

A large, stylized number '3' graphic is the central focus. The top curve of the '3' features a close-up of a tree trunk with rough bark. The middle curve shows a young boy in a blue soccer jersey running with a green ball on a grassy field. The bottom curve depicts a dark, rocky coastline with waves crashing against the shore. The background of the entire page is a solid light blue color.

ECONOMIC DEVELOPMENT STRATEGY

TECHNICAL APPENDICES

JUNE 2019

The logo for Central Coast Council, consisting of the text 'Central Coast Council' stacked vertically inside a white circle with a thin black border.

Central
Coast
Council

FOR THE READER

This document provides a summary of the background information and analysis which informed the development of the Central Coast Economic Development Strategy. This document should be read and considered in the context of the findings of the strategy and includes:

- A socio-economic profile of the Central Coast local government area (**Appendix A**)
- A competitive assessment for the local government area (**Appendix B**)
- A comparative assessment, comparing Central Coast local government area to Greater Geelong, Newcastle and the Sunshine Coast (**Appendix C**).

Sources:

Appendix A has been sourced profile ID Central Coast unless otherwise noted. This is at the request of Central Coast Council that all data be collected from Profile ID. Appendix B and C have used sources from the Australian Bureau of Statistics (ABS) as well as AEC collated data.

DRAFT SUBJECT TO COUNCIL ENDORSEMENT

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APPENDIX A: REGIONAL PROFILE

This section provides an overview of local industry and key projects for the Central Coast Local Government Area.

CHARACTERISATION OF CENTRAL COAST ECONOMY

Industry Sector Analysis

Private Sector Breakdown

Manufacturing

Traditionally, manufacturing has been a strong employing sector in Central Coast employing 6.8% of total employees by place of work in 2016 and the fourth largest industry by Gross Value Add (GVA) with 8.9% of total GVA. Whilst it is the sixth largest employer by total employment, it is the fourth by Full Time Equivalent (FTE) employment, employing 8.8% of the regions FTE employment. The major manufacturing sub-industries (by total employment) were other wood product manufacturing, grain mill and cereal product manufacturing, bakery product manufacturing, structural metal product manufacturing and fruit and vegetable product manufacturing. Most jobs in manufacturing are filled by locals with 86.7% of manufacturing jobs being from people living in Central Coast and working there. Despite the overall growth of the Central Coast economy, manufacturing's GVA has seen declines since 2013-14, however, the presence of high-profile businesses particularly in food and beverage product manufacturing suggests there are opportunities for development in this sector going forward.

Building Construction and Trades

The construction industry was the third largest employing industry in 2016, employing approximately 10.2% of total workers. By FTE it was the second largest employer, with 13.1% of FTE employment in Central Coast. Due to the large number of people being employed in construction, it is the third highest industry of people living in Central Coast and working there (10,219 people in 2016), however it is the largest industry for people living in Central Coast and working elsewhere with over 6,200 people leaving in 2016. Construction is also the third largest industry in terms of contribution to total GVA, at 7.8%. The industry has grown faster than the overall economy over the last 10 years, growing annually by 3.0% compared to 2.1%. Despite the considerable growth, building completions (from development approval to building completion) have been low, being 60.7% in 2018.

Tourism and Hospitality

Tourism is a major sector in Central Coast, attracting over 5 million visitors in 2017-18 with the average length of stay being 3.1 nights. The main reason for visitors travelling to Central Coast is for a holiday with 43.7% of visitors coming for this reason, whilst a similar proportion also came to visit friends and relatives (39.4%). Accommodation and food services employs a large proportion of part time and casual workers. Accommodation and food services was the fourth largest industry by total employment in 2016, employing 8.8% of workers, whereas it employs 6.5% of employment by FTE. Tourism also causes expenditure in a variety of industries and can stimulate the local economy.

Professional Services

Professional, scientific and technical services employed approximately 4.8% of workers in Central Coast with financial and insurance services employing 2.3% of people. Professional, scientific and technical services account for 5.7% of GVA whilst financial and insurance services accounts for 6.3% of GVA showing that it is a high value industry to the region. Over a third, (38%) of Central Coast residents who worked in professional, scientific and technical services commuted outside the LGA for work in 2016. This figure represents 7,500 workers out-commuting and working in this industry (Bill, A & Jonita, M, 2019). Over half (51.5%) of Central Coast residents who worked in finance and insurance commuted outside the LGA for work in 2016. This figure represents approximately 4,700 workers out-commuting to work in this industry in 2016.

Retail

The retail trade sector is a major employer in Central Coast, employing 12.5% of total workers in 2016 but 10.2% by FTE employment. Its contribution to GVA was 7.9% in 2016-17, the fifth largest of all sectors and 2.2 percentage points higher than the state's contribution.

Agriculture

Agriculture is a small sector in the Central Coast Economy employing approximately 1.0% of its workforce in 2016 and accounting for 1.1% of Gross Value Added (GVA) in 2017-18. The most prominent commodities produced by value include poultry, nurseries, cut flowers or cultivated turf, tomatoes and avocados. Sheep, grains and dairy cattle is the region's second largest import due to the food manufacturing businesses that are located in Central Coast.

Private Health Services

There are multiple private hospitals in Central Coast including Gosford Private Hospital, Berkeley Vale Private Hospital.

Public Sector Breakdown

Health Services

Health care and social assistance is the largest employing industry in Central Coast, accounting for almost 20% of all workers. It is the second largest industry following ownership of dwellings in terms of GVA contribution. Public hospitals in the region include the newly redeveloped Gosford Hospital, Long Jetty, Woy Woy and Wyong.

Government Agencies and Services

Public administration and safety employ 5.2% of workers in Central Coast, whilst contributing to 3.9% of GVA.

Education

Central Coast had a poor high school completion rate in 2016 with just 44.0% of people completing year 12 compared to 57.0% in New South Wales. Levels of higher education attainment are lower in Central Coast than the State with more than half not having a qualification. Approximately 23.2% of people have an advanced diploma or higher qualification compared to the State's 31.8%. Education and training accounts for 5.9% of GVA.

Recent and Proposed Developments and Economic Growth

The following table provides an overview of key projects planned for the region. In 2018, Central Coast saw just 60.7% of its approved development applications completed (2-year delay used to calculate rate).

Table A. 1. Major Projects

Project	Project Phase	Project Costs
Pacific Highway Through Wyong	Roads and Maritime Services have commenced investigations for the Pacific Highway upgrade through the Wyong Town Centre. Design work and further community consultation has not yet commenced.	\$100,000,000
Tuggerah Precinct Activation	Initial precinct planning has been undertaken in collaboration with Central Coast Council, NSW Government agencies and regional stakeholders.	\$220,000,000
Central Coast Resource Recovery Facility	Concept designs and construction cost estimates have been completed.	\$53,000,000
Warnervale Town Centre Water and Sewer	Design stage complete.	\$8,728,847
Link Road, Warnervale	The first stage of the Link Road at the northern end from Sparks Road has been constructed. Roads and Maritime Services have developed a strategic design for the Link Road and upgrade of Pacific Highway. Roads and Maritime Services have proposed to progress Stage 2 of that strategic design at this time.	\$360,000,000

Project	Project Phase	Project Costs
Mardi to Warnervale Pipeline	The project follows a number of previous planning studies which identified the need for the pipeline and confirmed required sizing prior to Council undertaking full detailed design and environmental assessment.	\$58,000,000
Mardi Water Treatment Plant Upgrade	The requirement for the upgrade has been confirmed during the preparation of a network water quality strategy prepared by Council in 2015. A business case has been developed supported by significant analysis and modelling.	\$24,400,000
Ettalong Beach Ferry Wharf	The project will require a three-year implementation program which includes concept design, stakeholder engagement, detailed design and construction activities.	\$6,755,083
Gosford CBD Revitalization	Preliminary designs are currently available to commence public domain and streetscape improvements on Baker Street between Donnison Street and Georgiana Terrace. The remaining projects will require a five-year implementation program subject to funding and the coordinated staging of other revitalisation.	\$70,700,000
Rawson Road Level Crossing Replacement	This project will require a five-year implementation program which includes concept development, detailed design and construction activities. An extended program is required due to the size and complexity of the project including rail under or overpass, property acquisitions, external approvals and significant environmental constraints.	\$152,000,000
Wiseman Ferry Road Upgrade	The project has developed design drawings for the full restoration of two travel lanes on Wisemans Ferry Road, Gunderman at both embankment failure sites.	\$9,800,000
Woy Woy Peninsula Drainage	Stage 1 and 2 of the projects are completed. Stage 3 to 11 of the project will be detail designed in 2018.19. The remaining stages will require a six-year implementation program due to easement acquisitions and the extent of the drainage improvement works required.	\$10,000,000
Woy Woy Town Centre Wharf	This project will require a two-year implementation program which includes detailed design, stakeholder engagement and construction activities.	\$5,320,000
Central Coast Regional Sporting and Recreation Complex	Stage 2 design and approvals are complete. Construction phase and timeline is dependent on securing funding.	\$29,849,916

Source: Central Coast Council (2018).

SOCIO-ECONOMIC INDICATORS

This chapter provides an overview of the key socio-economic data points for Central Coast local government area.

Current and Projected Population

Central Coast's population reached just over 342,000 people in 2018. The local population has grown at a slower rate than Greater Sydney in the past year, growing by 0.8% in 2018 compared to 1.8% in Greater Sydney. The Central Coast population has an older age distribution than the state. Approximately 18.8% of the population were aged between 0 and 14 years, and 12.0% were aged between 15 and 24 years. However, ages 25-64 years account for almost half the population, and 20.3% of the population were aged 65 and over. Approximately 48.9% of Central Coast residents were male and 51.1% were female (ABS, 2018b). Populations with an older average age are associated with increased demand for aged care and health care services.

