



Current Economic Profile & Future Economic Projections & Scenarios

August, 2008

Ipswich City Council

FINAL REPORT

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Executive Summary

Ipswich is growing and is projected to grow faster than the rest of South East Queensland...

Since 2006, population in Ipswich has increased by approximately 14,052 to 157,701 persons, with the economy increasing from \$4.2 billion to an estimated \$4.9 billion gross value added production, an increase of 17.8% in two years. By 2026, the economy is projected to be \$12.7 billion with a population of 354,956. Ipswich LGA is expected to be the states fastest growing local government area over the next 25 years, with an annual average growth rate of approximately 4.6% compared to the Queensland's 1.7% per annum.

The challenge for local government is to plan for rather than react to change...

The challenge for a local government is to have the strategic vision to not only react to immediate pressures but to have the foresight to engage a strategic economic development program that ensures the long-term sustainability of the community by encouraging high value-adding business activity and industry growth which requires a high degree of skilled workers and increased the use of technology. This kind of economic development focus allows communities to foster innovative companies paying above average wages that will continue business growth after the residential and retail construction boom. These companies become the foundation for a long-term sustainable economy.

This report provides baseline data (updated statistics from 2006 to 2008 and forecasts to 2026) and information and identifies a range of opportunities to facilitate business and industry development and encourage the continued economic development and growth of the Ipswich City Council region...

This report examines the growth in Ipswich since the 2006 Census and provides projections of the economy and population to 2026. It also provides a detailed economic development analysis of the region, identifying specific target sectors in knowledge-based industries that leverage the current (and future) strengths of the Ipswich region. The opportunities identified provide solid, practical economic development targets to deliver significant and far-reaching returns for the residents of the region.

The data and projections in this report differ slightly from the SEQ Economic Activity and Employment Forecasts: 2006-2026 (NIEIR, 2008)...

While projections of each LGA in Southeast Queensland (including Ipswich) have recently been undertaken for the SEQ Economic Activity and Employment Forecasts: 2006-2026 (NIEIR, 2008), it is the belief of Ipswich City Council that these projections do not accurately represent the structural changes that have occurred and are expected to continue to occur in Ipswich since the time of the 2006 Census.

This profile is based on more recent growth patterns, policy, planning and broader local, national and global economic trends and drivers that have resulted in the structural changes of the Ipswich economy over the past two years. These were informed through research, consultation and benchmarking of similar economies.

Ipswich has a strong base of economic activity, which will grow and expand...

There are a number of established developments in Ipswich that provide a significant contribution to employment and economic activity and are expected to continue to do so into the future. Key centres of existing economic activity include, but are not limited to, the office and commercial space in Ipswich Central (CBD), industrial/ manufacturing areas such as the Carole Park and Wulkuraka Industrial Estates and the Dinmore Abattoir, retail precincts such as Ipswich Central (CBD), Riverlink and Orion Springfield, health and education facilities such as the Ipswich Hospital, the University of Queensland (Ipswich campus) and the Southern Queensland TAFE as well as infrastructure such as the Swanbank Power Station, Amberley Air Force Base and recreational precinct of Willowbank Raceway.

Ipswich will experience significant population and economic growth as large areas of residential and industrial land are developed and released to market...

Significant population, employment and regional economic development within Ipswich LGA is likely to be driven by a number of core developments and changes such as the development of Greater Springfield, the expansion of Amberley Air Force Base, the implementation of the Ipswich State Development Area (Ipswich CBD), and a range of industrial parks such as Carole Park, Citiswich (formerly Bremer Park), Redbank River Park, Swanbank Enterprise Park and Ebenezer Industrial Park.

Other developments are also anticipated such as retail developments, residential developments (e.g., Ripley Valley), as well as the expansion of Ipswich Hospital and the University of Queensland Ipswich campus, with many of these developments largely linked to and driven by population demands or growth in economic activity.

Ipswich has a strong and growing labour force with a trend of increasing participation rate to 2006. Employed persons in Ipswich increased at a faster rate (increasing by 22.8%) than in Southeast Queensland (19.1%) between 2001 and 2006 ...

Ipswich LGA's labour force grew at a faster rate between 2001 and 2006 (18.5%) than in Southeast Queensland, partially attributable to a 3.5 percentage point increase in the labour force participation rate, to 66.0%. Labour force participation was slightly lower in Ipswich LGA than in Southeast Queensland (66.7%) in 2006.

