Central Business District Demographic and Employment Data Comparisons

Prepared for

AUCKLAND CITY

By

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Contents

1 Executive Summary

Demographic Findings

- Auckland's CBD covers a similar land area as the Sydney CBD, around twice the area of Wellington, Christchurch and Brisbane, and about 40% less area than Perth's CBD.
- Auckland's CBD is projected to experience population growth of a similar magnitude to Brisbane (30% between 2006 and 2011). Sydney's projected growth over the same period is around 22%.
- Occupancy rates in Auckland's CBD falls mid-way between the lower rates of the Australian CBDs and the higher rates of the New Zealand CBDs. On average, around 2.2 people live in each Auckland CBD household, compared with just under 3 people in households in the Christchurch and Wellington CBDs, and just under 2 people in the Australian CBDs.
- At just over 8,300 people, Auckland's CBD has a large residential population compared to the five other CBDs. Only Sydney (nearly 11,000 people) has a larger CBD population, while Wellington (7,800) is slightly smaller. The other three CBDs have populations of under 3,000.
- New Zealand's CBD populations are more youthful than those in Australia. The average age of New Zealand CBD residents is in the low to mid-30s, compared to high 30s in Australian CBDs.
- CBD populations are predominantly European (over 75%), with the exception of Auckland (50%), which has a larger proportion of Asian residents (32%).
- Renting is the norm in all six CBDs. Between 10% and 20% of dwellings in the CBD are owned by residents, with this proportion increasing by 5% to 10% (1991-2001).
- Households in Auckland's CBD have lower average incomes than those in Sydney, Brisbane and Wellington, but higher than those in Perth and Christchurch. Auckland CBD households had average incomes of $56,000.
- Around 33% of Auckland's residents are employed in professional, associate professional and technical positions, which is higher than Christchurch but lower than Wellington and the Australian CBDs.
- Mean weekly rents are a higher in Auckland's CBD ($334) than those in Wellington ($312) and Christchurch ($203). Average rents in Sydney (A$351) and Brisbane (A$320) are similar, but are a lot lower in Perth ($190).

Employment Findings

- Sydney CBD is the largest CBD in terms of employment (186,000 FTES in inner CBD alone). Auckland, Brisbane and Wellington are all of a similar size (59-60,000). Perth and Christchurch are smaller again, with 46,000 and 26,000 respectively.
- The New Zealand CBDs play a broader role in their regional economies than the Australian CBDs. This is reflected in the specialised nature of economic activity operating in the Australian CBDs, with high-order financial services dominating. This is especially the case for the Sydney CBD.

- Financial and Insurance services, together with the Hospitality and Culture, Communications, Property and Business, and Government administration sectors are the dominant sectors in all the CBDs analysed.
- In Auckland, Wellington and Christchurch, typically over 20% of regional employees in the dominant sectors are located in the CBD. In Australia these proportions are much lower, at around 10%.
- Growth in the key industry sectors (1991-2001) of Restaurants/Hotels, Property and Business, and Cultural/Recreation is similar amongst all CBD's studied.
- Decline in the Manufacturing and Transport sectors occurred in all NZ CBDs, and to a lesser extent in the Australian CBDs, with the exception of Brisbane. The share of CBD employment in these sectors is still slightly higher than the share commanded by the Australian CBDs.

2 Introduction

Market Economics has been commissioned by Auckland City to compile a summary document showing key demographic and employment characteristics of a number of cities in Australia and New Zealand. These characteristics focus on describing the form of demographic activity resident in each city's central business district (CBD), and placing this CBD information in context by comparing it with data for the city's hinterland, and with other cities.

The data presented is predominantly primary sourced from Australian and New Zealand censuses in 1991 and 2001. Data is presented at these two points in time to identify trends in the presented statistics. Data for Auckland City has been taken from Auckland City's report "Auckland Central CBD: Resident Population".

The cities studied for New Zealand are Wellington and Christchurch. The Australian cities are Perth, Sydney and Brisbane as these share similar characteristics to Auckland in terms of size or growth rate or population structure.

3 Area Definition

The demographic and employment data for each of the CBD and regional areas presented in this report is defined by Statistics New Zealand and the Australian Bureau of Statistics. Different methods for defining these areas are used in Australia and New Zealand, and it is important to understand how statistical areas are defined when comparing spatial data.

In New Zealand, the highest spatial resolution at which statistical data is collected is the meshblock. Meshblocks vary in size from part of a city block to large areas of rural land. Census Area Units (CAUS) are aggregations of meshblocks, and in turn aggregate to define urban areas, and territorial authority and regional council boundaries.

The Wellington and Christchurch CBDs analysed in this report are defined spatially based on area units. In Wellington, the CBD is defined as the Lambton and Willis Street area units, while in Christchurch the CBD was taken as the Cathedral Square area unit. Data presented for the Auckland CBD was defined by Auckland City, and has been taken from the report "Auckland Central CBD: Resident Population". Data for each of the three New Zealand CBDs is then placed in context along side data for the city and region, so Christchurch's CBD is compared to Christchurch City and the Canterbury Region, and Wellington CBD's with Wellington City and Region.

Table 3.1: Comparable statistical areas used in New Zealand and Australia

New Zealand		Australia	
Meshblock	MB	Collection district	CD
Area unit	AU	Statistical local area	SLA
Ward		Statistical subdivision	SSD
Territorial authority	TA		
Region		Statistical division	SD

Due to the way the Australian Bureau of Statistics (ABS) defines spatial areas, the CBD, City and Region level data all differ slightly from their New Zealand counterparts, but for most there is adequate similarity to enable some international comparison between areas. The correlation is shown above in Table 3.1.

The finest geographical area at which data is collected in Australia is the collection district (CD). Aggregations of CDs form statistical local areas (SLAs), which are roughly comparable to New Zealand area units. The other main statistical areas used in Australia are the statistical subdivision (SSD) and statistical division (SD). Neither of these are directly comparable to New Zealand territorial authority areas (cities and districts), so data in this report is not presented at this level for Australian cities. Australia's statistical divisions are roughly comparable to New Zealand's regions, and this data is presented for the Australian cities to place in context how key demographic characteristics of each CBD compare with those of their hinterland.

Australian cities' CBDs have been defined at an SLA level. In each of the cities analysed the ABS identified two SLAs that together form that city's CBD, calling these the 'Inner' and 'Remainder' SLAs. These have different functions to some degree, but need to be viewed in aggregate to compare with New Zealand CBDs. At this aggregate level, the CBDs have comparable land areas, as shown in Table 3.2. At the regional/SD level, there is a similar degree of comparability with regards land area. The following sections summarise the spatial extent of the CBD and SD areas for which data is presented in this report.

Table 3.2: Land area of areas analysed (km^2)

	Auckland	Wellington	Christchurch	Sydney	Brisbane	Perth
CBD	4.0	2.0	2.2	3.7	2.2	6.7
TA	60	29	45	-	-	-
Region/SD	5,600	8,124	45,346	12,150	4,670	5,400

