PEOPLE AND PLACE

EMPLOYMENT IN CITY AND SUBURBAN MELBOURNE: THE CHANGING RELATIONSHIP

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This article explores the growing independence of the inner city and suburban areas in Melbourne. It shows that the former is specialising in 'new economy' employment while the latter are becoming increasingly diversified in employment terms. Most Melbourne residents live and work in suburban locations. The current Victorian Government planning document, Melbourne 2030, seeks to locate suburban job growth in 'activity' centres close to public transport. The analysis of job creation in suburban areas in this paper suggests that this goal is unlikely to be achieved.

In most metropolitan areas, the size, internal organisation and patterns of development are different from what they were twenty or thirty years ago. Economic structural change and shifts in the location of activities have re-shaped what was once a simple structure of housing encircling a central core where jobs were located. In the immediate aftermath of World War II, central Melbourne provided a range of shopping, financial, entertainment and medical services for the surrounding residential suburbs. Since the 1960s the suburbs have provided sites for an ever increasing array of these services. The planning authorities have tried to shape the location of these services around 'activity centres'. The rationale was to avoid dispersal of employment opportunities and to keep a close link between public transport and employment.

The new outcome was initially described as 'multi-centred' or 'poly-centred'.[1] The most recent planning document, *Melbourne 2030*, reiterates this perspective with one of its key ideas being the containment of 'services, employment and social interaction' to designated activity centres and the restriction of 'out-of-centre development'.

Reality is more obdurate. The planners are operating in a world of wishful thinking which often is remote from the real world priorities of employers and their employees. This article examines this real world through a trend analysis of the location of employment in Melbourne from 1986 to 2001.

This tension between the development of activity centres and the dispersal of economic activities has been detected in analytic work on urban development elsewhere. Centres within large US metropolitan areas were labelled 'edge cities' in the attempt to capture the scale of new suburban development.[2] These early images have been refined as research showed that recently the geography of jobs has shifted beyond the multi-centred pattern to a more general distribution where centres are not as prominent.[3] This new perspective on the dispersal of jobs and housing has been expressed in the suggestion that cities in the United States are now in fact 'edgeless' as they spread steadily into surrounding regions.[4] This outcome is consistent with Sudjic's earlier notion of the 100 mile city,[5] which is beginning to be emulated by Melbourne's 50 mile continuous stretch from the new housing estates at Caroline Springs in the west to those in Pakenham in the east.

Hall has reviewed this early work and recommended that we now need to think of 'city regions' which include the Central Business District (CBD) and the CBD edge, some suburban nodes, and a number of fringe business and commercial zones. These city regions all draw upon labour across a very large extended metropolitan area.[6] One researcher has recently described the new pattern as a multiplex urban region with high density concentrations of jobs in a few places and low density concentrations spread across large commercial and industrial zones in the middle and outer suburbs.[7] This thinking has influenced a soon-to-commence research project on the internal patterns of metropolitan areas in north-western Europe.[8] For Melbourne, work on the location of employment has been a neglected part of the understanding of change in the metropolitan area. This paper is a first step toward redressing this lack of current understanding.

The core idea of the paper is that the new patterns of metropolitan development described above can be traced to two trends. The first involves the increasing concentration of a narrow range of economic activity in a small inner core of the metropolitan area, while the second concerns the increase in the diversity of jobs and housing in larger geographic areas in the suburbs. The result of these two trends is the emergence of two distinct urban zones.

One zone is represented in a central region made up of the CBD and its surrounding old industrial suburbs. This location is favoured by professional business services associated with global and national firms, along with tourism, entertainment facilities and specialist retail functions. In the central region, high house prices and re-development of older industrial and commercial land uses for residential use is the physical manifestation of the new pattern. In a number of cases, the development has been assisted by planning policies and direct government assistance in the form of re-development of old sites, especially in waterfront locations, and the encouragement of higher density housing re-development. O'Connor and Healy analysed change in the central region in Melbourne in the 1986-1996 period.[9] They found that housing re-locations by professionals favoured the inner city and matched the growth of new economy jobs, while people moving out of the inner city were from lower socio-economic status groups. This has been a common outcome in most metropolitan areas. It has been welcomed as evidence of the re-urbanisation of the city, for example by Graetz and Mintz,[10] even though the numbers involved are often a small share of the total metropolitan area change in population and jobs.

