PEOPLE AND PLACE

A DECADE OF CHANGE IN INDUSTRY EMPLOYMENT: MELBOURNE AND SYDNEY COMPARED

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This review of employment in Melbourne and Sydney is based on a customised data set enabling comparison of industry outcomes at a detailed level over the decade 1986 to 1996. The data show that growth in the service industries, particularly services to property and business, has been the dominate source of employment growth in the two cities. However, Sydney has been more successful than Melbourne in capturing higher level occupations within these industries. On the other hand, Melbourne has been more successful than Sydney in retaining employment in manufacturing industries. The effects of state government cuts, particularly in education and government administration, are much more evident for Melbourne than for Sydney.

The profile of employment in Australia has changed radically over the past two decades or so. This change has been, for many employees, accompanied by fears about the resulting labour-market outlook. There has been concern about de-industrialisation and the shift of mass-production manufacturing from Australia to low-wage countries, particularly the industrialised countries of Asia. As part of a new international division of labour based on comparative advantage, Australia was expected to rely more heavily upon raw material exports and tourism.

Successive Australian governments have argued that tariffs and quotas had propped up an inefficient manufacturing sector incapable of competing internationally.[1] Beginning in the 1970s, but more intensely from the mid-1980s, there has been a range of state and federal micro-economic reforms aimed at improving the international competitiveness of the Australian economy. These reforms included industrial-relations changes, reductions of import tariffs and quotas, industry deregulation, deregulation of the financial system, reductions in government assistance and privatisation of public-sector enterprises and administration, as well as a national competition policy.[2] Both governments and commentators alike anticipated that, while uncompetitive manufacturing declined, service industries would flourish.

In this paper we look at the resulting changes in employment in manufacturing and other major industries, especially those in the service sector, over the decade 1986 to 1996 with particular reference to the employment outcomes in Melbourne and Sydney.

CONCEPTUALISING THE SERVICE INDUSTRIES

In the new economic and technological environment, service industries are not exclusive of, or in opposition to, manufacturing. As Probert and others have pointed out, 'the growth of services is intimately connected to the reshaping of manufacturing on a global level'.[3] In other words, new industries have grown, and will continue to grow, to provide a multitude of services for production, rather than merely for consumption, especially as new technologies in communications and information are integrated with the production of both goods and services.[4] 'Producer services', for example, are identified here along the lines of O'Connor and Edgington, as comprising industry divisions of Property and Business Services, Communications and Finance and Insurance.[5] Producer services, therefore, are conceptualised as high-tech, high-skill and professional-type services. At the same time, it needs to be recognised that, although these industry divisions have high concentrations of high-level producer-services occupations, not all of those which fall within these industry divisions are high-level jobs.

Analysing labour-market change in the U.S., Robert Reich, secretary for labour under the first Clinton administration, emphasised the interrelated character of high and low-level work within the developing service industries. He used the term 'symbolic analyst' to describe the growing category of high-level personnel who specialise in strategic problem solving and the manipulation of abstract information. 'The threads of the global web', Reich argued, 'are computers, facsimile machines, satellites, high resolution monitors and modems -- all of them linking designers, engineers, contractors, licensees and dealers worldwide'.[6] Symbolic analysts can trade their skills globally and their fate is often closely tied to the strategies of transnational corporations. In addition, according to Reich, we find significant growth of in-person services (or person-to-person services) that satisfy the life-style requirements of symbolic analysts and a growing middle class. In-person services include areas such as domestic help, child care, sports and leisure, restaurants, cafes, theatre and film.

Consistent with Reich's analysis, we find in Australia a growing call for the workforce to be more educated, multiskilled and flexible for higher-level service-sector work. At the same time, there is increasing demand for lower-level jobs (in-person services and routine production work) which are increasingly casual and part-time[7] partly because employers can now better calculate their optimum profit periods and expect labour flexibility in relation to those times, and partly because economic globalisation has contributed to greater market volatility.

INTERPRETATIONS OF THE MELBOURNE/ SYDNEY DIVIDE

During the 1980s and 1990s, it was frequently assumed in both expert and popular commentary that a shift to an information and service-based economy would render Melbourne, which was historically the centre of Australian manufacturing and protectionism, a rust-belt city.[8] By contrast, Sydney was expected to benefit from its role as the focal point in Australia for international capital. Analysing data on

producer services for the 1980s, O'Connor and Edgington argued that 'Sydney has become the international finance centre for Australia, while Melbourne is the nation's major manufacturing centre'.[9] Sydney's growth in the 1980s as the preferred Australian city for the headquarters of major financial institutions and multinational corporations led Fagan and Webber to conclude:

> Sydney's growth as the leading centre for corporate control reflects the restructuring of Australia's links with the global economy, the massive inflow of international finance capital from the Euromarket, North America and the Asia-Pacific region, and the rapid spin-off of financial and business services.[10]

It was also expected that employment in Melbourne would be worse hit by both state and federal government reforms to public services.
In this article, we analyse in more detail the changed levels of employment in producer services, manufacturing and other industry divisions to ascertain whether the comparative trends between Melbourne and Sydney through the 1980s have continued through the 1990s.