Population growth in Central Coast is anticipated to grow over the coming years. Population growth estimates suggest the local population is likely to increase to 414,615 by 2036. This represents growth of 20% from current levels, an average annual growth of 1.1%.

Migration

Almost 85% of people living in Central Coast also lived in the LGA 5 years ago (ABS, 2017). The next highest proportion of residents previously lived overseas before moving to Central Coast at 2.0% of residents. People moving from LGAs in Greater Sydney followed with Hornsby at 0.9% and Blacktown at 0.8%.

Indigenous Community

In 2016 there were 12,489 indigenous people living in Central Coast or 3.8% of the total population. Approximately 86.2% of indigenous people were employed in Central Coast, a higher proportion than the state which has 84.7% of its indigenous population employed. Indigenous residents in Central Coast also had a higher high school completion rate than New South Wales indigenous population at 30.6% compared to 28.4%, however this is still lower than the Central Coast average of 40.3%.

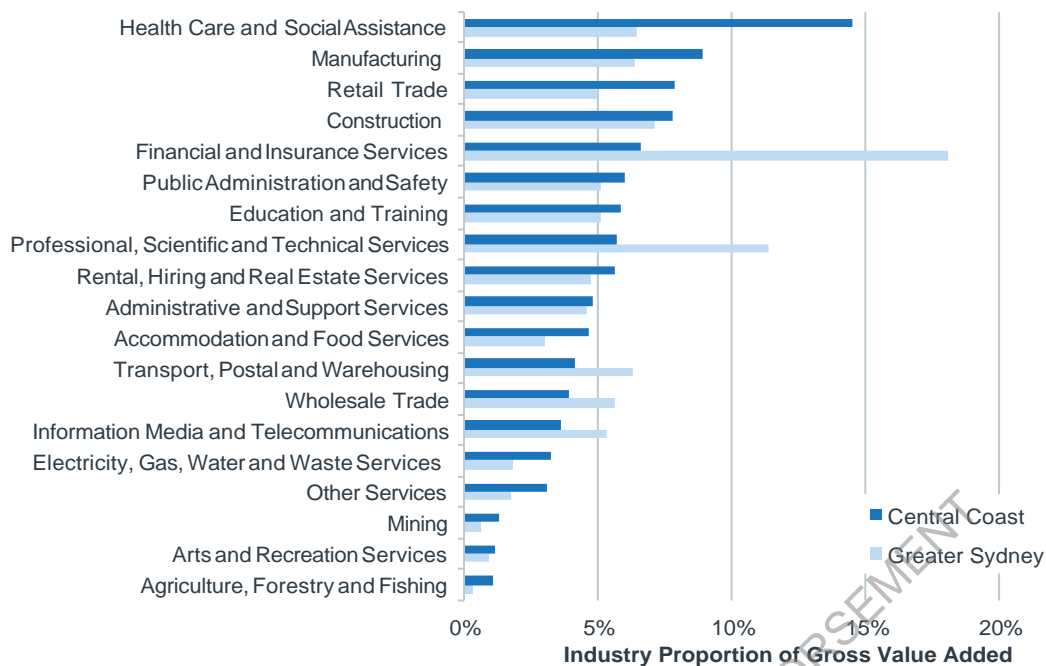
Gross Regional Product

Local Gross Regional Product was recorded at \$13.5 billion in 2018, following growth of 2.8% from 2017. The local economy expanded at a faster pace than New South Wales, which expanded by 1.9%. The local economy has expanded by 3.7% annually since 2015, driven by expansion in the construction and health care and social assistance sectors.

Gross Value Added

In 2017-18 the strongest industries in Central Coast by GVA were health care and social assistance (14.5% of GVA), manufacturing (8.9%) and retail trade (7.9%). The structure of the economy is vastly different to Greater Sydney which most prominent industry is financial and insurance services, followed by professional, scientific and technical services.

Figure A. 1. Industry Proportion of GVA, 2017-18



Source: Economy ID (2018).

Productivity Changes

Since 2012-13 mining has had the most improvement in productivity followed by financial and insurance services, rental, hiring and real estate services and wholesale trade. Industries that have seen a decline in productivity over this period were electricity, gas, water and waste services, transport, postal and warehousing and agriculture, forestry and fishing.

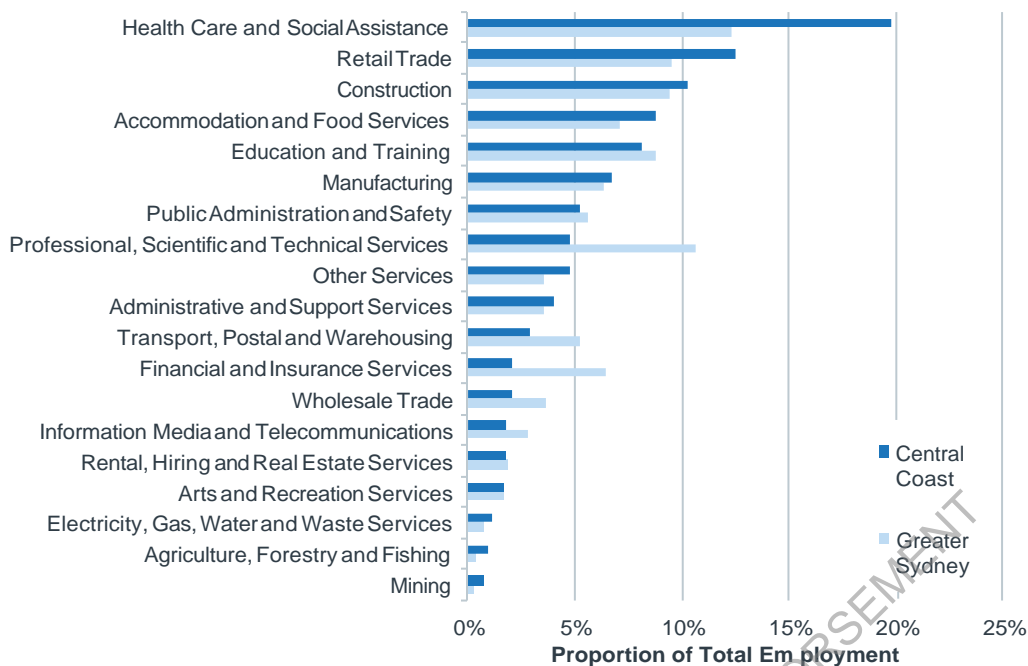
Labour Force

In the March quarter of 2019, Central Coast approximately 174,231 local resident workers. In the year ending June 2018 there were 126,459 jobs located in the Central Coast Council area, an increase of 3.7% from the previous year, however this growth is lower than the States growth of 4.2% over the same period. Unemployment in the March quarter of 2019 was 5.3% which is higher than the state unemployment rate of 4.3%. In 2016, 43.4% of the workforce worked part-time (34 hours or less), and 54.7% worked full-time (35 hours or more), compared with 34.9% and 63.1% respectively for New South Wales.

Employment by Industry (Total Employment)

Health care and social assistance was the largest employing industry (by total employment) in Central Coast in 2017-18 with 19.8% of employment. Retail trade and construction followed, with all three industries having a higher proportion of employment than Greater Sydney.

Figure A. 2. Employment by Industry 2017-18

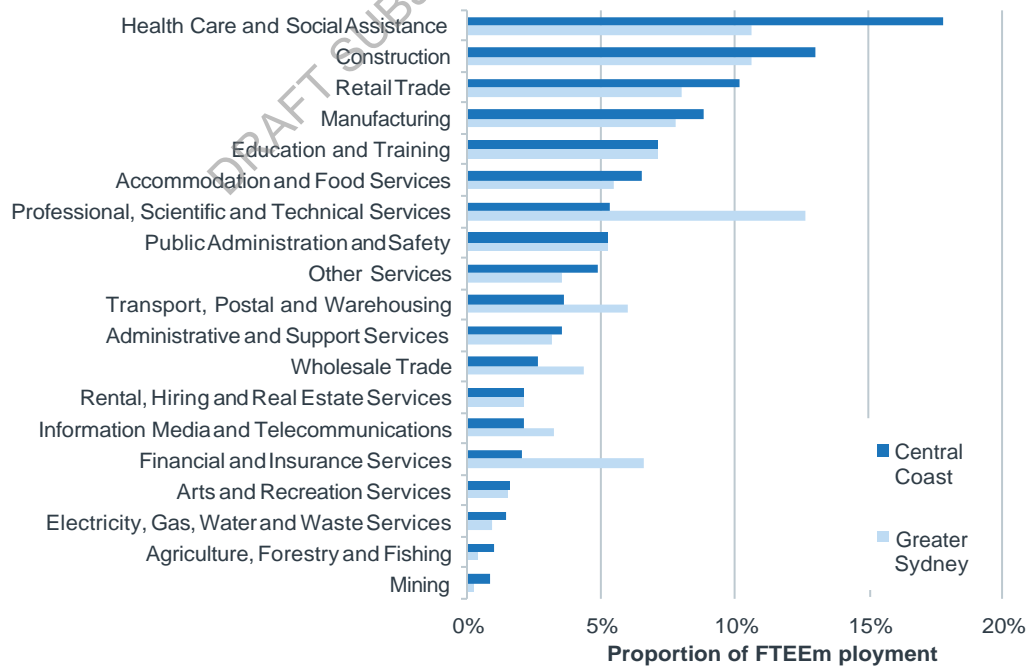


Source: Profile ID (2019).