The trend in the second zone, that outside the central region, has been shaped by the maturation of suburban economic activity beyond the initial growth in manufacturing and retail functions that located there more than 30 years ago.[11] This maturation has come about as high level medical, tertiary education, entertainment, and some research and development activities, along with new forms of complex manufacturing allied to a range of professional services (often in the computer industry), have located in suburban areas.[12] In this second zone, jobs are spread across middle suburbs. Those working in these jobs live in housing, some newly built, in established suburbs as well as in new housing in outer areas and beyond. According to Filion, Bunting, and Warriner[13] this pattern of housing 'entrenches' urban dispersion. Car transport is central to the operation of this part of the metropolitan area and many of the jobs and services are in commercial and multi-use centres located by major roads. Studies of trends in population and jobs in Australia,[14] the US,[15] Germany,[16] and the

UK[17] all show that suburban dispersal of jobs remains a major force in metropolitan development.

These two zones are becoming more separate and more distinct. As the strongly connected housing and labour-market forces expressed in the small inner city make this zone more expensive, and more specialised and socially homogeneous, the area itself narrows from its historic experience of serving the whole metropolitan region to serving just its own local community. Simultaneously, as the benefits of suburban location become attractive to a wider array of functions and the labour they need, suburban areas (which once depended on the central region for many services) become more self-contained and have less contact with the older part of the metropolitan area. This sense of separation was well expressed in responses to a quality of life survey in Brisbane. Although 65 per cent of inner city respondents agreed that 'having a vibrant and active downtown Brisbane is important to my quality of life', among outer suburban residents that opinion was shared by only 35 per cent of the sample.[18]

The tendency for metropolitan areas to bifurcate in this way varies from one metropolitan area to another and over time, and depends upon the strength of the particular economic sectors involved in each city. In some places the global and national business services, as discussed in Sassen's research on the global city,[19] create a very distinctive cluster of commercial activities and labour demand. New York and London (and perhaps Sydney) provide good examples of this outcome. In some other places, notably the Silicon Valley region of San Francisco and the Dulles Corridor of Washington, suburban industrial and commercial estates have become a major part of the metropolitan economy.

The availability of Census 2001 information on the journey-to-work of the workforce provides an opportunity to explore the strength of these new images of metropolitan development in Melbourne. This rich source of information identifies the location of jobs within the metropolitan area in 2001 and also shows the home locations of people who were employed in those jobs. This can then be compared to the situation in 1996. Some longer time period data are also presented below, but changes in boundary definitions of municipalities, as well as in the definitions of industry and occupation classes, limit the detailed analysis to the 1996-2001 period. For example, the pre-1991 data do not include commuters from outside the metropolitan area. This omission, however, has only a small effect on the total number of jobs counted.

This paper provides an initial analysis of the data concerning the location of jobs. It establishes the relative strength of the centralisation and dispersal trends in employment in total terms, and by industry and occupation. A later paper will explore the association between these patterns of job development and the changes in associated residential locations.

THE LOCATION OF JOBS IN MELBOURNE

A regional perspective

A broad impression of the way in which the distribution of employment has been changing in metropolitan Melbourne can be gauged by analysing the data in Table 1. This shows employment in regions of Melbourne since 1986. There have been almost half a million new jobs added to the metropolitan economy since 1986 and this job growth has been distributed among all of the regions, showing that inner city

Table 1: Location of jobs,* Melbourne regions, and increase in jobs, 1986 to 2001**

	Persons reporting that they worked in region				Increase		
	1986	1991	1996	2001	1986-91	1991-96	1996-2001
Central	280,376	336,133	356,199	394,802	55,757	20,066	38,603
West	107,841	124,002	140,845	160,899	16,161	16,843	20,054
North West	68,428	74,134	82,407	88,484	5,706	8,273	6,077
North	89,806	99,017	107,302	112,364	9,211	8,285	5,062
Inner East	166,061	186,353	199,190	217,806	20,292	12,837	18,616
Outer East	69,528	94,737	108,711	120,902	25,209	13,974	12,191
Inner South	112,453	123,546	152,235	161,794	11,093	28,689	9,559
Western Port	105,575	137,685	150,122	176,029	32,110	12,437	25,907
Melbourne	1,000,068	1,175,607	1,297,011	1,433,080	175,539	121,404	136,069

