options on the other. As the data examined in the regional case study of the Inner South East suggested, residential re-location from that region to outer suburban areas was often likely to do with an upgrading of housing stock by persons, some of whom may not otherwise have been able to afford to do so, while retaining a job in the middle suburbs.

3.4.3 Locational Disadvantage and Medium-Density Residential Policy

In turn, the observation that particular middle-suburban areas are the most socio-economically depressed challenges the view that labour market disadvantage, particularly unemployment, in depressed suburban areas reflects poor proximity to available jobs. The middle-suburban character of some acutely disadvantaged locations in Melbourne, together with the relatively prosperous labour-market conditions in the areas immediately surrounding such locations, suggests that a mismatch between work-force skills and the skill requirements of available jobs is a more likely explanation. Other factors, including ethnic and linguistic isolation have been identified as significant contributing factors (Healy, 1996). The examination of the Inner South East region showed that although this region included the most acutely depressed parts of the city of Dandenong, the region as a whole performed relatively well in terms of job and residential growth. This region also had high self-containment rates across a range of industry areas. Therefore, it would seem that the high unemployment rates in Dandenong are not due to lack of jobs or poor proximity to jobs, as Birrell, Rapson and O'Connor (1999) have discussed in a study of two mid suburban labour markets.

Beyond highlighting the fact that fringe development, as such, does not have the explanatory power often ascribed to it in anti-'sprawl' arguments concerning the creation of relative disadvantage in metropolitan areas, this observation also underscores the inherent weakness of new-urbanist policy perspectives that focus one-sidedly upon increasing residential densities as central to solving perceived social, economic and cultural problems in contemporary society.

3.4.4 Job Location and Urban Policy: New Potential for Government Involvement

The thrust of the research reported here is that housing policy cannot be expressed independently of an adequate understanding of the spatiality of jobs and the nature of job-housing links. In this respect, there has been a serious inadequacy in urban policy, particularly during the period of continued rapid economic restructuring of the 1990s, in that there has been a one-sided focus upon population densities and residential development. The limitations of this approach in part account for the mono-centred place-marketing approach to Melbourne's development during the 1990s, whereby it appears to have been thought that if the metropolitan core could be made internationally relevant and an attractive place to internationally mobile business elites, this would be sufficient to ensure a prosperous future. According to this influential perspective, the remainder of metropolitan development was considered of secondary importance.

While a return to a multi-nodal approach to metropolitan development would be a significant advance, the success of such a policy would be limited if the focus of policy attention remained fixed on population growth, and residential location and densities. A more pro-active approach by the Victorian Government in influencing industry location and job growth would mitigate against the significant spatial inequalities that have come to characterise the Melbourne metropolitan area. Various incentives might be used to induce some existing businesses to re-locate to areas of existing job need, and new businesses to establish in selected areas, for example in the suburbs encompassed by the Inner South East and Outer South East regions of Melbourne, where large numbers of school leavers will be located within the next ten years. While the Victorian Government has made efforts in the past to encourage the location of businesses in regional Victoria which has been hard hit by economic restructuring, a strategic approach to influencing the location of business within the metropolitan areas has been lacking. In light of this, it is instructive that eleven local governments in the south east of Melbourne are presently acting *en bloc* in lobbying the Victorian Government and business, home and abroad, to establish within their joint jurisdiction.

A pro-active approach by government to business location could have the added advantage of enhancing regional self-containment rates beyond their present levels. As the research has shown, industry over-representation (specialisation) within a region is strongly associated with high self-containment rates for the industries concerned. Therefore, problems of air quality and road traffic congestion might be alleviated to some degree by an approach which seeks to concentrate appropriate industry sectors in designated regions, thereby minimising work journeys. The high rates of residential churning observed in the data suggest that deliberate industry concentrations would likely be reflected relatively quickly in the residential movement of those sections of the work force who stand to benefit from employment in the industry concerned.

Such an approach to job location might also be used to counter the affects of stagnation in job growth in some of the more depressed suburbs of Melbourne. This would not necessarily be a formula to resolve the unemployment problems of the most severely disadvantaged labour-market groups in these locations because, as noted above, unemployment does not necessarily result from poor proximity to jobs. Additional, targeted job creation and labour training programs may be needed to help address the mismatch of worker skills and experience with the requirements of available jobs. Nevertheless, government efforts to locate businesses in depressed areas may help alleviate problems associated with heavy residential concentrations of social disadvantage. A broadening of the socio-economic mix in depressed areas is a goal that might at least in part be achieved by the locational targeting of job creation.

A pro-active approach by government to the strategic location of jobs may also require a pro-active role for government in ensuring that affordable, low-cost housing is available in job growth areas. As noted above, a serious problem that has arisen from the largely mono-nodal approach of the 1990s has been that the region of greatest job growth, the Core, has become increasingly residentially exclusive. The explosion of medium and higher-density residential development in the Core during the 1990s has not delivered low-cost housing, although new-urban rhetoric typically stresses this as a benefit of urban consolidation. Low-cost housing is not a necessary outcome of urban consolidation. Should the Victorian Government assume greater control over the location of jobs, greater state intervention may be required to ensure the provision of low-cost housing in designated job growth areas. This could be achieved by a compulsory provision of lower cost housing in the development of all residential developments, including higher density projects. Even within the present situation, it may be beneficial for the state to assume greater control over the provision of low-cost housing within the job-rich Core region, as the private housing market has not proven effective in this respect. Such provision would need to extend far beyond present state involvement in housing for the most socially distressed to encompass a much broader range of low-income households. Only on such a scale of state involvement would it be possible to have any significant impact on overall journeys-to-work distances, the enhancement of regional self-containment and environmental outcomes.

