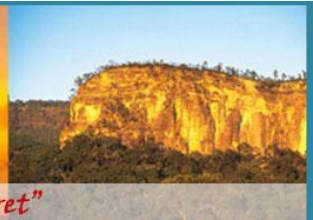




Shire of Carnarvon



"Carnarvon...best kept secret"

demographic and economic **Profile**



The information included in this limited profile is gathered from a variety of sources including Shire records, the Australian Bureau of Statistics, the Gascoyne Development Commission and various State Government agencies.

The Shire has attempted to ensure that the data is correct at the time of publication however does not accept responsibility for any errors that may arise from the use of this information.

Where estimates are included, discretion should be used in their application. The sources of information should be noted along with any assumptions used in determining estimates.



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Shire of Carnarvon demographic & economic **Profile 2014**

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Shire of Carnarvon demographic & economic Profile

1.0 Description

The Shire of Carnarvon is a predominantly rural municipality situated on the Indian Ocean coast 900 kilometres north of Perth in WA. Carnarvon lies between latitude 24 and 25 degrees south and 113 and 114 degrees longitude.

The Shire has an area of approximately 46,500 square kilometres, with a significant coastline reaching from Hamelin Pool Marine Reserve in the south to Ningaloo Reef in the north.

The Shire is located in the Gascoyne region which provides a spectacular and pristine wilderness experience on both land and sea. The unique value of the seascape and landscape has been acknowledged with Shark Bay in the south of the Gascoyne and Ningaloo Reef in the north being listed as World Heritage areas. Coral Bay in the north of the Shire is one of Western Australia's premier holiday destinations.

Carnarvon has a warm semi-arid climate. Average yearly rainfall is around 230 millimetres with the most reliable rainfall being between May and July. Occasional tropical cyclones will influence Carnarvon and bring very heavy rain, high temperatures and strong winds but apart from this source of rainfall, summers are otherwise dry. Temperatures range from an average maximum of 33 °C in February to 22 °C in July. Average minimums are 23 °C and 11 °C respectively.

The Shire of Carnarvon has an estimated resident population of around 6,150 in 2014 and is home to a multi-cultural demographic. Boasting a variety of education, medical, and recreation facilities, individual and family needs are generally well catered for.

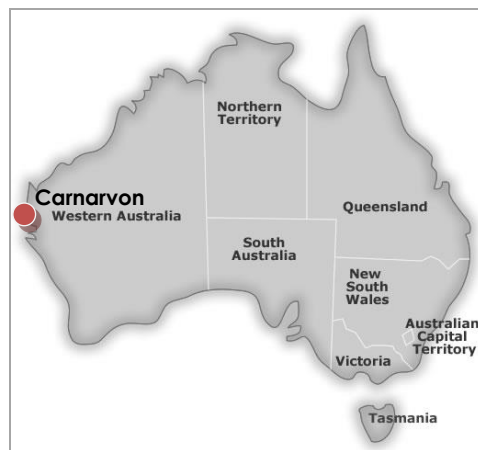


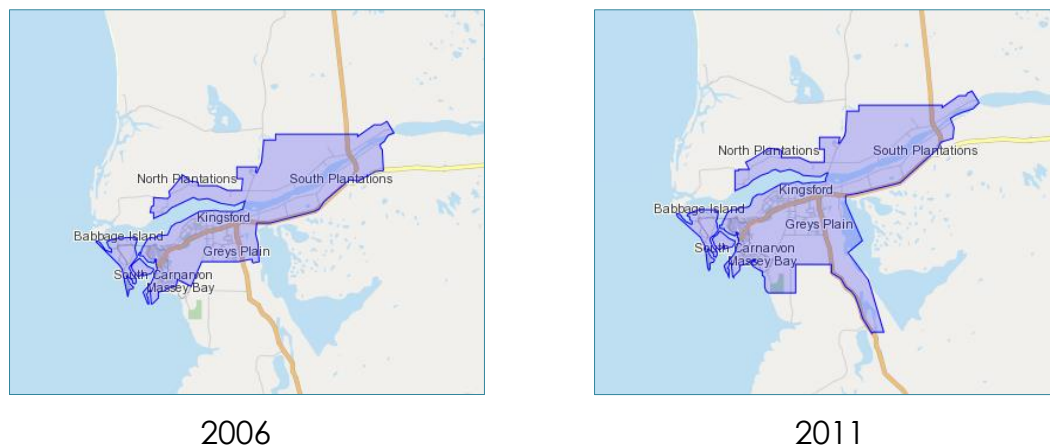
Figure 1
Shire of Carnarvon map



2.0 Demographic profile

For the purpose of this profile, the information provided relates generally to the town of Carnarvon and the Shire of Carnarvon as defined in the ABS statistical geography. Demographic information relating to the town is sourced from the Census data for 'urban centres and localities' (UCLs) and Statistical Areas Level 2 (SA2s). The UCL and SA2 structures provide the best definition of the urban area in this context and are considered the most readily compared between different Census years. It should be noted however that the extent of the urban area of Carnarvon for the purpose of the Census changed somewhat between 2006 and 2011 when SA2s were introduced as indicated in Figure 2.

Figure 2
Carnarvon urban area for Census purposes



2.1 Resident Population

The estimated resident population (ERP) of the Shire was **6,139** in June 2013 according to the ABS. Table 1 summarises the inter-census estimated permanent resident population change between 1996 and 2013.

Table 1
Estimated Resident Population 1996-2013

	1996	2001	2006	2011	2013
Carnarvon (Census count of usual residents)	-	-	5,283	5,347	-
Shire of Carnarvon (Census count of usual residents)	-	-	5,681	5,787	-
Shire of Carnarvon (estimated resident population)	6,385	6,751	6,051	6,076	6,139

Source: ABS, Census data and 3218.0 - Regional Population Growth.

In 2011, 51.2% of residents in the Shire were male and 48.8% female compared to the figures for Australia of 49.4% male and 50.6% female. There were 1,369 families in the Shire in 2011 and there was an average of two children per family, while the average household size was 2.5 persons.

The 2011 Census indicated that 19.2% of Shire residents were indigenous persons, compared with 2.5% in Australia.