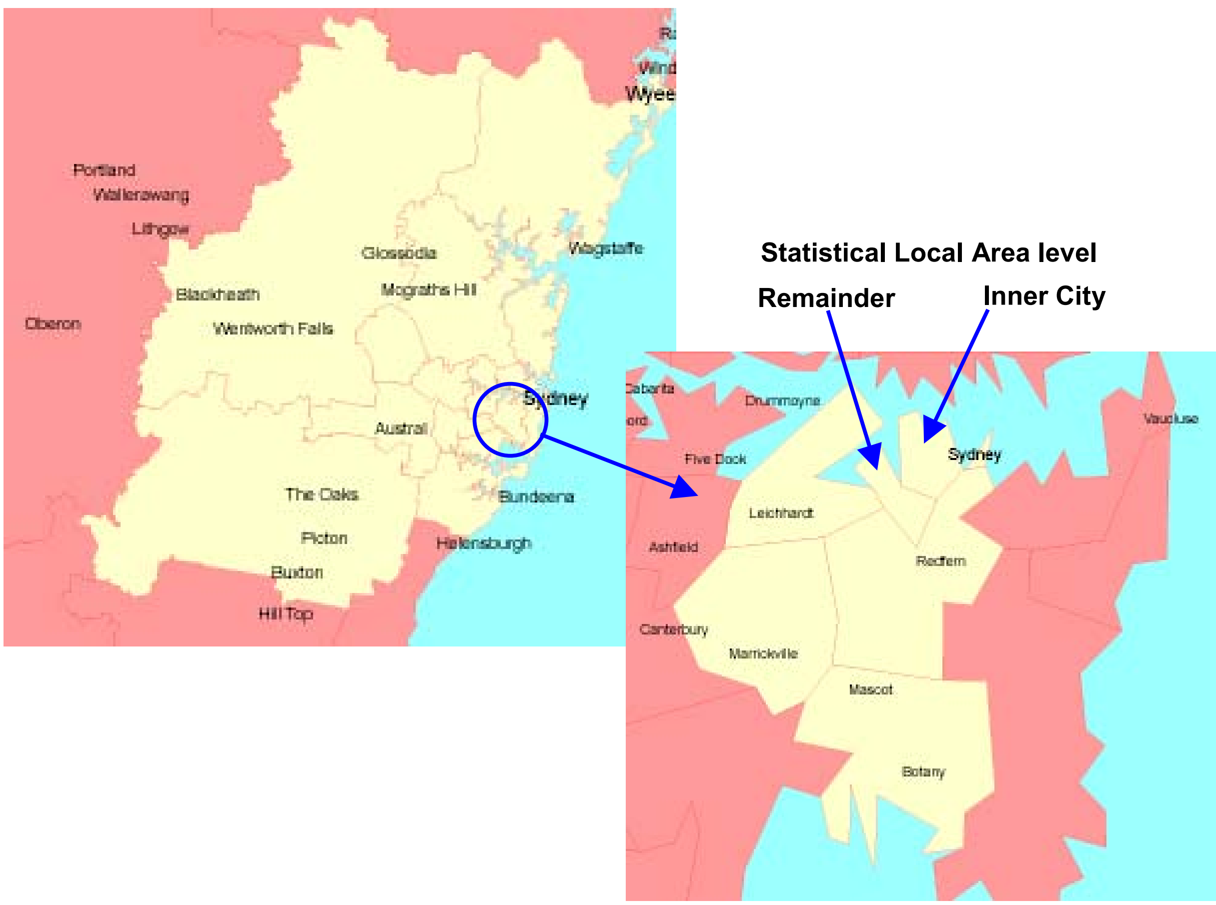
3.1 Sydney

The Sydney SD (shown in Figure 2.1) is a vast area of almost 12,150 km², with a population of 3.9m, almost four times that of the Auckland Region.

The Sydney SSD is one of 14 sub-divisions of the Sydney SD. The Sydney SSD is itself subdivided in to six SLAs, including the Inner and Remainder SLAs shown below. These two SLAs have been defined as being the core Sydney CBD. The CBD is a very small proportion of this area and of the region, with the inner (0.7 km²) and remainder (3 km²) together comprising less than half of one percent of the SD's total area.

Figure 3.1: Sydney CBD definition

Statistical Division level

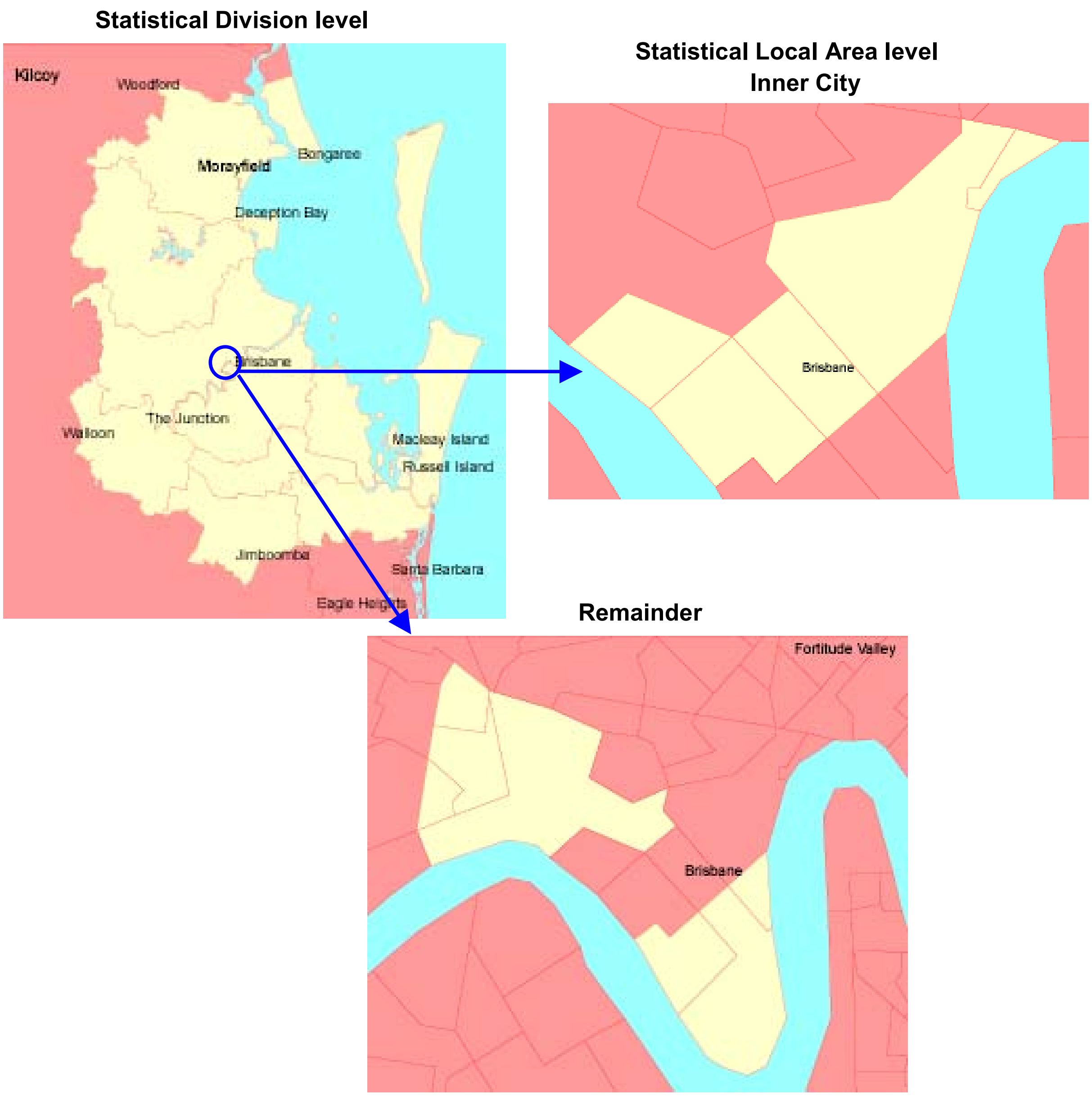


3.2 Brisbane

At 4,670 km², the Brisbane SD is less than 40% of the area of its Sydney counterpart, with a population of 1.6m in 2001 (slightly more than 41% of the Sydney total). The total land area is 30% less than Auckland's in 2001 but the population 40% higher.

The Brisbane SSD is one of eight SSD's in the SD, and the CBD's inner city SLA is flanked by the remainder area, as shown in Figure 3.2. The inner and remainder have similar areas to those in Sydney (0.7 km² and 1.5 km² respectively).

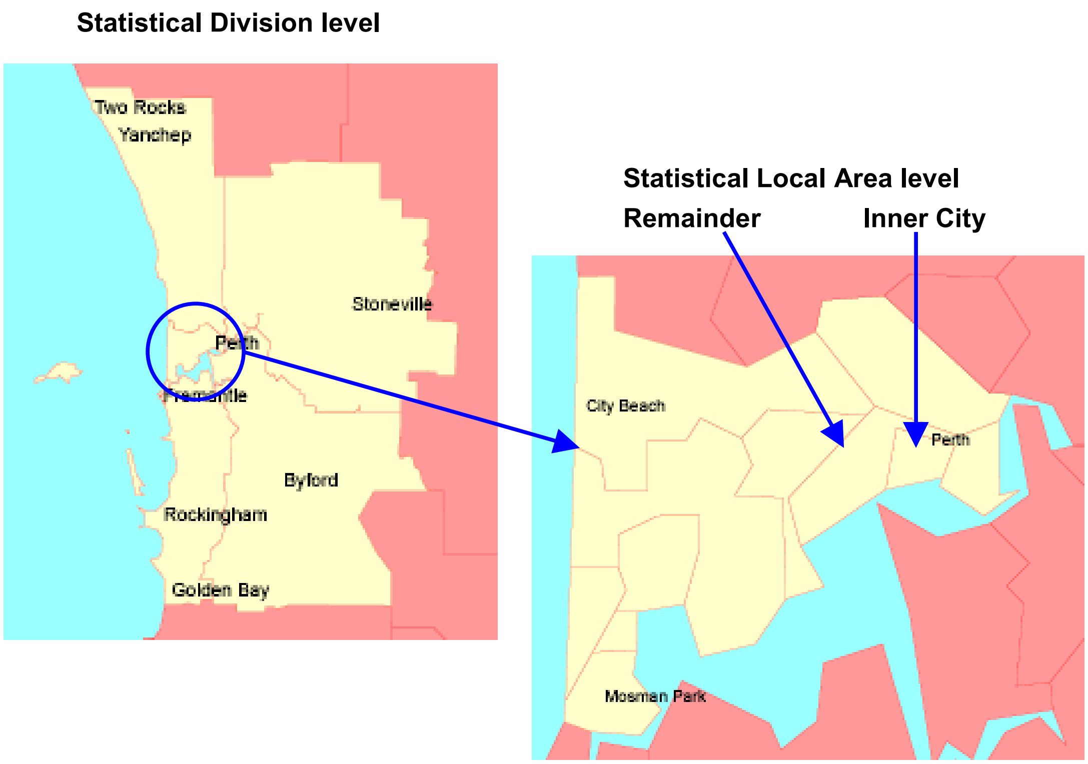
Figure 3.2: Brisbane CBD definition



3.3 Perth

The Perth SD is almost 5,400 km², with a population (1.4m) about 15% larger than that of the Auckland Region. The CBD is comprised of two SLAs on the banks of the Swan River, with the inner part of the CBD being surrounded in a crescent by the remainder, as shown below in Figure 3.3. The CBD is larger than its Sydney and Brisbane counterparts with the inner city area being 3.7 km² in area and the remainder being 3.0 km².