APPENDIX A:

RESIDENTIAL RELOCATION FROM THE CORE TO OTHER REGIONS 1991-1996 BY INDUSTRY GROUP

	INNER EAST	INNER SOUTH EAST	INNER NORTH/INNER WEST	OUTER NORTH	NORTH EAST CORRIDOR	OUTER EAST	OUTER WEST	OUTER SOUTH EAST	PENINSULA.	REST OF VIC	REST OF AUST.	TOTAL
						PERSONS						
NEW ECONOMY	5067	937	2338	431	616	352	429	21	117	905	3182	14395
DISTRIBUTION AND TRANSPORT	1588	383	1479	259	225	122	364	9	33	407	1374	6243
OLD ECONOMY	1288	572	2658	495	222	136	418	3	39	463	652	6946
MASS GOODS AND SERVICES PROVISION	5889	1207	3831	660	1093	563	671	35	217	2467	4734	21367
CONSTRUCTION	533	101	515	105	126	39	99	3	12	178	339	2050
MASS RECREATION	1398	267	740	131	159	74	121	6	76	593	1721	5286
OTHER	1692	474	1559	239	278	169	256	25	61	919	1408	7080
TOTAL	17455	3941	13120	2320	2719	1455	2358	102	555	5932	13410	63367
						PER CENT						
NEW ECONOMY	35.2	6.5	16.2	3.0	4.3	2.4	3.0	0.1	0.8	6.3	22.1	100.0
DISTRIBUTION AND TRANSPORT	25.4	6.1	23.7	4.1	3.6	2.0	5.8	0.1	0.5	6.5	22.0	100.0
OLD ECONOMY	18.5	8.2	38.3	7.1	3.2	2.0	6.0	0.0	0.6	6.7	9.4	100.0
MASS GOODS AND SERVICES PROVISION	27.6	5.6	17.9	3.1	5.1	2.6	3.1	0.2	1.0	11.5	22.2	100.0
CONSTRUCTION	26.0	4.9	25.1	5.1	6.1	1.9	4.8	0.1	0.6	8.7	16.5	100.0
MASS RECREATION	26.4	5.1	14.0	2.5	3.0	1.4	2.3	0.1	1.4	11.2	32.6	100.0
OTHER	23.9	6.7	22.0	3.4	3.9	2.4	3.6	0.4	0.9	13.0	19.9	100.0
TOTAL	27.5	6.2	20.7	3.7	4.3	2.3	3.7	0.2	0.9	9.4	21.2	100.0
						PER CENT						
NEW ECONOMY	29.0	23.8	17.8	18.6	22.7	24.2	18.2	20.6	21.1	15.3	23.7	22.7
DISTRIBUTION AND TRANSPORT	9.1	9.7	11.3	11.2	8.3	8.4	15.4	8.8	5.9	6.9	10.2	9.9
OLD ECONOMY	7.4	14.5	20.3	21.3	8.2	9.3	17.7	2.9	7.0	7.8	4.9	11.0
MASS GOODS AND SERVICES PROVISION	33.7	30.6	29.2	28.4	40.2	38.7	28.5	34.3	39.1	41.6	35.3	33.7
CONSTRUCTION	3.1	2.6	3.9	4.5	4.6	2.7	4.2	2.9	2.2	3.0	2.5	3.2
MASS RECREATION	8.0	6.8	5.6	5.6	5.8	5.1	5.1	5.9	13.7	10.0	12.8	8.3
OTHER	9.7	12.0	11.9	10.3	10.2	11.6	10.9	24.5	11.0	15.5	10.5	11.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: ABS, Customised internal migration matrix, 1991 Census

RESIDENTIAL RELOCATION TO THE CORE 1991-1996 BY INDSUTRY GROUP, MELBOURNE

	INNER EAST	INNER SOUTH EAST	INNER NORTH/INNER WEST	OUTER NORTH	NORTH EAST CORRIDOR	OUTER EAST	OUTER WEST	OUTER SOUTH EAST	PENINSULA	REST OF VIC.	REST OF AUST.	TOTAL
						PERSONS						
NEW ECONOMY	6733	1345	2161	398	1027	873	368	50	268	3133	4077	20433
DISTRIBUTION AND TRANSPORT	1732	449	1082	179	252	269	174	27	80	937	1313	6494
OLD ECONOMY	1031	278	1000	114	203	163	139	18	45	644	644	4279
MASS GOODS AND SERVICES PROVISION	6615	1295	2899	456	1186	869	439	84	324	4981	3703	22851
CONSTRUCTION	459	107	355	52	110	88	32		40	366	244	1853
MASS RECREATION	2314	480	802	152	376	381	147	48	165	2163	2240	9268
OTHER	1744	405	964	171	301	239	165	27	67	1221	1139	6443
TOTAL	20628	4359	9263	1522	3455	2882	1464	254	989	13445	13360	71621
						PER CENT						
NEW ECONOMY	33.0	6.6	10.6	1.9	5.0	4.3	1.8	0.2	1.3	15.3	20.0	100.0
DISTRIBUTION AND TRANSPORT	26.7	6.9	16.7	2.8	3.9	4.1	2.7	0.4	1.2	14.4	20.2	100.0
OLD ECONOMY	24.1	6.5	23.4	2.7	4.7	3.8	3.2	0.4	1.1	15.1	15.1	100.0
MASS GOODS AND SERVICES PROVISION	28.9	5.7	12.7	2.0	5.2	3.8	1.9	0.4	1.4	21.8	16.2	100.0
CONSTRUCTION	24.8	5.8	19.2	2.8	5.9	4.7	1.7	0.0	2.2	19.8	13.2	100.0
MASS RECREATION	25.0	5.2	8.7	1.6	4.1	4.1	1.6	0.5	1.8	23.3	24.2	100.0
OTHER	27.1	6.3	15.0	2.7	4.7	3.7	2.6	0.4	1.0	19.0	17.7	100.0
TOTAL	28.8	6.1	12.9	2.1	4.8	4.0	2.0	0.4	1.4	18.8	18.7	100.0
						PER CENT						
NEW ECONOMY	32.6	30.9	23.3	26.1	29.7	30.3	25.1	19.7	27.1	23.3	30.5	28.5
DISTRIBUTION AND TRANSPORT	8.4	10.3	11.7	11.8	7.3	9.3	11.9	10.6	8.1	7.0	9.8	9.1
OLD ECONOMY	5.0	6.4	10.8	7.5	5.9	5.7	9.5	7.1	4.6	4.8	4.8	6.0
MASS GOODS AND SERVICES PROVISION	32.1	29.7	31.3	30.0	34.3	30.2	30.0	33.1	32.8	37.0	27.7	31.9
CONSTRUCTION	2.2	2.5	3.8	3.4	3.2	3.1	2.2	0.0	4.0	2.7	1.8	2.6
MASS RECREATION	11.2	11.0	8.7	10.0	10.9	13.2	10.0	18.9	16.7	16.1	16.8	12.9
OTHER	8.5	9.3	10.4	11.2	8.7	8.3	11.3	10.6	6.8	9.1	8.5	9.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: ABS, Customised internal migration matrix, 1996 Census