THE DATA SETS USED

The industry data are drawn from a customised data set, based on the Australian Bureau of Statistics (ABS) Labour Force Survey (LFS), held by the Centre for Population and Urban Research. It is comprised of employed-persons-by-industry data for Australia, Melbourne and Sydney. These data have not previously been published. They are based on a concordance of industry categories which makes possible a comparison of data gathered before and after May 1994 when a new set of industry definitions was adopted. We have chosen to compare 1986 and 1996 data because the intervening period is long enough to capture the employment impact of recent structural change in Australia.

Labour Force Survey data are subject to sampling error which needs to be taken into account, especially when dealing with small cell numbers resulting from the three-digit classification level. It should also be remembered that the concordance, which equates the two sets of industry definitions, is most accurate at the point in time when it was devised. The longer the time lapse either before or after this point, the greater the error is likely to be when the concordance is applied. The data presented are not based annual averages between 1986 and 1996. The figures are simply taken at a point in time, namely August, in each of these years.

In addition to the data on industry employment, we are also interested in the extent to which jobs in producer and other services are more or less professionally-intensive. For this we utilise a customised 1996 Census matrix, which allows a cross-tabulation of industry by occupation. In particular, the Services to Property and Business, Finance and Insurance and Communications industry divisions are disaggregated by occupation. Although these statistics are based on the states rather than the capital cities, we regard them as a reasonable indicator of the occupational composition of these industry divisions in Melbourne and Sydney, because most of these jobs are located in the metropolises.

One of the growing features of labour-market change is the growth in the numbers of 'precariously' employed persons.[11] This type of work is often 'non-standard' employment where jobs are part-time or casual with low incomes. The analysis below, however, does not address such qualitative aspects of the changing nature of work.

JOB-GROWTH INDUSTRIES

In August 1996 there were 1.4 million more persons with jobs than in August 1986. The 1.4 million figure is the net outcome of the job gain in some industry divisions minus the job loss in other divisions. The industry divisions of net job gain and loss for Australia, Melbourne, and Sydney are shown in Table 1. There was an overall net job growth in Melbourne of around 194,000, representing about 14 per cent of the overall net job growth in Australia during the period. By comparison, Sydney generated around 262,000 net jobs, or approximately 19 per cent of national job growth. Given the relative population levels of the two cities (Sydney has about 18 per cent more people than Melbourne), the relative overall job growth in Sydney is only marginally higher than in Melbourne.

Table 1: Employed persons by industry division: numbers and percentage change, 1986 to 1996

Industry division	Melb. 1986 ('000)	Melb. 1996 ('000)	Melb. % change 1986-96	Syd. 1986 ('000)	Syd. 1996 ('000)	Syd. % change 1986-96	Aus. 1986 ('000)	Aus. 1996 ('000)	Aus. % change 1986-96
Agriculture, Forestry and Fishing	10.6	15.4	45.3	13.7	13.0	5.1	416.7	422.4	1.4
Mining	2.0	1.5	-25.0	3.8	4.5	18.4	95.3	91.0	-4.5
Manufacturing	298.4	289.8	-2.9	294.2	253.1	-14.0	1118.2	1120.4	0.2
Electricity, Gas and Water	25.1	7.2	-71.3	29.0	14.7	-49.3	137.4	68.5	-50.1
Construction	89.1	95.3	7.0	103.0	138.6	34.6	496.7	603.0	21.4
Wholesale	82.5	103.8	25.8	128.3	131.3	2.3	427.3	494.7	15.8
Retail	174.4	215.0	23.3	207.0	257.0	24.1	957.6	1238.3	29.3

Accommodation, Cafes, Restaurants	27.6	57.4	108.0	48.8	80.3	64.5	239.4	378.6	58.1
Transport & Storage	70.7	66.4	6.1	91.9	99.1	7.8	385.3	393.0	2.0
Communication Services	30.8	43.4	40.9	40.4	43.5	7.7	157.6	164.4	4.3
Finance and Insurance	73.6	67.2	-8.7	97.4	106.0	8.8	307.0	311.9	1.6
Property and Business Services	112.2	180.2	60.6	122.1	221.3	81.2	454.7	812.8	78.7
Government Administration and Defence	65.9	53.4	-19.0	61.4	63.0	2.6	325.8	371.7	14.1
Education	99.4	102.9	3.5	84.6	129.0	52.5	472.2	590.2	25.0
Health and Community Services	102.3	131.3	28.3	132.5	150.2	13.3	571.5	766.4	34.1
Cultural and Recreational Services	18.0	39.0	116.7	37.3	38.4	2.9	126.4	189.2	49.7
Personal & Other Services	46.5	54.2	4.1	52.5	65.6	24.9	226.7	305.3	34.7
Total	1329.1	1523.4	14.6	1547.9	1808.6	16.9	6915.8	8321.8	20.3
Source: Labour Force Survey, August 1986 and 1996, customised tables									

For Australia, and for Melbourne and Sydney, the high job-growth industries were in the service-sector industry divisions. The Services to Property and Business division was by far the foremost employment-growth industry, nationally and in Melbourne and Sydney. In addition, there was substantial growth in the more labour-intensive services (in-person services) such as the Retail industry, Acommodation, Cafes and Restaurants and Health and Community Services. In Sydney, but not in Melbourne, there was significant employment growth in the Education and Construction industries (and to a lesser extent in Finance and Insurance). On the other hand, Melbourne had higher growth rates in Accommodation, Cafes and Restaurants, Cultural and Recreational Services, Health and Community Services and in the Wholesale industry. Overall, therefore, the data show that, as economic restructuring proceeds, Sydney is outperforming Melbourne in professional-level services growth in business and finance, while Melbourne exceeds Sydney in cultural, health and community services.