Figure 3.3: Perth CBD definition



4 Demographic data

Data presented in this section summarises some key demographic indicators of interest when describing the form and function of urban areas. Data are presented under a number of headings, correlating with those used in the "Auckland Central CBD: Resident Population". These headings include:

- Population and dwelling numbers
- Age structure
- Ethnicity
- Household tenure and structure
- Labour force

When viewing comparisons between cities, it is important to note the different roles played by CBDs within their hinterland. For example, the large size of the Sydney SD means the Sydney CBD plays quite a different role within the city as a whole (as defined by the SD) than the Auckland CBD plays in the Auckland Region. In Sydney there are more large sub-regional centres (quasi-CBDs) distributed across the SD, resulting in the CBD's economic dominance being far less pronounced than in Auckland. The dominance of the CBD in each of the regions analysed is generally inversely proportional to the region's size, so smaller regions (both in terms of activity and land area) will be dominated more by the CBD than larger regions.

This section summarises the data presented in Tables 3.1 to 3.6 (following). Key observations that may be made from the data presented include:

4.1 Population

- The population of Auckland's CBD has increased significantly between 1991 and 2001, jumping from under 1,500 to 8,300. Over the same period significant growth also occurred in Wellington (2,700 to 7,750) and Christchurch (530 to 1,300). Sydney inner (6,900 to 10,700) and Brisbane inner (1,000 to 2,600) both increased significantly, and the Sydney remainder grew from 6,600 to almost 27,000 in 2001. Growth rates in all these CBDs far exceeded projections cast in the mid-1990s.
- Australian population projections to 2006 and 2011 were cast prior to the 2001 Census, and given the high rate of growth picked up in the Census, but not before, population projections for these Australian CBDs start from a base that may be inconsistent with current population estimates.
- Growth rates forecast for the Australian CBDs, as for the Auckland CBD, exceed projected regional growth rates. Auckland's CBD population is projected to increase by around one third between 2006 and 2011, and over the same period populations living in Sydney's inner and remainder CBD SLAs are projected to increase by 17% and 24% respectively, compared to 5% for the Sydney SD. Brisbane's inner CBD is projected to grow by 31%, and its remainder by 11% (compared to SD growth of 8%), and Perth's remainder is also projected to grow by 11% (compared to 7% SD growth). The

population base used in Perth's inner CBD population projections is significantly lower than Census estimates of its population, but these projections forecast nil population growth in the Perth inner CBD SLA in the five years to 2011.

4.2 Occupancy rates

- Household occupancy has fallen in the Auckland CBD, and is now a lot lower than in Wellington and Christchurch where occupancy rates have remained steady or increased slightly. On average, around 2.2 people live in each Auckland CBD household, compared with about half a person extra in the other New Zealand CBDs. The three Australian CBDs have lower average occupancy rates than Auckland, at between 1.8 and 2 persons per household. Note that occupancy rates can not be calculated by dividing population by dwellings, as occupancy rates refers to households, and there may be multiple households in one dwelling.

4.3 Age

- Between 1991 and 2001 the age of CBD residents has decreased in Auckland, Wellington and Christchurch. In each of these areas the proportion of CBD residents aged over 65 fell, while increasing in the 15-24 and 25-44 years cohorts. Those aged 25-44 now comprise 40% of the Auckland CBD population, and 37% of the Wellington and Christchurch CBD populations.
- Those aged under 15 still make up only 4-5% of the population of New Zealand CBDs, but around 8% in inner Sydney. The share of CBD populations aged under 15 in the Australian cities has fallen significantly over the last decade, with the largest increases in being among those aged over 45 in Sydney and 45-64 in Brisbane. The Sydney CBD's remainder area changed significantly over the decade to 2001, as the share of those aged over 45 dropped from 37% to 25%, and those aged 15 to 44 increased from 49% to 65%. The structure of the Perth CBD's population has remained the most steady of the six CBDs analysed.
- The Australian inner CBDs analysed have populations that are older than that of the SD they are in, and older than their New Zealand counterparts. Sydney (37 years), Brisbane (40) and Perth (41) have populations that are significantly older than the New Zealand CBDs, which have mean ages in the low 30s. The average age of the remainder CBD populations in Sydney and Brisbane are respectively three and two years younger than that of the inner CBD areas, while Perth's remainder CBD population is four years older than the inner CBD population. Auckland (32 years), Wellington (31 years) and Christchurch (33) CBDs all have populations with an average age 3-4 years younger than their regional averages.

4.4 Ethnicity

- Only half the population of Auckland's CBD identifies with European ethnicity, down from 72% in 1991, and significantly lower than the 75% of Europeans in Wellington and 73% in Christchurch. The Wellington CBD's population has a similar ethnic composition to that of the wider city and region, while the Christchurch and Auckland CBDs both have higher proportions of Asians and Pacific peoples than their cities and regions. In Sydney's inner CBD 83% of the population are European and 13% Asian, but the CBD remainder has 40% Asians and only 56% European. Brisbane's inner CBD has a similar composition to Sydney's inner CBD, and Perth's inner CBD has an even larger dominance of European ethnic groups, which comprise 91% of the CBD population.

- Half of Auckland's 2001 CBD population was born overseas, compared with 30% in Wellington and 37% in Christchurch. These shares are all far lower than the 74-78% born overseas in the three Australian cities' CBDs. In all of the six cities analysed, the share of the population born overseas significantly exceeds this share in the surrounding region. This share has changed significantly in the CBDs in Auckland (29% in 1991 to 50% in 2001) and Christchurch (23% to 37%), but has remained fairly steady elsewhere. In Sydney and Perth the remainder areas have lower shares of population born overseas than the inner city.

4.5 Dwellings

- The proportion of dwellings in the Auckland CBD that are separate houses is low (16% in 2001), although has increased from 5% in 1991. This proportion is now similar to those in Christchurch (17%) and Dunedin (19%), and higher than the Australian CBDs looked at. Sydney's CBD (inner and remainder) and the Brisbane and Perth inner CBD areas record 0% separate houses, while Brisbane's remainder CBD has 17%, and in Perth only 3% of CBD dwellings are separate houses.
- While home ownership rates are still significantly lower in the Auckland CBD than in the rest of Auckland City and the Auckland Region, (22% compared to 53% and 61% respectively), this proportion is similar to other CBDs. Wellington (27%), Christchurch (15%), Sydney inner and remainder (20% and 22%), Brisbane (30% and 18%) and Perth (10% and 25%) all have low home ownership rates.

4.6 Residents and households

- Over half those living in the Auckland CBD have lived there less than one year, which is a much higher proportion than those living in Australian CBDs, where typically 30% to 40% of residents have lived there less than one year. This reflects recent high growth in the Auckland CBD housing market.
- The Auckland CBD has a demographic structure fairly typical of CBDs throughout Australasia, and one that is determined to a large degree by location. The CBDs analysed tend to have proportions higher than the regional average of multi-person (non-family) households, single person households, and people never married. Similarly, CBD dwellings are more likely than dwellings outside the CBD to have only one bedroom, and for their occupants to not own a vehicle. In line with this low rate of vehicle ownership, around one third of Auckland CBD residents walk to work, compared with 20% to 50% in other CBDs, and typically under 5% for region- and SD-wide populations.