APPENDIX B:

RESIDENTIAL RELOCATION FROM CORE TO OTHER REGIONS BY OCCUPATION, MELBOURNE 1991-1996

	INNER EAST	INNER SOUTH EAST	INNER NORTH/INNER WEST	OUTER NORTH	NORTH EAST CORRIDOR	OUTER EAST	OUTER WEST	OUTER SOUTH EAST	PENINSULA	REST OF VIC	REST OF AUST.	TOTAL
	PERSONS											
Managers & Administrators	1807	232	533	69	218	135	110	16	58	577	1787	5542
Professionals and Assoc. Professionals	8218	1415	3348	559	1337	579	555	53	268	2921	6492	25745
Advanced Clerical & Service Wkrs	918	184	489	103	121	51	91	3	15	178	519	2672
Int Clerical Sales Service Wkrs	2493	607	2096	427	350	242	476	9	60	769	1824	9353
Elem Clerical Sales Service Wkrs	1133	303	1112	215	160	108	170	6	42	296	724	4269
Tradespersons and Intermed Prod and Transport Workers	1942	840	3786	669	377	256	697	9	64	720	1314	10674
Labourers & Related Workers	586	290	1388	242	108	60	204	6	36	345	566	3831
Inadequately described/ not stated	358	70	368	36	48	24	55	0	12	126	184	1281
TOTAL	17455	3941	13120	2320	2719	1455	2358	102	555	5932	13410	63367
	PER CENT											
Managers & Administrators	32.6	4.2	9.6	1.2	3.9	2.4	2.0	0.3	1.0	10.4	32.2	100.0
Professionals and Assoc. Professionals	31.9	5.5	13.0	2.2	5.2	2.2	2.2	0.2	1.0	11.3	25.2	100.0
Advanced Clerical & Service Wkrs	34.4	6.9	18.3	3.9	4.5	1.9	3.4	0.1	0.6	6.7	19.4	100.0
Int Clerical Sales Service Wkrs	26.7	6.5	22.4	4.6	3.7	2.6	5.1	0.1	0.6	8.2	19.5	100.0
Elem Clerical Sales Service Wkrs	26.5	7.1	26.0	5.0	3.7	2.5	4.0	0.1	1.0	6.9	17.0	100.0
Tradespersons and Intermed Prod and Transport Workers	18.2	7.9	35.5	6.3	3.5	2.4	6.5	0.1	0.6	6.7	12.3	100.0
Labourers & Related Workers	15.3	7.6	36.2	6.3	2.8	1.6	5.3	0.2	0.9	9.0	14.8	100.0
Inadequately described/ not stated	27.9	5.5	28.7	2.8	3.7	1.9	4.3	0.0	0.9	9.8	14.4	100.0
TOTAL	27.5	6.2	20.7	3.7	4.3	2.3	3.7	0.2	0.9	9.4	21.2	100.0
	PER CENT											
Managers & Administrators	10.4	5.9	4.1	3.0	8.0	9.3	4.7	15.7	10.5	9.7	13.3	8.7
Professionals and Assoc. Professionals	47.1	35.9	25.5	24.1	49.2	39.8	23.5	52.0	48.3	49.2	48.4	40.6
Advanced Clerical & Service Wkrs	5.3	4.7	3.7	4.4	4.5	3.5	3.9	2.9	2.7	3.0	3.9	4.2
Int Clerical Sales Service Wkrs	14.3	15.4	16.0	18.4	12.9	16.6	20.2	8.8	10.8	13.0	13.6	14.8
Elem Clerical Sales Service Wkrs	6.5	7.7	8.5	9.3	5.9	7.4	7.2	5.9	7.6	5.0	5.4	6.7
Tradespersons and Intermed Prod and Transport Workers	11.1	21.3	28.9	28.8	13.9	17.6	29.6	8.8	11.5	12.1	9.8	16.8
Labourers & Related Workers	3.4	7.4	10.6	10.4	4.0	4.1	8.7	5.9	6.5	5.8	4.2	6.0
Inadequately described/ not stated	2.1	1.8	2.8	1.6	1.8	1.6	2.3	0.0	2.2	2.1	1.4	2.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: ABS, Customised internal migration matrix, 1996 Census