Employment by Industry (FTE)

Health care and social assistance was the largest employing industry by full time equivalent (FTE) workers in Central Coast in 2017/18. Health care and social assistance accounts for a significantly higher proportion of the FTE workers in Central Coast than Greater Sydney at 10.6%. Following this was construction at 13.1% and retail trade at 10.2%. The largest difference between Greater Sydney and Central Coast was in professional, scientific and technical services which is the largest employer by FTE in Greater Sydney but is the seventh largest in Central Coast.

Figure A. 3. Employment by Industry (FTE) 2017-18

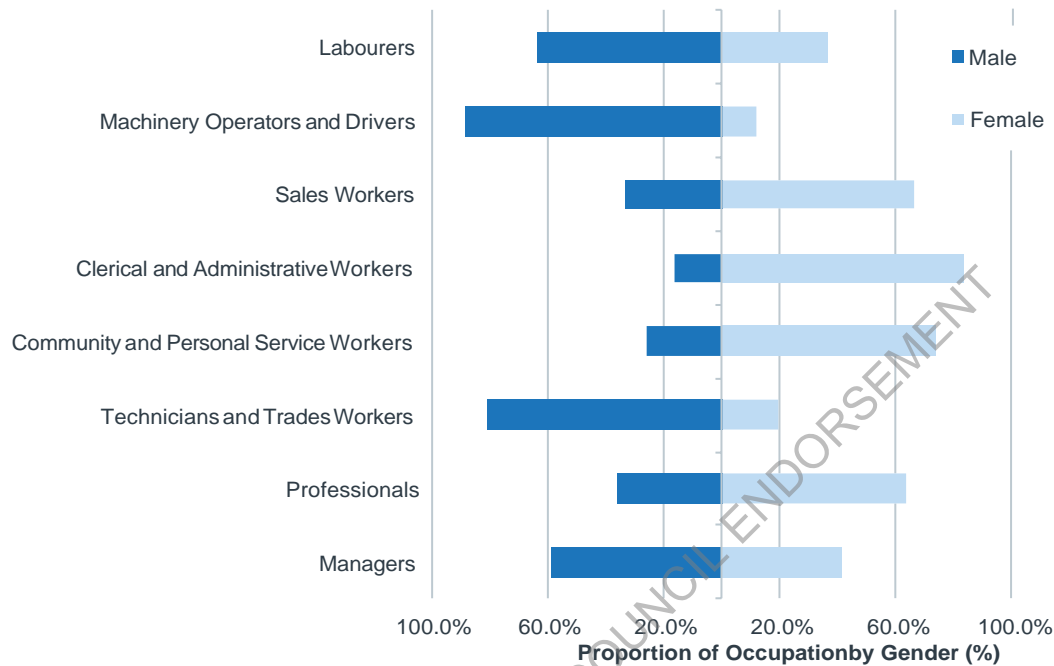


Source: Profile ID (2019).

Occupation by Gender (Place of Work)

In 2016, the Central Coast workforce was comprised of 45.9% males and 54.1% females. Male dominated occupations included managers but were primarily trades-related occupations such as technicians and trade workers, machinery operators and drivers as well as labourers. Females dominated occupations included professionals, clerical and administrative workers and community and personal service workers (ABS, 2018b).

Figure A.1. Occupation by Gender, 2016



Source: ABS (2017).

Industry Composition

The industry composition data provided for analysis groups industries into household services, business services and goods related, with separate industries for public administration and safety, agriculture, forestry and fishing and mining.

Household services include accommodation and food services, education and training, health care and social assistance, arts and recreation services and other.

Business services include information media and telecommunications, financial and insurance services, rental, hiring and real estate services, professional, scientific and technical services and administrative and support services.

Goods related include manufacturing, electricity, gas, water and waste services, construction, wholesale trade, retail trade and transport postal and warehousing.

The highest employing sector in the Central Coast Local Government Area (LGA) in 2018 was household services accounting for 43.2% of employment. This area has significantly increased its importance to the region, increasing by 5.8 percentage points over the last 10 years. Goods related is the second largest sector at 35.3% followed by business services at 14.5%. Public administration and safety composed of 5.3% of employment in the region. Smaller sectors of agriculture, forestry and fishing has 1.0% of employment whilst mining has 0.7%.

Building Approvals & Completions

The value of building approvals in the Central Coast LGA in the 2018-19 June financial year to date was \$788. In the year ending June 2019 the residential building approval value was \$563 million with the non-residential building approval value being \$225 million totalling \$948 million.

In the year ending June 2018, the completion rate was 60.7% (assuming a 2-year delay from approval to completion) DPE (2018b).

Household Income

The average household income in the Central Coast was \$1,594 in 2016. This is \$295 less than the New South Wales average household income.

Housing

In 2018 the median house value in the Central Coast LGA was \$690,084, significantly lower than Greater Sydney at \$1,053,944 and lower than the New South Wales median at \$740,444. The median price of units was \$491,484, lower than Greater Sydney at \$752,913 and New South Wales at \$676,368. Despite being lower than Greater Sydney the median house multiple in Central Coast was 6.8 whilst for units the median multiple was 5.1. The median multiple is used to indicate the affordability of housing in a community. It is the ratio between median house price and the median household income. The international housing affordability survey determines that a median multiple of 5.1 and over is severely unaffordable (Demographia 2019).

The median weekly rental payment for a house in 2018 in the Central Coast LGA was \$425 per week, lower than Greater Sydney's \$530 per week and just lower than New South Wales at \$465 per week. Median unit rental payments were \$390 per week in Central Coast in 2018 compared to \$525 per week in Greater Sydney and \$490 per week in New South Wales.

In Central Coast 9.3% of households were in mortgage stress (are low income households/ bottom 40% of income distribution who spend more than 30% of income on mortgage or rental payments) slightly higher than the New South Wales average of 9.6%, whilst 34.8% of households were in rental stress compared to New South Wales at 27.9%. (PHIDU, 2018).

Household Type

In 2016, 67.7% of households in Central Coast were family households. The next highest proportion was lone person households comprising of 25.1% of households. Group households accounted for 2.9%.

Retail Trade

In December 2018 retail trade turnover in New South Wales was \$8.7 billion which is an increase of 2.1% from the previous year.

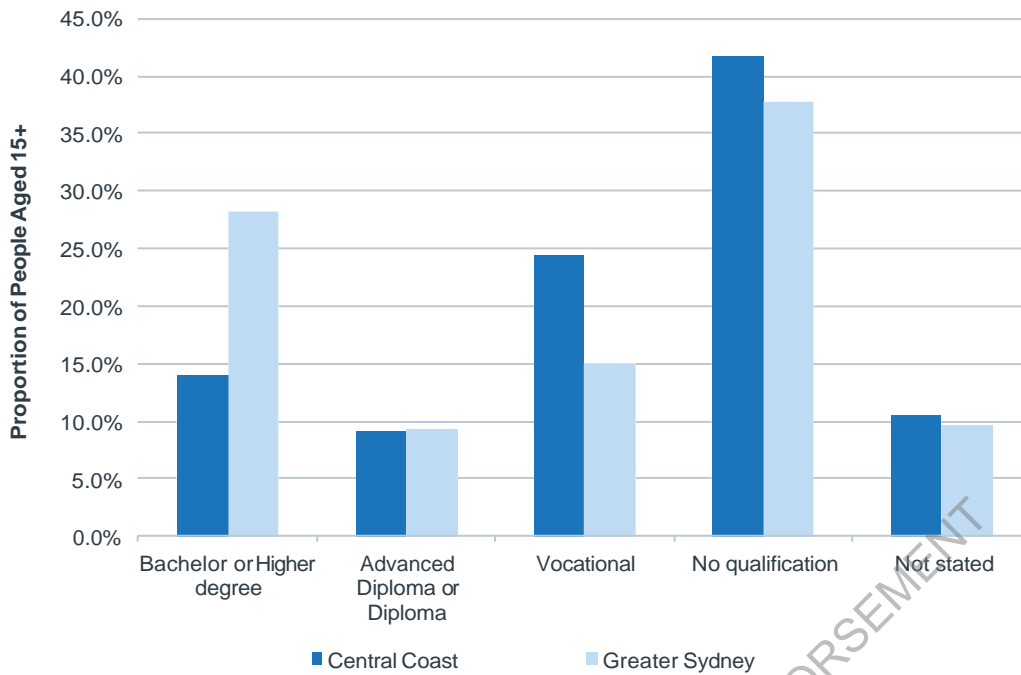
Consumer Price Index

In the year to December 2018, the CPI for Sydney increased 1.7%. During the same period, the CPI for the eight capital cities in Australia increased 1.8% p.a.

Level of Education

In the Central Coast, 40.3% of people completed high school compared to 60.0% in Greater Sydney. Bachelor's degree or higher was significantly below the Greater Sydney average whilst a higher proportion of people had no qualification, highlighting the lower education levels in Central Coast. Approximately 3.1% of people in Central Coast were attending university whilst 6.1% attending university in Greater Sydney.