We now explore each industry sector in detail with the main focus being the relative job growth in Melbourne and Sydney.

PRODUCER SERVICES

Services to Property and Business

This industry is the largest growth area in terms of numbers employed and a key factor in producer services which relate directly to Australia's increasingly market-oriented internationalisation. Table 1 shows that Services to Property and Business accounted for a net employment growth of 358,000, or more than 25 per cent of the national net job gain between 1986 and 1996. Sydney accounted for around 27 per cent of this overall figure, and Melbourne for 19 per cent. Whereas in 1986 Services to Property and Business accounted for 6.6 per cent of national employment, by 1996 this industry division accounted for 9.8 per cent.

As shown in Table 2, Computer Services employment grew far more rapidly in Sydney than in Melbourne. Computer Services employment in Sydney grew by nearly 315 per cent (6,700 to 27,800 jobs) between 1986 and 1996 and in Melbourne by 232 per cent (from 5,300 to 17,600 jobs).

Table 2: Numbers of persons employed in Property and Business Services industry groups, Melbourne and Sydney, 1986 and 1996

Industry groups	Melb. 1986 ('000)	Melb. 1996 ('000)	Melb. % change 1986-96	Syd. 1986 ('000)	Syd. 1996 ('000)	Syd. % change 1986-96
Property Operators and Developers	3.8	3.4	-10.5	4.2	3.4	-19.0
Real Estate Agents	9.7	8.4	-13.4	7.8	16.7	114.1
Non-Financial Asset Investors	0.1	0.0	-100.0	0.1	0.6	500.0
Machinery and Equipment Hiring and Leasing	2.6	3.8	46.2	1.8	3.3	83.3
Scientific Research	5.9	6.1	3.4	5.6	2.7	-51.8
Technical Services	18.2	23.2	27.5	17.7	23.4	32.2
Computer Services	5.3	17.6	232.1	6.7	27.8	314.9

Legal and Accounting Services	25.9	30.8	18.9	29.2	45.1	54.5
Marketing and Business Management Services	14.0	38.8	177.1	17.5	48.0	174.3
Other Business Services	26.7	48.1	80.1	31.5	50.3	59.7
Prop. and Bus. Services total	112.2	180.2	60.6	122.1	221.3	81.2
Source: ABS Labour Force Survey, August 1986 and 1996, customised tables						

Sydney's employment growth in Legal and Accounting Services was also higher than in Melbourne. As shown in Table 2, Sydney's employment in this area grew by nearly 16,000 jobs, or by approximately 55 per cent. On the other hand, Melbourne's growth was more modest, at about 19 per cent.

In Marketing and Business Management Services, both Sydney and Melbourne had substantial employment growth, and both at about the national growth rate. Nevertheless, Sydney maintained its lead over Melbourne in terms of its share of national employment in this area, at approximately 33 per cent compared with Melbourne at 26 per cent. Further analysis below of occupations in the Services to Property and Business industry shows employment growth; not only of high-status positions such as legal professionals, accountants, managers, entrepreneurs and business consultants of various kinds (symbolic analysts); but also of lower-status occupations like cleaners and secretarial and personal assistants.

Finance and Insurance

Table 1 shows that, although providing a large number of jobs nationally (more than 310,000 in 1996), Finance and Insurance overall was not a high employment-growth industry between 1986 and 1996. Several groups within this industry division underwent marginal employment decline. There were some significant differences between Melbourne and Sydney, particularly in Deposit-Taking Financiers and Services to Finance and Investment where Sydney had employment increases. The data are consistent with the shedding of routine clerical work in banking and insurance[12] which suggests some further professionalisation in this industry over the period.

Finance and Insurance is therefore also an industry providing producer services in which Sydney is surpassing Melbourne. Table 1 shows that, whereas employment in this industry division grew by only about two per cent at the national level, in Sydney it grew by 8.8 per cent. At the same time, employment in this division in Melbourne declined by 8.7 per cent. The data support claims that Sydney, much more so than Melbourne, has benefited from the re-orientation of industry towards producer services. It confirms expectations that Sydney has been expanding more as Australia's financial interface with the global economy and the Asian regional economies.

Communication Services

While the aggregate figures in Table 3 show a much larger increase for Melbourne in Communication Services, more detailed breakdown reveals an increase of almost 16,000 jobs in postal and courier services in Sydney compared with 12,000 in Melbourne. While jobs in Telecommunication Services in Melbourne remained the same, more than 12,000 jobs were lost in Sydney. Thus, overall within the Communication Services industry division, higher-level jobs have given way to lower-level courier jobs. Thus it seems that rationalisations in Telecom affected Sydney more significantly than Melbourne in terms of employment levels. The experience of employment changes in Communications, it seems, is not consistent with the growth of symbolic analysts in other producer services. This is most probably a feature of more sophisticated computer and telecommunications technology displacing labour in one industry group, with a concomitant growth in demand for more labour-intensive courier services. Courier services have been increasingly out-sourced by larger companies and government departments, particularly where they are orientated to 'just-in-time' delivery principles.