The number of employed persons in Ipswich LGA increased at a faster rate between 2001 and 2006 (22.8% to 62,786 persons) than in Southeast Queensland (19.1%). At the same time, Ipswich's unemployment rate fell 3.3 percentage points to 5.1% in 2006, which was below the decline recorded in Southeast Queensland (-3.7 percentage points to 4.7%).

Table E.1. Labour Market Characteristics, Ipswich LGA and Southeast Queensland, Based on Place of Usual Residence

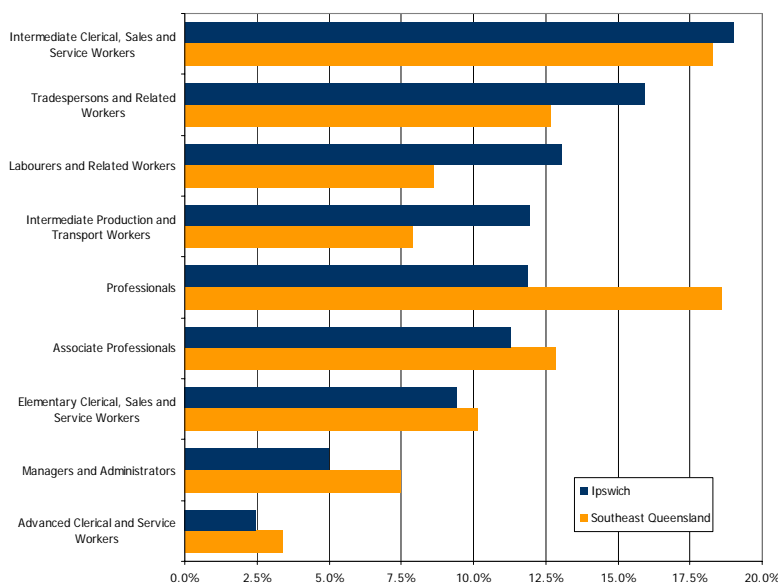
Labour Market Indicator	Ipswich LGA		Southeast Queensland	
	2006	% Change from 2001	2006	% Change from 2001
Labour Force				
Labour Force Size	66,167	18.5%	1,336,279	14.5%
Participation Rate ^(a)	66.0%	3.5%	66.7%	3.5%
Employed Persons	62,786	22.8%	1,273,656	19.1%
Unemployment Rate ^(a)	5.1%	-3.3%	4.7%	-3.7%

Note: (a) The "% Change" figures presented for this item are percentage point differences.
Source: Australian Bureau of Statistics (2007), Australian Bureau of Statistics (2003).

Ipswich LGA is characterised by a high level of blue collar workers residing in the region, with a considerably higher proportion of workers compared to Southeast Queensland in the occupations of:

- Tradespersons and related workers (15.9% compared to 12.7%);
- Labourers and related workers (13.0% compared to 8.6%); and
- Intermediate production and transport workers (11.9% compared to 7.9%).

Figure E.1. Employment by Occupation, Ipswich LGA vs Southeast Queensland, 2006



Source: Australian Bureau of Statistics (2007).

Ipswich is a net exporter of employment across all industries with the exception of education...

Based on Census statistics, total labour supply (62,787 persons) in Ipswich LGA outstrips demand (45,456 jobs), meaning that Ipswich LGA is a net exporter of labour. This is consistent across all industries in Ipswich LGA, with the notable exception of education, which had 374 more jobs in Ipswich LGA than residents employed in this sector.

The industries of construction, wholesale trade, transport and storage, communication services, finance and insurance, and property and business services have particularly high levels of labour supply in Ipswich LGA compared to demand (or, said another way, have particularly low retention rates of employed persons in the region), potentially indicating that these sectors could be targeted in terms of increasing employment opportunities for local residents to increase retention rates in the region.