* Location of jobs data is based on the workplace of the person's main job and does not include persons who reported that they did not have a fixed place of work. These would include, for example, some transport workers and tradespersons. Between 1986 and 1991 the metropolitan boundary was enlarged to include parts of Cranbourne, Pakenham and Healesville previously outside the Melbourne Statistical Division (MSD). The 1986 data do not include persons who worked in these locations, nor do they include persons who lived outside the then MSD boundary but worked within the MSD. The 1991, 1996 and 2001 data include persons who lived outside the MSD but travelled to a workplace within the MSD boundary. The 1986 and 1991 Local Government Area (LGA) data have been assembled to the regions on a best-fit match to the new LGA boundaries introduced by 1996.

** See Table 6 and Figure 1 for LGA-to-region match.

Source: Australian Bureau of Statistics, Census, various years, customised matrices

and suburban growth have occurred side by side over these 15 years.

At the regional level, the largest increase in number of jobs was experienced by the Central region, although it accounted for less than one third of all new jobs — even in the most recent 1996-2001 period. But the south-eastern wedge of Melbourne, formed by combining the Western Port and Inner Southern regions, registered more new jobs than the Central region over this 15 year period. In fact, between 1991 and 1996 there were more jobs added to the Inner Southern region than to the Central region. In the most recent five-year period, the second highest gain in jobs was in the Western Port region. The West was also prominent.

The way that employment has been dispersed across almost all of the suburbs can be seen in the steady shares of jobs located in most regions in the fifteen years shown in Table 2. Note that the Central region's share of all employment has remained steady as the focus of new job growth has shifted elsewhere.

For example, the adjoining regions in the south and east (Inner Southern, Outer Eastern and Western Port), which have figured prominently in job growth in most periods, accounted for 31 per cent of jobs in 2001, up from 29 per cent in 1986, making this a very significant

Table 2: Distribution of jobs in Melbourne regions, 1986-2001, per cent

	Per cent of Melbourne jobs			
	1986	1991	1996	2001
Central	28	29	27	28
West	11	11	11	11
North West	7	6	6	6
North	9	8	8	8
Inner East	17	16	15	15
Outer East	7	8	8	8
Inner South	11	11	12	11
Western Port	11	12	12	12
Total jobs	100	100	100	100

See Table 1 for notes on boundary changes.

concentration of employment within the metropolitan area. Together these regions accounted for 35 per cent of the new jobs created between 1996 and 2001. This suggests that these regions are gaining more jobs, in relative terms, than the rest of the metropolitan area. Elsewhere, although job growth has occurred, it has not been at a rate that could lift the share of metropolitan jobs located in any region. This experience was especially marked in the Inner East which suggests that the spill-over of business from the Central region — an important contributor to past growth in this region — has waned. Though the Inner East, with 15 per cent of metropolitan jobs, remains the second largest region in employment terms, there were more new jobs created in Western Port (25,907) than in the Inner East (18,616) over the 1996-2001 period.

Even though the number of jobs in the Central region increased by more than 114,000 between 1986 and 2001, this, as indicated above, was not enough to increase the region's share of all metropolitan jobs. While the increase of 38,603 new jobs in the more recent time period between 1996 and 2001 did reverse the previous decline, the much publicised unit and high-rise residential development and the associated additional population in the central area does not appear to have had a major impact on jobs. A longer historical perspective, shown in Table 3, indicates that the central region's share of employment since 1986 has at least stabilised at just below 30 per cent after a 25 year decline from 55 per cent in 1961.

The mixed outcome of concentration in the Central region and dispersal across suburban regions reflects the mix of different industries and occupations that shape the labour markets of these regions. These are displayed in Table 4. The industry groups used here are outlined in the Appendix.

There are a number of key features in the change in employment over the past five years. Large percentage increases have been recorded in 'new economy' jobs and in the related occupational categories of managers and administrators, and professional and associate professionals. The industries comprising the mass recreation sector and the occupations in the elementary clerical, sales and services category also show large percentage gains. The largest absolute increase in employment was in the mass goods and services sector. This is the area of the economy dealing with the day-to-day consumption needs of the population and thus is influenced by population growth.

