Capes Regional Economic Development Strategy

Regional economic profile

Working Paper No 1

Final Draft 31 March 2009

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1 Overview

This Regional Economic Profile (Working Paper 1) is one of several documents that underpin the Capes Regional Economic Development Strategy (the Strategy), developed collaboratively between the Shire Councils of Augusta Margaret River and Busselton.

The purpose of the Strategy is to foster the creation of sustainable economic and jobs growth in the region.

The Shires are in the process of updating their Local Planning Strategies and Schemes, and in conjunction with these processes are preparing economic, social and infrastructure strategies.

Other working papers that inform and support the Strategy are:

- Working Paper 2: Vision document considering growth trends and future direction for the economy of the region
- Working Paper 3: Industry plans – current industry profiles, and strategies and actions per industry to promote economic growth
- Working Paper 4: Government Action Plans – considering the industry plans and regional issues, proposed actions by levels of government to support and facilitate economic development
- Working Paper 5: Cluster Plans – plans where cross-industry cooperation could benefit industry development

Working Paper 6 is the Strategy itself: a summary providing a concise strategy for economic development in the Capes Region

2 Profile and trends

The nature of the Capes Region is changing, not least because of its liveability, unique lifestyle, proximity to major regional urban centres and to Perth, and the opportunities afforded by globalisation and the new economy. All of these factors contribute to strong regional population growth.

While traditional industries that have been the mainstay of employment in the Capes Region will continue to play a major role in the economic life of the Region, new industries and occupations as well as home based and micro businesses are emerging.

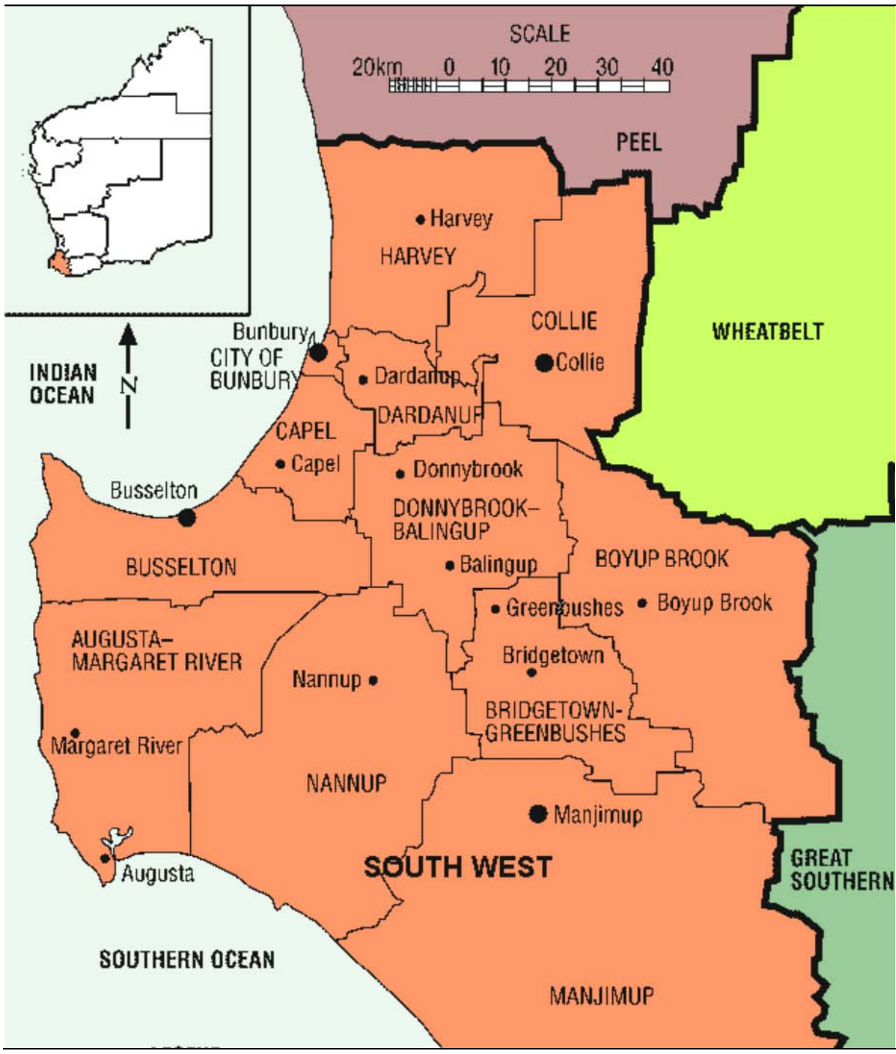
2.1 Geographic location

The Capes Region is part of the South West region, which is one of nine Western Australian regions. The South West covers an area just under 24,000 square kilometres, and has a population approaching 140,000. It incorporates the port town of Bunbury which is a major administrative centre within the Region, with Collie, Busselton, Manjimup and Margaret River playing important sub-regional roles.

The Australian Bureau of Statistics has divided the Region into four statistical subdivisions: Blackwood, Bunbury, Preston and Vasse. The Vasse Region incorporates the local government areas of Busselton and Augusta Margaret River, which in this report we have designated as the Capes Region.

The area of the Capes Region is 2,242.6 km^2 or 9 per cent of the South West Region. It has a population of more that 38,000.

Figure 1 **South West Region of Western Australia showing Capes Region Shires**



Source: South West Development Commission

2.2 Economic history[1]

Augusta was one of the first European settlements in Western Australia when the area was settled for agricultural purposes in 1830s. It was not until the 1870s that the Augusta Margaret River area was settled by timber industry workers and their families. Not long after the closure of the Karridale sawmill in 1913, the area was opened up for agricultural purposes under the Group Settlement Scheme and the dairy industry began.

European settlement of the Shire of Busselton area also started during the 1830s. Many of the towns in the Busselton coastal area were later established to service the timber industry. The Group Settlement Scheme saw the further development of the agricultural industry.

The wine industry began in the Busselton and Margaret River areas in the late 1960s and the 1970s.

Tourism began to play an important part in the economy of the Capes Region since the mid 1900s due to its diverse coastal location and the natural attractions including the limestone caves of the Leeuwin-Naturaliste National Park.

2.2.1 Changes in industry structure

2.2.2 Changes in industry structure

The economy of the Capes Region has changed over time as relative contributions of industries have changed. These changes have been driven by a range of factors, including changes to markets, changes to technologies, innovation and population changes.

Industry contributions to Gross Regional Product (GRP) in the South West over time illustrate these changes (Table 1), as do employment trends in section 2.2.2 below.

[1] The information for this section has come from a variety of sources including Resource Futures Program, CSIRO Sustainable Ecosystems, Augusta-Margaret River Regional Profile: A background document into the location, demographics, economy and environment of the Shire of Augusta-Margaret River (WA), October 2005 pp 11 – 12.

Table 1 **Contribution to Gross Regional Product, key industries in the South West 2001 and 2006**

Industry	Contribution to GRP at factor cost 2001		Contribution to GRP at factor cost 2006	
	$m	%	$m	%
Services	*282*	*35.0%*	*485*	*39.7%*
Manufacturing	150	*18.6%*	213	*17.4%*
Tourism (includes retail, and accommodation, cafes and restaurants)	120	*14.9%*	160	*13.1%*
Construction	71	*8.8%*	136	*11.1%*
Agriculture	67	*8.3%*	104	*8.5%*
Transport	36	*4.4%*	33	*2.7%*
Trade (includes wholesale trade)	27	*3.3%*	31	*2.6%*
Govt administration	18	*2.2%*	29	*2.4%*
Forestry & fishing	8	*1.0%*	14	*1.2%*
Utilities	21	*2.6%*	9	*0.8%*
Mining	7	*0.8%*	6	*0.5%*
TOTAL	**807**		**1,222**	

The changes shown are as expected:

- Services are growing in importance, in part because of high population growth
- Manufacturing share reflects normal economic fluctuations
- The role of tourism also fluctuates, although for this analysis, it includes all retail and restaurants.

2.2.3 Employment trends

Table 2 shows the largest industries by employment over time in Western Australia, in the Capes Region and in the two Shires. The table shows that the biggest employer in Western Australia is retail trade, which has consistently employed 14 per cent of the working population or more over the period 1991 to 2006. Retail trade is also a large and growing employer in the Capes Region.

Table 2 **Top employment by industry (% of workforce): Western Australia and Capes Region 1991 to 2006**

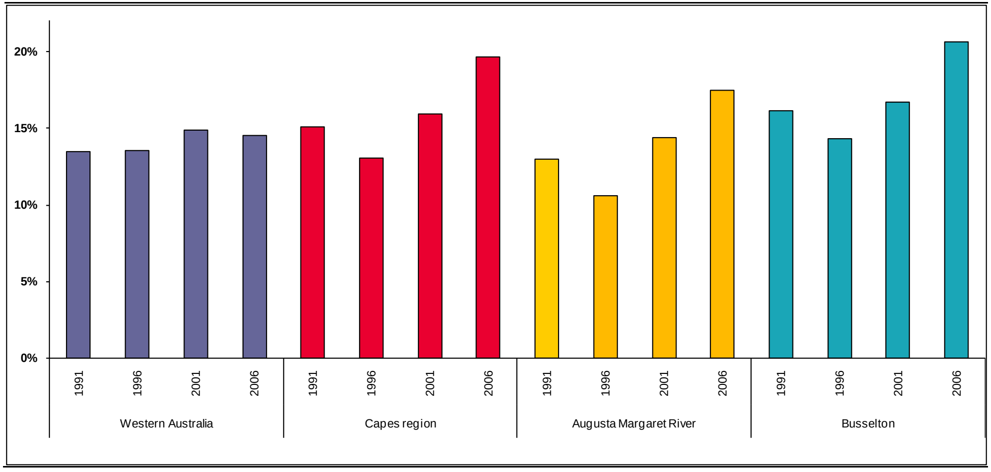
	Western Australia	Capes Region	Augusta Margaret River Shire	Busselton Shire
1991	Retail trade (14%)	Retail trade (15%), Agriculture, Forestry & Fishing (15%)	Agriculture, Forestry & Fishing (20%)	Retail trade (16%)
1996	Retail trade (14%)	Retail trade (13%)	Agriculture, Forestry & Fishing (14%)	Retail trade (14%)
2001	Retail trade (15%)	Retail trade (16%)	Agriculture, Forestry & Fishing (15%)	Retail trade (17%)
2006	Retail trade (15%)	Retail trade (20%)	Retail trade (17%)	Retail trade (21%)

Note: by place of enumeration

Data source: 1991, 1996, 2001 and 2006 Australian Bureau of Statistics Censuses

Figure 2 also highlights the growing importance of the retail trade industry as a major employer in the Capes Region. There has been significant employment growth in the retail industry across the Capes Region and particularly in the Shire of Busselton.

Figure 2 **Share of employment (% of workforce): Western Australia and Capes Region: retail trade industry**

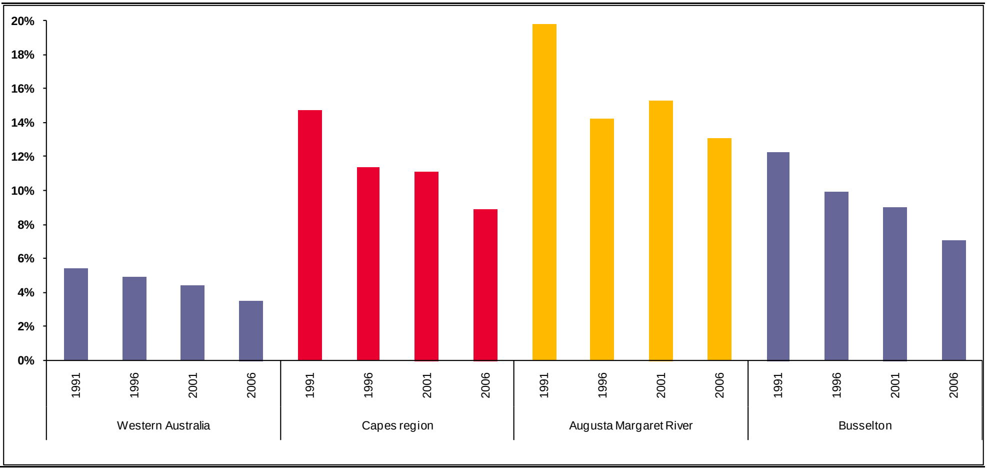


Note: by place of enumeration

Data source: 1991, 1996, 2001 and 2006 Australian Bureau of Statistics Censuses

Figure 3 shows the share of employment in the agriculture, forestry and fishing industry from 1991 to 2006. It shows the decline of the industry in terms of share of employment in Western Australia and in the Capes Region despite the growing importance of various segments of the industry, such as dairy and viticulture, to the Capes Region. This is indicative of efficiency improvements in agriculture and a change in the structure of the industry.

Figure 3 **Share of employment (% of workforce): Western Australia and Capes Region: Agriculture, Forestry and Fishing industry**



Note: by place of enumeration

Data source: 1991, 1996, 2001 and 2006 Australian Bureau of Statistics Censuses

2.3 The economy today

2.3.1 The South West

The South West is Western Australia's pre-eminent region in terms of population and economic diversity and growth.

The South West region's population growth is driven by strong employment prospects associated with economic growth and lifestyle choices. In addition these coastal local governments experience large seasonal population growth, attributable largely to the tourism sector. The South West is the most visited region in Western Australia outside of the Perth Metropolitan Area.

A detailed description of the South West economy is published and updated regularly as part of the South West Development Commission's Economic Perspective. It contains information about major industry sectors, takes account of economic, social and environmental factors that drive the economy, discusses future opportunities for growth and describes current infrastructure and future proposals to improve service networks. The most recent perspective is available on the Development Commission's website (www.swdc.wa.gov.au).