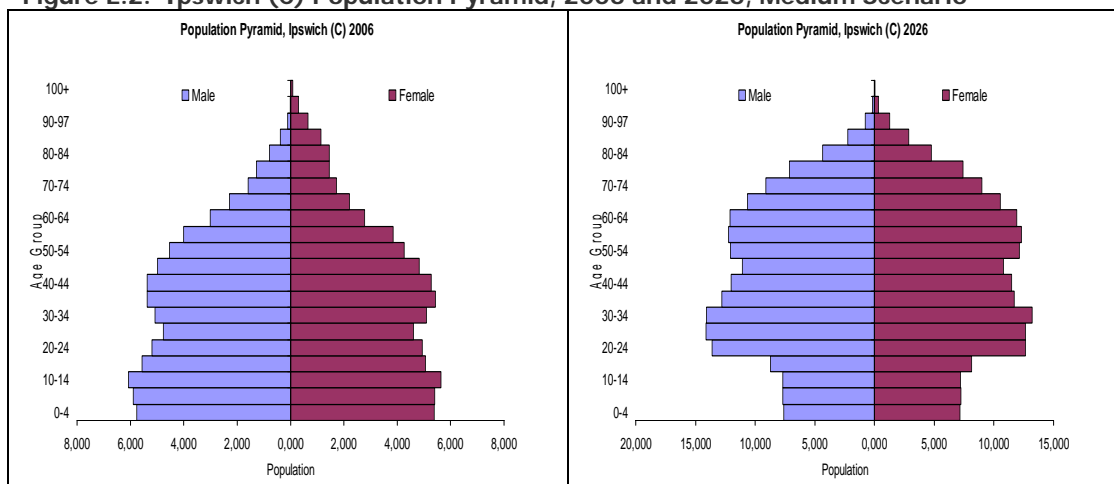
Significant population growth is anticipated to be driven by employment generation as well as the development and release of large residential areas to meet housing demand spill over from Southeast Queensland...

Population projections indicate that the Ipswich between 2008 and 2026 is expected to grow by 4.6% per annum to approximately 354,956 people in 2026. This is compared to approximately 1.7% per annum growth for Queensland. Population growth is expected to be driven by significant employment growth in Ipswich LGA over the next 18 years as well as the development of a number of large residential precincts such as the Greater Springfield and Ripley Valley developments.

The Ipswich population will shift toward an older demographic with a significant decrease in the proportion of 0-14 year olds compared to the 65-84 age grouping, which nearly doubles its share...

Over the next 18 years to 2026 the composition of Ipswich LGA's population is expected to shift towards older age groups. The most pronounced change – in terms of share of total population – is projected to occur in the 0-14, 65-74 and 75-84 age groups. The share of the 0-14 age group is projected to almost halve from 23.8% in 2006 to approximately 12.0% in 2026 while for the 65-74 and 75-84 age groups are projected to almost double in share. These changes have implications in terms of the provision of aged care related services due to the significant growth in the older age groups (65 years and over).

Figure E.2. Ipswich (C) Population Pyramid, 2006 and 2026, Medium Scenario



Source: ABS Census of Population and Housing, ABS (2006), Department of Education, Employment and Workplace and Relations (June 2008), Queensland Government Department of Infrastructure and Planning (2006), Australian Government Actuary (1999) and AECgroup Demographic Projection Model.

Employment in Ipswich is anticipated to increase by approximately 80,000 jobs, which is an increase of more than 150% from current (2008) employment...

In the period between 2008 and 2026, the total number of employment in the Ipswich LGA is expected to increase by 153.1% or 79,282 jobs. Between 2008-2026 the sectors exhibiting the most growth (in percentage terms) are projected to be cultural and recreational services (9.5% per annum), wholesale trade (9.4% per annum), accommodation, cafes & restaurants (8.5% per annum), personal & other services (7.1% per annum) and manufacturing (6.0% per annum).

The major contributors to the significant employment growth in Ipswich are the manufacturing, retail trade, property and business services and health and community services sectors...

The strong growth demonstrated by the manufacturing, wholesale, transport & storage sectors relates to the strengths of the Ipswich economy and the abundance of available industrial land in Ipswich compared to SEQ. This growth is further supported by other developments such as the projected growth at Amberley Air Force Base. Strong growth in the retail, accommodation, cafes & restaurants, health & community services and cultural & recreational services sectors is a function of the strong business and population growth in the region. The notable exceptions to this are the mining sector, which is anticipated to remain relatively constant, and agriculture, which may be expected to reduce its contribution to employment.