- Rents in the CBD are higher on average than regional and SD average rents. In 2001, Auckland CBD residents paid, on average, $334 a week in rent, compared to $263 for other Auckland City residents, and $220 across the Auckland Region. In Wellington CBD residents paid $312 a week (compared to $234 and $191 outside the CBD), and in Christchurch $203 ($163 and $152). A similar trend is apparent in the Australian CBDs, where Sydney's inner (A$336 a week) and remainder (A$357) areas paid around 50% more than rents across the whole Sydney SD. In Brisbane rents in the inner CBD were A$417 a week, compared with A$235 in the CBD remainder and A$164 for the Brisbane remainder. Only in Perth were CBD rents close to non-CBD rents, with inner CBD residents paying only $10 a week more and remainder CBD residents $50 a week more than the average SD rent.
- Comparing the shares of New Zealand CBD residents not qualified with those in Australia is difficult, given the different definition used to compile 'non-qualified' data. The Australian Bureau of Statistics defines not qualified as all those without a qualification beyond year 12 at school, while those with school qualifications are classed as qualified by Statistics NZ. The shares of non-qualified CBD residents fell in Wellington and Christchurch between 1991 and 2001 from 12% to 4% and from 17% to 6% respectively. The proportion of non-qualified CBD residents also declined in Sydney, Brisbane and Perth over the same period by the order of 8% to 15% in each case.
- Household incomes in the CBDs analysed vary significantly. Auckland CBD households had average incomes of $56,000, slightly lower than Sydney (A$68,000), Brisbane (A$62,000), and Wellington ($67,000), but higher than households in the CBDs of Perth (A$45,000), and Christchurch ($48,000). The average household income in Auckland's CBD is slightly lower than the average for both Auckland City and the Auckland Region. This reflects the large number of low income households housing students that are situated in the CBD.
- The proportion of CBD residents attending school or studying is low in all the CBDs analysed, which reflects the small number of young people living there.
- Around one third of the labour force in each CBD analysed is employed as a professional, associate professional or technician, and these proportions are higher than those observed in the wider regional and SD populations. The three New Zealand CBDs have slightly lower rates of employment in these categories than the Australian CBD populations, and have not experienced the same growth in population from the professional and associate professional people as Sydney, Brisbane and Perth.

Table 4.1: Auckland demographic characteristics and trends

	CBD		Auckland City		Region	
	1991	2001	1991	2001	1991	2001
Population						
2001	1,476	8,307		367,734		1,158,891
Projected 2006		11,000				
Projected 2011		14,600				
Dwellings and households						
Occupied dwellings	564	3,771		132,936		394,815
Household occupancy (persons per hh)	2.6	2.2		2.8		2.9
Age Structure						
under 15	3%	4%		20%		23%
15-24	39%	36%		15%		14%
25-44	33%	40%		34%		32%
45-64	16%	16%		20%		21%
65 years and over	9%	4%		10%		10%
Mean age	37	32		35		35
Ethnicity						
European	72%	50%		62%		65%
NZ Maori	10%	5%		8%		11%
Pacific peoples	8%	3%		13%		13%
Asian	10%	32%		18%		13%
Other	1%	2%		1%		1%
Overseas born	29%	50%		34%		31%
Dwellings						
Separate houses	5%	16%		61%		72%
3+ dwellings, 3+ stories	-	58%		5%		2%
Tenure						
Owned	10%	22%		53%		61%
Rented (not owned)	82%	62%		41%		34%
Less than 1 year at residence	-	57%		27%		24%
Households						
Multi-person (non-family)	25%	19%		9%		6%
One person	44%	40%		24%		20%
Never married	63%	51%		36%		32%
Dwellings with 1 bedroom	27%	39%		10%		6%
Dwellings with no vehicles	42%	30%		11%		9%
Mean weekly rent paid	$207	$334		$263		$220
Labour force						
No qualifications	-	5%		15%		19%
Mean household income	-	$55,712		$61,860		$58,094
Attending school or studying	-	27%		18%		16%
Professionals, technician and assoc-profs	30%	33%		35%		28%
Walked or jogged to work	37%	35%		5%		4%

Table 4.2: Wellington demographic characteristics and trends

	CBD		Wellington City		Region	
	1991	2001	1991	2001	1991	2001
Population						
2001	2,706	7,749	148440	163,581	400,281	421,548
Projected 2006				180,300		455,000
Projected 2011				184,900		460,800
Dwellings and households						
Occupied dwellings	1,131	2,742	55,725	62,733	142,056	157,917
Household occupancy (persons per hh)	2.4	2.8	2.7	2.6	2.8	2.7
Age Structure						
under 15	4%	4%	18%	22%	22%	22%
15-24	31%	34%	19%	19%	17%	14%
25-44	35%	37%	32%	30%	29%	32%
45-64	18%	16%	18%	16%	18%	22%
65 years and over	12%	8%	13%	12%	14%	11%
Mean age		30.5		34		35
Ethnicity						
European	79%	75%	80%	76%	78%	74%
NZ Maori	6%	7%	7%	7%	11%	11%
Pacific peoples	3%	3%	5%	5%	6%	7%
Asian	11%	14%	8%	10%	5%	6%
Other	1%	1%	1%	2%	0%	1%
Overseas born	33%	30%	26%	25%	22%	21%
Dwellings						
Separate houses	-	17%	-	63%	-	71%
3+ dwellings, 3+ stories	-		-		-	
Tenure						
Owned	18%	27%	65%	62%	71%	67%
Rented (not owned)	82%	73%	35%	38%	29%	33%
Less than 1 year at residence	-		-		-	
Households						
Multi-person (non-family)	30%		11%		7%	
One person	38%	24%	24%	15%	25%	14%
Never married	55%		39%		34%	
Dwellings with 1 bedroom	28%	24%	11%	10%	7%	7%
Dwellings with no vehicles	40%	33%	15%	14%	17%	13%
Mean weekly rent paid	$183	$312	$164	$234	$135	$191
Labour force						
No qualifications	12%	4%	17%	12%	25%	19%
Mean household income	-	$68,511	-	$67,898	-	$57,489
Attending school or studying						
Professionals, technician and assoc-profs	43%	40%	38%	20%	30%	33%
Walked or jogged to work		51%		11%		8%

Table 4.3: Christchurch demographic characteristics and trends

	CBD		Christchurch City		Region	
	1991	2001	1991	2001	1991	2001
Population						
2001	528	1,323	289077	314,874	438,168	480,963
Projected 2006				339,900		517,400
Projected 2011				346,900		529,500
Dwellings and households						
Occupied dwellings	198	509	107,700	123,291	162,045	187,584
Household occupancy (persons per hh)	2.7	2.6	2.7	2.6	2.7	2.6
Age Structure						
under 15	5%	5%	19%	22%	20%	20%
15-24	31%	38%	18%	15%	17%	13%
25-44	34%	37%	27%	28%	27%	29%
45-64	18%	15%	18%	23%	18%	23%
65 years and over	12%	5%	18%	12%	18%	14%
Mean age		33		37		37
Ethnicity						
European	81%	73%	91%	85%	92%	87%
NZ Maori	8%	5%	5%	7%	5%	6%
Pacific peoples	2%	1%	2%	2%	1%	2%
Asian	9%	19%	2%	5%	2%	4%
Other	0%	1%	0%	1%	0%	0%
Overseas born	23%	37%	15%	17%	13%	15%
Dwellings						
Separate houses	-	19%	-	72%	-	76%
3+ dwellings, 3+ stories	-		-		-	
Tenure						
Owned	11%	15%	74%	68%	75%	71%
Rented (not owned)	89%	85%	26%	32%	25%	29%
Less than 1 year at residence	-		-		-	
Households						
Multi-person (non-family)	33%		7%		6%	
One person	31%	22%	23%	16%	18%	15%
Never married	47%		33%		30%	
Dwellings with 1 bedroom	22%	15%	7%	6%	6%	5%
Dwellings with no vehicles	25%	20%	11%	11%	13%	9%
Mean weekly rent paid	$138	$203	$111	$163	$102	$152
Labour force						
No qualifications	17%	6%	29%	23%	31%	25%
Mean household income	-	$48,004	-	$45,339	-	$44,781
Attending school or studying						
Professionals, technician and assoc-profs	19%	26%	25%	15%	22%	24%
Walked or jogged to work		22%		4%		5%