RESIDENTIAL RELOCATION OTHER MELBOURNE REGIONS TO CORE, 1991-1996 BY OCCUPATION

	INNER EAST	INNER SOUTH EAST	INNER NORTH/INNER WEST	OUTER NORTH	NORTH EAST CORRIDOR	OUTER EAST	OUTER WEST	OUTER SOUTH EAST	PENINSULA	REST OF VIC	REST OF AUST.	TOTAL
	PERSONS											
Managers & Administrators	2240	334	606	124	324	275	112	12	69	667	1639	6402
Professionals and Assoc. Professionals	10290	1882	3438	580	1719	1266	507	108	399	5229	6219	31637
Advanced Clerical & Service Wkrs	1079	239	421	94	177	119	83	6	48	549	691	3506
Int Clerical Sales Service Wkrs	3213	938	1728	314	557	573	321	54	215	2944	2374	13231
Elem Clerical Sales Service Wkrs	1548	323	758	126	238	253	102	35	106	1698	940	6127
Tradespersons and Intermed Prod and Transport Worke	1514	424	1670	205	299	270	222	27	97	1515	928	7171
Labourers & Related Workers	465	147	504	61	105	108	68	6	40	683	375	2562
Inadequately described/not stated	279	72	138	18	36	18	49	6	15	160	194	985
TOTAL	20628	4359	9263	1522	3455	2882	1464	254	989	13445	13360	71621
	PER CENT											
Managers & Administrators	35.0	5.2	9.5	1.9	5.1	4.3	1.7	0.2	1.1	10.4	25.6	100.0
Professionals and Assoc. Professionals	32.5	5.9	10.9	1.8	5.4	4.0	1.6	0.3	1.3	16.5	19.7	100.0
Advanced Clerical & Service Wkrs	30.8	6.8	12.0	2.7	5.0	3.4	2.4	0.2	1.4	15.7	19.7	100.0
Int Clerical Sales Service Wkrs	24.3	7.1	13.1	2.4	4.2	4.3	2.4	0.4	1.6	22.3	17.9	100.0
Elem Clerical Sales Service Wkrs	25.3	5.3	12.4	2.1	3.9	4.1	1.7	0.6	1.7	27.7	15.3	100.0
Tradespersons and Intermed Prod and Transport Worke	21.1	5.9	23.3	2.9	4.2	3.8	3.1	0.4	1.4	21.1	12.9	100.0
Labourers & Related Workers	18.1	5.7	19.7	2.4	4.1	4.2	2.7	0.2	1.6	26.7	14.6	100.0
Inadequately described/not stated	28.3	7.3	14.0	1.8	3.7	1.8	5.0	0.6	1.5	16.2	19.7	100.0
TOTAL	28.8	6.1	12.9	2.1	4.8	4.0	2.0	0.4	1.4	18.8	18.7	100.0
	PER CENT											
Managers & Administrators	10.9	7.7	6.5	8.1	9.4	9.5	7.7	4.7	7.0	5.0	12.3	8.9
Professionals and Assoc. Professionals	49.9	43.2	37.1	38.1	49.8	43.9	34.6	42.5	40.3	38.9	46.5	44.2
Advanced Clerical & Service Wkrs	5.2	5.5	4.5	6.2	5.1	4.1	5.7	2.4	4.9	4.1	5.2	4.9
Int Clerical Sales Service Wkrs	15.6	21.5	18.7	20.6	16.1	19.9	21.9	21.3	21.7	21.9	17.8	18.5
Elem Clerical Sales Service Wkrs	7.5	7.4	8.2	8.3	6.9	8.8	7.0	13.8	10.7	12.6	7.0	8.6
Tradespersons and Intermed Prod and Transport Worke	7.3	9.7	18.0	13.5	8.7	9.4	15.2	10.6	9.8	11.3	6.9	10.0
Labourers & Related Workers	2.3	3.4	5.4	4.0	3.0	3.7	4.6	2.4	4.0	5.1	2.8	3.6
Inadequately described/not stated	1.4	1.7	1.5	1.2	1.0	0.6	3.3	2.4	1.5	1.2	1.5	1.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: ABS, Customised internal migration matrix, 1996 Census

APPENDIX C:

TRADES, INT. PROD, TRANSPORT WORKERS AND LABOURERS BY REGION OF RESIDENCE
MELBOURNE 1996

	NEW ECONOMY	DISTRIBUTION & TRANSPORT	OLD ECONOMY	MASS GOODS & SERVICES PROVISION	CONSTR.	MASS RECR.	OTHER	TOTAL
	PERSONS							
CORE	3905	5276	11539	8006	4297	3809	7368	44200
INNER EAST	6303	6869	12818	14297	9393	3524	10677	63881
INNER SOUTH EAST	8185	10686	27428	14196	10807	2872	14156	88330
INNER NORTH/INNER WEST	5409	10290	25793	11919	7641	2570	11160	74782
OUTER NORTH	2063	3536	9161	4148	3216	721	4167	27012
NORTH EAST CORRIDOR	1656	1893	3232	4210	3539	738	2983	18251
OUTER EAST	4415	5208	10216	8808	8007	1576	8489	46719
OUTER WEST	1361	2971	4519	3343	2335	697	2449	17675
OUTER SOUTH EAST	573	976	1581	1061	1114	227	1267	6799
PENINSULA	850	1200	2525	3415	2611	756	2325	13682
TOTAL	34720	48905	108812	73403	52960	17490	65041	401331
	PER CENT							
CORE	11.2	10.8	10.6	10.9	8.1	21.8	11.3	11.0
INNER EAST	18.2	14.0	11.8	19.5	17.7	20.1	16.4	15.9
INNER SOUTH EAST	23.6	21.9	25.2	19.3	20.4	16.4	21.8	22.0
INNER NORTH/INNER WEST	15.6	21.0	23.7	16.2	14.4	14.7	17.2	18.6
OUTER NORTH	5.9	7.2	8.4	5.7	6.1	4.1	6.4	6.7
NORTH EAST CORRIDOR	4.8	3.9	3.0	5.7	6.7	4.2	4.6	4.5
OUTER EAST	12.7	10.6	9.4	12.0	15.1	9.0	13.1	11.6
OUTER WEST	3.9	6.1	4.2	4.6	4.4	4.0	3.8	4.4
OUTER SOUTH EAST	1.7	2.0	1.5	1.4	2.1	1.3	1.9	1.7
PENINSULA	2.4	2.5	2.3	4.7	4.9	4.3	3.6	3.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	PER CENT							
CORE	8.8	11.9	26.1	18.1	9.7	8.6	16.7	100.0
INNER EAST	9.9	10.8	20.1	22.4	14.7	5.5	16.7	100.0
INNER SOUTH EAST	9.3	12.1	31.1	16.1	12.2	3.3	16.0	100.0
INNER NORTH/INNER WEST	7.2	13.8	34.5	15.9	10.2	3.4	14.9	100.0
OUTER NORTH	7.6	13.1	33.9	15.4	11.9	2.7	15.4	100.0
NORTH EAST CORRIDOR	9.1	10.4	17.7	23.1	19.4	4.0	16.3	100.0
OUTER EAST	9.5	11.1	21.9	18.9	17.1	3.4	18.2	100.0
OUTER WEST	7.7	16.8	25.6	18.9	13.2	3.9	13.9	100.0
OUTER SOUTH EAST	8.4	14.4	23.3	15.6	16.4	3.3	18.6	100.0
PENINSULA	6.2	8.8	18.5	25.0	19.1	5.5	17.0	100.0
TOTAL	8.7	12.2	27.1	18.3	13.2	4.4	16.2	100.0