Figure A. 4. Non-School Qualifications



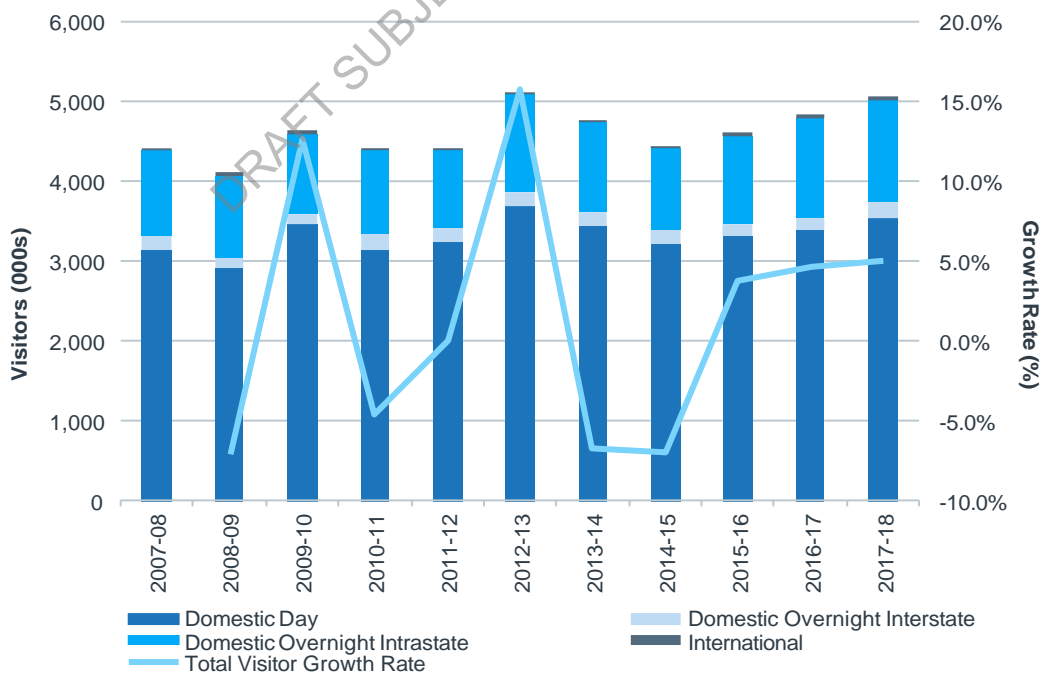
Source: Profile ID (2019).

Tourism

Visitation

In 2017-18 there were just over 5 million visitors to the Central Coast. The majority of visitors were domestic day trippers accounting for almost 70% of visitation. Domestic overnight visitors from within New South Wales accounted for approximately a quarter of visitors. Domestic overnight interstate visitors accounted for just 3.8% of visitation whilst international visitors comprised 1.3% of visitors (TRA, 2018).

Figure A.2. Visitation by Type, Central Coast.



Source: TRA 2018a, TRA 2018b.

Nights

The number of visitor nights stayed in Central Coast in 2017-18 was 4.7 million. Total nights has seen an average annual increase of 1.3% since 2007-08. The largest volume of nights came from domestic overnight intrastate visitors (72.8%) followed by international visitors (14.9%), and domestic overnight interstate (12.3%) (TRA, 2018).

Average Length of Stay

International visitors had the longest length of stay, staying an average of 10.9 nights. Interstate domestic overnight visitors spent an average of 3.0 nights in Central Coast, followed by domestic overnight intrastate visitors at 2.7 nights (TRA, 2018).

Visitor Activity

Of the visitors to Central Coast, the activity that was most frequently undertaken by visitors was social activities (79.3% of visitors completed this activity) followed by outdoor/ nature activities (37.8%). The most popular social activity was eating out at a restaurant or café, followed by shopping and sightseeing. The most frequently undertaken outdoor/ nature activities were going to the beach, visiting a national or state park as well as bushwalking and visiting gardens. Approximately 16.5% of people that came to Central Coast and did an outdoor activity/ sport (TRA, 2018).

Purpose of Trip

The highest proportion of visitors to Central Coast visit for the purpose of a holiday (43.7%), followed by visiting friends and relatives (39.4%). Less than 10.0% of visitors go to Central Coast for business whilst 8.1% go for another reason (TRA, 2018).

Workforce

Tourism workers accounted for approximately 13.0% of workers in Central Coast in 2016. Of these workers 61.6% female and 38.4% male. Approximately 34.9% of workers worked full time hours whilst 59.9% of workers were working part time showing the significant issue in Central Coast of part time workers.

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APPENDIX B: COMPETITIVE ASSESSMENT

LOCATION QUOTIENTS

To demonstrate the specialisation of the economy, location quotients based on employment have been calculated. The location quotients demonstrate the degree to which a local or regional economy is specialised by examining the proportion of employment (by industry sub-sector) compared to a larger economy (Australian economy). Location quotients can be used to indicate strengths and weaknesses of a local or regional economy (i.e. identify its natural competitive advantage).

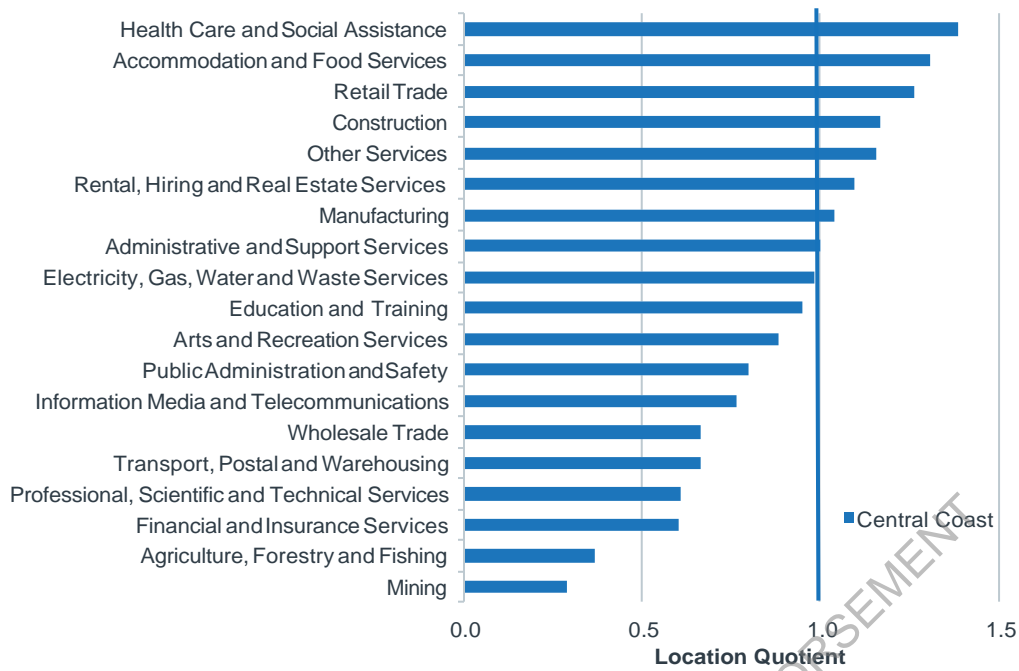
For this project, the analysis has compared the Central Coast LGA economy with that of the comparison regions of Geelong, Newcastle and Sunshine Coast. A location quotient of “1” means that Central Coast has an equal share of employment (compared to the Australia) for a specific industry sector, thus no potential advantage either way. A location quotient above “1” indicates a specialisation of labour and therefore an area of potential competitive advantage. If the location quotient is below “1”, the area has a weakness in this particular industry sector.

An assessment of location quotients at the 1-Digit ANZSIC level suggests Central Coast has labour specialisations in the industries of:

- Health care and social assistance (LQ = 1.4)
- Accommodation and food services (LQ = 1.3)
- Retail trade (LQ = 1.3).
- Construction (LQ = 1.2)
- Other Services (LQ = 1.2)
- Rental, hiring and real estate services (LQ = 1.1)
- Manufacturing (LQ = 1.03)

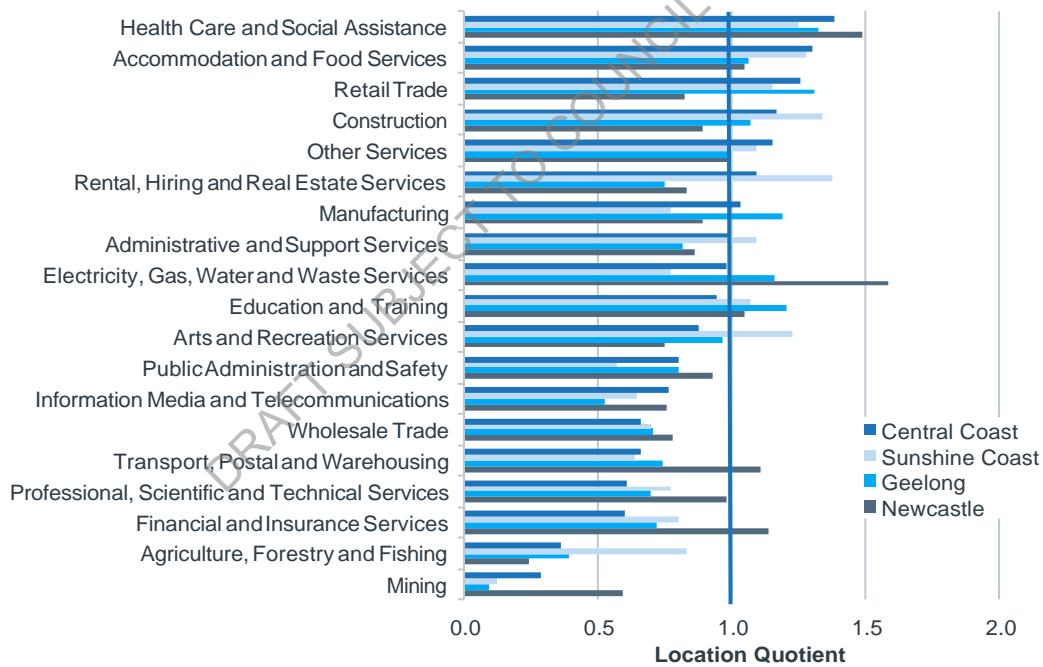
Central Coast has the highest LQ in accommodation and food services and the second highest in retail trade. Central Coast also has a higher specialisation in manufacturing than Sunshine Coast (LQ = 0.8) and Newcastle (LQ = 0.9), however Geelong is higher with an LQ of 1.2. Newcastle has a higher specialisation than Central Coast in health care and social assistance at 1.5, however Sunshine Coast and Geelong both have an LQ of 1.3.