2.2 Age Profile

The median age in the Shire was 38 in 2011 compared to 36 in Western Australia and 37 in Australia. Table 2 indicates a relatively significant increase in the median age from 35 in 2006 to 38 in 2011, indicating an ageing population.

Table 2

Shire of Carnarvon Median Age 2006-2011

2006	2011
35	38

Source: ABS Census data

Table 3 indicates the age distribution of the 2011 resident population across six age groups and compares the town and the Shire with Western Australia and Australia.

The data demonstrates that the population of the Shire has higher proportions of children and youth in relation to Australia, and a much lower proportion of young adults aged 20-29. The Shire has a higher proportion of persons aged 30-64 compared to Western Australia and Australia.

Table 3

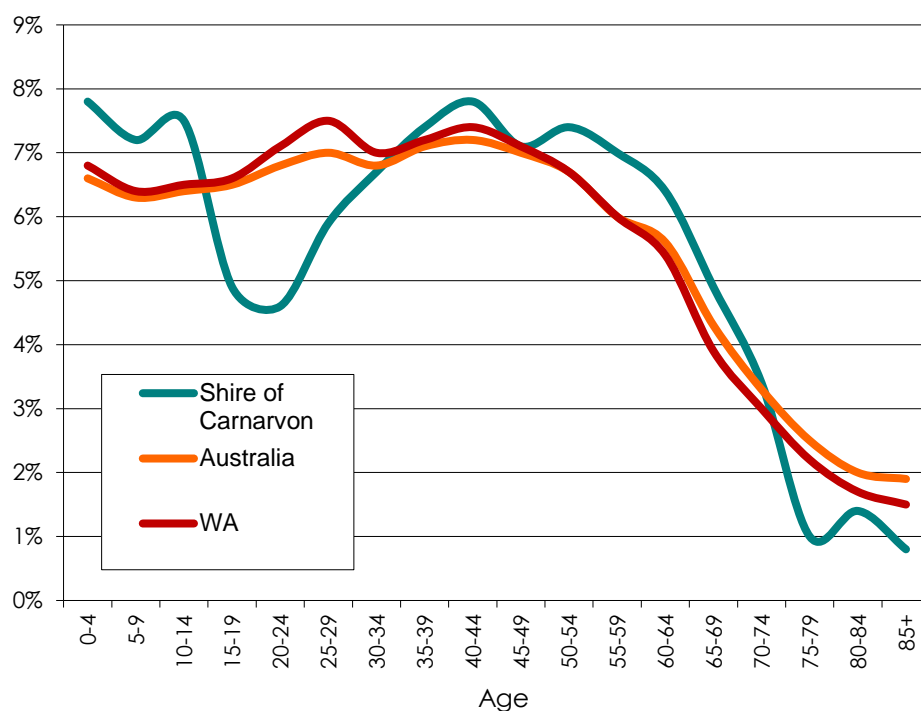
Age Distribution, 2011

	Median Age	Age group					
		0-4	5-19	20-29	30-49	50-64	65+
Carnarvon	38	8.1%	20.6%	10.1%	28.6%	20.6%	12.1%
Shire of Carnarvon	38	7.8%	19.6%	10.5%	29.0%	20.8%	12.3%
Western Aust.	36	6.8%	19.5%	14.6%	28.7%	18.1%	12.3%
Australia	37	6.6%	19.2%	13.8%	28.1%	18.3%	14%

Source: ABS, 2011 Census of Population and Housing, 2012.

Figure 3 illustrates the proportional age structure of the Shire, WA and Australia based on 2011 Census data. This graphically highlights the differences between the Shire and Australia in terms of the higher proportions of children, much lower proportions of youth and young adults and the lower proportions of seniors over 70 years.

Figure 3
Age Structure 2011



2.3 Education, Labour Force and Income

The proportion of persons aged 15 and over with a tertiary qualification in 2011 was approximately 32.8% in the Shire compared to 44.9% in Australia. Table 4 indicates that the Shire comprised lower proportions of people with higher educational qualifications compared to Australia. However, the Shire had a much higher proportion of certificate qualified people compared to Australia.

Table 4
Level of Tertiary Education, 2011 (persons aged 15 and over with a qualification)

	Carnarvon (proportion)	Shire of Carnarvon (proportion of persons)	Australia (proportion)
Certificate	37.4%	37.0%	32.3%
Diploma	10.4%	10.1%	14.4%
Bachelor	12.9%	13.1%	24.1%
Graduate Diploma/Cert.	2.1%	2.0%	3.1%
Post-graduate degree	1.5%	1.5%	6.5%
Not stated/ inadequately described	35.8%	36.3%	19.6%

Source: ABS, 2011 Census of Population and Housing

According to Table 5, in 2011 more people were employed full time in the Shire compared to Australia and the Shire

had a lower proportion of part time employees. The Shire also had a lower unemployment rate.

Table 5
Labour Force, 2011 (persons aged 15 years and over)

	Carnarvon (proportion of persons)	Shire of Carnarvon (proportion of persons)	Australia (proportion of persons)
Employed full-time (as a % of labour force)	65.0%	65.5%	59.7%
Employed part-time (as a % of labour force)	22.2%	21.7%	28.7%
Away from work (as a % of labour force)	7.4%	6.4%	5.9%
Unemployed (as a % of labour force)	5.4%	5.0%	5.6%

Source: ABS, 2011 Census of Population and Housing

Table 6 indicates that in 2011 the Shire had higher percentages of managers, machinery operators and labourers compared to Australia, possibly reflecting the mining, horticulture and other similar industries in the Shire. The Shire also had lower proportions of administration workers and professionals compared to the Australian population.

Table 6
Occupation, 2011 (employed persons aged 15 years and over)

	Carnarvon (proportion of persons)	Shire of Carnarvon (proportion of persons)	Australia (proportion of persons)
Managers	19.7%	21.1%	12.9%
Labourers	15.4%	15.8%	9.4%
Technicians/Trades Workers	13.2%	13.0%	14.2%
Clerical and Admin. Workers	12.4%	12.0%	14.7%
Professionals	12.2%	11.8%	21.3%
Community and Personal Service Workers	8.9%	9.2%	9.7%
Machinery Operators & Drivers	9.7%	8.9%	6.6%
Sales Workers	6.5%	6.4%	9.4%

Source: ABS, 2011 Census of Population and Housing

According to 2011 Census data, households in the Shire had lower median incomes than the national medians. Table 7 indicates that the median weekly household income of the Shire was \$1,107 in 2011 compared to \$1,234 in Australia.