Table 3: Numbers of persons employed in Communication Services industry groups, Sydney and Melbourne, 1986 and 1996						
Industry groups	Melb. 1986 ('000)	Melb. 1996 ('000)	Melb. % change 1986-96	Syd. 1986 ('000)	Syd. 1996 ('000)	Syd. % change 1986-96
Postal and courier services	2.3	15.0	552.2	2.8	18.2	550.0
Telecommunication services	28.5	28.4	-0.4	37.6	25.3	-32.7
Communication services total	30.8	43.4	40.9	40.4	43.5	7.7
Source: ABS Labour Force Survey, 1986 and 1996, customised tables						

OTHER SERVICE INDUSTRIES

In this section of the analysis, we look at other selected service industry divisions which are not directly attributable to producer services. As the general shift of employment in Australia is towards services, we want to identify the relative proportions of high-skilled and low-skilled occupations within these industry divisions.

We noted earlier that according to Reich, we should expect to find a significant growth in person-to-person services suited to the life-style requirements of symbolic analysts. Further, the out-sourcing of various domestic activities also contributes to the shift to service work. Such out-sourcing has both elite and mass dimensions, both of which contribute to the creation of casual, temporary, part-time service-sector work which can be described as peripheral within the labour market. Because of the co-emergence of elite and mass in-person services, it is difficult to discern within the data that component relating to the life-style needs of high-level information workers. Nevertheless, the data show strong growth in those person- to-person service areas which are associated with the life-style demands of the new middle-class elite described by Reich. Such employment growth is evident in the Retail, Cultural and Recreational Services, Personal Services, Accommodation and Cafes and Restaurants industry divisions.

Retail

Table 1 shows that national employment growth in the Retail industry was more than 280,000 jobs. This was 20 per cent of the national net employment growth in the 1986 to 1996 period and constituted the second highest growth area. Of the overall national job growth in retailing, 17.8 per cent occurred in Sydney and 14.5 per cent in Melbourne. Employment growth in Melbourne and Sydney in this industry sector closely reflected the national trend, in both rate of growth and as a proportion of the employed population in each of the two cities.

The growth of employment in this field partly reflects the deregulation of retail opening hours and increased labour 'flexibility'. In other words, a large proportion of jobs are casual or part time (see below).

Health and Community Services

In Health and Community Services there were substantial employment increases. Interestingly, Melbourne's growth here was greater than in Sydney. In Melbourne, the most dramatic change was a boom in childcare services, with employment increasing from 700 in 1986 to 11,600 in 1996. Sydney's childcare jobs increased from 1,300 to 8,700. It is likely that, since 1996, these numbers have declined somewhat. Employment in community care services also rose in Melbourne by 7,800, an increase of 62 per cent. In Sydney, community care service jobs increased by a more modest 2,600, or 12 per cent.

Accommodation, Cafes and Restaurants

A more detailed breakdown of the Accommodation, Cafes and Restaurants division in Table 4 reveals that Melbourne's employment growth was mainly in cafes and restaurants as well as in pubs, taverns and bars. Sydney's growth was almost all in cafes and restaurants. As with the retail sector, jobs in this field are increasingly part-time and casual, employing youth, students and others in transition. Most jobs here are not considered career-orientated. In fact, this sector had the largest proportion of casual jobs of any industry division.

Table 4: Numbers of persons employed in Accommodation, Cafe and Restaurant industry groups, Melbourne and Sydney, 1986 and 1996

Industry groups	Melb. 1986 ('000)	Melb. 1996 ('000)	Melb. % change 1986-96	Syd. 1986 ('000)	Syd. 1996 ('000)	Syd. % change 1986-96
Accommodation	7.7	10.9	41.6	10.5	13.8	31.4
Pubs, Taverns and Bars	5.8	13.6	134.5	8.0	9.6	20.0
Cafes and Restaurants	10.8	28.2	161.1	14.8	37.8	155.4
Clubs (Hospitality)	3.3	4.7	42.4	15.5	19.1	23.2
Accommodation, Cafes, Restaurants total	27.6	57.4	108.0	48.8	80.3	64.5

Source: Labour Force Survey, 1986 and 1996, customised tables

Cultural and Recreational Services

Comparing Melbourne and Sydney to the national trend in these high-employment-growth areas, some notable differences are evident. While national employment in the Cultural and Recreational Services sector grew by nearly 50 per cent between 1986 and 1996 (see Table 1), it only grew by 2.9 per cent in Sydney. However, employment growth in this sector in Melbourne was 116 per cent. Table 5 shows that in 1986, Melbourne employed approximately 18,000 persons in this industry compared to Sydney's 37,000. By 1996, Melbourne employed virtually the same number as Sydney. It appears that Cultural and Recreational Services is one area where Melbourne is leading Sydney in job creation. It is noteworthy here that the most significant increases in Melbourne were jobs in sport (7,500) and gambling (3,800). In Sydney, jobs were lost in sport (1000), film and video services (3,200), libraries (2,200) and museums (1,600), though there was a job gain in gambling services of 4,200.