2.3.2 Capes Region

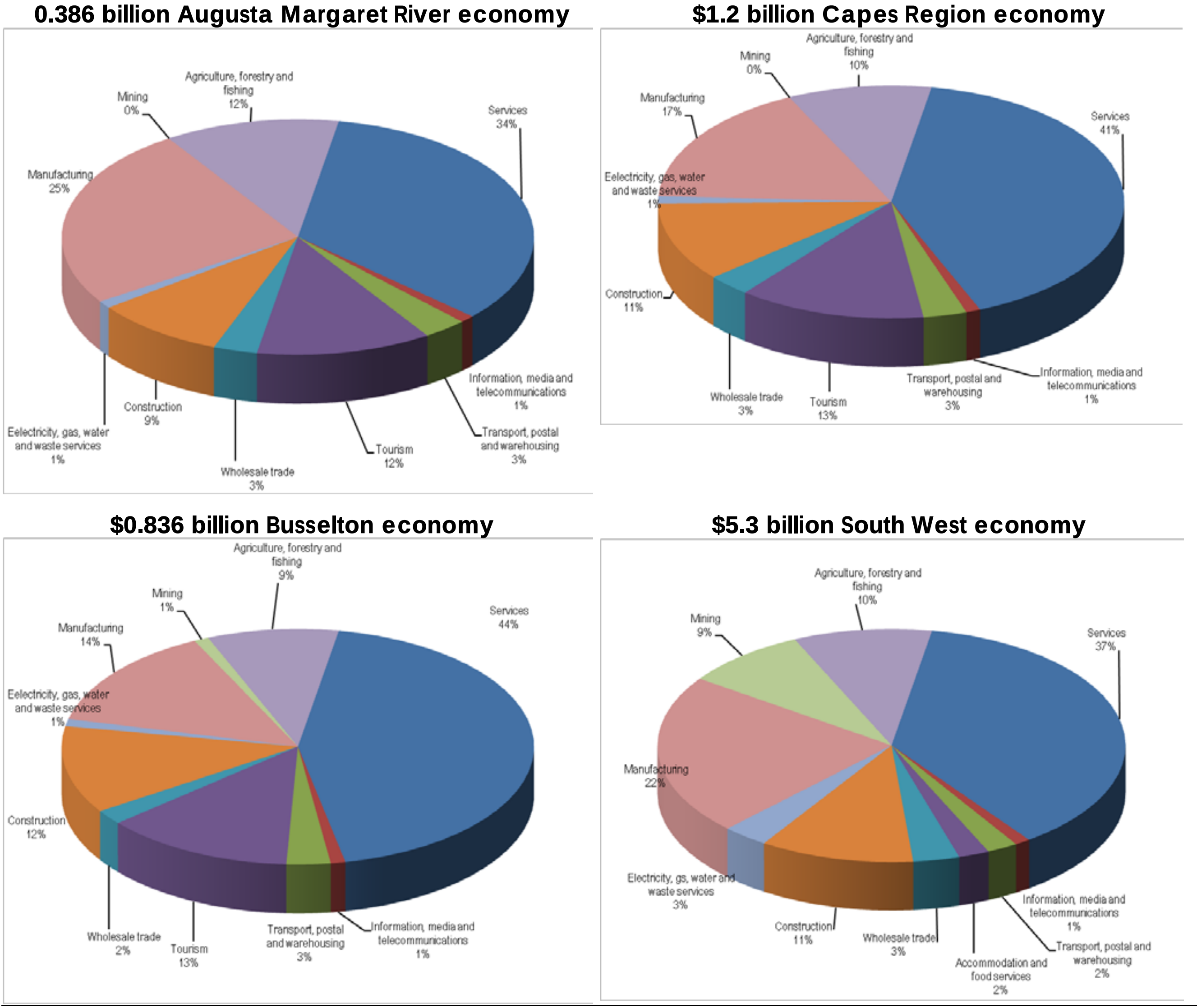
The Capes Region's contribution to the economy of the South West and the State is significant in that the region:

- contains one of the largest population concentrations outside of the Perth Metropolitan Area
- is the major visitor destination in the South West

- produces nearly all of wine grapes in the South West and two-thirds of the State's grape production
- contributes significantly to retail turnover in the South West
- has around double the average sales value of dwellings of the South West
- contributes one third of the South West Region's workforce
- consistently has an unemployment rate below that of Western Australia as a whole
- provides employment in a diverse range of industries including agriculture, forestry and fishing, retail trade, manufacturing and construction.

Figure 4 and Table 3 show the value of production by industry in the Capes Region, in each of the two Shires and in the South West as a whole. The gross regional product (GRP) of the Capes Region (as calculated by ACIL Tasman) in 2006 was $1.2 billion.

Figure 4 **Composition of economies: Shires, Capes Region and South West, 2006**



Data source: ACIL Tasman Capes Region Input-Output Table for 2006

The services sector accounts for the largest proportional contribution to GRP in the Capes Region, which exceeds the combined contribution of the next two ranked sectors of manufacturing and tourism. The retail sector is a major component of services and as shown in section 2.2, is a major and growing employer. Construction and agriculture are ranked fourth and fifth respectively in the top five industry sectors.

The workforce and employment rate in the Capes Region has increased steadily during the last ten years. At the same time the unemployment rate has decreased from 8.4 per cent to 3.3 per cent, showing the strength of the economic activity in the region. The distribution of the labour force participation is centred around the 20-50 years of age cohort. Construction, retail trade, accommodation and food services, and manufacturing are the most important industries in terms of employment in the region, in line with the South West trend.

Occupation trends are also very similar for the Capes Region and South West. Technicians and trades, managers and labourers are the most important activities.

The trend in education shows an important shift in the education level between past and current generations. Currently more than 50 per cent of the population in the 20-25 years cohort has finished its year 12, in contrast to one and two generations ago for which only 40 per cent and 30 per cent of the population finished year 12.

Table 3 **Industry sector contributions to Capes Region GRP 2006**

	Contribution to GRP at market prices	Contribution to GRP at factor cost		Gross operating surplus	Compensation of employees
	$m	$m	%		$m
Final demand	*106*				
Services	*509*	*485*	*39.7%*	*270*	*216*
Manufacturing	225	213	*17.4%*	131	82
Tourism	169	160	*13.1%*	52	108
Construction	139	136	*11.1%*	74	62
Agriculture	107	104	*8.5%*	80	23
Transport	37	33	*2.7%*	16	18
Trade	32	31	*2.6%*	11	21
Govt administration	31	29	*2.4%*	4	26
Forestry & fishing	15	14	*1.2%*	10	4
Utilities	10	9	*0.8%*	7	3
Mining	7	6	*0.5%*	5	2
TOTAL	**1,395**	**1,222**		**658**	**564**

2.3.3 Services sector

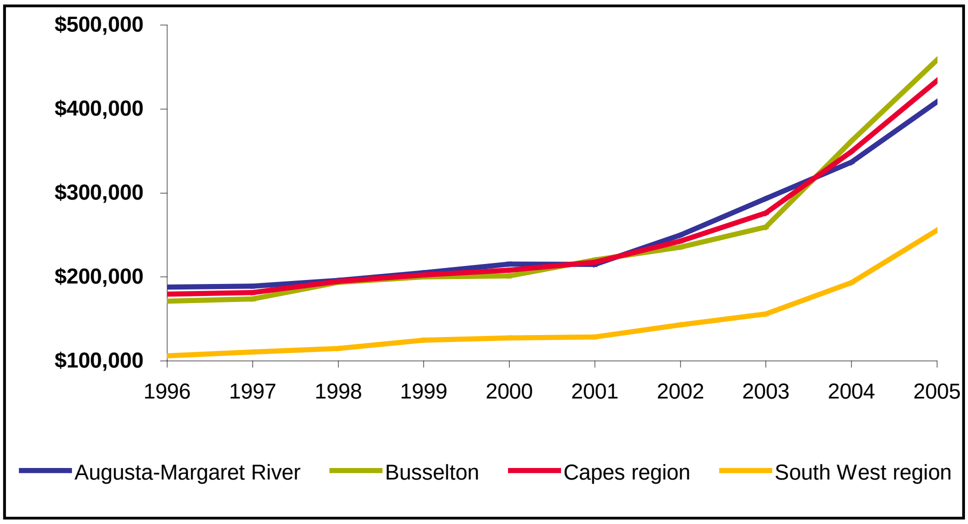
The services sector comprises retail services, communications, financial, property, technical services, business and professional services. Together, these services contribute $485 million to the Capes Region GRP, or 39.7 per cent. For the purpose of this analysis, the services sector excludes education, health and community services, which while important industries, are included in Table 3 within government administration.

Property, property services and professional services (eg legal, accounting and taxation services) comprise a significant component of the GRP of the Capes Region. Together these sectors contribute almost half of the services sector contribution to GRP ($230 million in 2006).

Sales value data presented in Figure 5 shows that the average value of dwellings in the Capes Region is very high at almost twice that of the South West Region as a whole.

In addition, the housing sector has experienced strong growth since 2003. This is believed to be due both to strong population growth in the region placing demand on housing and land stock, and to investment in property in the Capes Region enabled by the strong growth in the State's economy and in wealth of individuals.

Figure 5 **Average sales value of dwellings: South West Region and Capes Region**



Data source: South West Development Commission from Residential Sales Data, Valuer General's Office, 2006

2.3.4 Agriculture

The contribution of agriculture to the GRP of the Capes Region was $104 million in 2006. Forestry and fishing have traditionally been of less significance to the economy of the Capes Region than in other parts of the South West.

There has been a rapid rise in the value of fruit production in the South West due to growth in the value of wine grape production. In 2003/04, wine grape production accounted for 54.3 per cent of fruit production in the South West[2].

[2] South West Development Commission, Economic Perspective 2007, p 8.

Nearly all of this production occurs in the Capes Region. In 2006 the value of wine grapes in the Margaret River region (including the Shire of Augusta Margaret River and the Shire of Busselton) was $37.8 million or two thirds of the total production of the State.

The horticulture and associated viticulture industry also has an impact for other industries in its role in attracting visitors to the Region and as a customer for services.

The dairy industry has enjoyed a resurgence in recent years on the back of deregulation and aggressive pursuit of interstate and international markets.

2.3.5 Manufacturing

The ABS defines manufacturing to include activities that are mainly 'a physical or chemical transformation of materials, substances or components into new products (except agriculture and construction)'.

The major manufacturing sector in the Region is the wine industry. The wine industry alone contributed $161 million to the GRP of the Capes Region economy in 2006 (of a total of $213 million). The value adding processing of meat, dairy and horticulture produce contributed a further $15 million to GRP in 2006.

Significantly, the manufacturing of furniture, mostly using timber from the South West, contributed another $8 million to GRP in 2006.

2.3.6 Tourism

The Capes Region is a major visitor destination. The major part of the value of the tourism sector is generated by the accommodation and food services, and retail sectors. These two sectors combined contributed $160 million to the GRP of the Capes Region in 2006.

The South West Region is the most visited region outside of the Perth Metropolitan Area by both domestic and international visitors. Tourism WA[3] estimated that there were around 3.6 million visitors to the South West per year on average in 2005, 2006 and 2007, or 20 per cent of all visitors to the State. Table 4 shows that on average, about 1.8 million people a year visit the Capes Region, with overnight visitors generating nearly 3.6 million visitor nights.

Around 90 per cent of all visitors to the South West Region visited for holiday and leisure purposes or to visit friends and relatives (VFR). For the Capes

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[3] Tourism WA, Regional Development Commission Area Fact Sheet: South West 2007

Region, holiday and leisure and VFR visitation make up well over 90 per cent of all visitation.

Table 4 **Visitors and visitor nights, Capes Region average 2005, 2006, 2007**

	Shire of Augusta Margaret River		Shire of Busselton		Total Capes Region	
	Visitors	Nights	Visitors	Nights	Visitors	Nights
Overnight Visitors						
Intrastate	335,000	980,000	535,000	1,792,000	870,000	2,772,000
Interstate	89,000	287,000	37,000	114,000	126,000	401,000
International	55,100	252,100	31,700	159,000	86,800	411,100
Total Overnight	479,100	1,519,100	603,700	2,065,400	1,082,800	3,584,500
Day Visitors						
Domestic Day Trips	292,000	N/A	430,000	N/A	722,000	N/A

Data sources: Tourism WA, Local Government Area Fact Sheets, Shire of Busselton and Shire of Augusta Margaret River

As Table 5 shows, average visitor numbers and visitor nights in the Capes Region have risen somewhat since the 1999-2001 period, but are down from the peak of the 2002-2004 period.

Table 5 **Overnight visitor numbers and nights, Capes Region, 1999 to 2007**

Visitors	Annual Average 1999-2001	Annual Average 2002-2004	Annual Average 2005-2007
Intrastate	804,000	933,000	870,000
Interstate	68,000	141,000	126,000
International	77,800	86,500	86,800
Total	**949,800**	**1,160,500**	**1,082,800**
Nights			
Total	**3,448,000**	**4,105,200**	**3,584,500**

Data sources: Tourism WA, Local Government Area Fact Sheets, Shire of Busselton and Shire of Augusta Margaret River

Major visitor activities in the Capes Region include going to beaches, eating out at restaurants, general sightseeing, visiting wineries, visiting friends and relatives and going shopping.[4] Table 6 shows that visitors spend almost $590 million a year in the region.

[4] Tourism WA, Local Government Area Fact Sheets, Shire of Busselton and Shire of Augusta Margaret River

Table 6 **Visitor expenditure, Capes Region average 2005, 2006, 2007**

	Shire of Augusta Margaret River	Shire of Busselton	Total Capes Region
	Total Spend ($millions)	Total Spend ($millions)	Total Spend ($millions)
Overnight Visitors			
Domestic (intrastate and Interstate)	194	285	479
International	28	13	41
Total Overnight	222	298	520
Day Visitors			
Domestic Day Trips	30	39	69

Data sources: Tourism WA, Local Government Area Fact Sheets, Shire of Busselton and Shire of Augusta Margaret River

The tourism sector in the Capes Region generates significant direct and indirect employment, which is reflected in jobs in a range of industries including accommodation, cafes and restaurants, and retail trade.

2.3.7 Retail trade

Bunbury and Busselton are considered the commercial centres of the South West Region as well as the major population centres and therefore the source of much of the retail activity in the Region. Bunbury lies outside the Capes Region.

There has been very strong growth in retail trade reflecting the growth in population in the Region. Retail turnover in the South West Region was estimated at $1.5 billion in 2006/07, which was an increase of 9.4 per cent from the previous year. In addition, the share of overall Western Australia's retail turnover increased from 6.3 per cent in 2005/06 to 6.6 per cent in 2006/07[5].

As Busselton is one of the larger population centres in the South West Region, it is expected that a significant portion of this retail activity occurs in the town, although more visitors identify shopping in the Shire of Augusta Margaret River as a major activity.