Table 7
Income, 2011 (persons aged 15 years and over)

	Carnarvon	Shire of Carnarvon	Australia
Median personal income/week	\$600	\$594	\$577
Median household income/week	\$1,146	\$1,107	\$1,234
Median family income/week	\$1,389	\$1,372	\$1,481

Source: ABS, 2011 Census of Population and Housing

2.4 Household Structure

Table 8 indicates that the Shire has lower proportions of family households and higher proportions of lone person households compared to Australia.

Table 9 confirms that the Shire also has a lower proportion of couple families with children. The Shire has a slightly higher proportion of one parent families in comparison to Australia.

Table 8
Household Composition, 2011

	Carnarvon (proportion)	Shire of Carnarvon (proportion)	Australia (proportion)
Family household	68.3%	67.8%	71.5%
Lone person household	29.3%	29.6%	24.3%
Group household	2.4%	2.6%	4.1%

Source: ABS, 2011 Census of Population and Housing

Table 9
Family Characteristics, 2011

	Carnarvon (proportion)	Shire of Carnarvon (proportion)	Australia (proportion)
Couple families with children	40.8%	40.1%	44.6%
Couple families without children	40.3%	41.6%	37.8%
One parent families	17.6%	16.9%	15.9%

Source: ABS, 2011 Census of Population and Housing

2.5 Cultural Diversity

According to the 2011 Census, 71.4% of Shire residents stated that they were born in Australia compared to 69.8% nationally as indicated in Table 10.

Only 25.7% of persons stated that both parents were born overseas compared to 34.3% of persons nationally.

Table 10
Country of birth 2011

	Carnarvon	%	Shire of Carnarvon	%	Australia	%
Australia	3,862	72.2	4,133	71.4	15,017,847	69.8
England	173	3.2	200	3.5	911,593	4.2
Vietnam	147	2.7	147	2.5	185,039	0.9
New Zealand	81	1.5	98	1.7	483,398	2.2
Portugal	63	1.2	63	1.1	15,328	0.1
Croatia	40	0.7	43	0.7	48,828	0.2
Both parents born overseas	1,178	25.4	1,286	25.7	6,876,586	34.3
Both parents born in Australia	2,964	63.9	3,180	63.6	10,757,087	53.7

Source: ABS, 2011 Census of Population and Housing

According to the 2011 Census, 23.7% of Shire residents stated that they had no religion compared to 22.3% nationally as indicated in Table 11. Just over 15% indicated that they were Anglican and 28.5% Catholic compared to 17.1% Anglican and 25.3% Catholic of persons in Australia.

Table 11
Religious Affiliation, 2011

	Carnarvon (proportion of persons)	Shire of Carnarvon (proportion of persons)	Australia (proportion of persons)
No religion	23.6%	23.7%	22.3%
Catholic	29.3%	28.5%	25.3%
Anglican	15.0%	15.3%	17.1%
Uniting Church	2.5%	2.6%	5.0%
Buddhism	2.9%	2.9%	2.5%

Source: ABS, 2011 Census of Population and Housing

Table 12 indicates that 78.6% of Shire residents spoke English only at home compared to 76.8% throughout Australia. Less than 14% of Shire residents spoke two or more languages at home compared to 20.4% nationally.

Table 12
Language spoken at home, 2011

	Carnarvon (proportion of persons)	Shire of Carnarvon (proportion of persons)	Australia (proportion of persons)
English only spoken at home	78.7%	78.6%	76.8%
Vietnamese	3.7%	3.4%	1.1%
Portuguese	1.3%	1.2%	0.2%
Croatian	1.1%	1.0%	0.3%
Italian	0.5%	0.5%	1.4%
Tongan	0.4%	0.3%	0.1%
Two or more languages spoken at home	14.0%	13.7%	20.4%

Source: ABS, 2011 Census of Population and Housing

2.6 Dwellings

There were 2,130 private dwellings in Carnarvon and 2,243 dwellings in the Shire according to the 2011 Census (excluding visitor only and other non-classifiable households). Approximately 13% of private dwellings in the Shire were vacant in 2011. Table 13 also includes the occupancy rate across all dwellings in the Shire which was 2.7 persons/dwelling in the Shire compared to 2.45 in Australia.

Table 13
Dwellings 2011
(excludes visitor only and other non-classifiable households)

	Carnarvon	Shire of Carnarvon	Australia
Dwellings (excludes visitor only and other non-classifiable households)	2,130	2,243	9,117,033
Unoccupied private dwellings (excluding non-classifiable dwellings)	13.4%	13.1%	10.7%
Occupancy rate - all dwellings	2.5	2.7	2.45
Average household size	2.5	2.5	2.6
Estimated Resident Population	5,350	6,076	22,340,024

Source: ABS Census data

Average household size relates to the number of persons usually resident in occupied private dwellings determined from the Census count, while the occupancy rate is the ratio of all dwellings, including vacant dwellings, to all persons.

2.7 Population Projections

In 2012 the WAPC reviewed and published 'Western Australia Tomorrow', a population report and forecast profile for local government areas including the Shire of Carnarvon. Projections were based on five simulations which resulted in a Shire population range of 2,900 (Band A - low) to 6,500 (Band E - high) for 2026. Table 16 includes the data for 'Band C' – moderate projections.

The table also includes alternative projections prepared for the Australian Government Department of Health and Ageing by the Australian Bureau of Statistics in 2008, and some independent estimates prepared in conjunction with the Shire. These are seen as a more likely scenario for population growth in the Shire.