Table 4.4: Sydney demographic characteristics and trends

	Sydney							
	Inner		Remainder		CBD		Region	
	1991	2001	1991	2001	1991	2001	1991	2001
Population								
2001	6,910	10,735	6,618	26,820	13,528	37,555	3,538,448	3,948,015
Projected 2006		6,979		29,030		36,009		4,396,241
Projected 2011		8,133		36,027		44,160		4,618,476
Dwellings and households								
Occupied dwellings	2,052	3,265	1,093	10,859	3,145	14,124	1,219,682	1,438,394
Household occupancy (persons per hh)		1.7		2.1		2.0	2.9	2.7
Age Structure								
under 15	11%	8%	13%	10%	12%	9%	21%	20%
15-24	18%	12%	12%	23%	15%	20%	16%	14%
25-44	41%	42%	37%	42%	39%	42%	32%	32%
45-64	21%	28%	27%	18%	24%	21%	19%	22%
65 years and over	9%	11%	10%	7%	10%	8%	11%	12%
Mean age	36	37	38	34	37	35	34	36
Ethnicity								
European	48%	83%	47%	56%	47%	64%	82%	79%
NZ Maori	0%	0%	0%	0%	0%	0%	0%	0%
Pacific peoples	5%	0%	6%	0%	5%	0%	3%	1%
Asian	24%	13%	8%	40%	16%	32%	8%	13%
Other	24%	3%	39%	3%	31%	3%	8%	7%
Overseas born	78%	74%	53%	59%	66%	63%	33%	38%
Dwellings								
Separate houses	2%	0%	0%	0%	1%	0%	68%	63%
3+ dwellings, 3+ stories	68%	81%	67%	92%	68%	88%	15%	12%
Tenure								
Owned	16%	20%	24%	22%	20%	21%	65%	63%
Rented (not owned)	84%	80%	76%	78%	80%	79%	35%	37%
Less than 1 year at residence	-	33%	-	42%	-	39%	-	18%
Households								
Multi-person (non-family)	16%	9%	7%	21%	12%	18%	5%	4%
One person	32%	27%	47%	15%	39%	18%	19%	8%
Never married	50%	36%	52%	51%	51%	47%	31%	33%
Dwellings with 1 bedroom	24%		41%		32%		7%	
Dwellings with no vehicles	41%	39%	54%	31%	47%	33%	17%	13%
Mean weekly rent paid	$179	$336	$121	$357	$151	$351	$146	$230
Labour force								
No qualifications	74%	60%	74%	62%	74%	61%	71%	61%
Mean household income	$40,783	$67,330	$37,224	$68,711	$39,042	$68,316	$42,458	$63,807
Attending school or studying	15%		9%		12%	0%	25%	
Professionals, technician and assoc-profs	33%	49%	30%	34%	31%	38%	28%	33%
Walked or jogged to work	34%	35%	33%	35%	34%	35%	4%	4%

Table 4.5: Brisbane demographic characteristics and trends

	Brisbane							
	Inner		Remainder		CBD		Region	
	1991	2001	1991	2001	1991	2001	1991	2001
Population								
2001	1,056	2,569	2105	2,908	3161	5,477	1,334,098	1,608,820
Projected 2006		778		1,793		2,571		1,795,923
Projected 2011		1,022		2,000		3,022		1,937,132
Dwellings and households								
Occupied dwellings	23	553	563	1,089	586	1,642	456,756	601,146
Household occupancy (persons per hh)		1.9		1.7		1.8	2.9	2.6
Age Structure								
under 15	11%	5%	7%	7%	9%	6%	22%	21%
15-24	10%	10%	24%	17%	19%	14%	17%	15%
25-44	46%	44%	39%	40%	41%	42%	31%	30%
45-64	28%	33%	20%	22%	23%	27%	19%	23%
65 years and over	6%	8%	9%	15%	8%	11%	11%	11%
Mean age	37	40	36	38	37	39	34	36
Ethnicity								
European	64%	86%	72%	85%	69%	86%	89%	92%
NZ Maori	0%	0%	0%	0%	0%	0%	0%	1%
Pacific peoples	7%	0%	6%	0%	6%	0%	4%	1%
Asian	5%	12%	6%	12%	6%	12%	3%	5%
Other	24%	2%	17%	2%	19%	2%	4%	2%
Overseas born	80%	75%	68%	73%	72%	74%	80%	79%
Dwellings								
Separate houses	13%	0%	45%	17%	35%	9%	84%	80%
3+ dwellings, 3+ stories	74%	95%	29%	42%	44%	67%	4%	3%
Tenure								
Owned	0%	30%	27%	18%	18%	24%	68%	65%
Rented (not owned)	100%	70%	73%	82%	82%	76%	32%	35%
Less than 1 year at residence	-	29%	-	39%	-	34%	-	22%
Households								
Multi-person (non-family)	0%	10%	26%	23%	18%	17%	5%	4%
One person	35%	19%	34%	28%	35%	23%	19%	9%
Never married	36%	30%	47%	54%	43%	42%	31%	33%
Dwellings with 1 bedroom	38%		17%		24%		4%	
Dwellings with no vehicles	15%	24%	36%	43%	29%	34%	12%	10%
Mean weekly rent paid	$125	$417	$154	$235	$144	$320	$117	$164
Labour force								
No qualifications	61%	53%	81%	64%	74%	59%	74%	65%
Mean household income	$40,286	$77,090	$37,341	$48,794	$38,325	$62,066	$36,146	$53,372
Attending school or studying	5%		15%		12%	0%	25%	
Professionals, technician and assoc-profs	33%	54%	22%	42%	25%	48%	23%	31%
Walked or jogged to work	32%	31%	35%	27%	34%	29%	3%	3%

Table 4.6: Perth demographic characteristics and trends

	Perth							
	Inner		Remainder		CBD		Region	
	1991	2001	1991	2001	1991	2001	1991	2001
Population								
2001	2,028	2,675		8,505	2028	11,180	1,143,378	1,325,392
Projected 2006		480		7,807		8,287		1,515,505
Projected 2011		480		8,701		9,181		1,618,326
Dwellings and households								
Occupied dwellings	61	369		3,736	61	4,105	403,397	511,199
Household occupancy (persons per hh)		1.3		2.3		2.0	2.8	2.6
Age Structure								
under 15	5%	4%		6%	5%	6%	23%	21%
15-24	10%	9%		24%	10%	20%	17%	15%
25-44	37%	39%		35%	37%	36%	32%	30%
45-64	27%	30%		25%	27%	26%	19%	23%
65 years and over	21%	18%		11%	21%	12%	10%	11%
Mean age	46	41		45	46	44	33	36
Ethnicity								
European	64%	91%		77%	64%	80%	87%	90%
NZ Maori	0%	0%		0%	0%	0%	0%	0%
Pacific peoples	3%	0%		0%	3%	0%	2%	0%
Asian	9%	6%		20%	9%	16%	6%	7%
Other	25%	2%		3%	25%	3%	5%	2%
Overseas born	71%	78%		60%	71%	64%	67%	68%
Dwellings								
Separate houses	8%	0%		3%	8%	2%	78%	78%
3+ dwellings, 3+ stories	57%	61%		76%	57%	72%	5%	2%
Tenure								
Owned	5%	10%		25%	5%	21%	70%	70%
Rented (not owned)	95%	90%		75%	95%	79%	30%	30%
Less than 1 year at residence	-	24%		38%	-	35%	-	20%
Households								
Multi-person (non-family)	0%	8%		14%	0%	13%	5%	4%
One person	52%	59%		28%	52%	35%	20%	10%
Never married	36%	30%		49%	36%	44%	30%	33%
Dwellings with 1 bedroom	24%				24%		4%	
Dwellings with no vehicles	35%	23%		25%	35%	24%	10%	8%
Mean weekly rent paid	$141	$162		$199	$141	$190	$103	$151
Labour force								
No qualifications	73%	63%		59%	73%	60%	71%	63%
Mean household income	$44,700	$26,552		$51,686	$44,700	$45,673	$35,817	$52,495
Attending school or studying	7%				7%	0%	27%	
Professionals, technician and assoc-profs	27%	42%		44%	27%	44%	24%	31%
Walked or jogged to work	27%	18%		17%	27%	17%	2%	3%