Table E.2. Employment by Industry Sector 2008 – 2026

Industry Sector	2008	2026	Change
Agriculture, Forestry and Fishing	637	495	-142
Mining	360	360	-
Manufacturing	9,842	28,072	18,230
Electricity, Gas and Water	611	1,546	935
Construction	2,946	5,718	2,771
Wholesale Trade	1,420	7,127	5,706
Retail trade	8,314	18,720	10,405
Accommodation, Cafés and Restaurants	1,727	7,515	5,788
Transport and Storage	2,596	7,043	4,447
Communication Services	445	1,127	682
Finance and Insurance	751	1,908	1,156
Property and Business Services	4,271	10,842	6,571
Government Administration and Defence	4,507	9,216	4,709
Education	4,848	9,290	4,442
Health and Community Services	6,178	12,754	6,577
Cultural and Recreational Services	781	4,009	3,228
Personal and Other Services	1,555	5,330	3,775
Total	51,789	131,071	79,282

Source: AECgroup

The manufacturing sector is anticipated to lead economic growth contributing an additional \$2.0 billion in gross value added (GVA) production Between 2007-08 and 2025-26...

Between 2007-08 and 2025-26, Gross Value Added (GVA) in Ipswich is expected to increase from approximately \$4.9 billion to \$12.7 billion. This is expected to be primarily driven by an increase of approximately \$2.0 billion in GVA from the manufacturing industry, as Ipswich is projected to attract a large share of high value manufacturing industry development over the projection period in line with industry trends.

Other key sectors of growth in GVA are projected to include:

- Wholesale trade (\$206.7 million to \$1.0 billion);
- Transport and storage (\$373.0 million to \$1.0 billion);
- Retail trade (\$619.6 million to \$1.4 billion); and
- Property and business services (\$451.9 million to \$1.1 billion).

Table E.3. Gross Value Add by Industry Sector 2008 – 2026 (in \$2008 terms)

Industry Sector	2007-08 (\$M)	2025-26 (\$M)
Agriculture, Forestry and Fishing	\$43.7	\$34.0
Mining	\$56.1	\$56.1
Manufacturing	\$1,075.3	\$3,066.9
Electricity, Gas and Water	\$105.4	\$266.8
Construction	\$395.7	\$768.0
Wholesale Trade	\$206.7	\$1,037.3
Retail trade	\$619.6	\$1,395.1
Accommodation, Cafés and Restaurants	\$73.7	\$320.9
Transport and Storage	\$373.0	\$1,011.9
Communication Services	\$70.8	\$179.1
Finance and Insurance	\$150.2	\$381.3
Property and Business Services	\$451.9	\$1,147.2
Government Administration and Defence	\$331.8	\$678.5
Education	\$319.0	\$611.2
Health and Community Services	\$432.6	\$893.2
Cultural and Recreational Services	\$84.3	\$432.9
Personal and Other Services	\$110.0	\$377.1
Total	\$4,899.8	\$12,657.4

Note: Employment and GVA estimates have been produced without factoring in any productivity and efficiency increases that may occur between now and 2026. As such, there is some potential that employment estimates for some industries may be over-stated and/or GVA estimates under-stated, in particular those that would be expected to benefit from productivity increases, for example manufacturing where it is anticipated that high-value adding businesses will be targeted.