Table 5: Numbers of persons employed in Cultural and Recreational industry groups, Melbourne and Sydney, 1986 and 1996

Industry groups	Melb. 1986 ('000)	Melb. 1996	Melb. % change 1986-96	Syd. 1986 ('000)	Syd. 1996 ('000)	Syd. % change 1986-96

		('000)				
Film and Video Services	2.7	5.3	96.3	6.6	3.4	-48.5
Radio and Television Services	2.2	2.9	31.8	5.4	6.7	24.1
Libraries	0.5	1.5	200.0	3.1	0.9	-71.0
Museums	0.4	0.5	25.0	2.2	0.6	-72.7
Parks and Gardens	0.7	0.5	-28.6	0.9	1.5	66.7
Arts	1.1	3.2	190.9	2.8	4.3	53.6
Services to the Arts	0.5	2.5	400.0	1.2	1.2	0.0
Sport	4.7	12.5	166.0	6.1	5.1	-16.4
Gambling Services	2.9	6.7	131.0	3.8	8.0	110.5
Other Recreation Services	2.3	3.4	47.8	5.2	6.7	28.8
Culture and Recreation total	18.0	39.0	116.7	37.3	38.4	2.9
Source: Labour Force Survey, 1986 and 1996, customised tables						

Education

There is also a marked difference in employment growth between Melbourne and Sydney in the Education industry. Table 1 shows that between 1986 and 1996, national employment growth in this sector, which includes pre-school through to university education, was 118,000 jobs, or 25 per cent. The increase in Sydney of 44,000 jobs, or 52 per cent, was above the national average. But, in Melbourne, employment growth in education was only 3.5 per cent, or 3,500 jobs. Table 6 shows that much of the employment growth in Sydney was due to increases in School Education (primary and secondary) and Post-School

Table 6: Numbers of persons employed in Education industry groups, Melbourne and Sydney, 1986 and 1996

Industry groups	Melb. 1986 ('000)	Melb. 1996 ('000)	Melb. % change 1986-96	Syd. 1986 ('000)	Syd. 1996 ('000)	Syd. % change 1986-96
Preschool Education	2.8	1.8	-35.7	2.5	6.0	140.0
School Education	64.0	56.0	-12.5	58.1	70.4	21.2
Post School Education	25.2	34.4	36.5	18.5	41.1	122.2
Other Education	7.4	10.7	44.6	5.5	11.5	109.1
Education total	99.4	102.9	3.5	84.6	129.0	52.5
Source: ABS Labour Force Survey, 1986 and 1996, customised tables						

education (TAFE and University). Post-School Education increased in Melbourne too, from approximately 25,000 to 34,000 jobs (though still a lower rate than in Sydney), but employment in School Education dropped from approximately 64,000 to 56,000. This reflects the closures of Victorian schools by the Kennett government and sits rather uneasily with Victorian and Federal Government rhetoric about a 'knowledge-led recovery' and the need for a better educated, information-rich workforce. Again, since 1996, we should also see a reduction of employment numbers in the tertiary education sector since there has been substantial rationalisation and redundancies in universities.

Wholesaling

Employment in Wholesaling increased by 67,000 jobs or 15.8 per cent at the national level (Table 1). Melbourne had a large share of this growth with an increase of more than 21,000 jobs, or more than 25 per cent. In Sydney there was only marginal employment growth in Wholesaling, although this was upon a markedly higher employment base than in Melbourne.

Government Administration and Defence

Another sector of moderate employment growth (approximately 46,000 jobs) at the national level, but a sharp decline in Melbourne of 12,500 jobs, was Government Administration and Defence. The Defence component decreased nationally from approximately 30,000 to 20,000 jobs. This decline was reflected in both Melbourne and Sydney. The Government Administration component of this industry division grew by about 50,000 persons. This growth was outside of Melbourne and Sydney. Government administration in Melbourne experienced a decline of approximately 6,000, reflecting rationalisation by the Victorian Government. Meanwhile, Sydney virtually maintained its 1986 employment level at approximately 51,000.

Electricity, Gas and Water

The employment toll exacted by restructuring is most notable in the Electricity, Gas and Water industry division. Nationally, 50,000 jobs were lost in this sector between 1986 and 1996. More than 64 per cent of this loss occurred in Melbourne and Sydney (approximately 18,000 and 14,000 respectively). This industry has undergone substantial restructuring, privatisation and the opening of national energy markets. In Melbourne, most of the job decline came from electricity followed by water supply, sewerage and drainage services (see Table 7).

Table 7: Numbers of persons employed in Electricity, Gas and Water industry groups, Melbourne and Sydney, 1986 and 1996

Industry groups	Melb. 1986 ('000)	Melb. 1996 ('000)	Melb.% change 1986-96	Syd. 1986 ('000)	Syd. 1996 ('000)	Syd. % change 1986-96
Electricity Supply	12.1	1.6	-86.8	14.7	7.1	-51.7
Gas Supply	4.7	3.7	-21.3	1.6	0.9	-43.8
Water Supply, Sewerage and Drainage Services	8.3	1.9	-77.1	12.7	6.7	-47.2
Elect., Gas, Water - Total	25.1	7.2	-71.3	29.0	14.7	-49.3

Source: ABS Labour Force Survey, 1986 and 1996, customised tables

MANUFACTURING

Table 1 shows that, nationally, overall employment in manufacturing remained at the same level in 1996 that it was in 1986. Both Melbourne and Sydney experienced net employment declines in this