Source: ABS, Customised Journey-to-Work matrix, 1996 Census

APPENDIX D:

MANAGERS AND ADMINISTRATORS BY REGION OF RESIDENCE, MELBOURNE 1996

	NEW ECONOMY	DISTRIBUTION & TRANSPORT	OLD ECONOMY	MASS GOODS & SERVICES PROVISION	CONSTR.	MASS RECR.	OTHER	TOTAL
	PERSONS							
CORE	6145	2633	2275	4739	714	1389	2224	20119
INNER EAST	9248	5307	4840	6569	1894	1164	4290	33312
INNER SOUTH EAST	2650	2008	3298	2366	1115	378	2616	14431
INNER NORTH/INNER WEST	1286	1169	1871	1551	569	200	1034	7680
OUTER NORTH	513	481	807	643	247	72	700	3463
NORTH EAST CORRIDOR	1558	948	1266	1668	511	180	948	7079
OUTER EAST	2169	1622	2097	2060	925	285	2457	11615
OUTER WEST	447	403	584	601	168	69	805	3077
OUTER SOUTH EAST	165	183	299	203	152	28	1238	2268
PENINSULA	569	453	608	647	414	86	1047	3824
TOTAL	24750	15207	17945	21047	6709	3851	17359	106868
	PER CENT							
CORE	24.8	17.3	12.7	22.5	10.6	36.1	12.8	18.8
INNER EAST	37.4	34.9	27.0	31.2	28.2	30.2	24.7	31.2
INNER SOUTH EAST	10.7	13.2	18.4	11.2	16.6	9.8	15.1	13.5
INNER NORTH/INNER WEST	5.2	7.7	10.4	7.4	8.5	5.2	6.0	7.2
OUTER NORTH	2.1	3.2	4.5	3.1	3.7	1.9	4.0	3.2
NORTH EAST CORRIDOR	6.3	6.2	7.1	7.9	7.6	4.7	5.5	6.6
OUTER EAST	8.8	10.7	11.7	9.8	13.8	7.4	14.2	10.9
OUTER WEST	1.8	2.7	3.3	2.9	2.5	1.8	4.6	2.9
OUTER SOUTH EAST	0.7	1.2	1.7	1.0	2.3	0.7	7.1	2.1
PENINSULA	2.3	3.0	3.4	3.1	6.2	2.2	6.0	3.6
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	PER CENT							
CORE	30.5	13.1	11.3	23.6	3.5	6.9	11.1	100.0
INNER EAST	27.8	15.9	14.5	19.7	5.7	3.5	12.9	100.0
INNER SOUTH EAST	18.4	13.9	22.9	16.4	7.7	2.6	18.1	100.0
INNER NORTH/INNER WEST	16.7	15.2	24.4	20.2	7.4	2.6	13.5	100.0
OUTER NORTH	14.8	13.9	23.3	18.6	7.1	2.1	20.2	100.0
NORTH EAST CORRIDOR	22.0	13.4	17.9	23.6	7.2	2.5	13.4	100.0
OUTER EAST	18.7	14.0	18.1	17.7	8.0	2.5	21.2	100.0
OUTER WEST	14.5	13.1	19.0	19.5	5.5	2.2	26.2	100.0
OUTER SOUTH EAST	7.3	8.1	13.2	9.0	6.7	1.2	54.6	100.0
PENINSULA	14.9	11.8	15.9	16.9	10.8	2.2	27.4	100.0
TOTAL	23.2	14.2	16.8	19.7	6.3	3.6	16.2	100.0

Source: ABS, Customised Journey-to-Work matrix, 1996 Census

APPENDIX E:

MASS RECREATION JOBS BY REGION BY WEEKLY HOURS WORKED

	< 16	16-34	> 34	Not stated	Total
	PERSONS				
CORE	8470	9003	25722	384	43579
INNER EAST	4231	3215	5983	138	13567
INNER SOUTH EAST	2080	1764	3335	63	7242
INNER NORTH/INNER WEST	1193	1049	1823	42	4107
OUTER NORTH	488	437	712	12	1649
NORTH EAST CORRIDOR	743	533	765	15	2056
OUTER EAST	1656	1130	1920	43	4749
OUTER WEST	466	341	582	24	1413
OUTER SOUTH EAST	179	126	245	0	550
PENINSULA	618	563	1074	21	2276
TOTAL	20124	18161	42161	742	81188
	PER CENT				
CORE	19.4	20.7	59.0	0.9	100.0
INNER EAST	31.2	23.7	44.1	1.0	100.0
INNER SOUTH EAST	28.7	24.4	46.1	0.9	100.0
INNER NORTH/INNER WEST	29.0	25.5	44.4	1.0	100.0
OUTER NORTH	29.6	26.5	43.2	0.7	100.0
NORTH EAST CORRIDOR	36.1	25.9	37.2	0.7	100.0
OUTER EAST	34.9	23.8	40.4	0.9	100.0
OUTER WEST	33.0	24.1	41.2	1.7	100.0
OUTER SOUTH EAST	32.5	22.9	44.5	0.0	100.0
PENINSULA	27.2	24.7	47.2	0.9	100.0
TOTAL	24.8	22.4	51.9	0.9	100.0
	PER CENT				
CORE	42.1	49.6	61.0	51.8	53.7
INNER EAST	21.0	17.7	14.2	18.6	16.7
INNER SOUTH EAST	10.3	9.7	7.9	8.5	8.9
INNER NORTH/INNER WEST	5.9	5.8	4.3	5.7	5.1
OUTER NORTH	2.4	2.4	1.7	1.6	2.0
NORTH EAST CORRIDOR	3.7	2.9	1.8	2.0	2.5
OUTER EAST	8.2	6.2	4.6	5.8	5.8
OUTER WEST	2.3	1.9	1.4	3.2	1.7
OUTER SOUTH EAST	0.9	0.7	0.6	0.0	0.7
PENINSULA	3.1	3.1	2.5	2.8	2.8
TOTAL	100.0	100.0	100.0	100.0	100.0