Table 5 shows the share of Melbourne jobs located in four of the regions identified above and the rest of Melbourne by industry and occupation in 1996 and 2001. The shading shows the sectors that have registered increases in their share of jobs between 1996 and 2001.

The table shows that job growth has been strong enough to lift the share of jobs located in just two sectors in the Central region but in all but one sector in Western Port. This confirms the finding that Central region is moving toward a more specialised employment structure, while outer areas such as Western Port are becoming more diversified. The Central region's specialisation is in the fast growing new economy services sector jobs and its related professional and administrative jobs. The Central region accounted

Table 3: Share of all metropolitan area jobs in Central Region, 1961-2001, per cent

Year	1961	1971	1976	1986	1991	1996	2001
Share	55	42	37	28	29	27	28

Source: ABS, Census customised matrices
See Table 1 for notes on boundary changes.

Table 4: Employment change in Melbourne by industry and occupation groups, 1996-2001

	Jobs in Melbourne		Change 1996-2001	
	1996	2001	Jobs	Per cent
Industry				
Agriculture, Forestry & Fishing; Mining	13,119	13,235	116	1
Manufacturing: new economy	38,183	39,806	1,623	4
Manufacturing: old economy	197,328	200,156	2,828	1
Manufacturing	235,511	239,962	4,451	2
Services: new economy	234,538	278,414	43,876	19
Personal and Other Services	58,382	66,098	7,716	13
Construction	62,318	68,207	5,889	9
Distribution & Transport	140,647	145,274	4,627	3
Mass Goods and Services	453,631	509,577	55,946	12
Mass Recreation	81,684	100,193	18,509	23
Other (includes not stated)	17,181	12,120	-5,061	-29
Total	1,297,011	1,433,080	136,069	10
Occupation				
Managers & Administrators	103,960	125,377	21,417	21
Professionals & Associate Professionals	411,130	483,382	72,252	18
Advanced Clerical & Service Workers	63,561	59,638	-3,923	-6
Intermediate Clerical & Service Workers	218,882	250,606	31,724	14
Elementary Clerical , Sales & Service Workers	118,620	141,742	23,122	19
Tradespersons, Production & Transport Workers	267,135	260,686	-6,449	-2
Labourers & Related Workers	95,334	97,298	1,964	2
Other (including not stated)	18,389	14,351	-4,038	-22
Total	1,297,011	1,433,080	136,069	10

See appendix for industries included in groups.
Source: ABS, Customised matrices from 1996 and 2001 Censuses held by Centre for Population and Urban Research, Monash University

for 56 per cent of the new economy services sector in 2001, double its overall share of employment of 28 per cent. Its share of professional and associate professional (technical) jobs is also high and growing. At the same time, the Central region's share of employment in the mass goods and services, and distribution and transport industries has declined significantly (see Table 7 for more detail). The Inner East region features significant shares of new economy manufacturing. In Western Port, however, industrial sectors are well represented. The Inner Southern region also has many sectors with employment shares close to its 11 per cent of all jobs in 2001.

These findings confirm the hypothesis that Melbourne is bifurcating into two distinct zones. At the metropolitan core is a rapidly growing labour market in those parts of the national and metropolitan economy which have been expanding quickly as the restructuring of the economy favours advanced services. Simultaneously the mix of job opportunities is widening in some middle and outer suburban regions as these regions attract some other growing employment sectors. This latter outcome has important implications for the links between jobs and houses in the outer areas. With the diversifying labour opportunities in suburban areas, the need to commute to the central city will be reduced, and more locally

Table 5: Share of metropolitan jobs, selected regions by industry and occupation, 1996 and 2001, per cent