Table 8: Numbers of persons employed in Manufacturing industry divisions and selected manufacturing industry groups, Melbourne and Sydney, 1986 and 1996

Industry groups	Melb. 1986 ('000)	Melb. 1996 ('000)	Melb. % change 1986-96	Syd. 1986 ('000)	Syd. 1996 ('000)	Syd. % change 1986-96
Food, Beverage & Tobacco	27.3	26.5	-2.9	33.1	29.2	-11.8
Textile, clothing,footwear,leather	52.2	40.9	-21.6	30.2	25.8	-14.6
Wood and paper	12.6	14.5	15.1	13.6	13.8	1.5
Printing, publishing, recorded media	26.8	32.6	21.6	32.2	39.6	23.0
Petroleum, coal, chemical & associated	35.2	32.0	-9.1	38.0	29.9	-21.3
Non-metalic mineral product	12.1	13.7	13.2	12.2	9.1	-25.4
Iron and steel	35.4	29.5	-16.7	39.3	29.3	-25.4
Machinery and equipment	78.5	81.1	3.3	75.0	60.8	-18.9
Other, incl. furniture, jewellery, toys	18.3	18.9	3.3	20.6	15.6	-24.3
Manufacturing total	298.4	289.8	-2.9	294.2	253.1	-14.0

Source: ABS, Labour Force Survey, August 1986 and 1996, customised tables

period, of 8,700 and 41,100 respectively, which represents a 2.9 per cent decline for Melbourne and a 14 per cent decline for Sydney (Table 8). This is a surprising result given the widely-held pessimism concerning the future of manufacturing in Melbourne. For example, manufacturing employment in Melbourne and Sydney in 1986 was almost identical. By 1996, the gap had widened considerably due to the higher level of decline in manufacturing employment in Sydney. Therefore, manufacturing employment continues to be of greater relative importance to Melbourne given the smaller size of Melbourne's workforce.

The manufacturing sectors which saw substantial employment growth nationally between 1986 and 1996 were Food, Beverages and Tobacco; and Printing, Publishing and Recorded Media.

Employment growth in Food, Beverages and Tobacco occurred outside of Melbourne and Sydney, as both cities recorded employment decline in this area, indicating the non-metropolitan location of this manufacturing sector.

Looking at the industry groups elaborated in Table 9, we see that employment increased in Motor Vehicle and Parts manufacturing in Melbourne by 11.5 per cent, while in Sydney the number decreased by almost 63 per cent. This is consistent with Melbourne's dominance in this industry. In the past decade, a number of changes were introduced into the motor vehicle and parts industry which are too numerous to elaborate here.[13] However, it would seem that reduced tariff protection, increased import quotas, export facilitation and new production techniques all combined to provide a relative overall stability in terms of employment levels, at least until the review of tariffs in 2010.[14] Motor Vehicle and Parts manufacturing has therefore consolidated in Melbourne in the 1986 to 1996 period. Whereas Melbourne's share of national employment in this industry group was 44.3 per cent in 1986, it had increased to 49.6 per cent by 1996. In contrast, Sydney's share decreased markedly from 16.2 per cent to six per cent in the same period.

Table 9: Numbers of persons employed in Machinery and Equipment Manufacturing industry groups, Melbourne and Sydney, 1986 and 1996

Industry groups	Melb. 1986 ('000)	Melb. 1996 ('000)	Melb. % change 1986-96	Syd. 1986 ('000)	Syd. 1996 ('000)	Syd. % change 1986-96
Motor vehicle and parts manufacturing	33.1	36.9	11.5	12.1	4.5	-62.8
Other transport equipment manufacturing	7.3	5.8	-20.5	17.4	8.7	-50.0
Photographic and scientific equip. Manufacturing	4.3	4.2	-2.3	3.4	2.5	-26.5
Electronic equipment manufacturing	6.6	6.7	1.5	8.0	9.4	17.5
Electrical equipment and appliance manufacturing	13.9	15.0	7.9	17.2	16.1	-6.4
Industrial machinery and equip. Manufacturing	13.3	12.5	-6.0	16.9	19.6	16.0
Machinery and equipment manufacturing total	78.5	81.1	3.3	75.0	60.8	-18.9

Source: ABS Labour Force Survey, 1986 and 1996, customised tables

Textiles, Clothing and Footwear (TCF) was an area of substantial national employment loss of 25,000 jobs. Melbourne was more seriously affected than Sydney. The decline in TCF has been a direct result of import barriers being lifted during this period and the shift to production offshore. There is also an increasing reliance of local manufacturers in the use of 'outworkers',[15] but it is not clear to what extent outworkers are picked up in the Labour Force Survey data. Melbourne's job losses in this sector occurred mainly from textile manufacturing activity, rather than clothing. Table 10 shows that employment in the more capital-intensive Knitting-Mills industry group declined in Melbourne by about 5,000 jobs, or by 63 per cent. At the same time, Melbourne's employment in Clothing Manufacturing also declined, but to a lesser degree, by nearly 15 per cent or 3,500 jobs.