Source: ABS, Customised Journey-to-Work matrix, 1996 Census.

APPENDIX F: COMPOSITION OF CUSTOMISED REGIONS 1996 AND 1986/1991

1996	1986 and 1991
CORE	**CORE**
Melbourne (C) - Inner	BRUNSWICK (C)
Melbourne (C) - Remainder	COLLINGWOOD (C)
Port Phillip (C) - St Kilda	ESSENDON (C)
Port Phillip (C) - West	FITZROY (C)
Stonnington (C) - Prahran	FOOTSCRAY (C)
Yarra (C) - North	HAWTHORN (C)
Yarra (C) - Richmond	KEW (C)
Hobsons Bay (C) - Williamstown	MELBOURNE (C) - INNER
Maribyrnong (C)	MELBOURNE (C) - REMAINDER
Moonee Valley (C) - Essendon	NORTHCOTE (C)
Moreland (C) - Brunswick	PORT MELBOURNE (C)
Darebin (C) - Northcote	PRAHRAN (C)
Boroondara (C) - Hawthorn	RICHMOND (C)
Boroondara (C) - Kew	ST KILDA (C)
	SOUTH MELBOURNE (C)
	WILLIAMSTOWN (C)
INNER EAST	**INNER EAST**
Boroondara (C) - Camberwell N	BOX HILL (C)
Boroondara (C) - Camberwell S	BRIGHTON (C)
Manningham (C) - East	CAMBERWELL (C)
Manningham (C) - West	CAULFIELD (C)
Monash (C) - South-West	DONCASTER AND TEMPLESTOWE(C)
Monash (C) - Waverley East	MALVERN (C)
Monash (C) - Waverley West	NUNAWADING (C)
Whitehorse (C) - Box Hill	OAKLEIGH (C)
Whitehorse (C) - Nunawading E	RINGWOOD (C)
Whitehorse (C) - Nunawading W	SANDRINGHAM (C)
Maroondah (C) - Ringwood	WAVERLEY (C)
Bayside (C) - Brighton	
Bayside (C) - South	
Glen Eira (C) - Caulfield	
Stonnington (C) - Malvern	
INNER SOUTH EAST	**INNER SOUTH EAST**
Glen Eira (C) - South	BERWICK (C)
Kingston (C) - North	CHELSEA (C)
Kingston (C) - South	CRANBOURNE (S)
Gr Dandenong (C) - Dandenong	DANDENONG (C)
Gr Dandenong (C) Bal	FRANKSTON (C)
Casey (C) - Berwick	MOORABBIN (C)
Casey (C) - Cranbourne	MORDIALLOC (C)
Casey (C) - Hallam	SPRINGVALE (C)
Casey (C) - South	
Frankston (C) - East	
Frankston (C) - West	
INNER NORTH/INNER WEST	**INNER NORTH/INNER WEST**
Brimbank (C) - Keilor	ALTONA (C)
Brimbank (C) - Sunshine	BROADMEADOWS (C)
Hobsons Bay (C) - Altona	COBURG (C)
Moonee Valley (C) - West	KEILOR (C)
Moreland (C) - Coburg	PRESTON (C)
Moreland (C) - North	SUNSHINE (C)
Darebin (C) - Preston	
Hume (C) - Broadmeadows	

APPENDIX F CONTINUED

OUTER WEST	**OUTER WEST**
Melton (S) - East	MELTON (S)
Melton (S) Bal	WERRIBEE (C)
Wyndham (C) - North-West	
Wyndham (C) - Werribee	
Wyndham (C) Bal	
OUTER NORTH	**OUTER NORTH**
Hume (C) - Craigieburn	BULLA (S)
Hume (C) - Sunbury	WHITTLESEA (C)
Whittlesea (C) - North	
Whittlesea (C) - South	
NORTH EAST CORRIDOR	**NORTH EAST CORRIDOR**
Banyule (C) - Heidelberg	DIAMOND VALLEY (S)
Banyule (C) - North	ELTHAM (S)
Nillumbik (S) - South	HEIDELBERG (C)
Nillumbik (S) - South-West	
Nillumbik (S) Bal	
OUTER EAST	**OUTER EAST**
Knox (C) - North	CROYDON (C)
Knox (C) - South	HEALESVILLE (S)
Maroondah (C) - Croydon	KNOX (C)
Yarra Ranges (S) - Central	LILLYDALE (S)
Yarra Ranges (S) - North	SHERBROOKE (S)
Yarra Ranges (S) - South-West	UPPER YARRA (S) - PT A
	UPPER YARRA (S) - PT B
OUTER SOUTH EAST	**OUTER SOUTH EAST**
Cardinia (S) - North	Pakenham
Cardinia (S) - Pakenham	
Cardinia (S) - South	
PENINSULA	**PENINSULA**
Mornington P sula (S) - East	FLINDERS (S)
Mornington P sula (S) - South	HASTINGS (S)
Mornington P sula (S) - West	MORNINGTON (S)