nb: there was no Perth remainder SLA in 1991

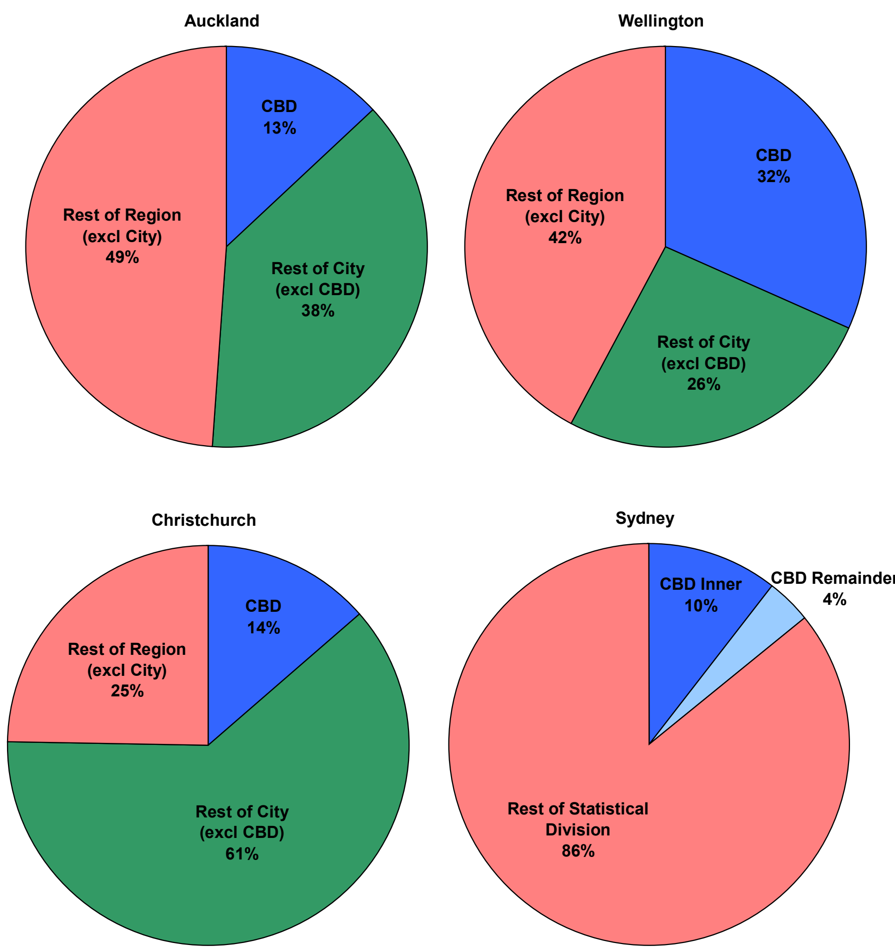
5 Employment data

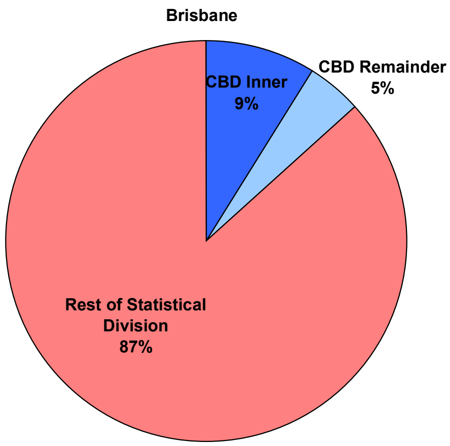
This section analyses the type and nature of CBDs' economic activity (in the form of employment), and the role of these CBDs in the regional economy. Central business districts are aggregations of economic activity, and accommodate a large proportion of city and regional employment in a number of key industries.

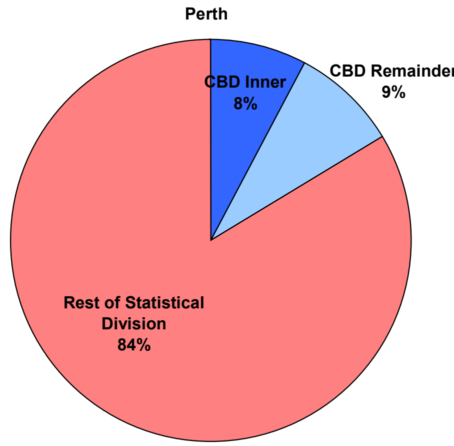
5.1 Total employment

Central business districts play an important role in regional and local economies. Around 13% of the Auckland Region's FTEs are employed in the Auckland CBD, with a similar proportion of the Canterbury Region's FTEs employed in Christchurch's CBD. Wellington's CBD is even more dominant in the Wellington City and Wellington Region economies, employing around one third of all employees in the Region, and more FTEs than are employed elsewhere in the Wellington Region (Figure 5.1).

Figure 5.1: Regional employment distribution







Thirteen percent of the Auckland region's employment is located in the CBD. This is similar to the proportions in other CBDs (if the Australian Inner and Remainder CBD are grouped), with the exception of Wellington, where 32% of employment is located in the CBD.

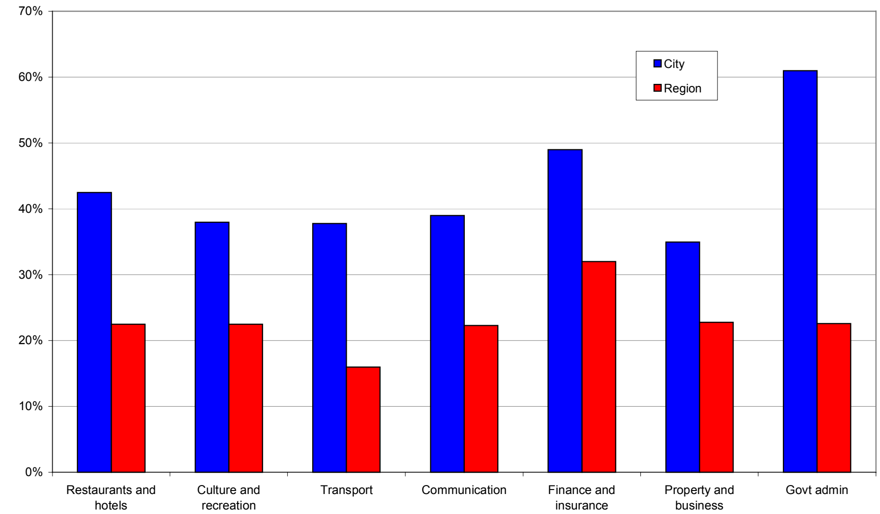
If only the inner CBD is considered for the Australian CBDs, then the Inner CBD employs a smaller proportion of their regional workforce than the New Zealand CBDs, with on average less than 10% being located in the inner CBD. To some extent this reflects the different definition of the Australian SD compared to the New Zealand Region.

In addition to this, Auckland is a dominant city within the national economy to an extent far greater than any of the Australian cities. This means that there will be concentrations of activity within Auckland's CBD that serve national markets.

5.2 Key Industries

Data presented in this section show the proportions of employment in key industries as a share of total employment in the city and region. Data for the Australian CBDs' inner and remainder areas is expressed as a share of the total for the statistical division (SD), while New Zealand CBD data is expressed as a proportion of the city and regional totals. Industries in which the greatest concentrations of regional employment are accommodated in the CBD include the finance and insurance, property and business, government administration and communication industries. Significant proportions of city and regional employment in the restaurants and hotels, culture and recreation, and transport industries are also accommodated in the CBD. Each CBD has its own economic personality, but these base trends are common in most CBDs, as shown in the following charts.

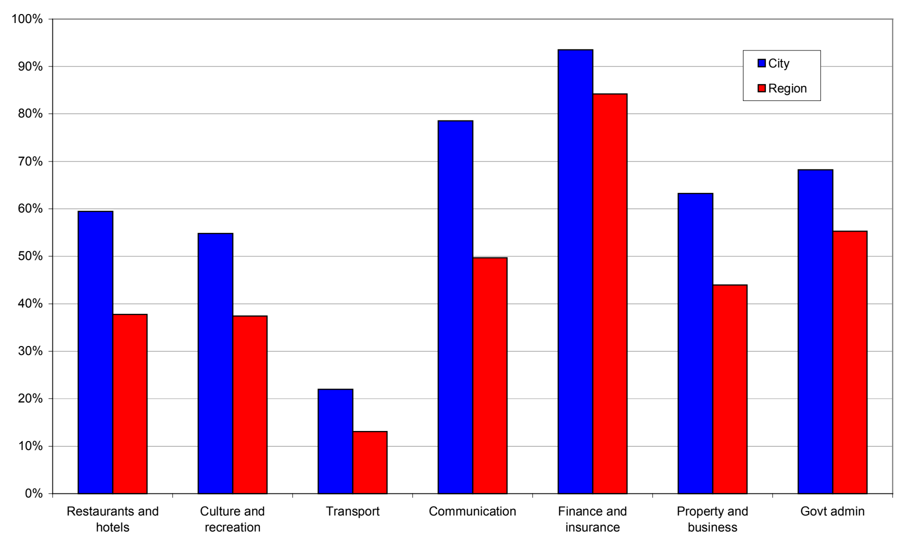
Figure 5.2: Auckland Key Industry Sectors - CBD's share of City and Regional Employment



Auckland's CBD contains a large proportion of city and regional employment in professional services, local and regional government, transport, and hospitality and recreation. This reflects the Auckland CBD's role as;

- A location for professional services
- A major port
- A tourist hub

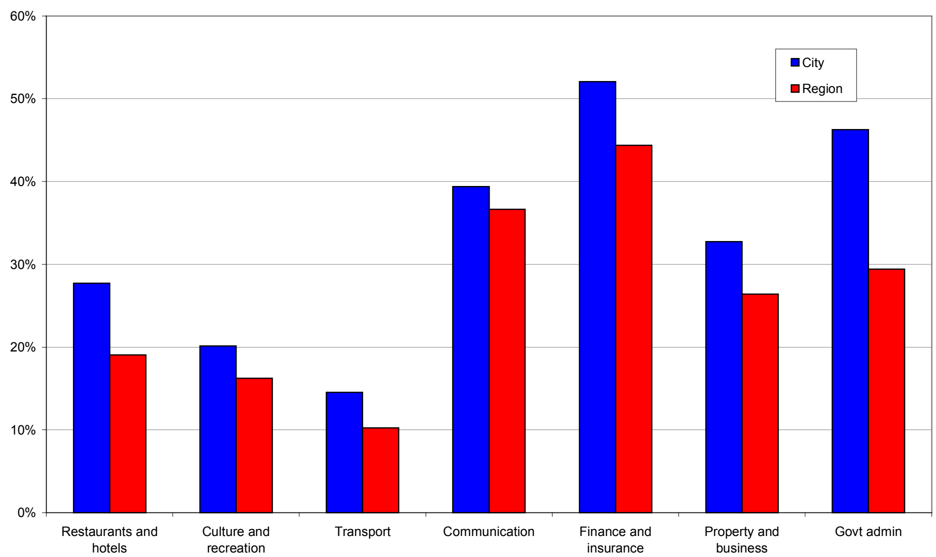
Figure 5.3: Wellington Key Industry Sectors - CBD's share of City and Regional Employment