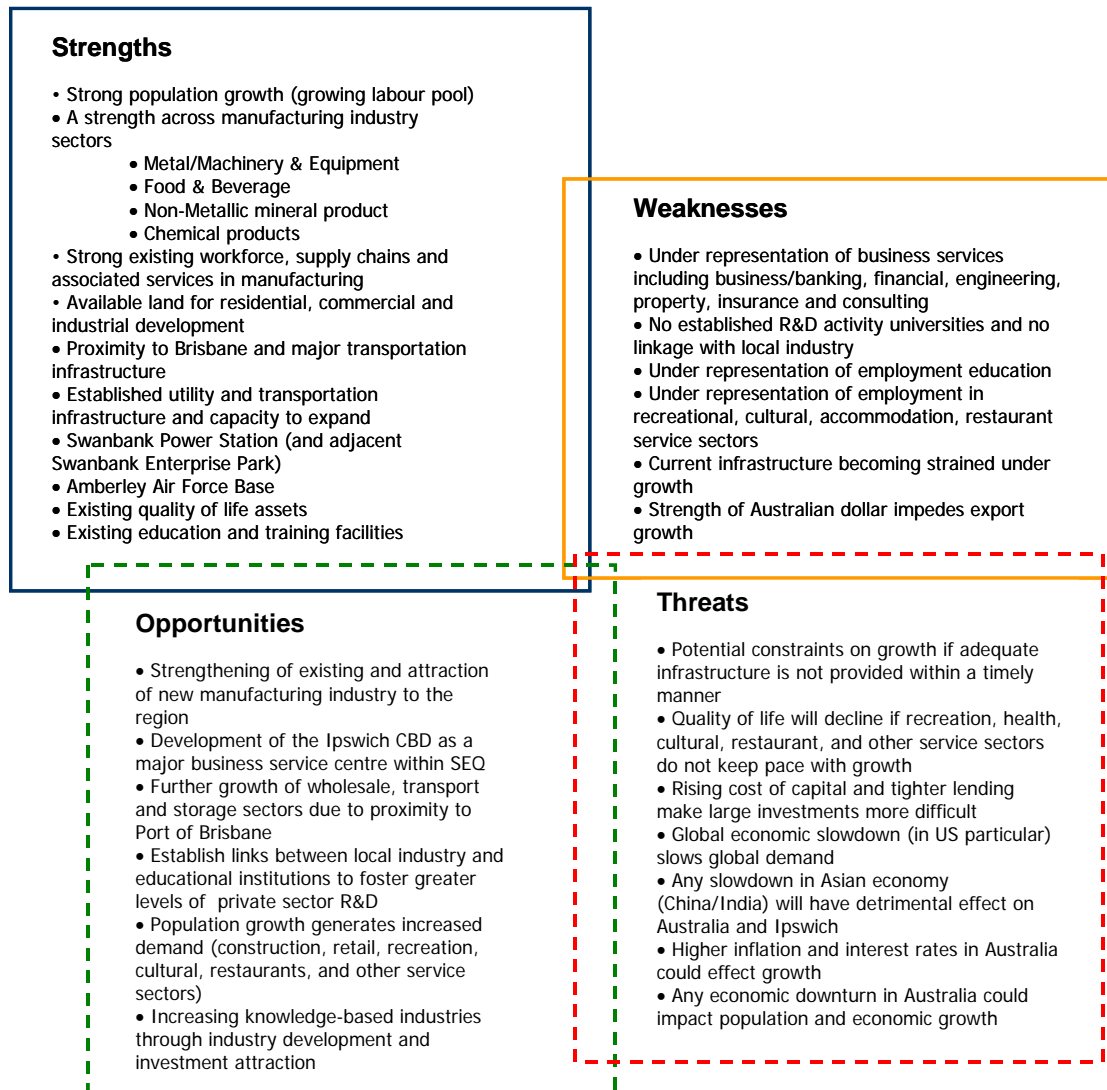
Source: AECgroup

There are a number of strategic assets that can be leveraged to assist in the development and delivery of opportunities for economic development in the Ipswich and SEQ region...

A strategic asset assessment of the Ipswich LGA confirms there are a number of locational, geographical and existing industry characteristics in the Ipswich LGA that that can further assist in economic development opportunities. These key characteristics include:

- Abundance of industrial land;
- Springfield Parkland and Ipswich CBD;
- Swanbank Power Station and Swanbank Enterprise Park;
- Amberley Air Force Base;
- Proximity to Brisbane & available infrastructure;
- Existing industry base; and
- Education assets (University & TAFE).

The strategic assets coupled with the competitive advantages of the Ipswich region provide a number of strengths and opportunities, however there are also a number of internal and external impediments to be overcome to deliver economic development opportunities between 2008 and 2026...



Specific identified economic development targets provide solid, practical examples of opportunities that can deliver high valued, economic outcomes to the community...

The targeted development of those sectors outlined below will add not only to employment in Ipswich but will further enforce existing businesses, expand current supply chains, further develop training programs, and increase the innovative and value-adding sectors of the Ipswich economy. The following specific high value-adding industries that Ipswich could consider focussing on (based on the region's current and future strengths) all serve to further broaden the overall Ipswich economy, making it more sustainable over the long term in a globally competitive world:

- Beverage manufacturing and bottling;
- Food processing (bakery, packaged food, etc.);
- Industrial machinery and equipment manufacturing;
- Medical device manufacturing;
- Solar manufacturing;
- Defence related manufacturing and engineering;
- Specialty glass manufacturing;
- Advanced ceramics manufacturing;
- Plastics manufacturing (medical, food packaging, etc.);
- Specialty chemical manufacturing;
- Advanced recycling;
- Engineering;
- Property development and business services;
- Business customers service centres;
- Corporate training facilities (IT, finance, etc.);
- Processing centres (financial, insurance); and
- Wholesale activities for overseas advanced OEMs.