APPENDIX G: INDUSTRY GROUPINGS

77 Property Services

78 Business Services (**less** 7865 'pest control services', 7866 'cleaning services', 7864 security and investigative services)

73, 74, 75
Finance
Insurance
Services to Finance and Insurance

NEW ECONOMY

71 Communication Services
24 Printing Publishing and Recorded Media

283, 284 Photographic and Scientific Equipment Manufacturing,
Electronic Equipment Manufacturing
2543 Medicinal and Pharmaceutical .Manufacturing

36, 37 Electricity and Gas Supply plus Water Supply,
Sewerage and Drainage Services
51,52, 53 Food Retailing,
Personal and Household Good Retailing,
Motor Vehicle Retailing and Services
81, 82 84, 86, 87,
Government Administration
Defence
Education
Health
Community Services

MASS GOODS & SERVICES PROVISION

41, 42
General Construction
Construction and Trade Services

CONSTRUCTION

57 Accommodation, Cafes, and Restaurants
91, 92, 93 Motion Picture, Radio, and Television Services
Libraries, Museums and the Arts
Sport and Recreation

MASS RECREATION

APPENDIX G CONTINUED:

45, 46, 47	Basic material Wholesaling Machinery and Motor Vehicle Wholesaling Personal and Household Good Wholesaling
61, 62, 63, 64, 65, 66, 67	Road Transport Rail Transport Water Transport Air and Space Transport Other Transport Services to Transport Storage

DISTRIBUTION & TRANSPORT

21, 22, 23, 25,26,	Food, Beverage and Tobacco Manufacturing Textile Clothing Footwear and Leather Manufacturing Wood and Paper Product Manufacturing Petroleum, Coal, Chemical and Associated Product Manufacturing **(less 2543 Medicinal and Pharmaceutical Manufacturing)** Non-Metalic Mineral Product Manufacturing
27, 28	Metal Product Manufacturing Machinery and Equipment Manufacturing (**less 283, 284 Photographic and Scientific Equipment Manufacturing and Electronic Equipment Manufacturing**)

OLD ECONOMY

Other (incl. Not Stated)(also incl. 7865 ‘pest control services’, 7866 ‘cleaning services’, 7864 security and investigative services

OTHER

BIBLIOGRAPHY:

Baum, S., Stimson, R., O'Connor, K., Mullins, P., and Davis, R. (1999) *Community Opportunity and Vulnerability in Australia's Cities and Towns: Characteristics, Patterns and Implications*, Brisbane, University of Queensland Press.

Berry, B. J. L. (1999), Comment, *Housing Policy Debate*, 10(4), pp. 783-788.

Birrell, B., O'Connor, K. and Rapson, V. (1999) 'Explaining Spatial Concentrations of the Poor in Metropolitan Melbourne, *People & Place*, Melbourne, Centre for Population and Urban Research, pp. 53-64.

BIS Schrapnel (1998) *The Age*, March 8, p. 3.

Brain, P. (1999) *The Factors and Outcomes Driving Metropolitan Development Over the Next Quarter Century*. Paper presented at *Future Cities* Conference, City of Melbourne, Melbourne, pp. 13-22.

Breheny M. (1996) 'Centrists, Decentrists, and Compromisers: Views on the Future of Urban Form', In, *The Compact City: A sustainable Urban Form?* E & EN Spon, pp. 13-35.

Burke, T, and Hayward, D. (2000) *Housing Past, Melbourne's Housing Futures. Technical Report4, Planning Melbourne for the 21st Century*, Department of Infrastructure, Melbourne.

Clarke, S. E. and Gaile, G. L. (1998) *The Work of Cities*, Globalisation and Community Volume 1, University of Minnesota Press, Minneapolis.

Daly, M. (1999), *Monitoring Sydney*, University of Queensland Press for the Australian Housing and Urban Research Institute, Brisbane.

Dematteis, G. and Governa, F. (1999), From Urban Field to Continuous Settlement Networks European Examples, In Aguilar, A. G. and Escamilla, I. (eds) *Problems of Megacities: social Inequalities, Environmental Risk and Urban Governance*. Institute of Geography, Universidad nacional Autonoma de Mexico, UNAM and Commission of Urban Development and Urban Life, IGU, pp. 543-556.

Department of Infrastructure (DOI) (1998) *From Doughnut City to Cafe Society*, Melbourne.

Downs, A. (1999), Some Realities About Sprawl and Urban Decline, *Housing Policy Debate*, 10(4), pp. 955-974.

Economist The (1999), 'The New Economy, Work in Progress, *The Economist*, July 24, pp. 19-21.

Energy Victoria, the Environmental Authority, the Department of Infrastructure, and the Energy Research and Development Corporation (EV) (1996) *Urban Villages Project: Encouraging Sustainable Urban Form,* Summary Report, Melbourne.

Erickson, R. A. (1982), The Evolution of the Suburban Space Economy, *Urban Geography*, 4, pp. 95-121.

Filion, P. et al. (1999), The Entrenchment of Urban Dispersion: Residentical Preferences and Location Patterns in the Dispersed City, *Urban Studies*, 36, pp. 1317-1347.

Garreau, J. (1991), *Edge City: Life on the New Frontier*, DoubleDay, New York.

Gillespie, A. (1999), The Changing Employment Geography of Britain, In Breheny, M. (ed) *The People: Where Will they They Work?*, Report of TCPA research into the changing geography of employment, Town and Country Planning Association, London, pp. 9-28.

Giulano, P and Small, K. A. (1999), 'The Determinants of Growth in Employment Subcentres', *Journal of Transport Geography,* 7, pp. 189-202.

Gregory, R. and Hunter, B. (1995) *The Macro Economy and the Growth of Ghettos and Urban Poverty in Australia*, Discussion Paper 325, Canberra, the Australian National University Centre for Economic Policy Research.