Table 16
Shire of Carnarvon Population Projections 2011-2026

	Census Year			
	2011	2016	2021	2026
WA Tomorrow 'Band C' ¹	6,000	5,500	4,900	4,400
Dept of Health & Ageing ²	6,046	6,915	7,752	8,550
Alternative estimates ³	6,076	6,300	6,600	7,000

Source: 1. Band 'C' (median) projections. Western Australia Tomorrow, WAPC, 2012.

2. Customised projections prepared for the Australian Government Department of Health and Ageing by the Australian Bureau of Statistics in 2008. The projections are not official ABS data.

3. Assumes 1% average annual growth 2011 to 2026.

2.8 Demographic Comparison

Table 15 compares a number of WA local authorities with Western Australia and Australia in terms of median age, household size and income.

Table 15
Demographic Comparison - Selected Areas 2011

LGA	Estimated Resident Pop.	Median Age	Average Household Size	Median weekly household income	Median weekly rent
Carnarvon	6,076	38	2.5	\$1,107	\$155
Exmouth	2,458	38	2.4	\$1,373	\$257
Greater Geraldton	38,340	36	2.6	\$1,225	\$230
Bunbury	32,580	39	2.3	\$1,139	\$250
Albany	34,873	41	2.4	\$1,003	\$230
Esperance	13,880	38	2.5	\$1,138	\$180
WA	2,353,410	36	2.6	\$1,415	\$300
Australia	22,340,000	37	2.6	\$1,234	\$285

Source: ABS

Table 14 provides a comparison of selected demographics between 2006 and 2011. This highlights some of the changes that have occurred in that time in relation to population and households.

For example, the proportion of people aged less than 25 decreased from 34.5% to 32% while the proportion of persons aged over 25 increased from 65.5% to 68%.

The median household income increased by 29%, while the median monthly mortgage increased by 75%, and the median weekly rent increased by 42%.

Table 14
Inter-Census Comparison of Selected Demography

Shire of Carnarvon	2006	2011
Estimated population	6,051	6,076
Median age	35	38
Persons aged 0-24	34.5%	32%
Persons aged 25-64	54.4%	55.7%
Persons aged 65 or over	11.1%	12.3%
Households/Families		
Median weekly household income	\$858	\$1,107
Median monthly mortgage	\$867	\$1,517
Median weekly rent	\$109	\$155
Family households	1,363 (41.2%)	1,322 (67.8%)
Couple families + children	573 (41%)	549 (40.1%)
One parent families	230 (16.5%)	232 (16.9%)
Married (persons aged 15+)	1,835 (42.6%)	1,922 (42.9%)
Separated/Divorced (persons aged 15+)	587 (13.9%)	602 (13.4%)
Never married (persons aged 15+)	1,678 (39%)	1,738 (38.8%)

Source: ABS, 2011 Census of Population and Housing and Regional Population growth.

3.0 Economic profile

The Gascoyne region in the north west of Western Australia has more than 600 kilometres of Indian Ocean coastline and stretches about 500 kilometres inland. The coastal area incorporates internationally recognised features such as the Ningaloo Reef and Coral Bay. The hinterland includes the outstanding features of the Kennedy Range and Mt Augustus.

The Gascoyne region benefits from a diverse and stable economy which is supported by a strong network of retail, administrative and trade services. The major industries are tourism, retail, horticulture, mining, fishing, and pastoralism. While many opportunities exist, attracting capital investment for infrastructure and business development remains one of the main challenges facing the region.

The largest industry sector in terms of employment in the Gascoyne is agriculture, forestry and fishing. There are a large number of horticultural properties in Carnarvon, pastoral stations in the inland Gascoyne and a wide range of fisheries.

There are many emerging opportunities including fly-in/fly-out mining jobs from Carnarvon to the West Pilbara and Indigenous and nature-based tourism opportunities in the inland Gascoyne and coastal areas.

Like the rest of Australia, the Gascoyne suffers from skill shortages in the majority of these industries. Skill shortages range from semi to unskilled seasonal workers for the horticultural, fishing and tourism industries to qualified trades people for small business.



3.1 Carnarvon

Carnarvon's unique location, seated on the edge of the Gascoyne River delta approximately 900 kilometres north of Perth, makes it a tropical oasis in an otherwise arid landscape. Carnarvon has a fertile and thriving horticultural district that supplies the majority of Perth's fruit and vegetable supplies during the winter months.

Carnarvon has long been recognised for its small and sweet bananas but that reputation is widening with an extensive range of subtropical fruit and temperate climate vegetables grown on the plantations lining the Gascoyne River.

The Gascoyne River is one of Australia's ephemeral rivers, flowing only when cyclones have dropped their rain up to 500 kilometres inland. It is the longest river in WA at 865 kilometres. The town is on one of the delta inlets and centred on the picturesque 'Fascine'.

A thriving prawn, scallop, crab and fishing industry also operates from Carnarvon. During the months of May to October freshly caught seafood can be purchased directly from factories.

Figure 4
Carnarvon map



Gascoyne River

3.2 Coral Bay

Coral Bay is situated on the southern end of the Ningaloo Reef, one of the largest fringing coral reefs in the world, 1,200 kilometres north of Perth, 238 kilometres north of Carnarvon and 110 s south of Learmonth Airport.

Coral Bay is one of Western Australia's premier holiday destinations. The amazing Ningaloo Reef branches into the sheltered turquoise bay rimmed with white sandy beaches. It is warm all year round with temperatures ranging from 25°C in the winter months to the high 30s in the summer. Water temperatures are warm throughout the year making the Coral Bay a perfect beach getaway.

The Coral Bay settlement has remained primarily a series of holiday accommodation facilities and businesses offering tours and catering for tourists and holiday makers. The Coral Bay settlement has never been gazetted as a townsite and residential land has not been available for freehold purchase since 1973.

In acknowledgement of the fragile ecology of the landscape and the potential for human activity to impact the integrity of the reef, planning authorities have capped the number of visitors to the town at 3,600 per night and the number of residents to 400. The Ningaloo Coast Regional Strategy (Carnarvon to Exmouth) defines the limits and nature of development appropriate to the pristine wilderness Gascoyne coast.