The challenge to Ipswich City Council is to build aggressive economic development programs that focus on achieving the long-term sustainability of the regional economy and delivers, or even exceeds, the significant growth opportunities projected in this report...

The potential growth (economic and population) in Ipswich is tremendous. Ipswich City Council has an opportunity to dramatically impact this growth through a strategic economic development program that actively supports and encourages the development and attraction of high value-adding industries that build on the region's current (and future) strengths.

This kind of economic development focus allows communities to foster innovative companies paying above average wages that will continue business growth after the residential and retail construction boom. These companies become the foundation for a long-term sustainable economy.

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1. Introduction

1.1 Background to the Project

Ipswich is strategically located in Southeast Queensland, with Brisbane 40 minutes drive to the east and the rural and agricultural areas of the Brisbane, Lockyer and Fassifern Valleys to the west. The city is ideally positioned on national transport networks, with road and rail networks connecting Ipswich with Brisbane, while domestic and international air and sea ports are approximately one hour away. Over the past two years population and industry has grown at a significantly faster rate than historical and projected trends, and with the high level of land development, planning and industry investment in the region, Ipswich City is expected to undergo significant structural and economic changes over the next five, ten, twenty and thirty years.

In order to facilitate and direct positive future economic growth outcomes, Ipswich City Council is looking to prepare an Economic Development Plan (2008-2026) that will provide key guidelines and reference for Council, business and the community in Economic Development matters. The plan will provide assistance to key stakeholders and partners in their activities to support and build Ipswich's economic development capability. This document will play a key role in setting the baseline from which to measure Ipswich's economic growth over the next 20 to 30 years.

In order to inform this document, the Ipswich City Council requires an assessment of the current (2008) economic profile of the region, as well as projections and scenario assessment to 2026 and a SWOT analysis to identify the key areas of opportunity for economic development over the next 20 years.

1.2 Purpose of this Report

The objective of the Economic Profile is to provide an accurate snapshot of the Ipswich City economy that is not solely based on historic trends, but rather provides a current benchmark of the Ipswich City 2008 economy. This profile is to be based on more recent growth patterns, policy, planning and greater local, national and global economic trends and economic drivers that have resulted in structural changes of the Ipswich economy over the past two years since the 2006 Census.

The research, benchmarking and consultation undertaken in the development of this report provides a base for the economic modelling, forecasting and scenario assessment of the Ipswich City economy, which will inform the strategic priorities and actions in the Economic Development Plan 2008-2026. The project also undertakes a SWOT analysis to identify the key opportunities, capabilities, weaknesses and threats to economic development in Ipswich City to inform and direct the development of strategies in the Economic Development Plan.

1.3 Project Scope

The scope of this project is to:

- Update and report on the current (2008) economic and industry structure of Ipswich City that is reflective of the significant industry growth and change recorded since the time of the last Census (2006);
- Forecast population and industry growth in Ipswich City through to 2026 that are reflective of recent trends in expansion and development in the region as well as current and anticipated trends in local, national and global economic drivers and influencing factors; and
- Develop a SWOT analysis of Ipswich City based on its current (2008) industry and socio-economic structure, recent trends in expansion and development in the region and anticipated trends in local, national and global economic drivers and influencing factors.

2. Methodology

The following methodology has been used in developing the 2008 Economic Profile and future projections.

2.1 Method for Estimating 2008 Economic Profile

2.1.1 Population

The estimate of Ipswich LGA population in 2008 is obtained assuming that the share of female (and male) labour force in total labour force and the share of labour force as well as labour force participation rate by age group by gender stay at its Census 2006 level. That is, applying the 2006 shares to the June Quarter 2008 Small Area Labour Market Data – which is based on place of residence and is thus consistent with the ABS Census' employment by place of residence – gives us an estimate of Ipswich LGA 2008 population by age group by gender.

The estimates are then allocated to single-year age groups assuming the share of single-year age group's population in the total population where the single-year age group is clustered in, is constant at its Census 2006 level. This in effect assumes that additional demand for labour is met by an increase in the Ipswich LGA population instead of an increase in the labour force participation rate. Had participation rates been allowed to increase, additional people needed to meet the demand for workers would come from Ipswich's existing population. **Assuming constant participation rates therefore gives an estimate of population that represents an upper bound of Ipswich LGA population in 2008.**

The choice of Census 2006 as reference point is based on the consideration that it provides the most comprehensive source of data, and although Ipswich LGA has experienced significant increase in its population since 2006, the age groups' *relative* population shares can be expected to be reasonably constant over the two years to 2008.