Hartshorn, T. A. and Muller, P. O. (1992), The Suburban Downtown and Urban Economic Development today. In Mills E. S. and McDonald J. F. (eds) *Sources of Metropolitan Growth*. Centre for Urban Policy Research, New Jersey, pp. 147-160.

Harvey, D. (1989) 'From Mangerialism to Entrepreneurialism: The Transformation in Urban Governance in Late Capitalism', edited and reprinted in *The Cities Cultures Reader*, 2000, (Eds Miles, Hall and Borden), New York, Routledge, pp. 50-59.

Healy E. (1996), "Welfare Benefits and Residential Concentrations Amongst Recently-Arrived Migrant Communities", *People & Place* Vol. 4 No. 2, pp. 20-31.

Healy, E. (2000), "The Shift to Long Working Hours: A Social and Political Crisis in the Making", *People & Place*, Vol. 8 No. 1, pp. 38-50.

Hooimeijer P. et al. (2000), Spatial Mobility and Job Access in a Polycentric Metropolis, paper presented to the APA conference, Melbourne, November 2000.

Immergluk, D. (1999), *Cities and Finance Jobs: The Effects of Financial Services Restructuring on the Location of Employment*, A Discussion paper prepared for the Brookings Insititution Centre on Urban and Metropolitan Policy, Woodstock Institute.

Johnston, L. (1997), The Oracles of Delfin: Women and Suburban Developments, *Urban Policy and Research*, 15, pp. 103-112.

Kain, J. F. (1975), *Essays on Urban Spatial Structure*, Cambridge: Ballinger.

Katz, B. (2000), Enough of the Small Stuff! Towards a New Urban Agenda. *Brookings Review*, 18(3), pp. 20-23.

Keating, P. (1994) Opening Address to the OECD Conference: *Cities and the New Global Economy*, 21 November, Melbourne.

Levinson, M. (1998), Accessibility and the Journey to Work, *Journal of Transport Geography*, 6, pp. 223-234.

Lang, R. E., (2000), *Office Sprawl: The Evolving Geography of Business*. Survey Series, Centre on Urban and Metropolitan Policy, The Brooking Institution. Washington, October 2000.

Maher, C. (1995), Housing Need and Residential Mobility: The Mismatch Debate in Perspective, *Urban Policy and Research*, 13(1), pp. 7-19.

Neilson, L. (1995) Keynote Address, Occasional Paper Series 2, A report prepared by the National Capital Planning Authority for the Better Cities Program, Canberra, Australian Government Publishing Service.

Newman, P. and Kenworthy J. (1989) *Cities and Automobile Dependence: An International Source Book*, Gower, Aldershot.

O'Cleireacain, C. (1997), The Provate Economy and the Public Budget of New York. In Crahan M. E. and Vourvoulis-bush, A. (eds) *The City and the Word: New York's Global Future*. The Council of Foreign Relations, New York, pp. 22-38.

O'Connor, K. (1999), *Monitoring Melbourne*, University of Queensland Press for the Australian Housing and Urban Institute, Brisbane.

O'Connor K. and Healy, E. (2001), *Work in Progress Report: The Links Between Housing Markets and Labour Markets in Melbourne*, Carried out for the Australian Housing and Urban Research Institute, www.ahuri.edu.au/pubs/index.html

OECD (1999), *Urban Policy in Germany: Towards Sustainable Urban Development*. Organisation for the Economic Co-operation and Development, Paris.

Phe, H. H. and Wakely, P. (2000), Status, Quality and the Other Trade-off: Towards a New Theory of Urban Residential Location, *Urban Studies*, 37, pp. 27-35.

Pisarski, A. (1987), *Commuting in America: A National Report on Commuting Patterns and Trends*, ENO Foundation for Transportation Inc., Washington, pp. 22-23.

Rogers, R. (1997) *Cities for a Small Planet*, London, Faber & Faber Ltd.

Rosen, R. D. and Murray, R. (1997), Opening Doors: Access to the Global Market for Financial Sectors. In Crahan, M. E. and Vouroulis-Bush, A. (eds) *The City and the World: New York's Global Future*. The Council of Foreign Relations, New York, pp. 39-50.

Reich, R. (1991) *The Work of Nations*, London, Simon and Schuster Ltd.

Sassen, S. (1989) 'The New Inequalities Within Cities', edited and reprinted in *The Cities Cultures Reader*, 2000, (Eds Miles, Hall and Borden), New York, Routledge, pp. 60-66.

Sassen, S. (1998) '*Globalization and Its Discontents*, New York, The New Press.

Simpson, W. (1980), 'A Simultaneous Model of Workplace and Residential Location Incorporating Job Search', *Journal of Urban Economics*, 8, pp. 330-349.

Spence, N. and Frost, M. (1995), Work Travel Responses to Changing Workplaces and Changing Residences, In Brotchie, J., Batty, M., Blakely, E., Hall, P and Newton, P. (eds) *Cities in Competition. Productive and Sustainable Cities for the 21st Century*, Longman Australia, Melbourne, pp. 359-381.

Stimson, B. et al. (1999), *Monitoring Brisbane*, University of Queenslan Press, for the Australian Housing and Urban Research Institute, Brisbane.

Victorian Government & Melbourne City Council (1994) *Creating Prosperity: Victoria's Capital City Policy*, Melbourne.

Warne A. M. (1972), Estimates of Journey to Work Distances from Census Statistics, *Regional Studies*, 6, pp. 315-326.

Warneryd, O. (1999), Transformation in the Swedish Urban System, In A. G. and Escamilla, I. (eds) *Problems of Megacities*: *Social Inequalities, Environmental Risk and Urban Governance*. Institute of Geography, Universidad nacional Autonoma de Mexico, UNAM and Commission of Urban Development and Urban Life, IGU, pp. 577-587.

Wyly, E. K. and Hammel, D. J. (1999), Islands of Decay in Seas of Renewal: Housing Policy and the Resurgence of Gentrification, *Housing Policy Debate*, 10(4), pp. 711-771.

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