Coral Bay

3.3 Agriculture

The Carnarvon Horticulture District is situated on the fertile delta of the Gascoyne River. Despite the fact that the river flows irregularly, and the town is in the middle of 500 kilometres of arid landscape, this horticulture district plays an important role in providing fresh fruit and vegetables to the Perth market 900 kilometres away.

Horticulture

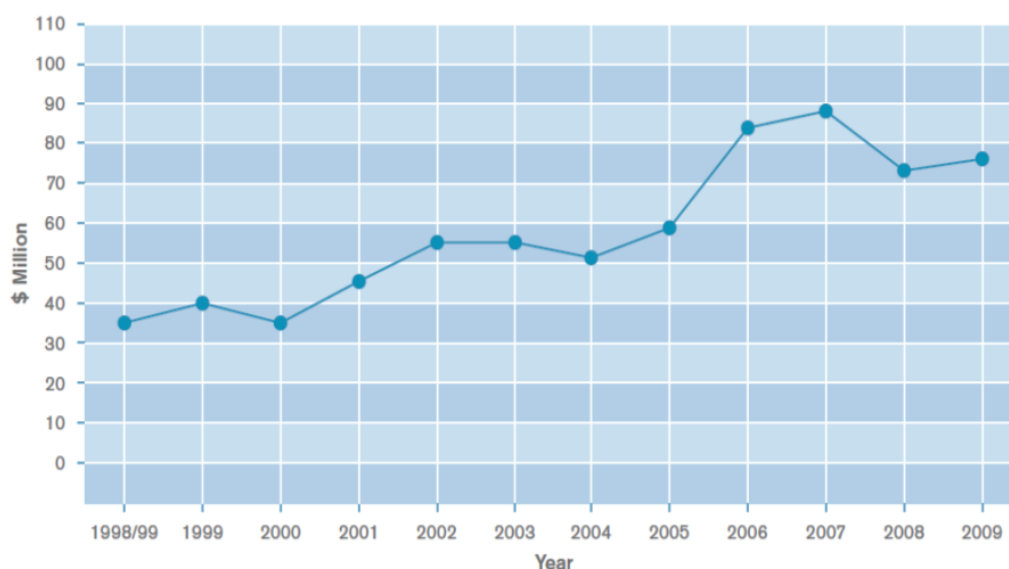
The dry sub-tropical climate makes Carnarvon suitable to grow a wide range of temperate, tropical and subtropical produce across the seasons. The majority of horticulture activity is carried out along the banks of Gascoyne River on over 100 plantations covering an area of more than 1,000 hectares of cultivated land on fertile river delta flats.

The diversity of the produce grown in this area is considerable and includes bananas and a range of tropical fruits such as mangos and paw paws, citrus and stone fruit, grapes, avocados and star fruit as well as melons. Vegetables such as tomatoes, beans, capsicum, asparagus, sweet corn and pumpkin are also grown. The most significant crops in volume and value are bananas, tomatoes, table grapes, capsicum and mango.

Crops are grown on micro drip irrigation using water from below ground aquifers. The Carnarvon Horticulture District is considered one of the best managed irrigation districts in Australia.

The most recent trend has been to diversify to tree and vine crops such as low-chill stone fruits (peaches, nectarines and plums), red grapefruit and table grapes. These crops take advantage of the sub-tropical climate conditions and can supply Perth with product earlier than the traditional production areas, extending their availability.

Figure 5
Gascoyne Region - Value of horticulture production 1999-2009



Source: Gascoyne Horticulture Investment Profile, Gascoyne Development Commission.

There have been a number of horticultural enterprises developed on pastoral leases and these are producing melons, table grapes, citrus and asparagus. There is increasing interest in expanding business activities in these areas to include ecotourism and wildflower production.

In 2007 the Gascoyne horticultural industry grew approximately 39,000 tonnes of produce worth \$87.6 million. Of this, fruit accounted for 8,400 tonnes worth \$26.7 million and vegetables 30,500 tonne of valued at \$60.9 million.

Production trends are influenced by seasonal factors such as cyclones, river flows, pests and disease. For example, rainfall generated by tropical cyclones can cause significant flooding and crop damage. Statistics indicate a period of three years to fully recover from the loss of top soil and damage to crops from these events.

Gascoyne Food Bowl

The Carnarvon horticulture industry has grown significantly over the last 10 years with the value of production nearly doubling in that time. In 2009 the State Government announced it would contribute \$7.4million to the replacement of the Carnarvon Irrigation District pipeline. The State Government supported the pipeline replacement programme in recognition of the role that production from the Carnarvon Horticultural District plays in providing food for the State and is investing in the potential for increased production into the future.

In order to further support appropriate expansion in production, a Ministerial Reference Group was convened to forward an initiative entitled the Gascoyne Food Bowl Initiative. This initiative would bring various departments together to work toward making additional land and water available for horticultural production.

As part of this initiative the State Government is consulting with the Carnarvon horticulture industry and the broader community for a local perspective on how expansion should proceed. The Gascoyne Development Commission has been tasked with the formation and executive support of the Gascoyne Food Bowl Local Consultative Committee (LCC), formed for the purpose of this consultation.

Representatives from the Carnarvon Grower's Association, Gascoyne Water Cooperative, Gascoyne Water Asset Management Cooperative, the Shire of Carnarvon and the Gascoyne Development Commission along with three community representatives sit on the LCC chaired by Member for the Mining and Pastoral Region Wendy Duncan MLC. Officers from the Departments for Agriculture and Food, Water, Regional Development and Lands and the Gascoyne Development Commission provide technical information and support to the LCC.



3.4 Fishing

The vast sea grass paddocks of both Shark Bay and the Exmouth Gulf are extremely fertile breeding grounds for prawns and in Shark Bay for scallops also. Thus the Gascoyne is able to provide most of the State's prawns and scallops.

The WA Department of Fisheries manage all aspects of the fisheries and maintains data on all facets of the fisheries including fish stocks. Crabs, snapper, whiting and mullet are also commercially harvested in the region.