Table 10: Numbers of persons employed in Textiles, Clothing and Footwear Manufacturing industry groups, Melbourne and Sydney, 1986 and 1996

Industry groups	Melb. 1986 ('000)	Melb. 1996 ('000)	Melb. % change 1986-96	Syd. 1986 ('000)	Syd. 1996 ('000)	Syd. % change 1986-96
Textile Fibre, Yarn and Woven Fabric Manufacturing	4.9	5.8	18.4	3.6	2.4	-33.3
Textile Product Manufacturing	8.4	6.8	-19.0	4.1	2.7	-34.1
Knitting Mills	9.0	3.3	-63.3	0.7	1.6	128.6
Clothing Manufacturing	23.1	19.6	-15.2	17.7	18.5	4.5
Footwear Manufacturing	6.0	2.7	-55.0	3.9	0.6	-84.6
Leather and Leather Product Manufacturing	0.8	2.7	237.5	0.2	0.0	-100.0
Textiles, Clothing & Footwear total	52.2	40.9	-21.6	30.2	25.8	-14.6

Source: ABS Labour Force Survey, 1986 and 1996, customised tables

Since the early 1990s, there has been debate about the formation of informal ethnic-enclave economies in major Australian cities, including concern about outworking in the garment industry. This concern led to a recent Senate Inquiry.[16] The relative resilience of clothing-manufacturing employment at a time of downgrading in capital-intensive textile production reflects the availability of low-cost labour in certain

economically marginalised migrant groups, particularly the Indochinese.[17]

Overall, however, manufacturing in Melbourne has withstood market pressures better than in Sydney. As Table 8 shows, some manufacturing areas which underwent substantial employment decline in Sydney suffered less decline, or even showed a small gain, in Melbourne.
Table 11 shows the shift in the employment share of manufacturing in Melbourne and Sydney, and for Australia, from 1986 to 1996.

Table 11: Persons employed in Manufacturing, number and percentage of all persons employed, Melbourne and Sydney, 1986 and 1996

	Melb. 86	Melb. 96	Syd. 86	Syd. 96	Aus. 86	Aus. 96
Persons employed in manufacturing ('000)	298.4	289.7	294.2	253.1	1118.2	1120.4
Persons employed in all industries ('000)	1328.9	1523.3	1548.5	1808.1	6918.6	8319.7
Persons employed in manufacturing (%)	22.5	19.0	19.0	14.0	16.2	13.5

Source: Labour Force Survey, August Quarters, 1986 and 1996, customised tables

CONSTRUCTION

Sydney and Melbourne also had disparate employment-growth outcomes in the construction industry. In Sydney, the level of employment growth in construction of nearly 35 per cent, was well above the national growth level of about 21 per cent. Table 1 shows that this meant an increase of about 35,000 jobs. In Melbourne, the employment-growth of seven per cent was markedly less than the national average, and dramatically less than Sydney.

This difference between the two cities reflects the relative strength of Sydney in a range of construction areas, particularly in the office-building boom of the 1980s. The resurgence in dwelling commencements in Australia after 1991 was stronger in Sydney than in Melbourne. This was especially so after 1994 when Sydney's share of national dwelling commencements increased sharply while Melbourne's share, and that of some other major cities, declined.[18] More important for the present discussion is office construction. Although the value of office construction in Australia severely declined after 1990, New South Wales (NSW) did not suffer as badly as Victoria.[19] The relatively high level of construction-industry activity in Sydney has been in part driven by demand for business office space,[20] as well as the supply of infrastructure for the Olympic Games. If the growth of information and service-based businesses has been partly catered for by existing office space left vacant after the construction boom-bust of the late 1980s, as O'Connor and Stimson argue, this helps explain the high employment growth in the Installation Trade Services and Building Completion Services groups of the construction industry which together constituted almost three quarters of employment growth in this division.

The office component of the relatively high level of construction activity in Sydney also explains the strong growth in the numbers of real estate agents in Sydney relative to the absolute decline in their numbers in Melbourne over the decade 1986 to 1996 (see Table 2).

HAS THE SHIFT TO SERVICE SECTOR EMPLOYMENT BEEN EXAGGERATED?

Caution is required in interpreting the high levels of employment growth in the service sector industries shown above. Many jobs which are now counted within service and information industry categories may previously have appeared under other industry categories. The increased prevalence of out-sourcing during the 1980s and 1990s has led to many jobs being re-classified in the official statistics. For instance, where some manufacturing firms may once have employed in-house cleaners, security and maintenance personnel who would have been recorded in official statistics under manufacturing employment, they now out-source these functions. Once out-sourced, these workers appear within the Services to Property and Business industry division. We need to be alert to what represents a genuine shift to a service and information-based economy and what is merely a re-categorisation of existing kinds of work. To illustrate this, Table 12 shows the industry divisions by broad occupational type for New South Wales (NSW) in 1996. The figures for Victoria are very similar and so have not been included.