2.1.2 Employment by Industry

The estimate of Ipswich LGA employment by industry in 2008 is obtained assuming that its share of employment in a particular industry *in the labour region where it is grouped into* (Brisbane Labour Region) stays at its Census 2006 level. Applying this share to the difference between employment figures based on the ABS Quarterly Labour Force Survey and those based on the Census 2006 therefore gives us the change in employment in a particular industry in Ipswich LGA and other LGAs in the Brisbane Labour Region.

Maintaining this relativity therefore amounts to assuming that any change (increase/ fall) in industry employment in the Brisbane Labour Region flows proportionately onto Ipswich and other LGAs in the Brisbane Labour Region. Although this assumption is contestable – given that a change in employment could flow onto different LGAs disproportionately since 2006 – in the absence of a more detailed and accurate data it represents the most reasonable assumption, particularly considering the short time period over which this assumption is maintained (August 2006 to June 2008).

Applying the change in employment in each of the industries in Ipswich LGA to industry employment at Census 2006 provides initial estimate of employment by industry in Ipswich LGA, which is then equalised so that total employment agrees with that based on the Small Area Labour Market Data. Estimate of employment by place of residence then adjusted to take into account the fact that some of Ipswich residents actually work in other LGAs. The so-called retention rate is in turn based on Census 2006 employment by place of residence and by place of employment.

Allowing for a change in Ipswich's share of employment in a particular industry in the labour region where it is grouped into will therefore not change total employment but will change the structure of employment – by place of residence and by place of employment – in Ipswich.

2.1.3 Gross Regional Product

Estimate of Ipswich LGA Gross Regional Product is based on Ipswich LGA's employment by industry and the Gross Value Added per employee in South East Queensland. The choice of South East Queensland as opposed to Brisbane Subdivision as a reference point is due to Ipswich being located in South East Queensland and the need to ensure consistency over time, as the boundary of Brisbane Subdivision changed from 2000-01 to 2005-06.

2.2 Method for Future Economic Projections

2.2.1 Population

To project Ipswich population a number of inputs have been used:

- Brisbane Subdivision age-specific fertility rates from the ABS. The age-specific fertility rates, which are available in five-year age groupings, are interpolated using Sprague Interpolation Method to obtain single-year age-specific fertility rates. The use of Sprague Interpolation Method conforms to the international (European Commission, 2004) practice of interpolating fertility rates that are only available at five-year age groupings into single-year rates;
- Brisbane Subdivision mortality rates from the ABS. The age-specific mortality rates, which are available in five-year age groupings, are interpolated using the Exponential Interpolation Method to obtain single-year age-specific fertility rates. The use of Exponential Interpolation Method conforms to the international (The International Labour Office, 2002) practice of interpolating mortality rates that are only available at five-year age groupings into single-year rates;
- PIFU's assumptions regarding changes in the total fertility rate and the time path of such changes (The Office of Economic and Statistical Research, 2006);
- PIFU's assumptions regarding improvement in life expectancy, which in turn impacts on mortality rates, and the time path of such improvement (The Office of Economic and Statistical Research, 2006); and
- Assumed migration by age by gender from PIFU (The Office of Economic and Statistical Research, 2006).

Since data on historical and expected migration by age by gender is unavailable, the approach taken in projecting Ipswich population is to identify the difference between what Ipswich population would be, based on the relationship between its labour market and population and what it was projected by PIFU, track the difference over the years using age-specific fertility and mortality rates, and add it to PIFU's projected population over the years.

Backing out population from the SALM gives 154,464 people in Ipswich in 2007 as opposed to PIFU's projection of 147,325 people (Queensland Government Department of Infrastructure and Planning, May 2008). The difference between the SALM-implied population and that of PIFU's projection (7,319) is then tracked over the years to 2026 using single-year fertility and mortality rates adjusted to take into account PIFU's assumptions on the pattern and path of fertility and life expectancy improvement. Total forecasted population is then the sum of PIFU's forecasted population and the difference tracked over the projection years.

The methodology applied to project population in this paper essentially answers the question of what will Ipswich population be in 2011, 2016, 2021 and 2026, had PIFU's projection started with 154,464 people in 2007 instead of 147,325 people, assuming that that PIFU's envisaged projected migration in each year to 2026 has not changed.