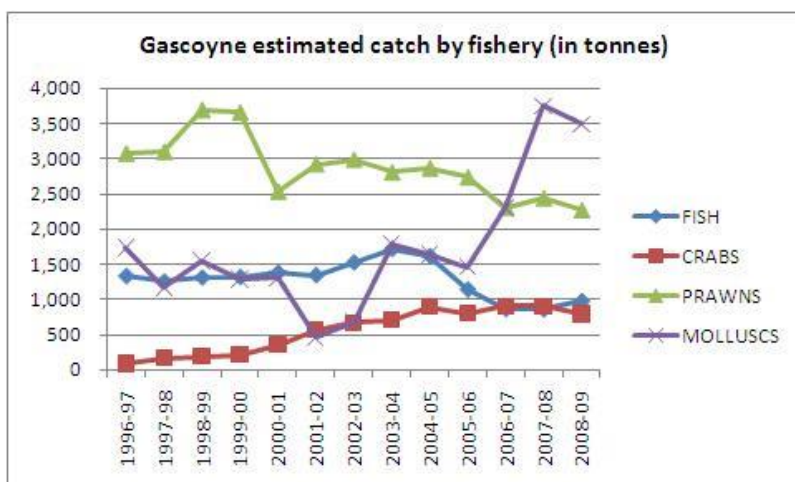
Seafood processing is the region's principal manufacturing activity with factories in Carnarvon, Exmouth and Denham. Several producers supply export as well as local markets. The fisheries catch is valued at around \$50 million annually and contributes significantly to the Gascoyne economy. Aquaculture continues to develop in the Gascoyne with finfish and pearling operations based in the Shires of Exmouth, Carnarvon and Shark Bay.

Gascoyne seafood is competitive in the local, national and international market. Producers are capitalising on the close proximity of the neighbouring Asian market successfully exporting into Japan, Hong Kong and Singapore.

Table 17
Gascoyne fisheries catch by value 1999-2009 (\$m)

	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Fishing	73	48	50	50	53	54	47	44	49	46

Table 18
Gascoyne estimated catch 1997-2009



3.5 Mining

The climatic conditions in the Gascoyne favour salt (sodium chloride) and gypsum production, either from seawater or naturally occurring brines in salt lakes. Accordingly, salt production constitutes the main mining activity in the Gascoyne. There are two solar salt operations in the region, including one at Cape Cuvier, north of Carnarvon. This salt is used extensively in the chemicals industry across South East Asia.

Salt has been mined at Lake MacLeod for the last 40 years. The operating area of Lake MacLeod is 764 hectares. There are future plans to expand operations to 1,000 hectares by 2014 on a lease of 220,000 hectares. Rio Tinto privately owns a deep-water port with berthing and ship loading facilities at Cape Cuvier and charters vessels that can deliver salt to its customers.

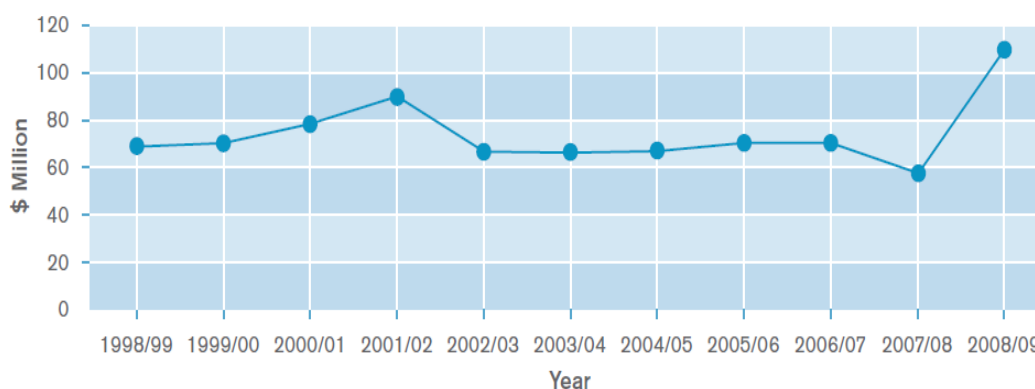
There is evidence of gold, uranium, diamonds and other minerals in the region, and considerable exploration activity is being undertaken. Semi-precious stones such as tourmaline, amethyst and variscite are mined in modest quantities in the upper Gascoyne.

Rock is mined at Yaringa for provision of gravels for road building and smaller quarries operate north of Carnarvon mining road base material of lesser quality (limestone etc).

There is significant oil and gas mining activity offshore of North West Cape in the Carnarvon Basin. Offshore oil and gas revenue is not included in the statistics for the Gascoyne because it is extracted from Commonwealth waters.

The Department of Mines and Petroleum maintain data on mining activity in the Gascoyne and the State as well as providing information such as geophysical surveys. The value of production from the mining industry is highlighted in Table 19. The 2008/09 value of minerals production in the Gascoyne Region was \$110.3 million, a significant increase from \$57.5 million in 2007/08. This is primarily a result of a per tonne value increase in salt due to exchange rate differences in the global financial market.

Table 19
Value of mining production in the Gascoyne 1999-2009
 (excluding Commonwealth oil and gas revenue)



Source: Gascoyne Mining Investment Profile, GDC

3.6 Tourism

The Gascoyne provides a spectacular pristine wilderness experience on both land and sea. The unique value of the seascape and landscape has been acknowledged with Shark Bay and Ningaloo Reef being listed as World Heritage areas.

The Gascoyne is covered by two TourismWA marketing regions: Australia's Coral Coast and Australia's Golden Outback. The Ningaloo Reef is the focus of much tourism activity with a number of unique wildlife experiences available. These include swimming with the ocean's largest fish, the whale shark and the dramatic manta rays.

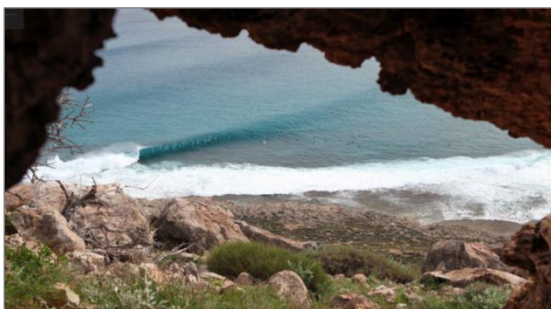
Much of the Ningaloo Reef is conserved in sanctuary zones but there is allowance for recreational fishing. Outside the Marine Park game fishing is popular.