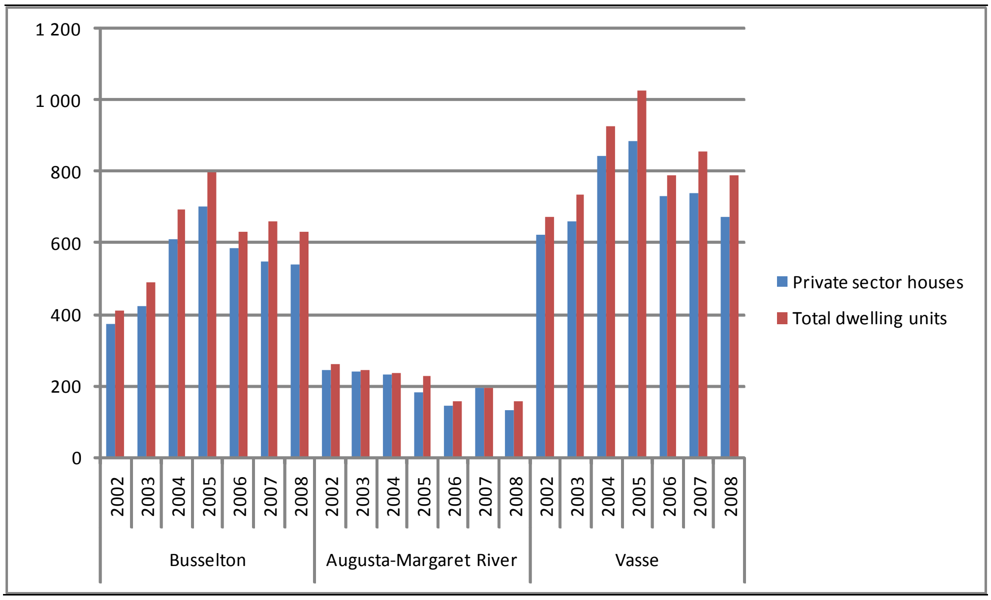
2.3.8 Construction sector and its supply chain

The construction sector is made up of residential construction, commercial property (industrial buildings, offices, hotels and other holiday accommodation and retail premises) and construction trade services. Combined, the construction sector contributed $136 million to the GRP of the Capes Region

[5] South West Development Commission, Stats News July 2007

in 2006. Two thirds of this ($88 million) was contributed by construction trade services. Residential construction and commercial construction contributed $14 million and $35 million respectively to GRP.

Figure 6 **Capes Region and Shire building approvals**



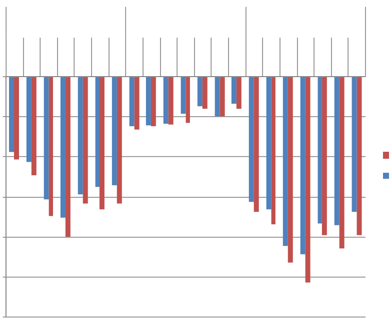
Data source: ABS, 8731.0 - Building Approvals, Australia, Jan 2009

With strong population growth expected to continue in the medium term, the construction sector is likely to continue to make a major contribution to the Capes Region economy. To the extent that the Capes Region is able to substitute local production for materials that it now imports from outside the region for use in the construction sector, then GRP contribution could be increased in these new sectors, underpinned by construction industry demand.

2.4 Workforce and labour market

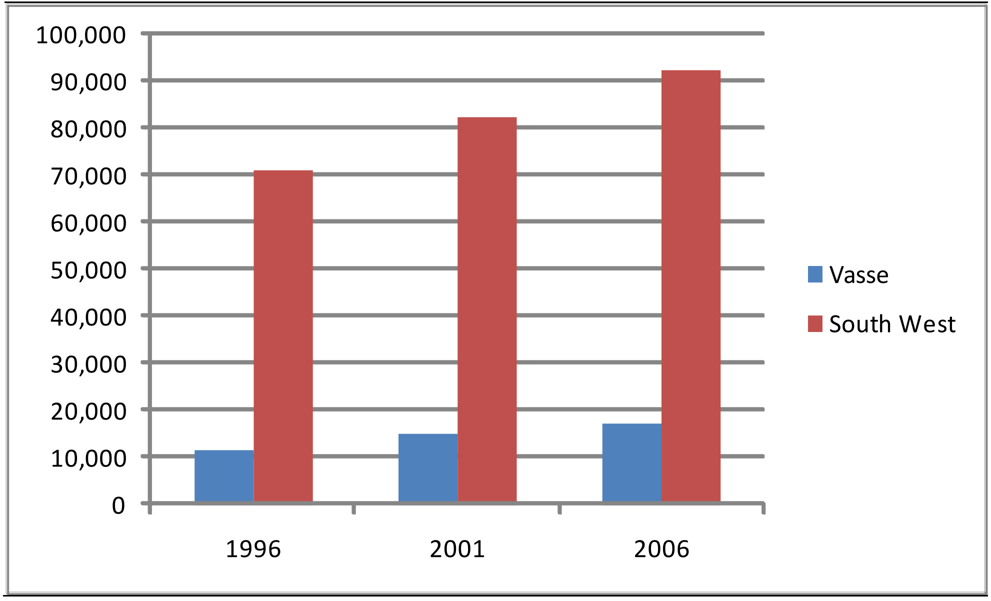
The Capes Region workforce comprises nearly 30 per cent of the 70,000 strong workforce of the South West. Just over 66 per cent of Capes Region workers are located in the Shire of Busselton.

Between 1997 and 2006, the Capes Region workforce increased from 12,566 to 17,509, representing an average annual rate of growth of 5.2 per cent. A total of 5,345 people (30 per cent of Capes Region total) from the Augusta Margaret River Shire, and 12,164 people (70 per cent) from the Busselton Shire were in the labour force in 2007. This rapid growth is consistent with expansion of the local economy and population over the decade. Indeed, few other rural sub-regions in Western Australia have experienced such rapid growth in the labour force in recent years.



Labour market data show that the general pattern within the South West and Vasse over the past decade was of strongly increasing employment (Figure 7).

Figure 7 **Size of the labour force in Capes Region (Vasse) and the South West 1996-2006**



Data source: ABS Census of Population and Housing, Community profile.

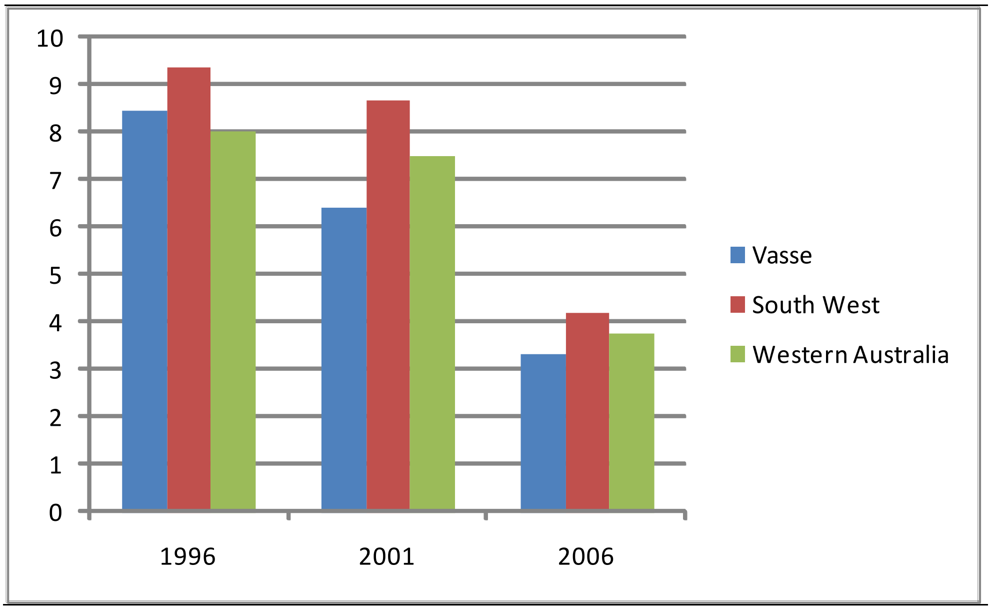
2.4.1 Unemployment

The unemployment rate in the Capes Region has tended to lie below that of Western Australia but marginally above that of the South West Region as a whole, as shown in Figure 8.

The unemployment rate in the Shire of Augusta Margaret River in the March quarter of 2007 was 2.9 per cent. It is believed to be about the same at the end of 2007. In the Shire of Busselton it was 3.2 per cent, indicating an unemployment rate in the Capes Region of 3 per cent. By comparison, the unemployment rate in Western Australia was 3.3 per cent.

The strength of the Capes Region economy has been the critical driver of employment growth.

Figure 8 **Unemployment rates in Capes Region (Vasse), South West and Western Australia 1996-2006 (%)**

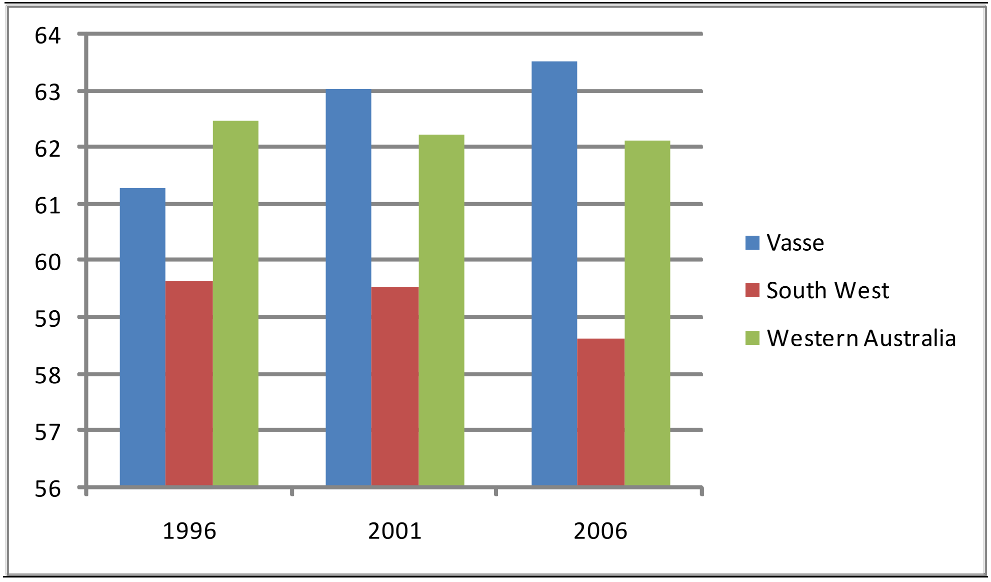


Data source: ABS Census of Population and Housing, Community profile.

2.4.2 Labour force participation

Labour force participation rates vary across the South West. In 2006 the Capes Region had the highest participation rate in the region, at 75 per cent, further emphasising both the strong economy and the tightness of supply within the local labour market. It may also reflect relatively high housing costs forcing unemployed people to move elsewhere.

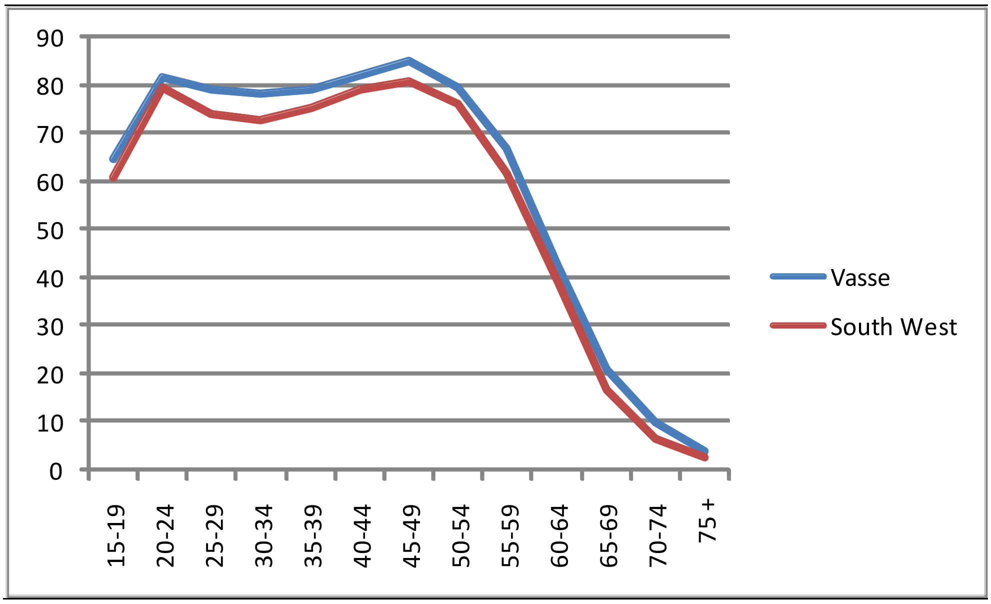
Figure 9 **Labour force participation rates in the Capes Region (Vasse), South West and Western Australia 1996-2006 (%)**



Data source: ABS Census of Population and Housing, Community profile.

Figure 10 shows how labour force participation varied across different age cohorts in 2006. In the Capes Region participation rates in 2006 in the 15-54 age groups were the highest in the South West. Participation peaked at 84.9 per cent in the 45-49 age cohort, compared with 80.2 per cent in Western Australia as a whole.

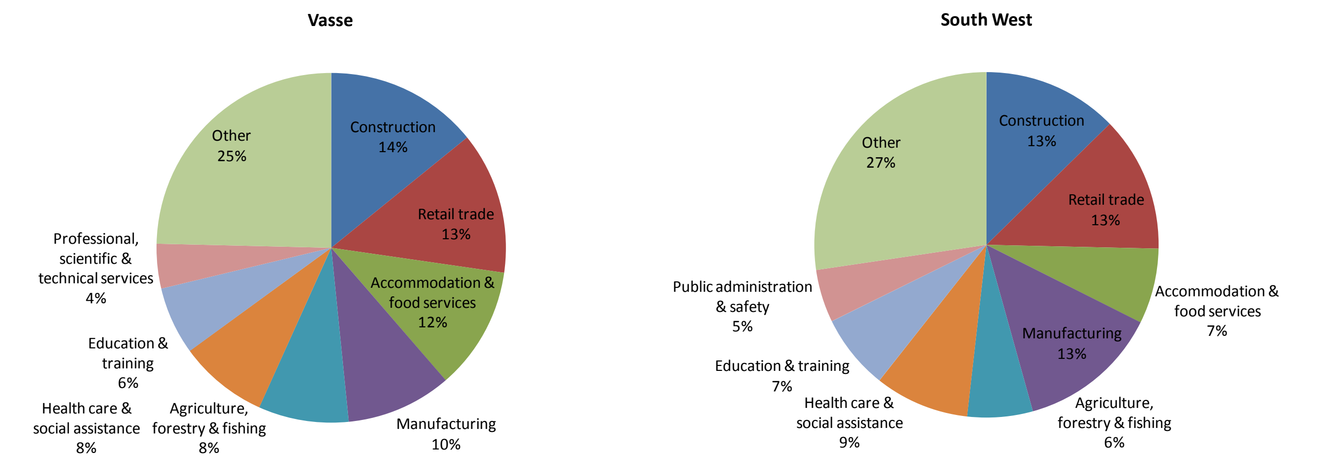
Figure 10 **Labour force participation rates by age in Capes Region (Vasse) and South West 1996-2006**



Data source: ABS 2006 Census of Population and Housing, Community profile.