	Central		Inner East		Inner South		Western Port		Rest		Melbourne	
	1996	2001	1996	2001	1996	2001	1996	2001	1996	2001	1996	2001
Industry												
Agriculture, Forestry & Fishing; Mining	17	17	4	4	5	6	35	35	39	39	100	100
Manafacturing: new economy	26	25	23	23	14	13	9	10	29	29	100	100
Manufacturing: old economy	10	10	11	11	13	13	15	16	51	51	100	100
Manufacturing	13	13	13	13	14	13	14	15	47	47	100	100
Services: new economy	53	56	16	14	10	9	6	6	16	15	100	100
Personal and Other Services	30	27	15	16	12	12	11	12	31	35	100	100
Construction	14	16	15	15	13	12	16	17	42	41	100	100
Distribution & Transport	25	22	15	14	11	11	11	13	38	40	100	100
Mass Goods and Services	22	20	18	18	12	12	13	14	35	36	100	100
Mass Recreation	41	39	12	12	13	12	9	10	24	26	100	100
Other (includes not stated)	20	24	15	15	13	12	13	14	39	35	100	100
Total	27	28	15	15	12	11	12	12	34	34	100	100
Occupation												
Managers & Administrators	32	33	15	15	12	11	11	11	30	29	100	100
Professionals & Associate Professionals	35	36	17	17	11	11	9	9	28	27	100	100
Advanced Clerical & Service Workers	36	36	16	14	11	10	10	11	27	29	100	100
Intermediate Clerical & Service Workers	32	31	16	16	11	11	10	11	30	31	100	100
Elementary Clerical , Sales & Service Workers	21	20	17	16	13	13	12	14	36	37	100	100
Tradespersons, Production & Transport Wkrs	15	13	13	13	13	12	15	16	45	46	100	100
Labourers & Related Workers	16	14	13	12	12	11	16	17	43	45	100	100
Other (including not stated)	12	27	7	15	6	12	6	12	69	34	100	100
Total	27	28	15	15	12	11	12	12	34	34	100	100

Shaded cells indicate where the increase in the region's share of metropolitan employment in the sector is more than three per cent of its 1996 share. Because percentages are rounded to nearest whole number, the increase from 11.9 to 12.3 per cent in mass recreation in the Inner East appears as 12 for both 1996 and 2001.

self-contained labour markets are likely to strengthen.

Jobs within municipalities

Employment growth within the metropolitan area has produced a small number of very important job locations. These can be seen in Table 6 which lists municipalities in descending order of size in terms of employment in 2001. The initial impression promoted by this table is that the CBD (Melbourne Inner) and its surrounding business zone (represented here by Melbourne Remainder) play a key role in the location of employment. Melbourne Inner has recorded the largest gain in employment, and among the largest percentages changes in number of jobs between 1996 and 2001. (For location of municipalities see Figure 1.)

The strength of job growth in other

Table 6: Jobs and job growth in Melbourne 1996-2001 (ranked in descending order for 2001)

Region	Place of residence (Local Government Area or part thereof)	No. of jobs in area 1996	Rank 1996	Rank 2001	No. of jobs in area 2001	Change 1996-2001 Jobs	Per cent
Central	Melbourne (C) — Inner	123,071	2	1	145,234	22,163	18
Central	Melbourne (C) - Remainder*	123,411	1	2	130,466	7,055	6
Inner East	Monash (C)	77,493	3	3	83,275	5,782	7
W'Port	Gr Dandenong (C)	61,754	5	4	66,979	5,225	8
Inner Sth	Kingston (C)	63,602	4	5	66,855	3,253	5
Central	Port Phillip (C)	56,432	6	6	63,923	7,491	13
Inner East	Whitehorse (C)	49,325	10	7	57,416	8,091	16
Nth West	Hume (C)	49,095	11	8	57,205	8,110	17
Inner East	Boroondara (C)	53,314	7	9	55,765	2,451	5
Central	Yarra (C)	53,285	8	10	55,179	1,894	4
Outer East	Knox (C)	49,616	9	11	53,444	3,828	8
Inner Sth	Stonnington (C)	39,921	13	12	42,516	2,595	7
Northern	Darebin (C)	44,106	12	13	38,890	-5,216	-12
Western	Brimbank (C)	31,622	16	14	38,310	6,688	21
Outer East	Maroondah (C)	32,449	15	15	34,606	2,157	7
W'Port	Mornington Peninsula (S)	27,868	20	16	34,143	6,275	23
Northern	Banyule (C)	30,680	17	17	32,938	2,258	7
Outer East	Yarra Ranges (S) - Part A	26,646	23	18	32,852	6,206	23
W'Port	Casey (C)	24,404	25	19	32,840	8,436	35
Nth West	Moreland (C)	33,312	14	20	31,279	-2,033	-6
W'Port	Frankston (C) **	26,765	22	21	30,623	3,858	14
Western	Moonee Valley (C)	27,496	21	22	30,062	2,566	9
Western	Maribyrnong (C)	30,476	18	23	30,000	-476	-2
Northern	Whittlesea (C)	23,042	26	24	29,498	6,456	28
Inner Sth	Glen Eira (C)	27,915	19	25	28,980	1,065	4
Western	Hobsons Bay (C)	25,719	24	26	27,634	1,915	7
Western	Wyndham (C)	20,033	28	27	27,032	6,999	35
Inner Sth	Bayside (C)	20,797	27	28	23,443	2,646	13
Inner East	Manningham (C)	19,058	29	29	21,350	2,292	12
W'Port	Cardinia (S)	9,331	31	30	11,444	2,113	23
Northern	Nillumbik (S)	9,474	30	31	11,038	1,564	17
Western	Melton (S)	5,499	32	32	7,861	2,362	43
	Total	1,297,011			1,433,080	136,069	10