Iconic features of the inland include the Kennedy Range National Park and Mt Augustus National Park both areas of significance for Indigenous people of the region. The history of inland settlement and the pastoral industry can be experienced through the Gascoyne Murchison Outback Pathways, a series of self-drive discovery tours.

Tourism is the largest revenue earner of all industry sectors in the Gascoyne region, attracting an average turnover of \$191 million annually over the 2006-2008 years.

Tourism in the Gascoyne is poised to take the next step. The region is considered somewhat 'immature' within the industry and is ready for the next stage of attracting investment.

Accommodation opportunities exist across the board. Each of the major towns attracts more visitors in peak season than they can accommodate, across all levels of expenditure.



The State Government has considered the future sustainability of the tourism industry in the Gascoyne and protected the fragile environment through the Ningaloo Coast Regional Strategy. This outlines the size and location of development opportunities along the coast. A summary of 2007-09 visitor numbers is provided in Table 20.

Table 20
Visitor Summary 2007-09

	Visitors	Nights
Intrastate	140,300	1,287,700
Interstate	37,300	292,700
International	53,600	388,500
Total	231,200	1,968,900

Source: Tourism WA 2009

Note: these figures are an annual average during the years of 2007/08/09.

3.7 Housing

Most housing in the Shire is located within easy reach of a beach including protected waterways in Carnarvon. The median house price of an established home is significantly lower than in Perth or other more southern towns. As a long established town, Carnarvon has a range of housing available including properties with river frontage.

Most established residential lots are still a decent size with plenty of room for the family, pets, sheds and gardens and are close to services so that the children can walk or ride their bikes to school.

LandCorp has a number of housing developments in the Gascoyne where it is possible to establish new homes. Many waterfront and near waterfront lots are available at the Carnarvon Northwater Estate.



Northwater

3.8 Health

Even though the Gascoyne is a sparsely populated region it is well serviced by both government and private health care providers. The WA Country Health Service operates a regional and a district hospital, population health and mental health units and two remote nursing posts, as well as holding regular clinics in 12 specialist fields.

Carnarvon Hospital boasts a new maternity unit among many standard and specialist services. The hospital provides emergency, general, maternity, paediatric, palliative and permanent care to the Carnarvon and broader Gascoyne community.

Gascoyne Population Health and Primary Health Care is also based at the Carnarvon Hospital providing a range of allied health services such as physiotherapy, speech therapy, occupational therapy, diabetes education, dietician, child health services and alcohol & drugs team plus a visiting podiatrist.

3.9 Education

The Shire's schools are dynamic and family focussed with education and training opportunities in Carnarvon and Upper Gascoyne. Government primary and secondary school facilities catering for kindergarten to Year 12 are located in Carnarvon.

Carnarvon Community College commenced in 2009 with impetus from the three school communities to ensure young people and their families had access to high quality education in first class facilities. The College caters for 700 students and operates on three campuses; with a staged plan to accommodate all students K to 7 on the East Carnarvon site in new facilities for the start of 2014. Planning includes provision for secondary students to move to the new site soon thereafter to create a K - 12 College on a single campus.

Carnarvon also offers private school opportunities for students from Kindergarten to Year 10 at St Mary Star of the Sea Catholic School and from Kindergarten to Year 7 at the Carnarvon Christian School. Carnarvon School of the Air delivers education services for primary students via radio to the remote areas of the Gascoyne. Carnarvon School of the Air operates under the umbrella of the Schools of Isolated and Distance Education.

Durack Institute of Technology has campuses located in Carnarvon and Exmouth and offers a variety of academic and community courses. The Durack campus also services other areas of the region by providing off-campus courses for students studying in these areas.



Carnarvon Community College

3.10 Employment & Business

The following tables provide data in relation to employment and labour force statistics for 2011. Table 21 includes labour force data and non-school qualifications. In addition, migration characteristics of the population are indicated, including that almost 2,000 persons lived at a different address five years before the 2011 Census.

Table 21

Selected person characteristics – Shire of Carnarvon 2011

	<i>Males</i>	<i>Females</i>	<i>Persons</i>
Persons aged 15 years and over	2,307	2,175	4,482
Labour force status(a):			
Employed, worked full-time(b)	1,060	688	1,748
Employed, worked part-time	213	366	579
Employed, away from work(c)	75	65	140
Unemployed, looking for work	73	60	133
<i>Total labour force</i>	<i>1,458</i>	<i>1,208</i>	<i>2,666</i>
Not in the labour force/not stated	848	966	1,814
% Unemployment(d)	5.1	5.0	5.1
% Labour force participation(e)	63.3	55.6	59.5
% Employment to population(f)	60	52.8	56.5
Non-school qualifications(a):			
Postgraduate Degree	13	20	33
Graduate Diploma/Graduate Certificate	13	33	46
Bachelor Degree	114	188	302
Advanced Diploma and Diploma	99	133	232
Certificate Level	582	275	857
Migration:			
Lived at same address 1 year ago(g)	2,168	2,039	4,207
Lived at different address 1 year ago(g)	422	426	848
Lived at same address 5 years ago(h)	1,408	1,312	2,720
Lived at different address 5 years ago(h)	969	964	1,933

Source: ABS, 2011 Census of Population and Housing

Notes:

- (a) Applicable to persons aged 15 years and over only.
- (b) 'Employed, worked full-time' is defined as having worked 35 hours or more in all jobs during the week prior to Census Night.
- (c) Comprises employed persons who did not work any hours in the week prior to Census Night and employed persons who did not state their hours worked.
- (d) The number of unemployed persons expressed as a percentage of the total labour force.
- (e) The number of persons in the labour force expressed as a percentage of persons aged 15 years and over.
- (f) The number of employed persons as a percentage of persons aged 15 years and over.
- (g) Excludes persons less than 1 year of age.
- (h) Excludes persons less than 5 years of age.

Table 22 indicates that the largest employer in the Shire was agriculture and fishing followed by retail trade, health care, education, construction, public administration and accommodation/food services.