The labour force of the Capes Region is spread across a range of sectors. Figure 11 and Table 7 show the major industries in which the workforce of the Capes Region is employed.

Figure 11 **Employment by industry (% of workforce): Capes Region (Vasse) and South West, 2006**



Data source: Data source: Australian Bureau of Statistics 2006 Census

Table 7 **Employment by industry (% of workforce): Western Australia and Capes Region (2006)**

	Western Australia	Capes Region	Augusta Margaret River	Busselton
Agriculture, Forestry & Fishing	3%	9%	13%	7%
Mining	4%	0%	0%	0%
Manufacturing	9%	9%	12%	8%
Electricity, Gas & Water Supply	1%	0%	0%	0%
Construction	9%	9%	8%	10%
Wholesale Trade	5%	3%	3%	2%
Retail Trade	15%	20%	17%	21%
Accommodation, Cafes & Restaurants	5%	13%	14%	12%
Transport & Storage	4%	3%	3%	3%
Communication Services	1%	1%	1%	1%
Finance & Insurance	3%	2%	1%	2%
Property & Business Services	11%	8%	7%	9%
Government Admin & Defence	6%	4%	4%	3%
Education	8%	7%	7%	7%
Health & Community Services	11%	10%	6%	11%
Cultural & Recreational Services	2%	1%	1%	1%
Personal & Other Services	4%	5%	8%	3%

Data source: Australian Bureau of Statistics 2006 Census

Retail trade is the largest sector of employment in the Capes Region, accounting for 20 per cent of all employment. The size of this sector is linked to the strong growth in the population and local economy. Other employers of note are:

- accommodation and food services (13 per cent)
- health and community services (10 per cent)
- agriculture, forestry and fishing (9 per cent)
- manufacturing (including wine and manufactured foods) (9 per cent)
- construction (9 per cent)
- property and business services (8 per cent)
- education (7 per cent).

It is noteworthy that combined, health, community services and education sectors generate 17 per cent of employment in the region. While these sectors are dominated by government agencies and government funding, they nevertheless constitute major industries in the region – and major employers of professional people.

Accommodation and food services, and retail trade are linked in part to local demand, but are clearly major components of the region's tourism sector.

While agriculture, forestry and fishing is linked in part to traditional agricultural enterprises such as dairying, the emergence of viticulture, agroforestry and a range of food industries has been important. The relatively high levels of employment in manufacturing are linked to food processing (including employment in wineries) and a range of craft-based industries.

One of the major challenges facing regional Australia is the ageing of the workforce, with many employees within a decade or so of retirement. In the South West, there are a number of sectors where the ageing of the workforce is a significant issue, notably agriculture, forestry and fishing; transport; and a number of service sectors. Unlike many other regional areas, however, the Capes Region has been able to regenerate its workforce, and in most sectors does not face the imminent retirement of large numbers of people.

In the Capes Region relatively few industries had more than 20 per cent of the labour force over the age of 55 in 2006. The sector with the highest proportion of workers over 55 is agriculture, forestry and fishing, with more than 30 per cent in this age cohort. The only other sector with more than 20 per cent over 55 years was transport, postal and warehousing (24 per cent). All other sectors had relatively young workforces, with only the following approaching the 20 per cent over 55 threshold:

- wholesale trade (18.6 per cent)
- rental, hiring and real estate services (18.8 per cent)
- professional, scientific and technical services (18.7 per cent)
- health care and social assistance (18.7 per cent).

2.4.3 Occupations

The occupation shares in the workforce of the Capes Region are presented in Figure 12. It shows a profile for the Capes Region that is quite different to that of Western Australia and one that is heavily influenced by the profile in the Shire of Busselton. This is not surprising given the much larger size of the workforce in this Shire compared with Augusta Margaret River.

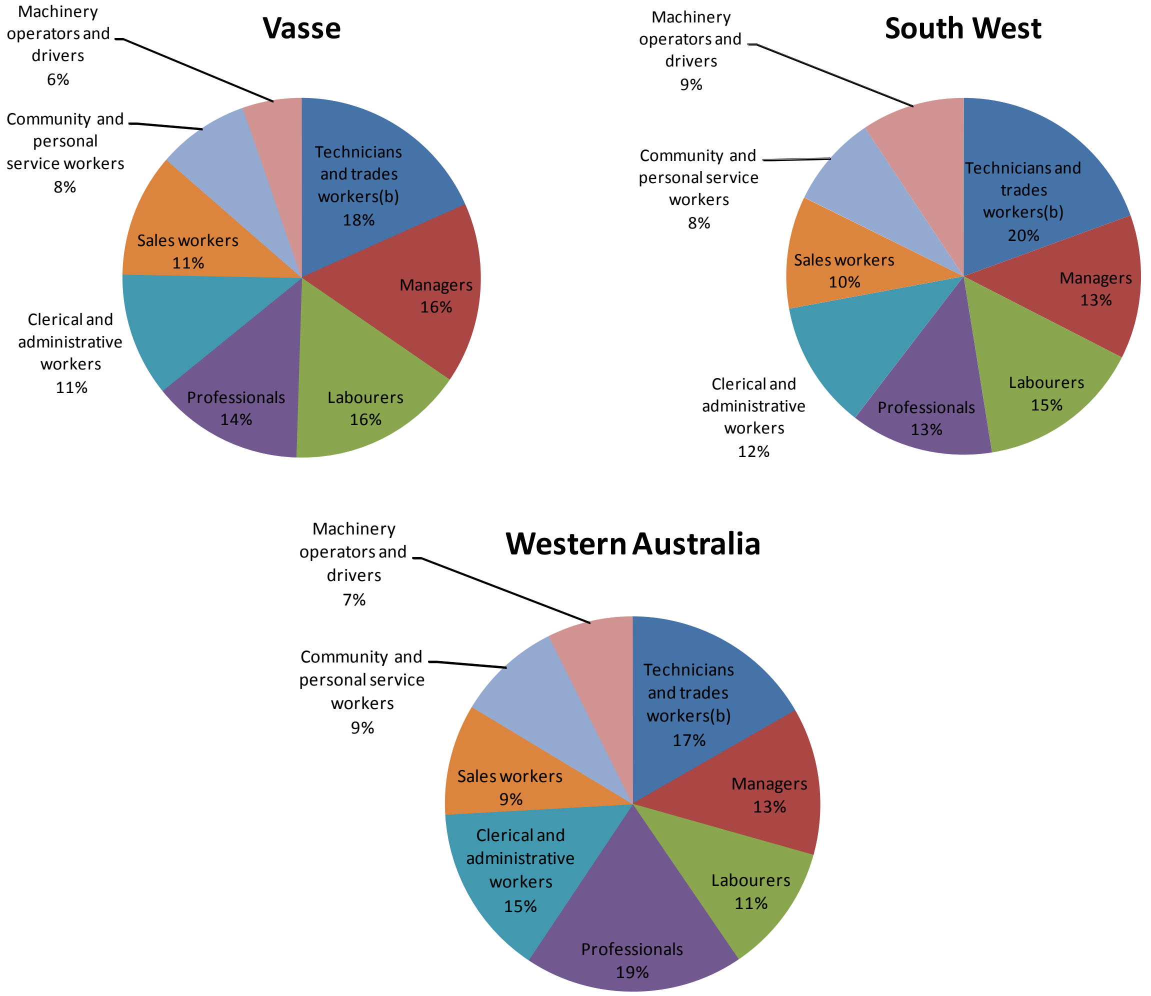
The most common occupations in the Capes Region are technicians and trades workers (18%), labourers (16%) and managers (16%) whilst in Western Australia the most common occupations are professionals (19%), technicians and trades workers (16%) and clerical and administrative workers (15%).

The occupations associated with the Capes Region reflect the skills requirements associated with an economy in which the services, manufacturing, tourism including retail trade, construction, and agriculture are the major industries.

The most common occupation in the Capes Region is technicians and trades workers, reflecting the high levels of employment in sectors such as construction, manufacturing and mining.

In more general terms, the proportion of people in professional occupations was relatively low compared to the State average, though this is not unusual in regional areas. The proportion of labourers was high, again reflecting the particular industry mix of the Region. The significance of the Capes Region as a tourism destination resulted in a relatively high proportion of people working in sales.

Figure 12 **Labour force by occupation in the Capes Region (Vasse), the South West and Western Australia (%)**



Data source: Australian Bureau of Statistics 2006 Census

2.4.4 Education and training

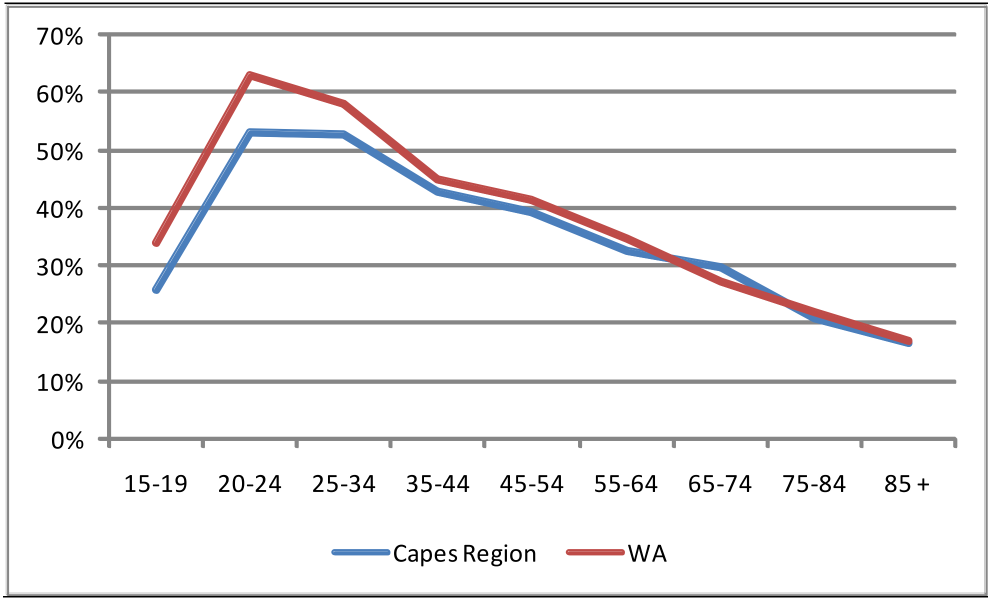
In 2006, the highest level of schooling in the South West was uniformly lower than the Western Australian average. The highest proportion of Year 12 qualifications in the South West was in the Capes Region where 39.3 per cent have completed Year 12 or equivalent. In the Capes Region, 28.8 per cent of have schooling to Year 10. The level of schooling is, in part, linked to the economic structure of the South West sub-regions, with sectors such as agriculture, construction, manufacturing and mining requiring qualifications that have in the past often seen students leave school at the end of year 10 to take up vocational education. Retail also tends to employ early school leavers.

Figure 14 shows the differences in educational attainment between the Vasse (Capes Region) and the rest of Western Australia. Using 2006 Census data from the Australian Bureau of Statistics, the figure shows the percentage of those who finished year 12.

The data firstly shows that both regions follow similar trends— younger people have higher educational attainment than the old.[6] Nevertheless, it is also evident that the level of educational attainment in the Capes Region is significantly below that of the rest of WA, on average. This difference is evident against a backdrop of convergence in education across the two areas as people get older. Overall, this convergence suggests a widening gap in educational attainment between the Capes Region and the rest of WA, which will undoubtedly shape the face of employment in the region in years to come.

[6] This trend is of course consistent with some evidence indicating that there has been a shift in demand towards more skilled workers in Australia in the last twenty years, perhaps because of skilled-biased technical change and/or trade related factors (de Laine, Laplagne and Stone, 2000).

Figure 13 **Percentage of people that finished year 12, Capes Region and WA 2006**



Data source: Data source: Australian Bureau of Statistics 2006 Census

The increase in the number of people earning a secondary education degree in the Capes Region may result from increases to minimum leaving age and integration of VET courses into secondary curricula.

In the Capes Region, 17.7 per cent of people have a certificate level III and IV VET qualifications, which is higher than the Western Australian average (15.4 per cent). Qualifications of this nature are often associated with trades and para-professional activities, and in the South West are linked to sectors such as manufacturing, construction, mining, health care and social assistance, and transport.

Across the entire South West Region, the proportion of the population with university bachelor level degrees or higher is lower than the Western Australian average (15.1 per cent). The proportion was highest in the Capes Region (11.9 per cent) where the relatively high proportion reflects in-migration of retirees, and lifestyle and business migrations, with bachelor degrees or higher qualifications in education, health and social assistance typical of a regional area.

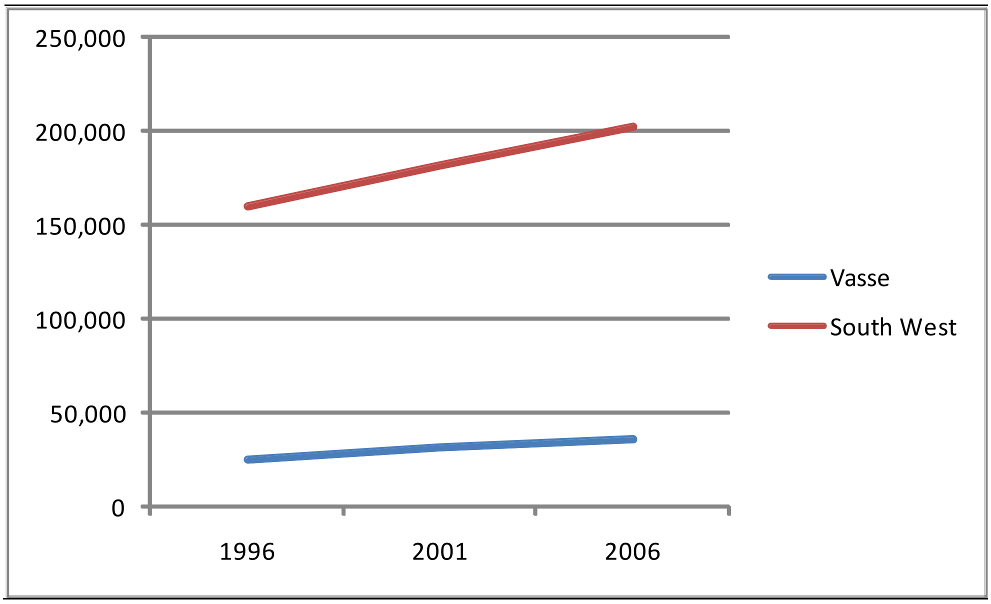
2.5 Population profile and trends

2.5.1 Population change

Figure 14 shows the rate of population change within the Capes Region and the South West as a whole.