Source: ABS Census, 1996 and 2001, customised matrices
* Melbourne (C) - Remainder includes Southbank-Docklands
** The job count for Frankston (C) in 1996 includes 474 jobs which were actually in Greater Dandenong. This is due to a coding error by ABS.
Shaded cells depict those where the percentage change 1996-2001 is higher than the overall metropolitan change of ten per cent. (C) = City, (S) = Shire

locations, however, can be seen in the experience of some municipalities, in particular the large number of people employed in Monash, Greater Dandenong, Kingston and Whitehorse. This contiguous ring of eastern and south-eastern municipalities accounted for more than 250,000 jobs in 2001. Individually the first three locations are more important as work places than the municipalities that fringe the inner city (apart from Port Phillip).

In contrast, the geographic spread of

employment in the outer suburbs has become more diverse. This can be seen in the high levels of job growth recorded in Casey, Whittlesea and Wyndham. In addition, the job growth recorded in a northern and western arc from Hume through Brimbank and into Wyndham, an area which broadly straddles the Western Ring Road, has produced an additional 21,000 jobs (roughly equivalent to the job growth in the CBD), lifting this labour market to more than 120,000 jobs. On the other side of the metropolitan area, Casey and Mornington Peninsula have also had increases in employment which are linked to population growth as retail, education, medical and entertainment facilities follow the rapid population and housing growth occurring in these areas. These places, however, are also important as locations for manufacturing and warehousing (see Table 7 for the experience in Casey).

The general pattern that emerges above masks some important differences in the type of industry and the type of job within each municipality. This is illustrated by an analysis of job growth by industry in the Cities of Melbourne, Casey and Monash shown in Table 7. The data on the City of Melbourne confirm the points made above about the key role of new economy services in the Central region. Table 7 also shows that the great majority of jobs in the City of Melbourne are full-time, regardless of industry. The City of Monash, which is located in the middle suburbs, illustrates the theme of the emerging diversity of employment in such suburbs. One quarter of all the job growth in the City of Monash came from the new economy services sector. Most of the rest of the job growth occurred in the mass goods

Figure 1: Melbourne municipalities and regions

Table 7: Number of jobs by industrial sectors, 1996 and 2001, change 1996-2001 and per cent of 2001 jobs which are part-time, selected Melbourne locations

Industrial sector	Jobs 1996	Jobs 2001	2001 part-time*	Change
Melbourne (C)				
Agric, Forestry & Mining	1,866	1,752	14	-114
Manufacturing	14,793	16,619	15	1,826
New Economy Services	97,250	123,569	17	26,319
Personal and Other Services	9,208	8,040	21	-1,168
Construction	4,426	5,982	13	1,556
Distribution & Transport	21,346	19,742	16	-1,604
Mass Goods and Services	73,126	72,174	31	-952
Mass Recreation	22,493	26,001	38	3,508
Other	1,974	1,821	24	-153
Total	246,482	275,700	22	29,218
Monash (C)				
Agric, Forestry & Mining	130	128	31	-2
Manufacturing	19,090	18,968	14	-122
New Economy Services	12,258	13,716	27	1,458
Personal & Other Services	2,066	2,360	29	294
Construction	3,207	3,367	21	160
Distribution & Transport	11,099	10,282	18	-817
Mass Goods and Services	25,971	30,306	42	4,335
Mass Recreation	2,510	3,431	55	921
Other	1,162	717	29	-445
Total	77,493	83,275	29	5,782
Casey (C)				
Agric, Forestry & Mining	1,121	1,052	33	-69
Manufacturing	2,662	3,690	19	1,028
New Economy Services	2,351	3,234	40	883
Personal & Other Services	759	1,056	42	297
Construction	2,250	2,871	25	621
Distribution & Transport	2,735	3,853	25	1,118
Mass Goods and Services	10,854	14,831	51	3,977
Mass Recreation	1,287	1,903	54	616
Other	385	350	38	-35
Total	24,404	32,840	40	8,436