Table 22
Industry of employment – Shire of Carnarvon 2011

Industry	Employed persons	Proportion
Agriculture, forestry & fishing	374	14.8%
Mining	176	7.0%
Manufacturing	83	3.3%
Electricity, gas, water & waste services	50	2.0%
Construction	198	7.8%
Wholesale trade	64	2.5%
Retail trade	254	10.0%
Accommodation & food services	188	7.4%
Transport, postal & warehousing	160	6.3%
Information media & telecommunications	8	0.3%
Financial & insurance services	19	0.75%
Rental, hiring & real estate services	31	1.2%
Professional, scientific & technical services	41	1.6%
Administrative & support services	102	4.0%
Public administration & safety	188	7.4%
Education & training	202	8.0%
Health care & social assistance	227	9.0%
Arts & recreation services	23	0.9%
Other services	72	2.8%
Inadequately described/Not stated	70	2.8%
Total	2,530	100%

Source: ABS, 2011 Census of Population and Housing

Table 23 indicates that the number of businesses in the Shire increased from 645 in 2008 to 665 in 2012. Significantly, the number of businesses with five or more employees increased by 22 between 2008 and 2012 (16%) according to ABS data.

Table 23
Number of Businesses – Shire of Carnarvon

	June 2008	June 2010	June 2012
Number of non-employing businesses	357	358	369
Number of businesses with 1-4 employees	151	143	137
No. of businesses with 5 or more employees	137	147	159
Total number of businesses	645	648	665

Source: ABS 'databyregion'

Table 24 highlights the number of businesses by industry in the Shire in 2012. Agriculture and fishing has by far the most businesses following by construction and retail trade.

Table 24
Number of Businesses by Industry – Shire of Carnarvon

	June 2012
Accommodation & Food Services	29
Administrative & Support Services	19
Agriculture, Forestry and Fishing	274
Arts & Recreation Services	4
Construction	88
Education & Training	3
Electricity, Gas, Water & Waste Services	5
Financial & Insurance Services	20
Health Care & Social Assistance	7
Information Media & Telecommunications	3
Manufacturing	16
Mining	4
Not Classified	20
Other services	20
Professional Scientific & Technical Services	23
Public Administration & Safety	3
Rental, Hiring, & Real Estate Services	33
Retail trade	45
Transport, Postal and Warehousing	37
Wholesale trade	14

Source: ABS 'databyregion'



The Gascoyne Development Commission

Much of the economic data included in this Profile has been gratefully sourced from the Gascoyne Development Commission (GDC).

The GDC is a Western Australian Government statutory authority dedicated to the economic and social development of the Gascoyne Region. The Gascoyne Region encompasses the Shires of Carnarvon, Exmouth, Shark Bay and Upper Gascoyne with Carnarvon, the regional centre, located 900 kilometres north of Perth.

The GDC was created through the Regional Development Commissions Act of 1993 and is one of nine regional development commissions established in Western Australia's regions to facilitate sustainable economic and social development.

The GDC works directly with the office of the Minister for Regional Development and advocates for the priorities of the region in various forums. The Commission's function is to take necessary steps to promote, facilitate and monitor development in the region. This includes:

- Developing and broadening the economic base
- Identifying infrastructure and service needs
- Maximising job creation and improving career opportunities
- Providing information and advice,
- Seeking to ensure access to government services is equitable in the region.

The vision of the GDC is...

"The Gascoyne will be recognised as providing a great lifestyle and visitor experience through its diversity, employment and investment opportunities, unique natural environment and climate".

www.gdc.wa.gov.au



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Notes on ABS data

Confidentiality

In relation to Census data for small areas, the ABS advises that this data is subject to a confidentiality process before release to avoid releasing information that may allow for identification of particular individuals, families or households. Accordingly, care should be taken in analysing tables with cells containing small numbers. Aside from the effects of the confidentiality process, possible respondent and processing errors have greatest relative impact on small numbers.

It is not possible to determine which individual figures have been affected by random error adjustments, but the ABS advises that the small variance which may be associated with derived totals can, for the most part, be ignored.

Estimated Resident Population

The Estimated Resident Population (ERP) is the official measure of the Australian population, and is based on the concept of usual residence. It refers to all people, regardless of nationality or citizenship, who usually live in Australia, with the exception of foreign diplomatic personnel and their families. The ERP includes usual residents who are overseas for less than 12 months and excludes overseas visitors who are in Australia for less than 12 months.

In the Census year, the ERP is first calculated at the Census date (9 August for the 2011 Census), and is then backdated to calculate the ERP at 30 June of the Census year. After each Census, estimates for the preceding inter-census period are revised to ensure that the total inter-census increase agrees with the difference between the estimated resident populations at the two 30 June dates in the respective Census years.

In the compilation of the 30 June ERP for a Census year, three important adjustments are made to the Census count based on Place of usual residence.

- The first is an adjustment for Census under-enumeration. The level of under-enumeration is derived from the Post Enumeration Survey which is conducted soon after the Census, and from estimates based on demographic analysis.
- The second adjustment is the inclusion of the estimated number of Australian residents who are temporarily overseas on Census Night and are therefore not covered by the Australian Census. Using data on residents returning in the 12 months after the Census date, an estimate of the number of residents temporarily overseas is made.
- The third adjustment occurs because the Census is not conducted on 30 June - the 2011 Census was held on 9 August and population estimates were back-dated to 30 June.

Statistical Geography

The ABS replaced the Australian Standard Geographical Classification (ASGC) with the Australian Statistical Geography Standard (ASGS) in July 2011. The mid-2011 release of 'Regional Population Growth, Australia' (cat. no. 3218.0) contained data on both geographies, allowing a smoother transition to the new geography. Consequently resident population estimates for both geographies e.g. SLA and the Statistical Area Level 2 (SA2) were released at that time.

The local government area (LGA) is one of the non-ABS geographies included in the ASGS, and as LGA population estimates are regarded as an important ABS output, they will continue to be prepared and released post 2011.

Acknowledgments

Shire of Carnarvon

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Australian Bureau of Statistics

www.abs.gov.au

Department of Planning

www.planning.wa.gov.au

Gascoyne Development Commission

www.gdc.wa.gov.au

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