Between 1996 and 2006 the Capes Region (Vasse) grew from 25,537 to 35,745 (40 per cent). During the same period, the population of the South West grew from 160,220 to 202,693 (26 per cent)

Figure 14 **Population change in Capes Region (Vasse) and the South West, 1996-2006**



Data source: Data source: Australian Bureau of Statistics 2006 Census

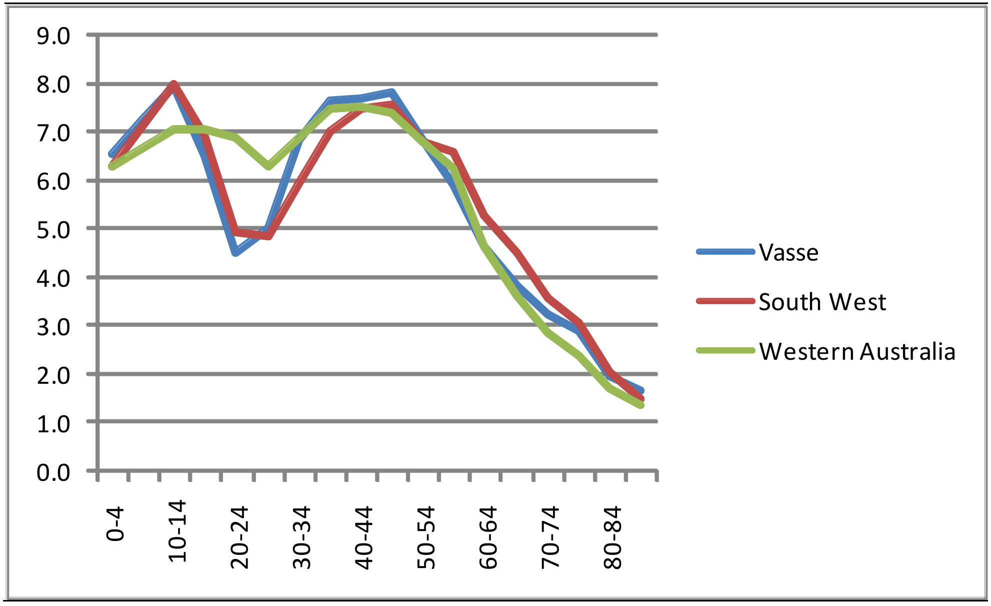
2.5.2 Age profile

The age structure of the South West reflects the Region's relatively complex population and economic geography (Figure 15).

The 0-14 year and 35-49 age cohorts are over-represented in all of subdivisions, a situation that is usual where young families are an important part of the age profile.

The 15-34 year age range is under-represented in all subdivisions, which is not uncommon in regional areas, where young people often leave to pursue education and other lifestyle opportunities in larger urban centres.

Figure 15 **Age structure of the Capes Region (Vasse) and South West 2006**



Data source: Data source: Australian Bureau of Statistics 2006 Census

The under-representation is particularly evident in the 20-24 age cohort, with the Capes Region (and adjacent regions) all having 4.6 per cent or less of the population in the group, compared to the Western Australian average of 6.9 per cent.

The South West region as a whole tends to be marginally above the Western Australian profile in population beyond the age of 50, although this over-representation tended to become more pronounced beyond the age of 65. The ageing population in the Capes Region is more than likely due to two processes:

- the Australia-wide phenomenon of ageing in-situ
- the strong in-migration of retirees and lifestyle migrants relocating to high amenity coastal and inland environments.

The level of in-migration to the South West is reflected in Table 5, which shows population mobility in each of the subdivisions.

2.5.3 Population mobility

In the Statistical Local Area (SLA) of Vasse (Capes Region), the level of population mobility is relatively high, with only 43.6 per cent living at the same address in 2006 as in 2001.

There is, however, considerable population movement within the two SLAs in the subdivision, with 21.5 per cent living at a different address in 2006 compared with 2001, but in the same local area (compared to 13.2 per cent for WA).

This reflects considerable 'churning' within the local housing market, as both renters and owner-residents relocate within the Region. The relatively high level of internal movement is likely to be the outcome of two main factors: first, the desire on the part of some locals to upgrade their residence/location; and, second, tightening housing market leading to an increasing movement amongst renters as they adjust housing circumstances to better match incomes and rising rental prices.

Table 8 **Population mobility in the South West 2001-06**

	Blackwood	Bunbury	Preston	Vasse	W. Aust
Same address as 2001	54.4	43.4	52.4	43.6	47.7
Same SLA as 2001, but different address	16.2	15.5	14	21.5	13.2
Different address in WA in 2001	19.7	27.1	23.2	21.8	21.7
Different address interstate in 2001	1.9	3.1	2.1	3.1	3.5
Overseas in 2001	1.7	3.3	1.5	2.7	5.5
Not stated	6.0	7.6	6.9	7.2	8.5

Data source: ABS 2001 and 2006

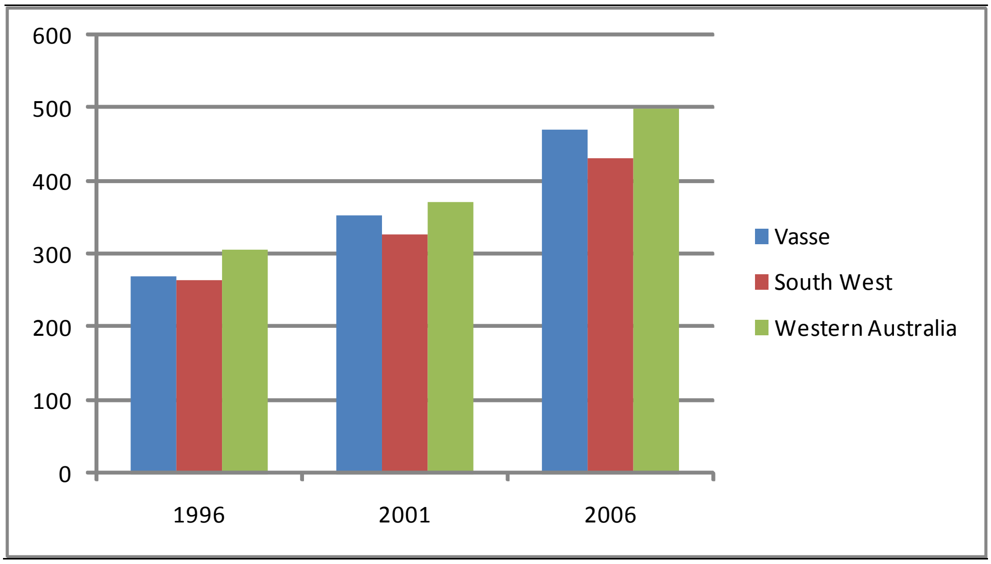
2.5.4 Incomes

The capacity to pay competitive wages and salaries is an important issue for both public and private sector businesses and organisations.

Competitive wages within a regional economy help to reduce the outflow of labour to other regions, and can help prevent high levels of turnover for individual enterprises. Figure 16 shows the changing median individual income in the Capes Region, South West and Western Australia.

In 1996, median incomes in the Capes Region were 88.6 per cent of the State median. By 2006, Capes Region median incomes increased to 94.2 per cent of the State average and 9 per cent higher than in the South West as a whole. The in-migration of higher income earners, together with a relatively innovative and prosperous local economy, helped improve the Capes Region's median individual incomes.

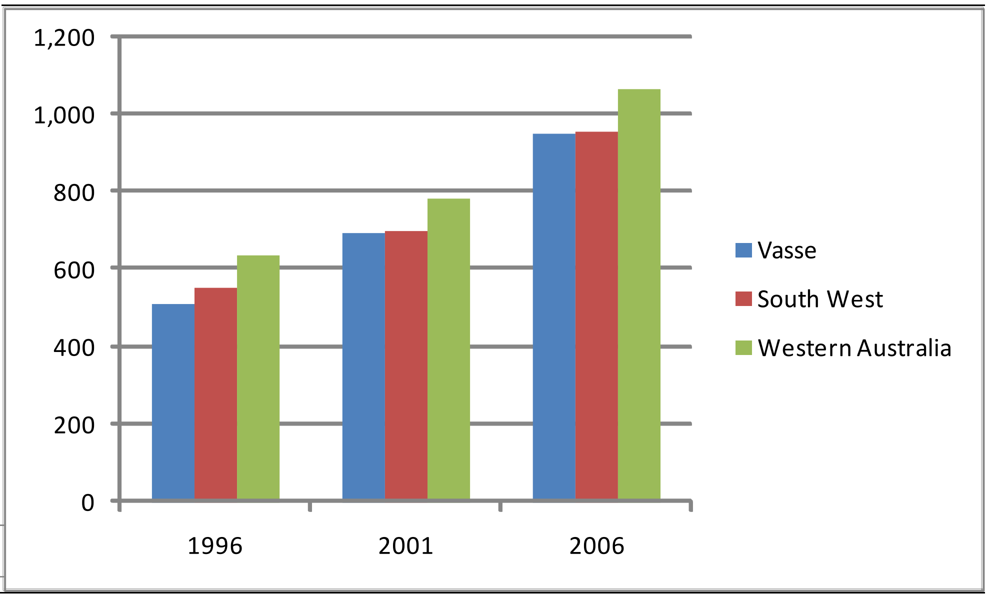
Figure 16 **Median individual weekly income in the Capes Region (Vasse), South West and Western Australia, 1996-2006 ($/weekly)**



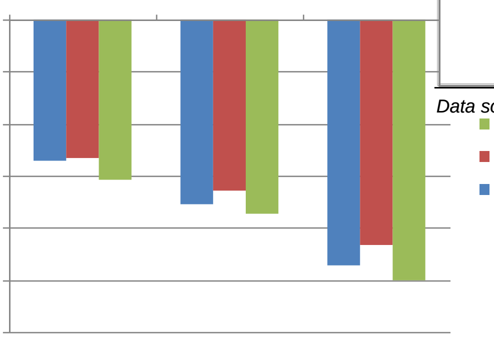
Data source: Data source: Australian Bureau of Statistics 2006 Census

The differentials in household incomes are shown in Figure 17. Between 1996 and 2006 the Vasse region has closed the household income gap relative to the South West. Household income for the Vasse region in 1996 was 91 percent of the South West and the current difference is nil. This is a generalised process of income growth since the household income gap has also been narrowed with respect to the State: in 1996 household income for the Vasse region was 80 percent of WA's average and currently it is 90 percent.

Figure 17 **Median household income Capes Region (Vasse), South West and Western Australia, 1996-2006 ($/weekly)**



Data source: Data source: Australian Bureau of Statistics 2006 Census



2.5.5 Resident population of Capes Region settlements

The major population centres in the Shire of Busselton are the towns of Busselton and Dunsborough whilst Margaret River and Augusta are the primary population centres in the Shire of Augusta Margaret River. Other settlements identified by ABS are shown in Table 9.

Table 9 **Estimated resident populations of selected Capes Region settlements, 2006**

		ERP	Growth rate	
		2006	Current	Potential
WAPC Planning Region	South West	141,200	High	High
Regional Centre	Greater Bunbury	53,500	High	High
Sub region	Vasse (Capes Region)	38,073	High	High
Sub-regional centre	Busselton	15,400	High	High
Major town	Dunsborough	3,400	High	Medium
Major town	Margaret River	4,400	Medium	Medium
Town	Augusta	1,100	Medium	Medium
Village	Cowaramup	600	Medium	Medium
Village	Gracetown	300	Low	Low
Village	Karridale	300	Low	Low
Village	Walpole	300	Low	Low
Village	Witchcliffe	300	Low	Medium
Village	Yallingup	1,100	Low	Low

Estimated resident population base

The WAPC assists in the process, and has published its most recent projections in its *Population Report No. 6, Western Australia Tomorrow*, released in 2005.

Subsequently, in 2008 the ABS finalised it s resident population estimates for 2006, which superseded the data for 2006 published by the WAPC.

The final 2006 estimates of resident populations in the local government areas in the South West are shown in Table 10. The Estimated Resident Population (ERP) is the ABS official measure of population, and is based on the concept of usual residence. It refers to all people who usually live in a location or region. In the Census year, the ERP is first calculated at the Census date (8 August for the 2006 Census), and is then backdated to calculate the ERP at 30 June of the Census year. After each Census, estimates for the preceding intercensal period are revised to ensure that the total intercensal increase agrees with the difference between the estimated resident populations at the two 30 June dates in the respective Census years.

Table 10 **Estimated resident populations 2006 (ABS final)**

	1991 (f)	1996 (f)	2001 (f)	2006 (f)	1991-96	1996-01	2001-06
	number	number	number	number	growth	growth	growth
Augusta Margaret River	6,218	8,106	10,187	11,143	*5.4*	*4.7*	*1.8*
Bunbury	27,305	27,641	30,493	31,712	*0.2*	*2.0*	*0.8*
Busselton	14,592	18,158	23,099	26,930	*4.5*	*4.9*	*3.1*
Capel	5,452	5,989	7,107	10,753	*1.9*	*3.5*	*8.6*
Dardanup	5,458	6,658	8,955	10,927	*4.1*	*6.1*	*4.1*
Harvey	13,097	15,556	18,452	20,620	*3.5*	*3.5*	*2.2*
Mandurah	29,223	40,460	48,877	59,288	*6.7*	*3.9*	*3.9*
Capes (Vasse) Region	20,810	26,264	33,286	38,073	*4.8*	*4.9*	*2.7*
South West (SD)	145,730	167,274	194,129	220,008	*2.8*	*3.0*	*2.5*
Western Australia	1,636,067	1,765,256	1,901,159	2,059,381	*1.5*	*1.5*	*1.6*

Note: Other than region or Western Australian total are for the Local Government Areas named in the first column. The growth rates are compound annual growth rates which are slightly less than the arithmetic average annual growth rates. (f) refers to the final ERP estimates.