Figure B.1. Location Quotients, 1 Digit ANZSIC, Central Coast



ABS (2017a).

Figure B.2. Location Quotients, 1 Digit ANZSIC, Central Coast v Comparison Regions



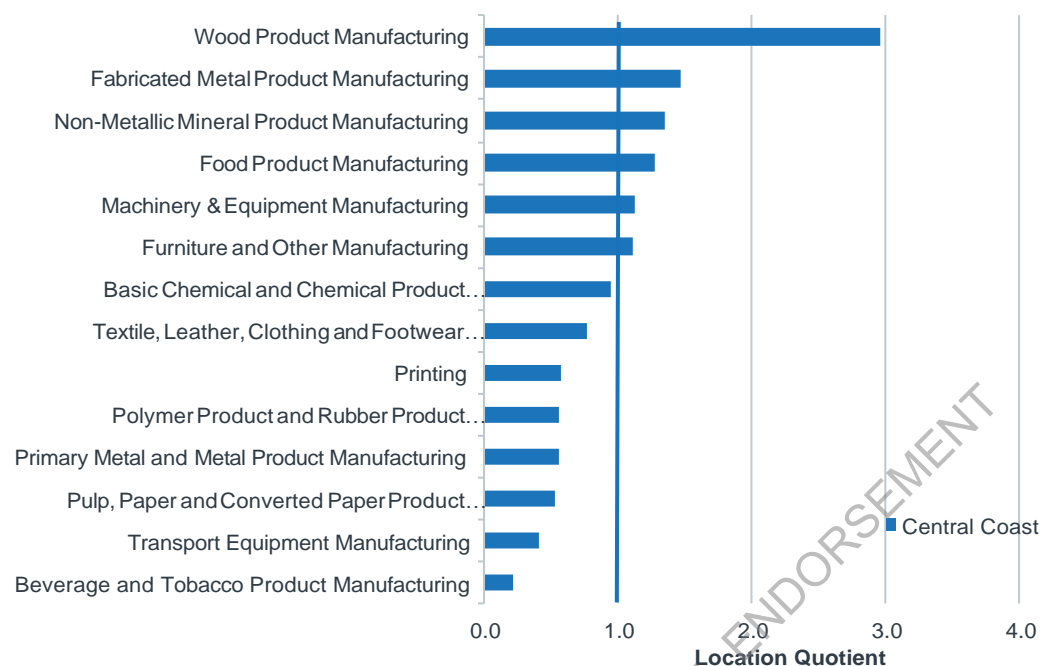
ABS (2017a).

As manufacturing has many 2-digit industries that can be vastly different, an analysis of these industries is undertaken. An assessment of location quotients at the 2-Digit ANZSIC level suggests Central Coast has labour specialisations in the manufacturing industries of:

- Wood product manufacturing (LQ = 3.0)
- Fabricated metal product manufacturing (LQ = 1.5)
- Non-metallic mineral product manufacturing (LQ = 1.4).
- Food product manufacturing (LQ = 1.3)

- Machinery and equipment manufacturing (LQ = 1.1)
- Furniture and other manufacturing (LQ = 1.1)

Figure B.3. Location Quotients, 2 Digit ANZSIC, Central Coast



ABS (2017a).

Table B.1. Location Quotients, 1 Digit ANZSIC (Ranked for Central Coast prevalence)

Sector	Central Coast	Sunshine Coast	Geelong	Newcastle
Health Care and Social Assistance	1.4	1.3	1.3	1.5
Accommodation and Food Services	1.3	1.3	1.1	1.0
Retail Trade	1.3	1.2	1.3	0.8
Construction	1.2	1.3	1.1	0.9
Other Services	1.2	1.1	1.0	1.0
Rental, Hiring and Real Estate Services	1.1	1.4	0.8	0.8
Manufacturing	1.0	0.8	1.2	0.9
Administrative and Support Services	1.0	1.1	0.8	0.9
Electricity, Gas, Water and Waste Services	1.0	0.8	1.2	1.6
Education and Training	0.9	1.1	1.2	1.1
Arts and Recreation Services	0.9	1.2	1.0	0.7
Public Administration and Safety	0.8	0.6	0.8	0.9
Information Media and Telecommunications	0.8	0.6	0.5	0.8
Wholesale Trade	0.7	0.7	0.7	0.8
Transport, Postal and Warehousing	0.7	0.6	0.7	1.1
Professional, Scientific and Technical Services	0.6	0.8	0.7	1.0
Financial and Insurance Services	0.6	0.8	0.7	1.1
Agriculture, Forestry and Fishing	0.4	0.8	0.4	0.2
Mining	0.3	0.1	0.1	0.6

ABS (2017a).

CLUSTER MAPPING

Cluster mapping builds on the location quotient analysis by portraying the regional location quotients against NSW industry estimated employment growth over time (from 2015-16 to 2025-2026). By incorporating industry growth, cluster mapping allows for the identification of growth opportunities in specific industry sectors, where a natural competitive advantage already exists against a backdrop of an expanding/ growing sector State-wide.

Industry clusters located above the “1” on the vertical axis indicate an existing industry concentration (strength or competitive advantage, as discussed previously) within the region being examined. The NSW industry average annual employment growth estimate for 2015-16 to 2025-26 (AEC, unpublished b) is plotted along the horizontal axis, with 0% average annual growth over the period creating a midline. The further to the right of this central horizontal axis, the faster the industry is expected to expand. Similarly, the farther to the left of the zero percent midline, the faster it is expected to shed jobs during this period. The size of the cluster (circle) in the map demonstrates the size of the local workforce in that industry sector locally.

Industries which are located in the Well-Represented/High Growth section of the cluster map are industries which benefit from local labour specialisation (i.e., an LQ above 1.0) and are anticipated to experience strong (above average) average annual employment growth in New South Wales. These sectors should be pursued for economic development activities, as they are likely to experience significant growth in coming years. The industries located in this section for Central Coast are:

- Health Care and Social Assistance (LQ = 1.4, Growth Expectation = 1.8%)
- Retail Trade (LQ = 1.3, Growth Expectation = 1.6%)
- Accommodation and Food Services (LQ = 1.3, Growth Expectation = 1.5%)
- Construction (LQ = 1.2, Growth Expectation = 1.4%)
- Rental, Hiring and Real Estate Services (LQ = 1.1, Growth Expectation = 1.5%)

Industries which are located in the Under-Represented/High Growth section of the cluster map are industries which don't benefit from local labour specialisation (i.e., an LQ below 1.0) but are anticipated to experience strong (above average) average annual employment growth in New South Wales between 2016 and 2026. These sectors should be investigated further, where appropriate, to determine their potential to be targeted for economic development activities as they may perform well in the coming years if local supply chains and support are available. Industries located in this section for Central Coast are:

- Education and Training (LQ = 0.9, Growth Expectation = 1.6%)
- Administrative and Support Services (LQ = 1.0, Growth Expectation = 1.5%)
- Electricity, Gas, Water and Waste Services (LQ = 1.0, Growth Expectation = 1.4%)
- Public Administration and Safety (LQ = 0.8, Growth Expectation = 1.5%)
- Arts and Recreation Services (LQ = 0.9, Growth Expectation = 1.4%)
- Professional, Scientific and Technical Services (LQ = 0.6, Growth Expectation = 1.6%)
- Transport, Postal and Warehousing (LQ = 0.7, Growth Expectation = 1.4%)
- Financial and Insurance Services (LQ = 0.6, Growth Expectation = 1.5%)

Industries which are located in the Well-Represented/Moderate Growth section of the cluster map are industries which benefit from local labour specialisation (i.e., an LQ above 1.0) and are anticipated to experience positive, but below average, average annual employment growth in New South Wales. These sectors could be considered for economic development activities, particularly if they are interconnected with strong-growth sectors of the economy. Industries located in this section for Central Coast are:

- Other Services (LQ = 1.2, Growth Expectation = 1.3%)
- Manufacturing (LQ = 1.0, Growth Expectation = 0.4%)

Industries which are located in the Under-Represented/Moderate Growth section of the cluster map are industries which do not currently benefit from local labour specialisation (i.e., an LQ below 1.0) but are anticipated to experience positive, but below-average, average annual employment growth in New South Wales between 2016 and 2026. These sectors could be investigated further, where appropriate, to determine their potential to be targeted for economic development activities. Industries located in this section for Central Coast are:

- Information Media and Telecommunications (LQ = 0.8, Growth Expectation = 1.1%)
- Wholesale Trade (LQ = 0.7, Growth Expectation = 0.9%)
- Mining (LQ = 0.3, Growth Expectation = 1.1%)
- Agriculture, Forestry and Fishing (LQ = 0.4, Growth Expectation = 0.7%).

Manufacturing has been split into 2 and 3 digit industries to determine potential opportunities in Central Coast. The Australian growth rates for these industries has been assumed to be representative of the growths in Central Coast with location quotients still being respective to Australia (IBISworld 2018).