Wellington's CBD contains a vast majority of Wellington City's (93%) and Wellington Region's (84%) employees in the finance and insurance industries. Of those working in Wellington City, almost 80% in the communications industries, and over half of those in the other industries shown in Figure 5.3 (except the transport industry) work in the CBD. The Wellington CBD is also dominant at a regional level, as between 37% and 55% of workers in the Wellington Region work in these industries. This reflects the Wellington CBD's function as:

- A concentration of professional services
- A culture and tourism centre
- A tourist hub
- The home of central and local government

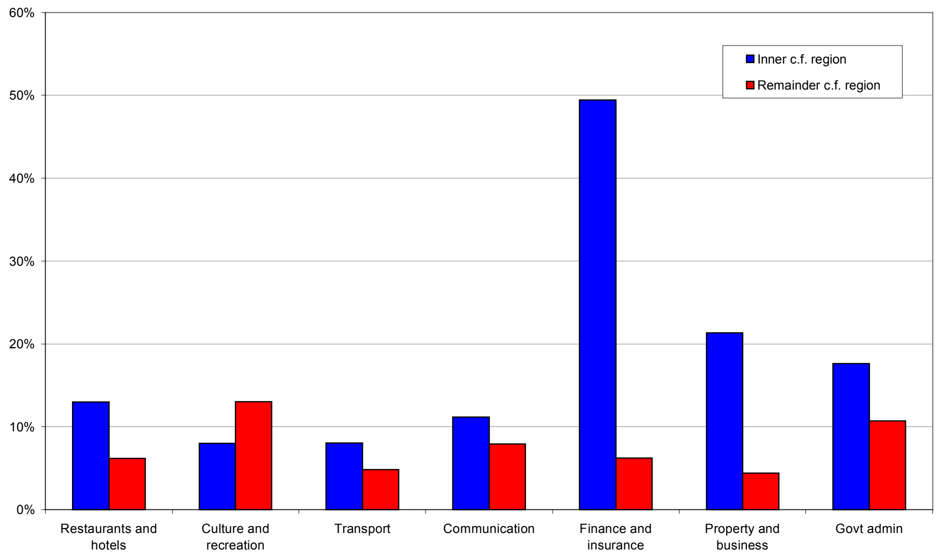
Figure 5.4: Christchurch Key Industry Sectors – CBD's share of City and Regional Employment



Although Christchurch's CBD does not contain the same high shares of city and regional employment as Wellington's CBD, the two centres have a concentration of activity in similar industries. The Christchurch CBD employs over half of Christchurch City's employees in the finance and insurance industry and just under half of those employed in government administration, but less than one third of city and regional employees in the hospitality, culture and recreation and transport industries. This concentration of employment (especially in service industries) in the Christchurch CBD is much lower than that of Auckland and Wellington. The trends shown in Figure 5.4 reflect:

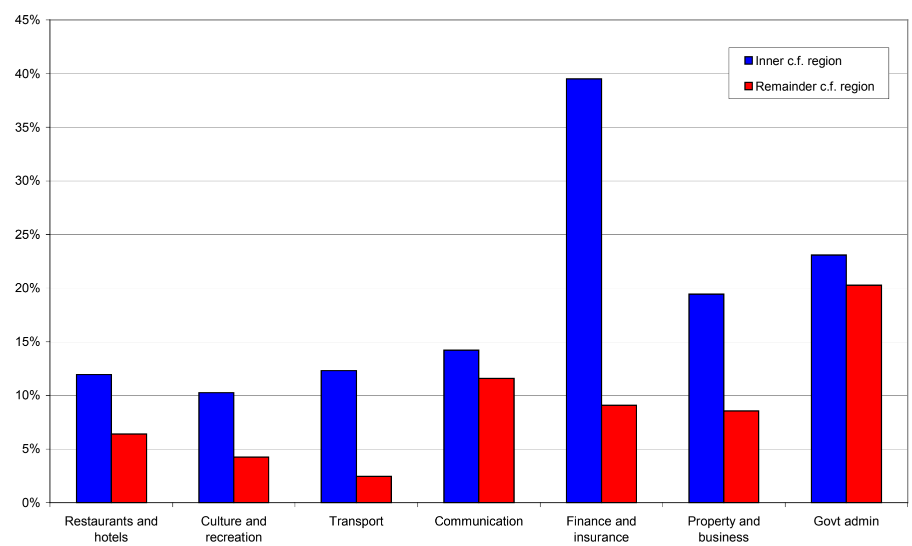
- The large size of the Canterbury Region, and the number of rural towns in the Region that accommodate their own CBDs and hospitality, tourism, transport and recreation industries.
- A narrower range of functions that operate in Christchurch's CBD relative to the rest of the City and Region.

Figure 5.5: Sydney Key Industry Sectors – Inner and Remainder CBD share of SD Employment



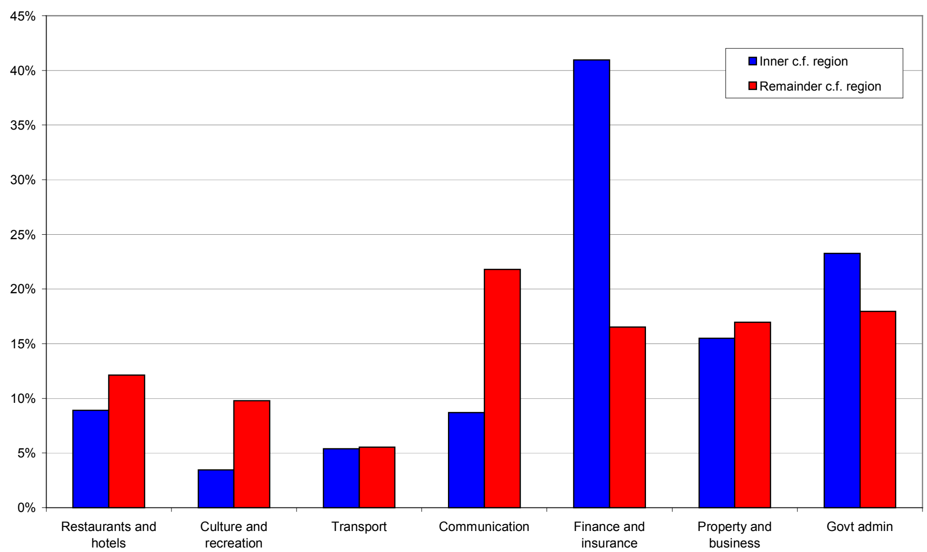
In contrast to the New Zealand CBDs, the functions of Australian CBDs tend to be more specialised. This is most evident in Sydney, where the finance and business industry employs almost half the inner Sydney CBD's workforce. This reflects the Australian CBD's function as a provider of high-order services, much more so than the New Zealand CBDs, which have larger numbers of government employees and lower-order businesses in industries such as retail and culture and recreation. Many of the lower order businesses that Auckland's CBD accommodates may be located in the subregional CBDs in Sydney, such as the North Shore CBD. These competing CBDs result in economic activity dispersing more than it does in Auckland. The remainder CBD SLA employs workers in a wide range of industries.

Figure 5.6: Brisbane Key Industry Sectors – Inner and Remainder CBD share of SD Employment



As in Sydney, finance and business FTEs make up a large proportion of inner CBD employees, although Brisbane's employees are slightly more spread across different industry types, with higher proportions of employees in the government administration and property industries. Brisbane distribution of employment by industry is more like Sydney than the New Zealand CBDs.

Figure 5.7: Perth Key Industry Sectors – Inner and Remainder CBD share of SD Employment



Perth's employment distribution by industry is fairly similar to Brisbane's, with a dominance of fiancé employees, and large numbers of government and property employees as well.

5.3 Sector growth

Growth in key industry sectors between 1991 and 2001 is compared against Auckland CBD employment growth in Table 5.1. The three sectors with the most significant growth in Auckland have experienced similar growth in the other CBDs. The culture and recreation and property and business industries have undergone the most rapid growth, with Wellington and Christchurch experiencing between 4-5% average annual growth over this period. Transport and storage and manufacturing showed declines in Wellington and Christchurch, as they did in Auckland, but the decline in employees involved in the communications industry is atypical of the other CBDs. This is primarily due to relocation of Clear Communications from a central city location to North Shore City.