Data source: ABS 3218.0, 2008

Preliminary ABS and Shires estimates of the base population in 2006 are shown in Table 8. The most important point to note is that the population in the two Shires has grown at a slower pace than expected. Hence, the 2006 population is lower than provided for in the Shire Council's planning policies.

2.5.6 Non resident population

The population of the Capes Region fluctuates over the course of the year because of the influxes of tourists, day visitors, non-permanent residents and seasonal workers.

This additional population places considerable pressure on infrastructure, community facilities, services and affordable housing opportunities.

There is no reliable data available on actual peak visitor numbers. Assuming commercial bed spaces of about 5,600 in the Capes Region (Tourism WA), owner-occupied holiday accommodation of 7,000 bed spaces, rental accommodation bed spaces of say 7,000, camping/caravanning spaces of 1000 and VFR spaces of 1000, and peak occupancy of 70 per cent (Tourism WA), then a peak of some 15,000 overnight visitors at any one time in the Capes Region is likely.

The Shires of Augusta Margaret River Busselton are amongst the areas of regional Western Australia in which unoccupied dwellings grew more between the 1996 and 2006 Censuses. Unoccupied dwellings grew 32 per cent in the State, 39 per cent in regional Western Australia and 26per cent in Perth. For Augusta Margaret River unoccupied dwellings jumped grew 128 per cent and for Busselton 61 per cent. For the Capes Region as a whole, the number of unoccupied dwellings grew by 79 per cent.[7]

Apart from tourists, both Shires are now home to both sea changers and tree changers, who choose to live in the region at least part of the year for lifestyle reasons while living and working elsewhere during the remainder of the year. A 2005 survey undertaken by CSIRO for Augusta Margaret River Shire identified that 40 per cent of properties within the Shire were owned by people who normally lived outside the region. Almost all lived permanently within Western Australia (90 per cent), while almost all non-permanent residents were older than the resident population, and earned higher incomes.

In the 2006 census the ABS reported that there were 12,571 households living in occupied private dwellings in the Capes Region. Of these 74 per cent were families (higher than the Australian average of 67 per cent), 22 per cent were lone person households and the remainder were group households.

In addition there were 5,000 unoccupied private dwellings, while there were 1,000 more occupied private dwellings than households, suggesting these households occupied more than one dwelling. On this basis ACIL Tasman estimates that one third of homes in the Region are owned by households with more than one home in the Capes Region, or owned by non-permanent residents.

According to the 2005 CSIRO survey, most non-permanent residents used their home for residential purposes (35 per cent) while only 17 per cent used their properties for holiday accommodation. Only 4 per cent held their properties as an investment. Over half of the survey respondents suggested that they planned to retire to the Capes Region in the future.

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[7] Taken from Western Australia Statistical Indicators, December quarter 2007. ABS 2007.

3 Statistical analysis of the Capes Region economy

There is little detailed economic information about the Capes Region, apart from employment data, that is publicly available at a sub-regional level. ABS Census employment data is one of only a few economic or survey datasets that are disaggregated sufficiently. Hence the analysis so far in this regional profile is based largely on ABS employment data.

ACIL Tasman has therefore used a number of analytic techniques to better understand the economy of the Capes Region and to analyse its competitive strengths and weaknesses.

ACIL Tasman has developed information on output and value added in the Capes Region, through the construction of detailed input-output tables based on ABS data. The input-output tables for the Capes Region economic development strategy comprise individual tables for:

- Augusta Margaret River Shire
- Busselton Shire
- the Capes Region
- South West Region
- Western Australia.

These can be compared with the public information available at a national level.

In addition, ACIL Tasman has used two other analytical techniques to assess the economy of the Capes Region. These are:

- Location quotients, which are used to determine concentrations of employment and business enterprises that are higher or lower than the national and state employment and business structures.
- Shift-share analysis of employment changes, which assesses the total change in employment for each industry sector, and the different components (national share, industry composition, or regional shift) and is used to identify industries that are growing or shrinking both in absolute terms and relative to the nation and the state.
- Indices of regional specialisation
- Diversity indices comparing the structure of one regional economy with another.

The results of the analysis using these techniques are discussed in the following sections.

3.1 Input-output analysis

Input-output analysis is an accounting method which shows how the parts of a system are affected by a change in one part of that system.

Input-output analysis specifically shows how industries are *linked together* through supplying inputs for the output of an economy. This analysis relies on the development of input-output tables and multipliers (for jobs, earnings, and output) for each sector, subsector, and industry of the economy.

Input-output tables are used not only to calculate the impacts of a shock to the economy, but also used to show the strength of interactions (purchases and sales) between related sectors of the economy. Because of this, input-output analysis is used to evaluate the strength of the interrelationships among industries.

3.1.1 The Capes Region input-output table

The full Capes Region input-output table contains 38 separate industries, and in the excel spreadsheet version contains over 2,000 individual entries. Input-output tables can be difficult to interpret for those not familiar with them. To simplify interpretation, a more aggregated version (Table 11) of the Capes Region is presented in this report, while the full spreadsheet is available in Excel format.

In Table 11 the Capes Region input-output table has been aggregated to 19 industries.

Table 11 is a “transactions” table. It maps the flow of goods and services (represented in dollar amounts) between industries, primary inputs and final demand categories.

Total production and sales (Gross Regional Product at factor cost) in the Capes Region is $1.2 billion, of which local production and trade within the Region contributes close to $660 million annually.

Individual input-output tables for Augusta Margaret River and Busselton, the South West and Western Australia were prepared for this study.

3.1.2 Interpreting the Capes Region input-output table

Each row of the transactions table shows the sales of a Capes Region industry to local industries and to final demand. For example, row 1 of Table 11 represents the sales of the agriculture industry.

Remembering that the figures in Table 11 are in millions of dollars, the first entry in the row (column 1) shows sales of $10 million worth of products from the Capes Region agriculture industry to itself.

Table 11 shows that the agriculture industry is an aggregation of a variety of sectors. It would not be unusual for sales to be recorded for the grains industry to beef cattle. Over and above this common occurrence, it is possible for intra-industry transactions to be recorded even in narrowly defined industries. This can occur, for example, from sales of breeding stock between like enterprises.

Moving further along, row 1, column 4 shows that the Capes Region agriculture sector recorded sales of $20 million to the wine sector within the Region. The total of all sales to local industries for agriculture comes to $43 million.

Capes Region agriculture also had significant sales of $25 million to local final demand (column 21) and $152 million to exports; which in the context of the Capes Region table, covers all sales outside of the Region. Column 23 contains total final demand, which is the sum of local final demand and exports, and is valued at $177 million. Finally, column 24 is total supply and is the value of all sales from the Capes Region agriculture industry, which comes to $220 million.

The columns of the input-output table give the inputs to each industry's production process. Again, using agriculture (column 1) as an example, row 1 shows that the agriculture industry consumes $10 million worth of products from agriculture, this of course follows from the discussion above.

Row 2 shows that agriculture does not consume any of the output from the Capes Region mining industry, but consumes $1 million from construction, $4 million from wholesale and retail trade, $1 million from Accommodation, cafes and restaurants, $2 million from transport, and $1 million from property and business services. The total consumption from all industries, shown as total intermediate usage in row 20, comes to $21 million. The next group of inputs are the primary inputs. The first in this group, compensation of employees (row 21), accounts for $28 million of the industry's costs. Gross operation surplus and mixed income account for $90 million, taxes less subsidies $4 million and imports $77 million. Row 25 – Capes Region production – represents the value of all inputs into the agriculture production process and comes to $220 million. The row and column totals match, indicating sales equal production.

Table 11 **Aggregated input-output table, Capes Region**

	USAGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
		Agriculture, forestry and fishing	Mining	Food manufacturing	Wine, spirits and tobacco products	Textiles clothing and footwear	Non-metallic manufacturing	Metal products	Equipment	Other manufacturing	Electricity gas and water	Residential building	Construction	Wholesale and retail trade	Tourism	Transport	Communication services	Finance	Property and business services	Services	Total intermediate usage	Local final demand	Exports	Total final demand	Total supply
	SUPPLY																								
1	Agriculture, Forestry and Fishing	10	0	9	20	0	1	0	0	0	0	0	0	1	2	0	0	0	0	1	43	25	152	177	220
2	Mining	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	14
3	Food manufacturing	0	0	7	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	14	10	58	68	82
4	Wine, spirits and tobacco products (a)	0	0	0	34	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	44	7	397	403	447
5	Textiles, clothing and footwear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	3
6	Non metallic manufacturing	0	0	0	0	0	3	0	0	1	0	2	5	2	0	0	0	0	2	2	18	2	9	11	29
7	Metal products	0	0	0	0	0	0	4	1	1	0	2	5	1	0	0	0	0	1	0	16	1	5	6	22
8	Equipment	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	3	8	11	14
9	Other manufacturing	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	4	12	20	32	37
10	Electricity, gas and water	1	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	9	9	6	15	24
11	Residential building construction	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	53	24	77	79
12	Construction	1	0	0	1	0	0	0	0	0	1	21	82	2	2	1	1	0	5	2	119	83	146	229	348
13	Wholesale and retail trade	4	0	3	5	0	1	1	1	2	0	2	7	16	6	8	2	0	10	6	75	182	51	233	308
14	Accommodation, cafes and restaurants	1	0	1	13	0	0	0	0	0	0	0	0	1	0	1	0	0	3	1	21	50	93	143	164
15	Transport	2	0	4	4	0	1	1	0	1	0	1	4	6	2	6	0	0	4	2	37	18	32	50	87
16	Communication services	0	0	0	0	0	0	0	0	0	0	0	0	4	1	2	1	1	4	3	16	9	1	9	26
17	Finance	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	16	3	1	25	6	63	69	94
18	Property and business services	1	0	2	6	0	2	1	1	1	0	4	15	31	7	11	2	5	91	14	196	188	109	298	493
19	Services	0	0	0	1	0	0	0	0	0	0	0	1	2	1	2	0	0	4	10	23	219	36	256	279
20	Total intermediate usage	21	2	29	85	1	8	8	3	7	3	36	123	71	34	30	7	23	128	45	666	877	1226	1719	2384
21	Compensation of employees	28	2	12	47	1	6	5	3	7	3	10	53	87	42	18	4	19	68	150	564	0	0	0	564
22	Gross operating surplus & mixed income	90	5	7	114	0	5	2	1	2	7	4	70	42	21	16	8	40	198	27	658	0	0	0	658
23	Taxes less subsidies on products	4	0	1	10	0	0	0	0	0	1	1	3	9	8	3	0	3	16	6	67	104	2	106	173
24	Imports	77	6	32	190	1	10	8	6	19	10	29	100	99	59	21	5	9	83	51	814	532	0	532	1346
25	Capes Region production	220	14	82	447	3	29	22	14	37	24	79	348	308	164	87	26	94	493	279	2769	1513	1228	2741	5510

Data source: ACIL Tasman

3.2 Location quotient analysis

3.2.1 Location quotients – employment

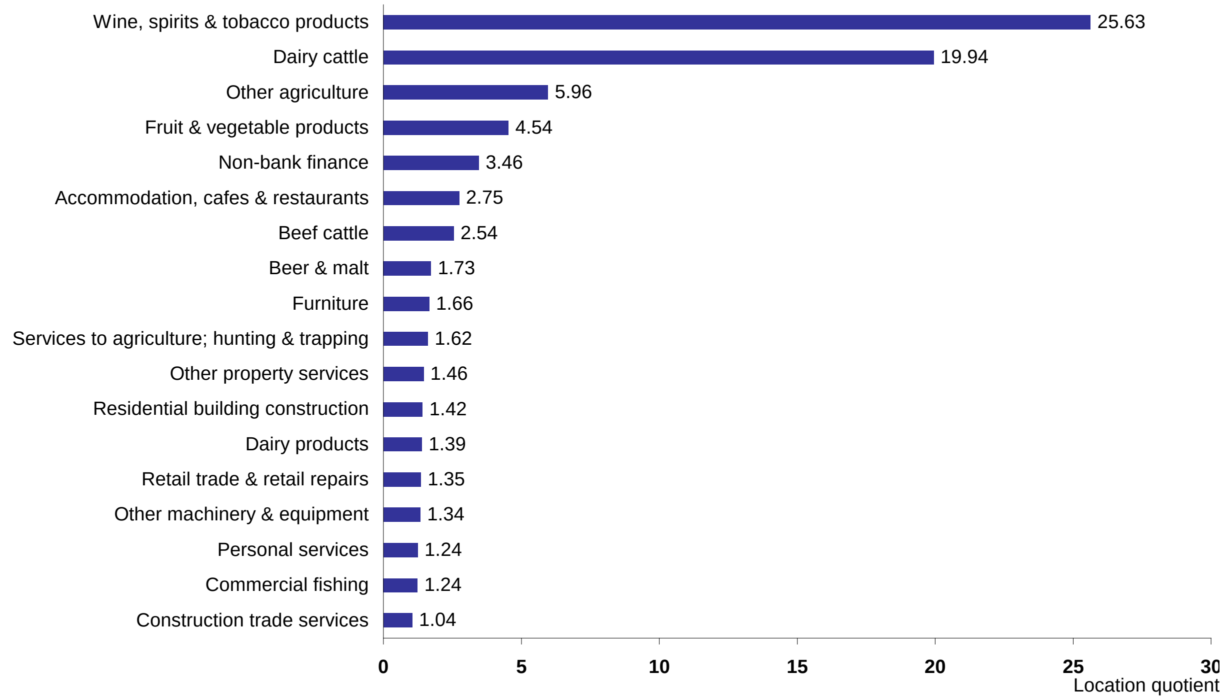
Location quotients are a means of determining concentrations of employment that are higher or lower than might be expected given the national or state employment structure. Quotients of more than 1.0 indicate local specialisation (or concentration), and suggest that an industry is a basic (or 'propulsive') sector within the local or regional economy. A quotient of less than 1.0 suggests that an industry is not a significant driver of the economy.

It should be noted that these quotients are calculated from employment data based on employees' place of residence. As such, the quotients shown here reflect concentrations of employees, rather than businesses or other establishments. Location quotients calculated on the basis of business enterprise locations are also included below.

From location quotient analysis using data from the 2006 Census, the industry sectors where the Capes Region has competitive strengths are identified in Figure 18 and Table 12 in the appendix[8].

[8] Note that standard industry classifications are used and the industry name may be broader that the segment present in the Capes Region (eg the "wine, spirits and tobacco products" industry is of course made up almost solely of the wine sector).