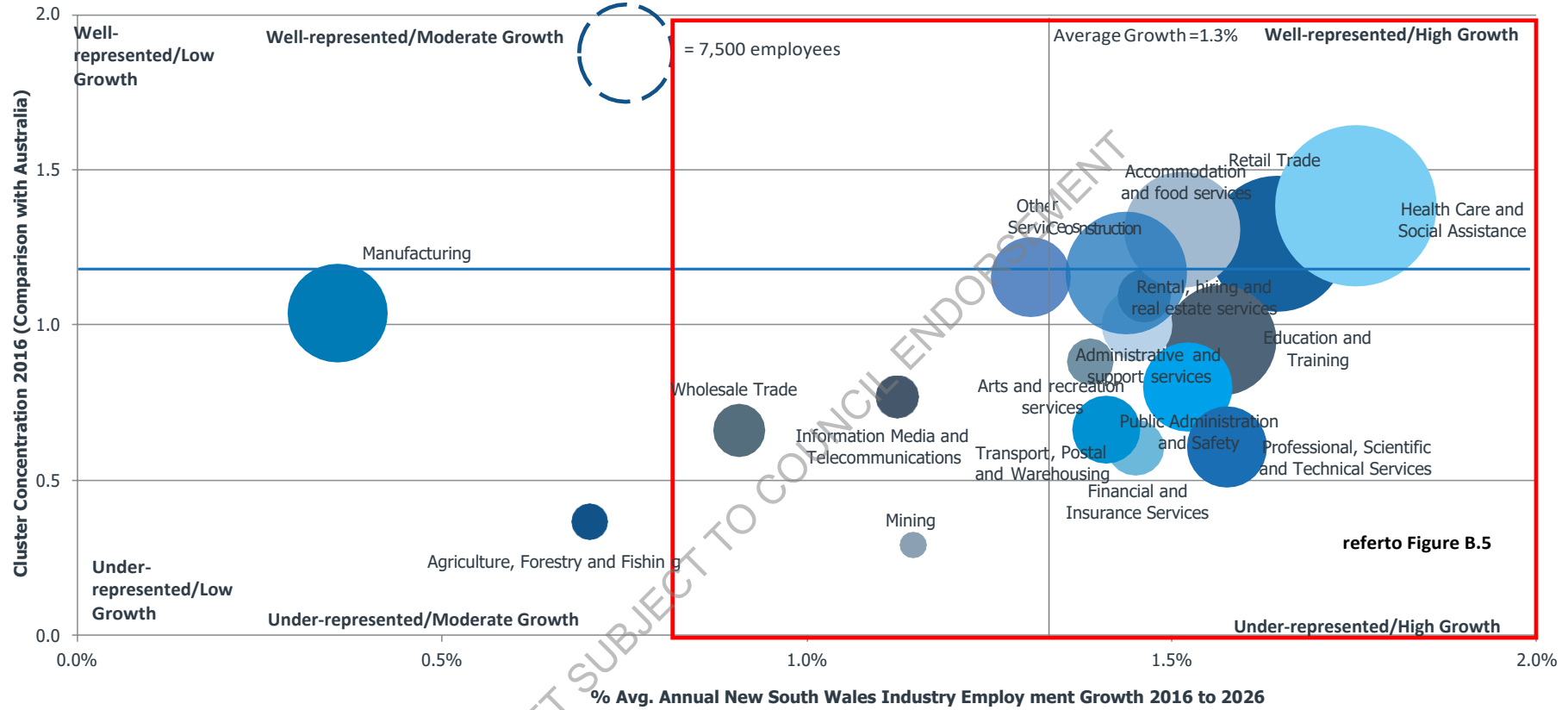
Key industries that should be explored include:

- Food Product Manufacturing (LQ = 1.3, Growth Expectation = 0.2%)
- Beverage Manufacturing (LQ=0.2, Growth Expectation = 3.4%).
- Non-Metallic Mineral Product Manufacturing (LQ = 1.4, Growth Expectation = 1.3%).

These three manufacturing industries all have positive growth expectations, whilst food product manufacturing and non-metallic mineral product manufacturing are also well represented industries. Beverage manufacturing is a potential opportunity for Central Coast with a significant growth expectation but does not have labour specialisation. It should be investigated further, where appropriate, to determine their potential to be targeted for economic development activities.

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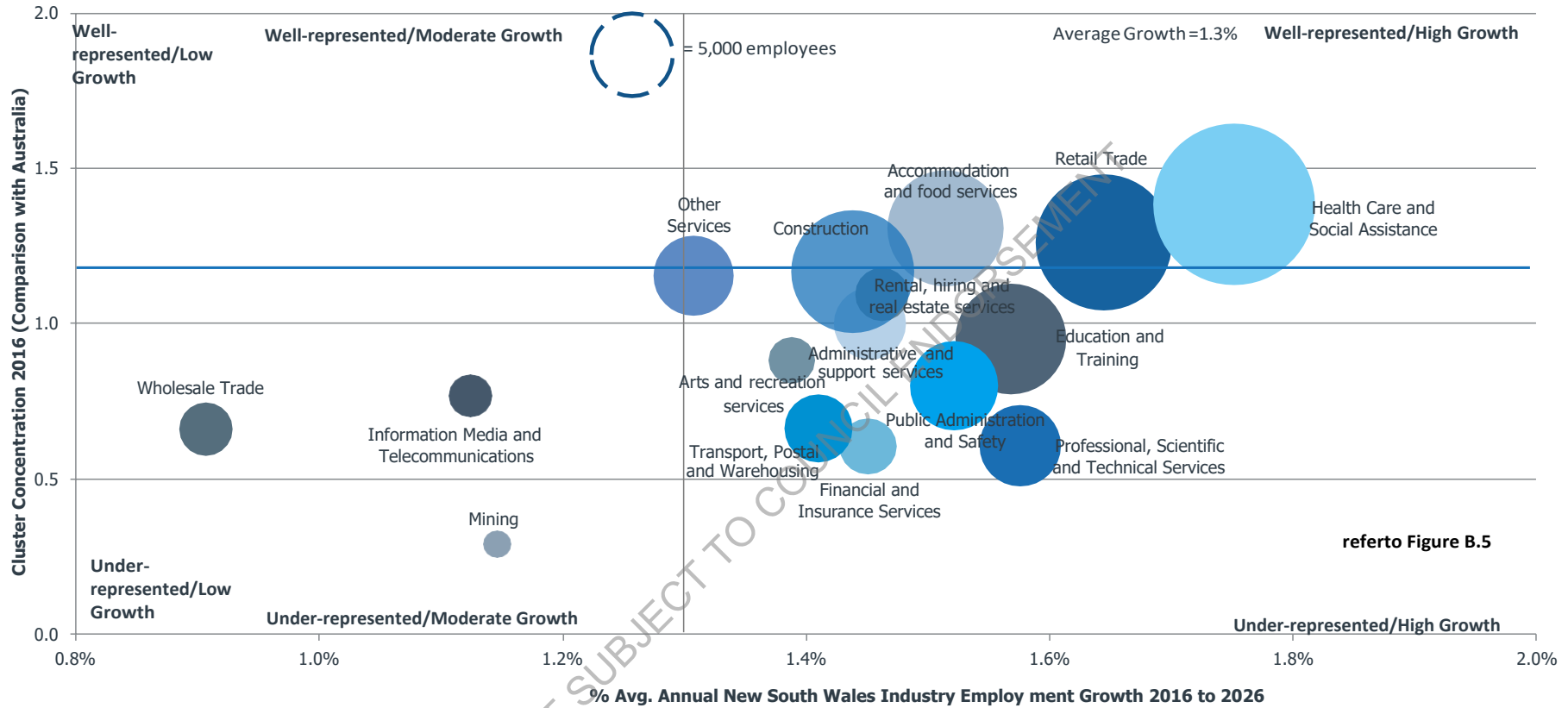
Figure B.4. Cluster Map, 1 Digit ANZSIC, Central Coast



ABS (2017a), AEC (unpublished a).

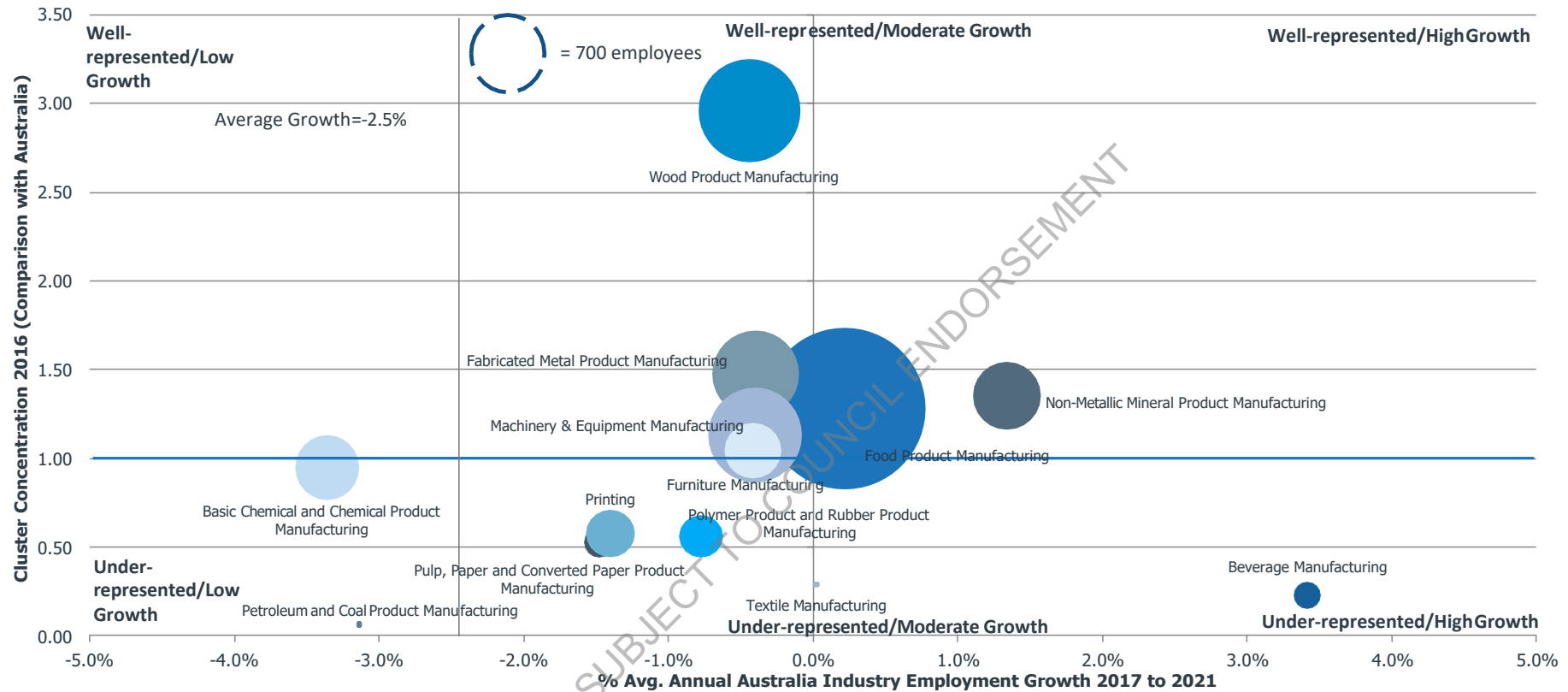
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Figure B.5. Cluster Map, 1 Digit ANZSIC, Central Coast (Amended Scale)