Table 5.1: Key industry sectors – employment growth and decline 1991-2001, (Auckland 1991-2002)

Industry	Auckland	Wellington	Christchurch	Sydney	Brisbane	Perth
Restaurants and hotels	30%	66%	44%	62%	43%	84%
Property and business	38%	63%	55%	93%	92%	135%
Cultural and recreational	79%	113%	93%	13%	81%	5%
Manufacturing	-39%	-6%	-25%	49%	54%	-34%
Transport and storage	-36%	-26%	-3%	-34%	22%	38%
Communication	-37%	47%	28%	24%	19%	40%

In the Australian CBDs, the most property and business sector grew the most over the decade to 2001, almost doubling in size in Sydney and Brisbane, and growing by an even greater proportion in Perth. Restaurants and hotels have also experienced significant growth in Australia's CBDs, with other sectors growing in some CBDs but not others. Employees engaged in manufacturing, for example, decreased by 40% in Auckland and 34% in Perth, but grew by around 50% in each of Sydney and Brisbane. Transport employees decreased in Sydney, but increased in Brisbane and Perth, while limited growth in employees in the communications industry occurred in all five CBDs outside Auckland.

5.4 Employment by Sector

The following tables in this section show the distribution of employment in each CBD by sector. Notable from the distributions shown is the dominance of the key industry sectors identified above in Section 5.3, especially the trade and professional services industries. The tables also show the dominance of employment in the CBDs within the wider City and regional economies. For the Australian CBDs, the inner and remainder parts of the CBD are expressed as shares of the Region.

Table 5.2: Wellington City Employment by Sector

Sector	CBD FTEs	Industry share of total CBD	CBD share of City	CBD share of Region
Agriculture, Forestry and Fishing	41	0.1%	40.2%	3.3%
Mining	54	0.1%	83.0%	34.3%
Manufacturing	1,650	2.8%	29.7%	9.4%
Electricity, Gas and Water Supply	479	0.8%	92.0%	61.0%
Construction	721	1.2%	17.4%	5.8%
Wholesale Trade	3,376	5.6%	58.6%	31.0%
Retail Trade	3,889	6.5%	42.8%	19.2%
Accommodation, Cafes and Restaurants	2,973	5.0%	59.5%	37.8%
Transport and Storage	898	1.5%	22.0%	13.1%
Communication Services	3,324	5.6%	78.6%	49.7%
Finance and Insurance	9,206	15.4%	93.5%	84.2%
Property and Business Services	15,158	25.3%	63.2%	44.0%
Government Administration and Defence	9,147	15.3%	68.3%	55.3%
Education	833	1.4%	14.7%	6.8%
Health and Community Services	2,662	4.4%	31.9%	17.2%
Cultural and Recreational Services	2,260	3.8%	54.8%	37.4%
Personal and other Services	3,189	5.3%	61.0%	38.7%
Total	59,859	100.0%	54.8%	31.7%

Table 5.3: Christchurch City Employment by Sector

Sector	CBD FTEs	Industry share of total CBD	CBD share of City	CBD share of Region
Agriculture, Forestry and Fishing	11	0.0%	2.6%	0.4%
Mining	18	0.1%	10.6%	7.1%
Manufacturing	1,918	7.5%	7.0%	5.2%
Electricity, Gas and Water Supply	127	0.5%	30.3%	19.9%
Construction	388	1.5%	4.1%	2.9%
Wholesale Trade	1,503	5.9%	14.4%	12.1%
Retail Trade	3,966	15.5%	22.5%	16.6%
Accommodation, Cafes and Restaurants	1,925	7.5%	27.7%	19.1%
Transport and Storage	895	3.5%	14.5%	10.3%
Communication Services	1,607	6.3%	39.4%	36.6%
Finance and Insurance	1,801	7.0%	52.1%	44.4%
Property and Business Services	5,586	21.8%	32.7%	26.4%
Government Administration and Defence	1,684	6.6%	46.3%	29.4%
Education	1,328	5.2%	13.8%	10.2%
Health and Community Services	1,381	5.4%	9.5%	7.6%
Cultural and Recreational Services	819	3.2%	20.2%	16.2%
Personal and other Services	674	2.6%	14.1%	11.0%
	25,628	100.0%	18.3%	13.7%

Table 5.4: Sydney City Employment by Sector

Sector	Inner CBD FTEs	Rem. CBD FTEs	Industry share of CBD inner	CBD inner share of Region	CBD rem. share of Region
Agriculture, Forestry and Fishing	333	58	0.2%	3.0%	0.5%
Mining	340	6	0.2%	15.8%	0.3%
Manufacturing	6,287	3,267	3.4%	2.9%	1.5%
Electricity, Gas and Water Supply	1,456	1,019	0.8%	13.2%	9.2%
Construction	2,682	1,615	1.4%	2.1%	1.3%
Wholesale Trade	2,484	1,262	1.3%	2.3%	1.1%
Retail Trade	11,460	3,309	6.2%	4.7%	1.4%
Accommodation, Cafes and Restaurants	11,233	5,359	6.1%	13.0%	6.2%
Transport and Storage	7,266	4,336	3.9%	8.1%	4.8%
Communication Services	4,837	3,429	2.6%	11.2%	7.9%
Finance and Insurance	55,079	6,914	29.7%	49.4%	6.2%
Property and Business Services	56,057	11,592	30.2%	21.4%	4.4%
Government Administration and Defence	10,902	6,623	5.9%	17.6%	10.7%
Education	3,031	4,358	1.6%	2.6%	3.8%
Health and Community Services	3,832	1,564	2.1%	2.4%	1.0%
Cultural and Recreational Services	4,039	6,588	2.2%	8.0%	13.0%
Personal and other Services	4,324	3,405	2.3%	6.6%	5.2%
	185,642	64,704	100.0%	10.5%	3.7%

Table 5.5: Brisbane City Employment by Sector

Sector	Inner CBD FTEs	Rem. CBD FTEs	Industry share of CBD inner	CBD inner share of Region	CBD rem. share of Region
Agriculture, Forestry and Fishing	153	138	0.2%	2.1%	1.9%
Mining	432	409	0.7%	13.4%	12.7%
Manufacturing	1,029	262	1.6%	1.2%	0.3%
Electricity, Gas and Water Supply	1,031	692	1.6%	18.7%	12.5%
Construction	1,455	671	2.3%	2.9%	1.4%
Wholesale Trade	508	312	0.8%	1.2%	0.8%
Retail Trade	5,601	541	8.8%	5.1%	0.5%
Accommodation, Cafes and Restaurants	3,879	2,071	6.1%	12.0%	6.4%
Transport and Storage	4,632	920	7.3%	12.3%	2.4%
Communication Services	1,924	1,569	3.0%	14.2%	11.6%
Finance and Insurance	10,904	2,510	17.1%	39.5%	9.1%
Property and Business Services	17,200	7,561	27.1%	19.4%	8.5%
Government Administration and Defence	8,218	7,216	12.9%	23.1%	20.3%
Education	1,202	3,175	1.9%	2.1%	5.5%
Health and Community Services	1,831	1,489	2.9%	2.4%	2.0%
Cultural and Recreational Services	1,763	732	2.8%	10.3%	4.3%
Personal and other Services	1,823	2,558	2.9%	6.2%	8.7%
	63,585	32,826	100.0%	8.8%	4.5%

Table 5.6: Perth City Employment by Sector

Sector	Inner CBD FTEs	Rem. CBD FTEs	Industry share of CBD inner	CBD inner share of Region	CBD rem. share of Region
Agriculture, Forestry and Fishing	46	140	0.1%	0.7%	2.0%
Mining	1,705	2,912	3.7%	16.2%	27.6%
Manufacturing	585	2,209	1.3%	0.9%	3.3%
Electricity, Gas and Water Supply	439	817	1.0%	9.0%	16.8%
Construction	856	1,834	1.9%	1.9%	4.1%
Wholesale Trade	447	1,102	1.0%	1.4%	3.3%
Retail Trade	4,223	2,322	9.2%	4.5%	2.5%
Accommodation, Cafes and Restaurants	2,397	3,259	5.2%	8.9%	12.1%
Transport and Storage	1,306	1,334	2.8%	5.4%	5.5%
Communication Services	878	2,197	1.9%	8.7%	21.8%
Finance and Insurance	8,640	3,486	18.8%	41.0%	16.5%
Property and Business Services	11,662	12,755	25.3%	15.5%	17.0%
Government Administration and Defence	5,932	4,576	12.9%	23.3%	17.9%
Education	522	3,437	1.1%	1.2%	7.6%
Health and Community Services	4,211	3,913	9.1%	6.7%	6.2%
Cultural and Recreational Services	528	1,494	1.1%	3.5%	9.8%
Personal and other Services	1,691	2,885	3.7%	6.7%	11.5%
	46,069	50,671	100.0%	7.8%	8.6%