Figure 18 **Location quotient analysis – Capes Region employment**



Note: calculations performed by ACIL Tasman

Data source: 2006 Australian Bureau of Statistics Census

From Figure 18 it is clear that in general the Capes Region is comparatively stronger in the agricultural industries with 10 of the 18 industries associated with the agriculture, food, forestry, and fishing sector. The wine, spirits and tobacco products and dairy cattle industries in particular are significantly over represented in the Capes Region.

The residential building sector is also over represented with associated industries such as non bank finance, other property services, residential building construction and construction trade services all returning a location quotient greater than 1.

3.2.2 Location quotients – business enterprises

The business sector of the Capes Region reflects the region's increasingly diverse economy. While the Capes Region was dominated by farming enterprises more than 30 years ago (see Houghton, 2003), by 2006 its 4,881 business were spread across a range of sectors.

Agriculture, forestry and fishing still occupied an important position in the local economy, comprising 19.5 per cent of all business.

Of increasing importance was the construction sector (22.6 per cent), which reflects the rapid population and economic growth of the area.

Also significant in an area where tourism is a fundamental part of the local economy was the accommodation, cafes and restaurants sector, comprising 5.3 per cent of businesses, compared to the national average of 2.8 per cent.

Manufacturing was also higher than the national average, with 5.7 per cent of all businesses in this sector. A major contributor to this is the growing number of craft-based enterprises and food processing firms in the Region.

In terms of the relative size of firms, the South West's economy is based on small and medium enterprises

In the Capes Region, sole traders are dominant, with 2,995 of the subdivision's 4,881 businesses (or 61.4 per cent) falling into this category.

The majority of these businesses were in construction, property and business services, and agriculture, forestry and fishing sectors. A further 21.7 per cent of enterprises employed between one and four staff, with concentrations in construction, agriculture, forestry and fishing, retail trade, and property and business services.

The Region also has a number of large employers, particularly in agriculture, forestry and fishing (with vineyards playing an important role), manufacturing (including wineries, food processing etc.), and accommodation, cafes and restaurants.

Location quotients were calculated for private enterprises in the Capes Region and the results are broadly consistent with the location quotients calculated on the basis of sectoral employment above.

In the Capes Region the highest location quotients are in the electricity, gas and water sector (2.3), closely followed by accommodation, cafes and restaurants (1.9). Other sectors with location quotients higher than 1.0 include: agriculture, forestry and fishing (1.8), and construction (1.4).

3.3 Shift share analysis

Shift-share analysis is used to explain changes in a regional economy by breaking-down changes into three main sources: national share, industry share, and regional share.

The national share estimates the effects of total national growth or decline on industries in a region. In this study, employment is used as the variable of interest. For example, if employment in the region grew by 5 per cent over the period of time 2001-2006, the national share factor would show the effect of national employment growth over the 5 per cent local employment growth. In other words, this would show the effect of national employment growth on the local employment growth.

The industry share estimates how much of a regional change in employment can be attributed to national growth or decline in the industry in question. This share shows the effect of the national industry employment over the regional industry employment. Some industries will grow more quickly than others. Thus a region that specialises in 'slow-growth' sectors is likely to show a net loss of employment while conversely, a region favoured by a high proportion of 'rapid-growth' sectors will, most likely, show a positive net increase in employment.

Together the national share and the industry share show the changes that would have occurred in the regional economy if they corresponded exactly to national and industry trends.

When these two shares are subtracted from the actual shift in employment in the region, what is left is a net regional employment change not explained by general economic conditions (national share) or industrial trends (industry share.) This change – the regional share – reveals the effects of region specific factors on regional employment.

In shift-share analysis, the best target industries and clusters for economic development are typically those with the largest regional-share effect on growth. With multiple sectors or industries within a cluster they can be expected to differ in their regional share effects. These differences can reveal where to focus efforts to build and strengthen an industry or cluster.

Shift-share analysis of employment changes in the Capes Region for the period 2001 to 2006 shows the total change in employment for each industry sector, and the different components (national share or industry share).

The increase in the workforce in the Capes Region between 2001 and 2006 for the selected industries was 415. Changes at the national level contributed 551 of these jobs, while industry composition subtracted 391 jobs from the Region. However, local competitive advantage contributed an additional 255 jobs.

The 10 most significant increases in employment were in:

- retail trade and retail repairs
- accommodation, cafes and restaurants
- education
- community services
- residential building construction
- non-bank finance

- government administration
- wine, spirits and tobacco products
- health services, and
- other property services.

For the first two industries, the national and regional shift have the highest effect. In education, community services and non-bank finance the national effect is nil compared with the industry and regional shift. Residential and government administration have a strong component from the regional effect; while health services and wine and spirits have a strong national effect... The appendix provides detailed information and a shift-share table.

3.4 Summary of analysis

In summary, the analysis shows that the Capes Region has a very dynamic economy. Services, manufacturing, tourism and construction are among the four most important economic activities. Services are labour intensive activities that provide a livelihood for the increasing population of the region.

The strength of the region is reflected in the long term employment and unemployment trends. Although the labour force has increased in the region as well as in the State, unemployment has steadily decreased. The existing pattern of labour force participation by age will continue in the next few years, the current working population will continue offering its services to the region given its dynamic growth as well as accommodating incoming population and re-balancing income of those affected by the ongoing economic downturn.

The economic strength of the Capes Region is clearly seen in the pattern of growth of individual and household incomes.

A Technical appendix

A.1 Location quotients

The location quotient is the most commonly used economic base analysis method. The location quotient compares a local economy to a reference economy to identify regional specialisation.

Location quotients were initially developed as a method of determining whether a regional industry should be classified as importing, exporting or local. The logic being that an industry with a location quotient of 1 is able to meet the needs of the local economy, while a location quotient of greater than 1 indicates that the industry is capable of supplying product to customers outside of the region. A location quotient of less than 1 indicates that imports may be required to meet the needs of the local economy. See Box 1 for the location quotient formula.

Box 1 **Location quotient formula**

Location quotients (LQ_i) are calculated using the following formula:

$$LQ_i = \frac{N_i^r / N^r}{N_i / N}.$$

Where:

- N_i^r represents employment in regional industry i;
- N^r represents total employment in the region;
- N_i represents employment in the state's industry i; and
- N represents total state employment.

References

Forecasting Methods: Location Quotient Technique, Department of Urban and Regional Planning, Florida State University

Forecasting Methods: Economic Base Theory, Department of Urban and Regional Planning, Florida State University

Unlocking Rural Competitiveness: The Role of Regional Clusters, Center for Regional Development, Purdue University, 2007

Source: ACIL Tasman

For the purposes of this report, a location quotient greater than 1 indicates that the share of employment in the Capes Region is greater than the share of employment in Western Australia. Employment in that industry is therefore over represented in the Capes Region indicating there could be an industry cluster which has led to greater employment in that industry than might be found elsewhere in Western Australia.

This analysis is not comprehensive as it may exclude emerging, small or niche industries.

Location quotients are useful for giving a picture of a region or local economy's strengths and weaknesses. However, they do not explain the sources of change over time or describe how the performance of a local economy differs from that of the nation.

Table 12 **Location quotients: South West, Capes Region, Augusta Margaret River and Busselton (2006)**

South West		Capes Region		Shire of Augusta Margaret River		Shire of Busselton	
Dairy cattle	12.69	Wine, spirits & tobacco products	25.63	Wine, spirits & tobacco products	44.14	Wine, spirits & tobacco products	17.55
Coal	11.56	Dairy cattle	19.94	Dairy cattle	31.36	Dairy cattle	14.96
Sawmill products	10.77	Other agriculture	5.96	Other agriculture	8.22	Fruit & vegetable products	6.52
Wine, spirits & tobacco products	8.34	Fruit & vegetable products	4.54	Beef cattle	4.15	Other agriculture	4.98
Forestry & logging	4.64	Non-bank finance	3.46	Dairy products	3.59	Non-bank finance	3.61
Other agriculture	4.36	Accommodation, cafes & restaurants	2.75	Non-bank finance	3.11	Accommodation, cafes & restaurants	2.62
Meat & meat products	3.50	Beef cattle	2.54	Accommodation, cafes & restaurants	3.05	Furniture	2.13
Soft drinks, cordials & syrups	3.40	Beer & malt	1.73	Clothing	2.16	Other machinery & equipment	1.92
Beef cattle	2.82	Furniture	1.66	Services to agriculture; hunting & trapping	2.11	Beef cattle	1.84
Basic non-ferrous metal & prods	2.79	Services to agriculture; hunting & trapping	1.62	Commercial fishing	1.57	Beer & malt	1.80
Basic chemicals	2.77	Other property services	1.46	Beer & malt	1.55	Other property services	1.56
Dairy products	2.77	Residential building construction	1.42	Glass & glass products	1.38	Residential building construction	1.49
Other wood products	2.13	Dairy products	1.39	Residential building construction	1.27	Retail trade & retail repairs	1.42
Electricity supply	1.95	Retail trade & retail repairs	1.35	Other property services	1.22	Services to agriculture; hunting & trapping	1.40
Accommodation, cafes & restaurants	1.52	Other machinery & equipment	1.34	Retail trade & retail repairs	1.20	Personal services	1.27
Retail trade & retail repairs	1.21	Personal services	1.24	Personal services	1.18	Other manufacturing	1.25
Water supply; sewerage & drainage services	1.15	Commercial fishing	1.24	Services to transport; storage	1.11	Construction trade services	1.12
Road transport	1.13	Construction trade services	1.04			Community services	1.11
Rail, pipeline & other transport	1.11					Commercial fishing	1.09
Other property services	1.06					Sawmill products	1.03
Education	1.04					Meat & meat products	1.02
Residential building construction	1.01						
Government administration	1.01						
Community services	1.00						

Note: Calculations performed by ACIL Tasman

Data source: 2006 Australian Bureau of Statistics Census preliminary data

Table 13 **Employment by industry and location quotients, Capes Region**

		Employment			Location quotients	
		2006	2001	% change	2006	2001
0101	Sheep	32	42	-24.46	0.37	0.39
0102	Grains	0	0	-100.00	0.00	0.00
0103	Beef cattle	240	328	-26.73	2.55	2.36
0104	Dairy cattle	224	250	-10.46	20.02	15.84
0105	Pigs	0	4	-100.00	0.00	0.74
0106	Poultry	0	0	-100.00	0.00	0.00
0107	Other agriculture	523	659	-20.64	5.99	6.14
0200	Ag Services	53	46	16.09	1.62	1.25
0300	Forestry and logging	8	34	-76.29	0.63	1.53
0400	Commercial fishing	26	30	-12.69	1.24	0.89
1101	Coal	0	0	-100.00	0.00	0.00
1201	Oil and gas	0	0	-100.00	0.00	0.00
1301	Iron ores	0	11	-100.00	0.00	0.15
1302	Non-ferrous metal ores	19	19	-0.59	0.07	0.10
1400	Other mining	0	7	-100.00	0.00	0.23
1500	Services to mining	0	7	-100.00	0.00	0.09
2101	Meat and meat products	42	6	553.41	0.94	0.16
2102	Dairy products	14	47	-70.38	1.39	2.63
2103	Fruit and vegetable products	30	0		4.55	0.00
2104	Oils and fats	0	0	-100.00	0.00	0.00
2105	Flour mill products and cereal foods	0	3	-100.00	0.00	0.55
2106	Bakery products	3	31	-90.35	0.10	1.03
2107	Confectionery	0	9	-100.00	0.00	2.70
2108	Other food products	3	4	-29.52	0.14	0.23
2109	Soft drinks, cordials and syrups	0	0	-100.00	0.00	0.00
2110	Beer and malt	11	10	13.33	1.73	1.53
2113	Wine, spirits and tobacco products (a)	688	605	13.65	25.72	23.42
2201	Textile fibres, yarns and woven fabrics	0	0	-100.00	0.00	0.00
2202	Textile products	3	16	-81.45	0.16	0.64
2203	Knitting mill products	0	0	-100.00	0.00	0.00
2204	Clothing	11	18	-39.48	0.66	0.84
2205	Footwear	0	0	-100.00	0.00	0.00
2206	Leather and leather products	0	0	-100.00	0.00	0.00
2301	Sawmill products	11	62	-82.37	0.72	3.13
2302	Other wood products	28	38	-25.40	0.74	0.92
2303	Pulp, paper and paperboard	0	0	-100.00	0.00	0.00
2304	Paper containers and products	0	0	-100.00	0.00	0.00
2401	Printing and services to printing	12	28	-57.07	0.25	0.47
2402	Publishing; recorded media and publishing	20	34	-41.76	0.37	0.59
2501	Petroleum and coal products	0	3	-100.00	0.00	0.20
2502	Basic chemicals	0	0	-100.00	0.00	0.00

		Employment			Location quotients	
		2006	2001	% change	2006	2001
2503	Paints	0	0	-100.00	0.00	0.00
2504	Medicinal and pharmaceutical products, pesticides	0	0	-100.00	0.00	0.00
2505	Soap and other detergents	0	0	-100.00	0.00	0.00
2506	Cosmetics and toiletry preparations	0	3	-100.00	0.00	1.96
2507	Other chemical products	0	0	-100.00	0.00	0.00
2508	Rubber products	0	0	-100.00	0.00	0.00
2509	Plastic products	0	3	-100.00	0.00	0.11
2601	Glass and glass products	3	18	-83.53	0.42	1.59
2602	Ceramic products	8	8	6.58	0.41	0.42
2603	Cement, lime and concrete slurry	8	8	6.58	0.54	0.64
2604	Plaster and other concrete products	0	10	-100.00	0.00	0.71
2605	Other non-metallic mineral products	0	11	-100.00	0.00	0.65
2701	Iron and steel	14	47	-70.28	0.22	0.75
2702	Basic non-ferrous metal and products	0	18	-100.00	0.00	0.21
2703	Structural metal products	16	27	-40.47	0.33	0.60
2704	Sheet metal products	0	10	-100.00	0.00	0.62
2705	Fabricated metal products	3	14	-78.54	0.07	0.28
2801	Motor vehicles and parts; other transport equipment	3	13	-76.82	0.09	0.36
2802	Ships and boats	0	10	-100.00	0.00	0.23
2803	Railway equipment	0	0	-100.00	0.00	0.00
2804	Aircraft	0	0	-100.00	0.00	0.00
2805	Photographic and scientific equipment	3	4	-30.45	0.21	0.26
2806	Electronic equipment	0	0	-100.00	0.00	0.00
2807	Household appliances	0	0	-100.00	0.00	0.00
2808	Other electrical equipment	0	8	-100.00	0.00	0.44
2809	Agricultural, mining and construction machinery, lifting and material handling equipment	0	14	-100.00	0.00	0.26
2810	Other machinery and equipment	31	11	188.60	1.34	0.29
2901	Prefabricated buildings	0	10	-100.00	0.00	1.04
2902	Furniture	104	191	-45.68	1.67	2.11
2903	Other manufacturing	17	62	-72.63	0.88	2.53
3601	Electricity supply	21	25	-16.83	0.37	0.50
3602	Gas supply	0	0	-100.00	0.00	0.00
3701	Water supply; sewerage and drainage services	22	39	-44.14	0.50	0.94
4101	Residential building construction	331	195	69.76	1.43	1.34
4102	Other construction	94	93	0.90	0.54	0.69
4201	Construction trade services	715	682	4.78	1.04	1.10
4501	Wholesale trade and wholesale repairs	312	369	-15.36	0.56	0.59
5101	Retail trade and retail repairs	2439	2178	11.96	1.36	1.19
5701	Accommodation, cafes and restaurants	1552	1366	13.58	2.76	2.42
6101	Road transport	249	244	2.22	0.86	0.92
6201	Rail, pipeline and other transport	0	0	-100.00	0.00	0.00
6301	Water transport	0	3	-100.00	0.00	0.17