Note: The horizontal axis has been amended to include only a snapshot from 0 to 2.0 and 0.8% to 2%, respectively, to better identify the industries in this section. ABS (2017a), AEC (unpublished a)

Figure. B.6. Cluster Map, Manufacturing Industries, Central Coast



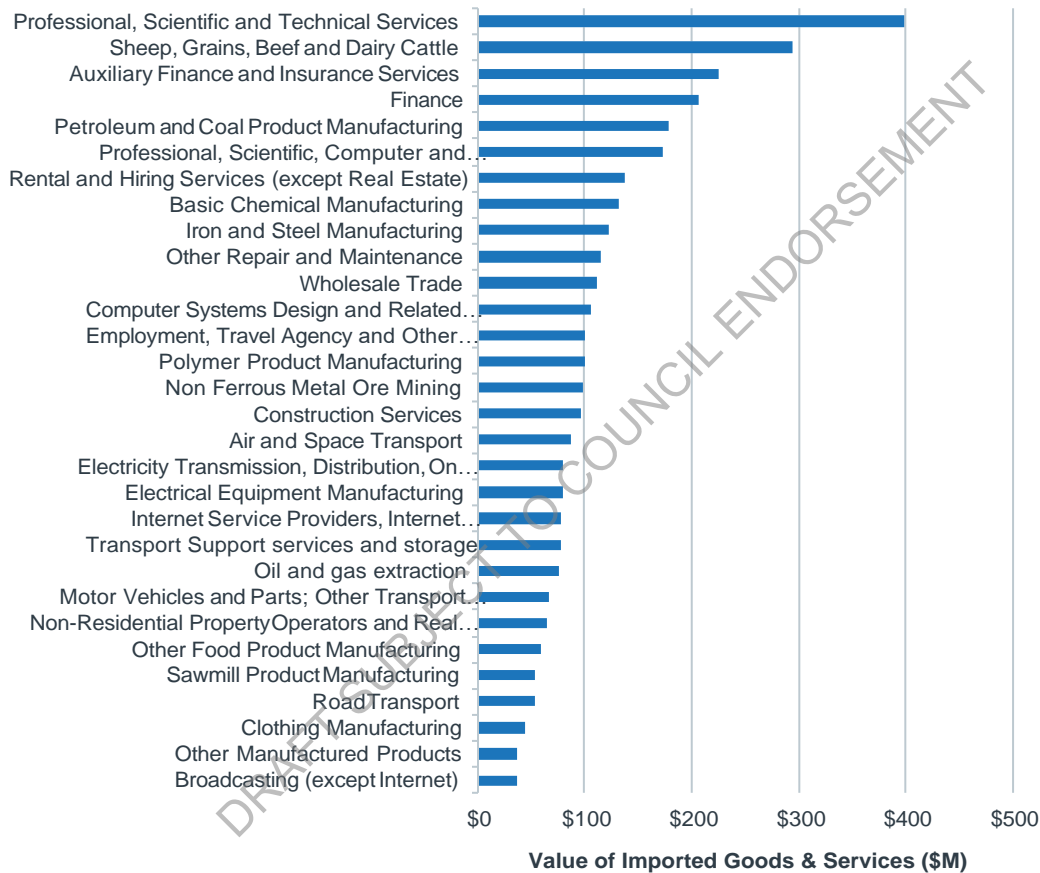
ABS (2017a), AEC (unpublished a). IBIS world (2018)

IMPORT/ EXPORT ANALYSIS

Prominent imports into a region can represent opportunities, where skills and labour can be easily sourced. This could improve local industry supply chains and provide additional job opportunities for locals.

In 2014-15, an estimated \$4,235.9 million worth of imports came into Central Coast LGA. The key import Central Coast was professional, scientific and technical services importing nearly \$400 million. sheep, grains, beef and dairy cattle was the second largest import, followed by auxiliary finance and insurance services and finance. Sheep, grains, beef and dairy cattle imports comprised over half (55%) of all imports into the food and beverage manufacturing sector. This is a key import into the meat and meat product manufacturing sub-sector.

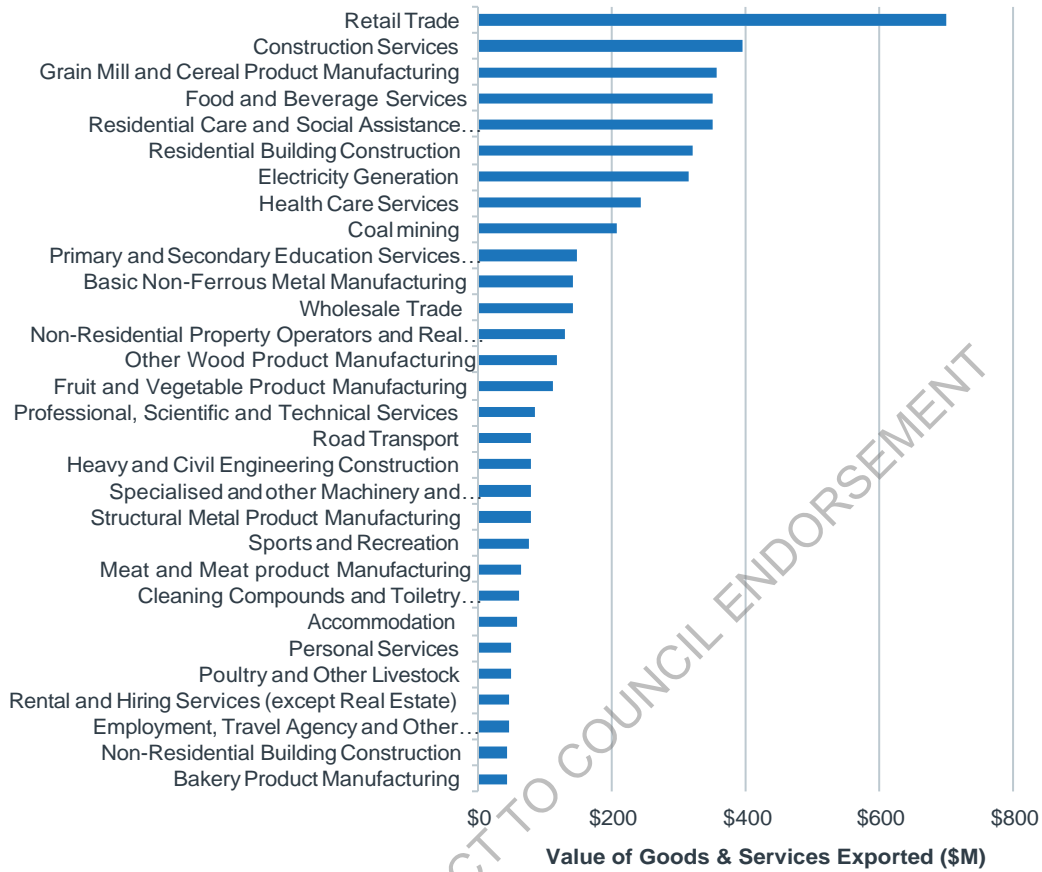
Figure B.7. Imported Goods and Services, 2014-15



ABS (2017a), ABS (2017b).

In 2014-15, an estimated \$5,979.2 million worth of exports left from Central Coast. Key exports from Central Coast are retail trade, construction services and grain mill and cereal product manufacturing, aligning with key employment sectors in the region.

Figure B.8. Exported Goods and Services, 2014-15



ABS (2017a), ABS (2017b).

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APPENDIX C: COMPARATIVE ASSESSMENT

For the comparative assessment, key indicators for Central Coast were compared to the regions of Greater Geelong, Newcastle and Sunshine Coast.

POPULATION

Central Coast experienced low population growth from 2007 to 2017, with an age growth rate of 1.0%. This is the second lowest of the comparison regions, with Newcastle having the lowest population growth of 0.9%. Average population growth has been slowing in the recent 10 years. The projected growth from 2017 to 2031 in the Central Coast is projected to be the lowest of all the comparison regions, maintaining its current 10-year average annual growth of 1.0%. A slow population growth will have significant effects on the largest three employing industries in Central Coast being health care and social assistance, retail trade and construction.