As stated in the introduction, in other countries which have experienced a shift to services, there were accompanying increases in the number of low-skilled routine service-sector jobs and low-level in-person service positions. Table 12 shows that in the high growth industry of Services to Property and Business, 54 per cent of occupations are high-level jobs such as managers, administrators or professionals. However, there is also a substantial proportion (29 per cent) of relatively low-skilled and manual employment within this industry, comprised of Intermediate Clerical and Sales Service Workers, Intermediate Production and Transport Workers, Elementary Clerical and Sales Service Workers, and Labourers and Related Workers. To take one example, although it is not provided in our tables here, there are more than 20,000 cleaners identified as a major occupation in Services to Property and Business, representing almost eight per cent of all occupations in that industry division. Even in Finance and Insurance, less than half of the occupations were at the higher end (43 per cent) while 40 per cent of employees were in Intermediate and Elementary Clerical and Sales occupations. In Retail, Accommodation, Cafes and Restaurants and Transport and Storage, well over half the occupations are at the lower end of the occupational status scale. By contrast, Education, Health and Community Services as well as Cultural and Recreational Services

are better represented by higher status occupations.

Table 12: Persons (aged 15+ years) employed in New South Wales, occupational structure of selected industry divisions, percentages, 1996

Occupation	Manufacturing	Elect. Gas, water	Construction	Wholesale	Retail	Accommodation, cafes, restaurants	Transport and storage	Communications	Finance and insurance	Services to property and business	Gov't admin. And defence	Education	Health and community services	Cultural and recreational services	Personal and other services	Other	Total
Managers and administrators	10.8	6.1	10.9	14.4	3.3	2.3	6.4	6.0	10.1	8.9	8.0	5.8	3.3	10.1	4.1	31.7	9.2
Professionals	9.4	16.8	2.7	10.3	3.1	2.4	7.1	9.8	13.5	31.6	19.0	66.4	42.9	26.2	13.2	4.2	17.9
Associate professionals	5.4	14.5	6.3	8.7	15.4	24.7	7.2	14.6	19.6	13.8	12.7	4.0	9.6	15.3	21.5	3.3	11.1
Tradespersons	23.9	26.7	49.0	9.6	14.6	9.1	5.8	14.3	0.8	3.5	10.4	1.6	2.6	10.4	21.3	8.9	12.7
Advanced clerical	3.5	2.1	5.8	5.8	2.5	1.5	6.6	1.8	13.8	11.6	3.2	2.6	2.8	3.2	3.8	3.2	4.8
Intermediate clerical, sales, service	9.1	12.8	3.9	23.4	9.2	35.5	17.6	12.4	37.8	12.2	26.7	13.5	28.4	17.9	15.1	5.4	16.2
Intermediate production workers	18.0	9.2	8.5	14.0	7.3	1.7	37.2	12.1	0.5	2.2	6.6	0.8	1.0	2.2	4.5	10.6	8.4
Elementary clerical, sales, service	2.7	3.1	1.0	6.7	37.1	6.1	6.2	25.6	1.9	5.4	5.4	2.0	2.0	8.6	8.4	1.8	8.8
Labourers and related workers	15.2	6.6	10.7	5.7	6.4	15.7	4.5	1.9	0.6	9.5	5.4	2.7	6.8	4.8	7.1	12.3	8.2
Inadequately described/not stated	2.0	2.1	1.3	1.2	1.0	1.1	1.4	1.5	1.4	1.2	2.5	0.6	0.7	1.2	0.9	18.7	2.6
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	100.0	100.0	100.0	100.0	100.0
Total number	311,962	22,070	163,812	160,333	341,782	126,862	121,337	53,663	122,142	272,230	110,292	173,572	238,960	59,818	91,326	192,877	2,563,038

Source: ABS, 1996 census, customised matrix

Importantly also, a proportion of the higher-level work appearing under a number of industry divisions in Table 12 (particularly Services to Property and Business) may also be due to statistical re-classification resulting from down-sizing and out-sourcing. The out-sourcing of both professional and sub-professional white-collar work has become increasingly prevalent. Accountancy, which made up 6.3 per cent (17,159) of Business Services in NSW, is an occupation which has become widely out-sourced during the past decade. The services of accountants are often provided through skilled-labour agencies, which are in some cases the legal employer. This is a practice which offers labour-market flexibility for employers, but semi-marginalisation for some professional and associate-professional workers who were previously part of the labour-market core.

CONCLUSION

An examination of employment by industry data for 1986 to 1996 does not support some of the more pessimistic expectations of the 1980s concerning manufacturing decline in Melbourne, despite the

prevalence of factories and warehouses being transformed into middle class
residential areas in older industrial suburbs such as Fitzroy, Carlton and Collingwood. The loss of employment in Melbourne's manufacturing sector does not seem serious enough to suggest that the metropolitan area's industrial base is collapsing. Despite predictions of Melbourne becoming a rust-belt city, the net decline in manufacturing employment in Melbourne was not as severe as in Sydney. Indeed, Melbourne lost many more jobs through public sector decline (state and federal) between 1986 and 1996, than it did through manufacturing job loss.
At the same time, the data support the view that Sydney is developing as an interface with the global economy to a degree that Melbourne is not. Sydney experienced considerably stronger service and information-sector employment growth than Melbourne, particularly in the Services to Property and Business industry category.

However, the significant proportion of relatively low-skilled work within high employment-growth service-industries is consistent with less optimistic predictions that service and information-sector labour markets are developing a polarised, core-periphery dimension.
Finally, the extent of the shift to service-sector employment itself may have been exaggerated to some degree. Some of the apparent shift is almost certainly due to the re-classification of existing types of work as a result of down-sizing and subsequent out-sourcing, rather than a fundamental change in the character of work itself.

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