		Employment			Location quotients	
		2006	2001	% change	2006	2001
6401	Air and space transport	0	5	-100.00	0.00	0.10
6601	Services to transport; storage	122	101	20.38	0.85	0.90
7101	Communication services	74	109	-32.16	0.49	0.60
7301	Banking	3	125	-97.60	0.02	0.93
7302	Non-bank finance	128	14	825.51	3.47	0.37
7401	Insurance	14	31	-55.03	0.18	0.32
7501	Services to finance, investment and insurance	64	39	64.76	0.55	0.42
7701	Ownership of dwellings	7	0		0.35	0.00
7702	Other property services	321	251	28.09	1.46	1.35
7801	Scientific research, technical and computer services	168	162	3.58	0.41	0.42
7802	Legal, accounting, marketing and business management services	259	256	1.21	0.69	0.65
7803	Other business services	242	238	1.59	0.65	0.64
8101	Government administration	438	334	30.98	0.71	0.69
8201	Defence	0	5	-100.00	0.00	0.08
8401	Education	887	727	21.98	0.88	0.81
8601	Health services	790	719	9.92	0.86	0.82
8701	Community services	390	232	68.35	0.92	0.75
9101	Motion picture, radio and television services	10	15	-33.99	0.28	0.36
9201	Libraries, museums and the arts	33	97	-65.96	0.62	1.31
9301	Sport, gambling and recreational services	111	94	18.18	0.76	0.62
9501	Personal services	292	283	3.26	1.25	1.12
9601	Other services	103	103	-0.01	0.38	0.43

Data source: ACIL Tasman analysis

A.2 Shift share analysis

Shift-share analysis is used to explain changes in a regional economy by breaking-down changes into three main sources: national share, industry share, and regional share.

The national share estimates the effects of total national growth or decline on industries in a region, in this study, employment is used as the variable of interest. For example, if employment in the region grew by 5% over a period of time 2001-2006, the national share factor would show the effect of national employment growth over the 5 percent local employment growth. In other words, this would show the effect of national employment growth on the local employment growth.

The industry share estimates how much of a regional change in employment can be attributed to national growth or decline in the industry in question. This share shows the effect of the national industry employment over the regional industry employment. Some industries will grow more quickly than others.

Thus a region that specialises in 'slow-growth' sectors is likely to show a net loss of employment while conversely, a region favoured by a high proportion of 'rapid-growth' sectors will, most likely, show a positive net increase in employment.

Together the national share and the industry share show the changes that would have occurred in the regional economy if they corresponded exactly to national and industry trends.

When these two shares are subtracted from the actual shift in employment in the region, what is left is a net regional employment change not explained by general economic conditions (national share) or industrial trends (industry share.) This change – the regional share – reveals the effects of region specific factors on regional employment.

In shift-share analysis, the best target industries and clusters for economic development are typically those with the largest regional-share effect on growth. With multiple sectors or industries within a cluster they can be expected to differ in their regional share effects. These differences can reveal where to focus efforts to build and strengthen an industry or cluster.

Box 2 **Shift share formula**

Shift-share analysis can be written as the formula:

Actual shift in employment in cluster X - shift due to national change (national share) - shift due to industry change (industry share) = shift due to regional trends and conditions (regional share).

For any region *j*, employment growth for a particular period under investigation is

decomposed in the following way:

NS, the national share. The employment growth that region *e* experienced as a result of overall national trends

IS, the industry share component. That part of change attributable to the industrial composition or mix of the region,

RS the regional shift component. That part of change attributable to regional advantage or competitiveness.

The full equations require the following assumptions:

e_i = regional employment in industry *i*

E_i = national employment in industry *i*

e = regional total employment in all industries

E = national total employment in all industries

t-1 = the initial period (2001) and t the end period (2006)

Thus:

$$\Delta e_i \equiv e_{i,t} - e_{i,t-1} \equiv NS_i + IM_i + RS_i \ (1)$$

$$NS_i \equiv e_{i,t-1} (E_i / E_{t-1}) \ (2)$$

$$IS_i \equiv e_{i,t-1} (E_{i,t} / E_{i,t-1} - E_t / E_{t-1}) \ (3)$$

$$RS_i \equiv e_{i,t-1} (e_{i,t} / e_{i,t-1} - E_{i,t} / E_{i,t-1}) \ (4)$$

$$e_{i,t} \equiv e_{i,t-1} + (NS_i + IM_i + RS_i) \ (5)$$

References

Forecasting Methods: Shift-Share Technique, Department of Urban and Regional Planning, Florida State University

Unlocking Rural Competitiveness: The Role of Regional Clusters, Center for Regional Development, Purdue University, 2007

Source: ACIL Tasman

Table 14 **Shift Share analysis, Capes Region**

	2006	2001	National shift	Industry shift	Regional shift	Total employment change
Retail trade and retail repairs	2,439.00	2,178.44	100.19	-114.31	274.68	260.56
Accommodation, cafes and restaurants	1,552.00	1,366.46	62.85	-50.47	173.17	185.54
Education	887.00	727.16	33.44	63.69	62.71	159.84
Community services	390.00	231.66	10.65	80.30	67.38	158.34
Residential building construction	331.00	194.99	8.97	110.10	16.95	136.01
Non-bank finance	128.00	13.83	0.64	-0.80	114.33	114.17
Government administration	438.00	334.40	15.38	79.60	8.62	103.60
Wine, spirits and tobacco products (a)	688.00	605.37	27.84	0.86	53.93	82.63
Health services	790.00	718.69	33.05	11.49	26.76	71.31
Other property services	321.00	250.61	11.53	37.50	21.36	70.39
Meat and meat products	42.00	6.43	0.30	0.60	34.67	35.57
Construction trade services	715.00	682.41	31.39	48.61	-47.40	32.59
Services to finance, investment and insurance	64.00	38.84	1.79	9.45	13.92	25.16
Services to transport; storage	122.00	101.34	4.66	24.88	-8.89	20.66
Other machinery and equipment	31.00	10.74	0.49	-4.53	24.30	20.26
Sport, gambling and recreational services	111.00	93.92	4.32	-7.09	19.84	17.08
Personal services	292.00	282.78	13.01	-31.40	27.61	9.22
Services to agriculture; hunting and trapping	53.00	45.65	2.10	-6.43	11.68	7.35
Scientific research, technical and computer services	168.00	162.20	7.46	5.36	-7.02	5.80
Road transport	249.00	243.59	11.20	16.28	-22.07	5.41
Other business services	242.00	238.21	10.96	-8.12	0.96	3.79
Legal, accounting, marketing and business management services	259.00	255.90	11.77	-20.11	11.44	3.10
Beer and malt	11.00	9.71	0.45	-0.33	1.17	1.29
Other construction	94.00	93.16	4.28	23.09	-26.54	0.84
Ceramic products	8.00	7.51	0.35	0.38	-0.23	0.49
Cement, lime and concrete slurry	8.00	7.51	0.35	1.75	-1.60	0.49
Other services	103.00	103.01	4.74	10.86	-15.61	-0.01
Non-ferrous metal ores	19.00	19.11	0.88	7.74	-8.73	-0.11
Other food products	3.00	4.26	0.20	0.48	-1.94	-1.26
Photographic and scientific equipment	3.00	4.31	0.20	-0.65	-0.86	-1.31
Cosmetics and toiletry preparations	0.00	3.19	0.15	-1.07	-2.27	-3.19
Water transport	0.00	3.21	0.15	0.49	-3.85	-3.21
Flour mill products and cereal foods	0.00	3.24	0.15	-1.32	-2.06	-3.24
Plastic products	0.00	3.24	0.15	-1.09	-2.30	-3.24

	2006	2001	National shift	Industry shift	Regional shift	Total employment change
Petroleum and coal products	0.00	3.24	0.15	0.87	-4.25	-3.24
Commercial fishing	26.00	29.78	1.37	-12.30	7.15	-3.78
Pigs	0.00	3.97	0.18	-2.38	-1.78	-3.97
Electricity supply	21.00	25.25	1.16	2.31	-7.72	-4.25
Defence	0.00	4.94	0.23	-0.80	-4.37	-4.94
Motion picture, radio and television services	10.00	15.15	0.70	-2.89	-2.95	-5.15
Air and space transport	0.00	5.34	0.25	-4.70	-0.89	-5.34
Clothing	11.00	18.18	0.84	-4.90	-3.11	-7.18
Other mining	0.00	7.26	0.33	2.46	-10.06	-7.26
Services to mining	0.00	7.26	0.33	-1.83	-5.77	-7.26
Other electrical equipment	0.00	7.55	0.35	1.05	-8.94	-7.55
Confectionery	0.00	8.57	0.39	0.41	-9.37	-8.57
Other wood products	28.00	37.53	1.73	-4.05	-7.21	-9.53
Plaster and other concrete products	0.00	9.62	0.44	-2.67	-7.40	-9.62
Prefabricated buildings	0.00	9.65	0.44	6.01	-16.10	-9.65
Sheet metal products	0.00	9.66	0.44	-10.11	0.00	-9.66
Ships and boats	0.00	9.66	0.44	0.76	-10.87	-9.66
Motor vehicles and parts; other transport equipment	3.00	12.94	0.60	-1.27	-9.26	-9.94
Other non-metallic mineral products	0.00	10.73	0.49	6.50	-17.72	-10.73
Iron ores	0.00	10.80	0.50	-1.60	-9.70	-10.80
Sheep	31.00	41.81	1.92	-10.88	-1.85	-10.81
Structural metal products	16.00	26.88	1.24	1.55	-13.66	-10.88
Fabricated metal products	3.00	13.98	0.64	-2.69	-8.93	-10.98
Textile products	3.00	16.18	0.74	-4.51	-9.41	-13.18
Agricultural, mining and construction machinery, lifting and material handling equipment	0.00	13.91	0.64	-0.97	-13.57	-13.91
Publishing; recorded media and publishing	20.00	34.34	1.58	-3.22	-12.70	-14.34
Glass and glass products	3.00	18.22	0.84	-7.58	-8.48	-15.22
Printing and services to printing	12.00	27.95	1.29	-6.53	-10.71	-15.95
Insurance	14.00	31.13	1.43	-7.65	-10.91	-17.13
Water supply; sewerage and drainage services	22.00	39.39	1.81	0.92	-20.12	-17.39
Basic non-ferrous metal and products	0.00	18.25	0.84	-6.62	-12.47	-18.25
Forestry and logging	8.00	33.75	1.55	-15.80	-11.50	-25.75
Dairy cattle	224.00	250.16	11.51	-82.22	44.56	-26.16
Bakery products	3.00	31.10	1.43	-1.23	-28.30	-28.10
Iron and steel	14.00	47.11	2.17	-0.65	-34.63	-33.11
Dairy products	14.00	47.27	2.17	-22.71	-12.73	-33.27

	2006	2001	National shift	Industry shift	Regional shift	Total employment change
Communication services	74.00	109.07	5.02	-21.07	-19.02	-35.07
Other manufacturing	17.00	62.11	2.86	-15.39	-32.58	-45.11
Sawmill products	11.00	62.38	2.87	-16.77	-37.47	-51.38
Wholesale trade and wholesale repairs	312.00	368.63	16.95	-52.10	-21.49	-56.63
Libraries, museums and the arts	33.00	96.96	4.46	-30.70	-37.72	-63.96
Furniture	104.00	191.46	8.81	-67.01	-29.25	-87.46
Beef cattle	240.00	327.57	15.07	-118.09	15.45	-87.57
Banking	3.00	125.25	5.76	-9.43	-118.59	-122.25
Other agriculture	523.00	659.03	30.31	-146.17	-20.17	-136.03
TOTAL	12,401.00	11,986.00	551.27	-390.85	254.58	415.00

Data source: ACIL Tasman analysis

A.3 Major industry divisions

The Australian Bureau of Statistics groups industries according to the Australian and New Zealand Standard Industry Classification system (ANZSIC).

The ANZSIC is a hierarchical classification with four levels, namely Divisions (the broadest level), Subdivisions, Groups and Classes (the finest level). At the Divisional level, the main purpose is to provide a limited number of categories which provide a broad overall picture of the economy and are suitable for the publication of summary tables in official statistics. The Subdivision, Group and Class levels provide increasingly detailed dissections of these categories for the compilation of more specific and detailed statistics.

The new divisional structure for ANZSIC 2006 is as shown in Table 12. For most of the industry divisions we have produced an industry plan where the structure of the plan differs according to whether the industry is of major or minor significance (in economic terms) to the Capes Region or whether it is an infrastructure industry for example such as transport, power and water, IT.

Table 15 **ANZSIC Divisions 2006**

Division title	
A.	Agriculture, Forestry and Fishing
B.	Mining
C.	Manufacturing
D.	Electricity, Gas, Water and Waste Services
E.	Construction
F.	Wholesale Trade
G.	Retail Trade
H.	Accommodation and Food Services
I.	Transport, Postal and Warehousing
J.	Information Media and Telecommunications
K.	Financial and insurance services
L.	Rental, Hiring and Real Estate Services
M.	Professional, Scientific and Technical Services
N.	Administrative and Support Services
O.	Public Administration and Safety
P.	Education and training
Q.	Health care and social assistance
R.	Arts and recreation services
S.	Other services

Source: Australian Bureau of Statistics