Table C.1. Population Growth

Region	5 Year Average Annual Growth	10 Year Average Annual Growth	Average Annual Growth (2017-2031)
Central Coast	0.8%	1.0%	1.0%
Geelong	2.3%	1.9%	1.6%
Newcastle	0.7%	0.9%	1.1%
Sunshine Coast	2.5%	2.5%	2.1%

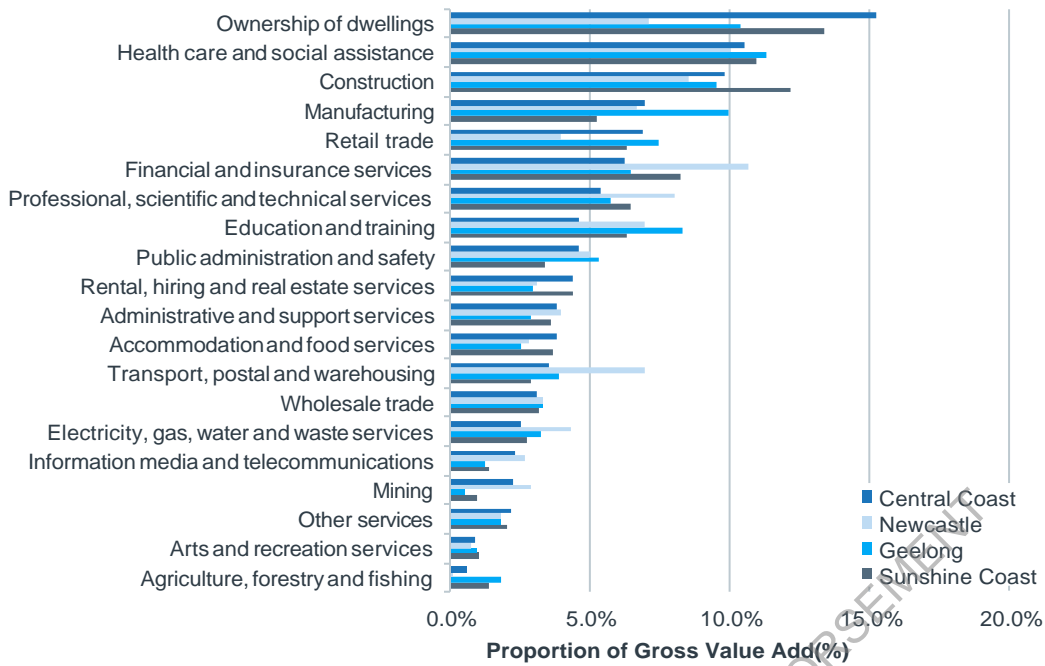
Source: ABS (2018a).

GROSS REGIONAL PRODUCT

Central Coast recorded positive economic growth between 2006-07 and 2016-17. The strongest growth was between 2014-15 and 2015-16, growing by 4.7%. Gross Regional Product growth between 2015-16 and 2016-17 was 2.6%, the second highest of the comparison regions, with only Geelong higher at 3.8%. Central Coast had an average annual growth rate over the last 10 years of 2.1%. This is the second lowest of the comparison regions, with Newcastle being the only region with a lower average annual growth at 1.4%. Geelong grew its economy by 2.3% per annum whilst Sunshine Coast grew by 3.3% annually.

Ownership of dwellings was the largest contributor to gross value add (GVA) in 2016-17 in the Central Coast, accounting for 15.2% of GVA. Health care and social assistance (10.5%) was the second largest contributor to GVA, followed by construction (9.8%), manufacturing (7.0%) and retail trade (6.9%).

Figure C.1. Proportion of Gross Value Add (ranked by Central Coast)

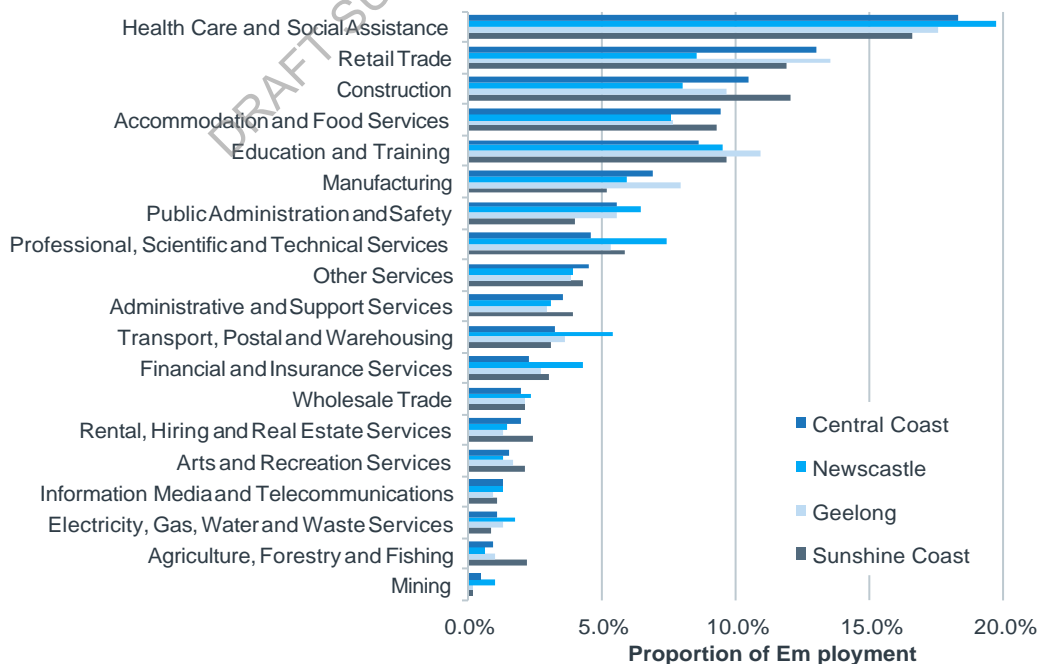


Source: AEC (unpublished).

EMPLOYMENT BY INDUSTRY

In 2016, health care and social assistance was the largest employing industry in the Central Coast (by place of work), accounting for 18.3% of jobs. Retail trade followed (13.0%) as well as construction (10.5%) and accommodation and food services (9.5%). As these are population reliant industries, slowing population growth will have a significant impact on employment and the economy. Newcastle had the highest proportion of employment in health care and social assistance at 19.8%, whilst Geelong and Sunshine Coast had 17.6% and 16.6%, respectively. Central Coast had the second highest proportion of workers in the construction sector of the comparison regions but had the highest proportion in accommodation and food services.

Figure C.2. Employment by Industry, 2016, PoW



Source: ABS (2017).

EDUCATION

In 2016, more than half the population aged over 15 years in Central Coast did not have a post school qualification, higher than the comparison regions. The most prominent qualification type was certificate level at 24.3%, aligning with the industry structure of employment with manufacturing and construction being major employers. Central Coast had a lower proportion of people with a postgraduate degree, bachelor degree and graduate level diplomas/certificates than the comparison regions. This highlights a lack of higher education which is an area that can be improved through schools partnering with the University of Newcastle or a campus in Gosford.

Table C.2. Non School Education, 2016

Qualification	Central Coast	Newcastle	Greater Geelong	Sunshine Coast
Postgraduate Degree Level	2.4%	4.9%	3.2%	2.6%
Graduate Diploma and Graduate Certificate Level	1.3%	1.9%	2.3%	1.9%
Bachelor Degree Level	10.2%	16.0%	13.1%	12.0%
Advanced Diploma and Diploma Level	9.2%	8.5%	9.5%	9.9%
Certificate Level	24.3%	20.0%	20.8%	23.3%
No Qualification	52.5%	48.6%	51.2%	50.2%
Total	100.0%	100.0%	100.0%	100.0%

Source: ABS (2017).

A larger proportion of the Central Coast population aged over 15 years had not completed school than those that had, with only 44.0% completing high school. This is much lower than the comparison regions, with all comparison regions achieving a completion rate above 50%.

Table C.3. Highest School Year, 2016

	Central Coast	Newcastle	Greater Geelong	Sunshine Coast
Completed Year 12	44.0%	54.5%	50.8%	52.6%
Did not Complete year 12	56.0%	45.5%	49.2%	47.4%
Total	100.0%	100.0%	100.0%	100.0%

Source: ABS (2017).

YOUTH UNEMPLOYMENT

In 2016 youth unemployment (those aged between 15 and 24 years) in Central Coast was 14.6%, the second lowest of the comparison regions. Newcastle had the highest rate at 15.6% followed by Sunshine Coast at 15.3%. Geelong had the lowest rate at 13.5%.

Table C.5. Youth Unemployment, 2016.

Indicator	Central Coast	Newcastle	Greater Geelong	Sunshine Coast
Youth Unemployment	14.6%	15.9%	13.5%	15.3%

Source: ABS (2017).

JOURNEY TO WORK

Based on 2016 Census data, 100,153 residents living in Central Coast also work there, primarily in the sectors of retail trade, health care and social assistance, retail trade and construction. The self-sufficiency rate for the region is around 91.1%, meaning 91.1% of local jobs are being filled by local residents. This suggests that local residents are appropriately skilled and qualified for the current jobs structure in the region. The self-containment rate for the region is around 71.7%, meaning 71.7% of employed residents work locally. This is the highest of all the comparison regions.

The other 39,532 employed Central Coast residents travel outside Central Coast to work. These are primarily in the sectors of construction, health care and social assistance and public administration and safety. There is an

opportunity for local industry growth in these sectors given the region has the skills locally but not necessarily the jobs.

Table C.6. Employment Self-Sufficiency and Self Containment

Region	Self-Sufficiency	Self Containment
Central Coast	91.1%	71.7%
Newcastle	49.3%	68.3%
Greater Geelong	83.0%	79.7%
Sunshine Coast	90.7%	81.9%

Source: ABS (2017)

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