* part-time = less than 35 hours per week. Shaded cells are those where part-time employment in the sector is higher then overall employment in location.
Source: ABS, Censuses 1996 and 2001, customised matrices, Working Population Profiles, 2001

and services sector. This reflects the City's role in retailing and its role as a location for community services such as education and medical facilities. It is also notable that the proportion of jobs which are part-time is a little higher than for the City of Melbourne.

In the case of the City of Casey, which is currently the main focus of new housing development in the Melbourne metropolitan area, job growth is concentrated in the mass goods and services sector (which is basically population serving), though with some development of employment in manufacturing. The proportion of work which is available on a part-time basis increased to 40 per cent of all jobs in Casey by 2001. At present, residents of Casey lie within moderate commuting distance to jobs in the Cities of Monash and Greater Dandenong which both feature growth in sectors other than the mass goods sector. The problem for the future, however, is that there will be rapid growth in the number of job seekers living in the City of Casey. The experience of the period since 1996 gives an idea of the scale of this issue. Between 1996 and 2001 the number of employed persons living in Casey increased by 16, 815[20] but, as Table 6 shows, there were only 8,436 additional jobs created in Casey. Most of these new jobs were in sectors which have a high part- time component.

CONCLUSION

The outcomes displayed above indicate that the Central region has maintained its dominance of new economy employment but has relinquished some of the retail, medical and other services it once provided to suburbanites. To this extent, the Central region is no longer as closely articulated with suburban residents as in the past.

Meanwhile, suburbs have become more diverse in the range of employment opportunities they offer. They now vie with the Central region as alternate providers of goods and services to the population, as well as being nodes of specialised industrial, research and new economy firms.

The implications for planning are profound. It is very unlikely that the *Melbourne 2030* planning vision will achieve the kind of focus of job creation in particular activity centres to which it aspires. These activity centres, for example, do not provide for industrial estates or for low rise warehouse, research and development, light manufacturing and diverse other service functions. A congested activity centre is totally inappropriate for such functions. To take just one example, currently the manufacturing, warehousing and transport industries account for 385,236, or 27 per cent, of all the jobs located in Melbourne. Although *Melbourne 2030* highlights the

Appendix: Classification of industries showing ANZSIC Divisions and subdivisions

Agriculture, Forestry & Fishing; Mining	**Construction**
A Agriculture, Forestry and Fishing	E Construction
B Mining	**Distribution & Transport**
Manufacturing: new economy *	F Wholesale Trade
2543 Medicinal and Pharmaceutical Product Manufacturing	I Transport and Storage
283 Photographic and Scientific Equipment Manufacturing	**Mass Goods and Services**
284 Electronic Equipment Manufacturing	D Electricity, Gas and Water Supply
24 Printing, Publishing and Recorded Media	G Retail Trade
Manufacturing: old economy	M Government Administration and Defence
Rest of Manufacturing	N Education
Services: new economy**	O Health and Community Services
J Communication Services	**Mass Recreation**
K Finance and Insurance	H Accommodation, Cafes and Restaurants
L Property and Business Services	P Cultural and Recreational Services
Personal and Other Services	**Other (includes not stated)**
Q Personal and Other Services	Not stated
	R Non-Classifiable Economic Units.

* A few persons employed in other parts of the petroleum, coal and chemical industry were included in new manufacturing industry in 1996. ** Ideally the Security, pest control and cleaning services parts of Business Services would have been better removed from new economy services but the data for 1996 did not allow this.

availability of well-located industrial land as one of Melbourne's key competitive advantages,[21] the policies to concentrate industrial activities in locations near road and rail freight networks, and to maintain buffer distances from incompatible uses, suggest that any growth in jobs in this sector will be tangential to the growth of activity centres.

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