2.2.2 Employment by Industry

Projections of employment by industry have been developed using the following methodology:

- **Agriculture, fishing and forestry:** long-term trend in the agriculture, fishing and forestry industry employment. The premise of this assumption is that demand for labour is based on expected level of output which in turn evolves according to patterns that change and is expected to prevail over the long run, e.g. climate change, water availability, long-term changes in consumer preferences (local versus 'imported' products, product A versus product B, etc.). As long-term trend in the employment in this sector points to a declining workforce, the estimate is adjusted to take into account the variation in output and employment brought about by favourable changes in the controllable factors (labour productivity) and uncontrollable factors (climate, etc.);
- **Mining:** consultation outcomes from New Hope Mining points to close to no change in employment with New Oakleigh projected to close around February 2009 – making 52 employee redundant) and Jeebropilly reopened – hiring approximately 30 of the 52 employee made redundant by the closing of New Oakleigh mine. Consultation points to little change in mining companies' operations in Ipswich LGA into the future. Therefore, in our projection we have assumed employment in the mining sector to be constant;
- **Manufacturing:** projection of employment in the manufacturing industry is based on the additional amount of Gross Floor Area released for manufacturing purposes and the manufacturing related employment in the Aerospace Park in Amberley. The amount of developed floor space and the Gross Floor Area per employment in turn are obtained from consultancy with industry stakeholder;
- **Electricity, gas, water supply and waste services:** employment is projected to increase by the rate of growth of all other industries. As demand of all other industries reflects the growth in the demand coming from population (in and out of Ipswich), adding the growth rate of the population on top of the growth rate of all other industries would result in too high an estimate of employment in the electricity, gas, water supply and waste services. Therefore, the growth rate used to project employment in this sector is the growth rate of all other industries;
- **Construction:** employment in the construction sector comprises:
 - Employment in the residential sector driven primarily by the number of household, in turn driven by the number of population and the number of head per household as *implied* by the projected number of dwelling units and the projected population contained in the Ipswich City Council unpublished data;
 - Employment in the non-residential sector is driven primarily by the expected amount of industrial and commercial floor area released and historical relationship between employment in the non-residential, building sector and non-building sector; and
 - Employment in construction trade services and other construction-related services is assumed to increase at the rate of growth of employment in the combined residential and non-residential sectors.
- **Wholesale trade:** projection of employment in the manufacturing industry is based on the additional amount of Gross Floor Area released for wholesale purposes and the assumed Gross Floor Area per employment which are obtained from consultancy with industry stakeholder;
- **Retail trade:** employment in the sector depends on population with the relationship being estimated to the third power. The estimation is performed by regressing employment in the retail trade sector on the size of population at a particular point in time using data on employment and population of all LGAs in Queensland and big LGAs in New South Wales and Victoria. This effectively assume that on average, there is homogeneity in the retail trade sector among the LGAs;
- **Accommodation, cafés and restaurants:** employment in the sector depends on population with the relationship being linear. The estimation is performed by regressing employment in the sector on the size of population at a particular point in time using data on employment and population of all LGAs in Queensland and big LGAs in New South Wales and Victoria. This effectively assume that on average, there is homogeneity in the retail trade sector among the LGAs;

- **Transport and storage:** employment in this sector comprises:
 - Employment in the freight transport and storage sector which can then be broken down into:
 - Workforce occupying floor area; and
 - Mobile workforce (truckies, drivers, etc.)

The number of workforce occupying floor area is obtained from stakeholder consultancy regarding the amount of expected Gross Floor Area to be released and the Gross Floor Area per employee in the transport and storage sector. The number of truckies working in freight transport but not occupying any floor space in turn is assumed to follow a constant proportion to the number of those occupying floor space;
 - Employment in the passenger transport sector is modelled on the size of population with the relationship estimated to the fourth degree. The estimation is performed by regressing employment in the passenger transport sector on the size of population at a particular point in time using data on employment and population of all LGAs in Queensland and big LGAs in New South Wales and Victoria. This effectively assumes that on average, there is homogeneity in the passenger transport sector among the LGAs;
- **Communication services:** employment is projected to increase by the rate of growth of all other industries. As demand of all other industries reflect the growth in the demand coming from population (in and out of Ipswich), adding the growth rate of the population on top of the growth rate of all other industries would result in too high an estimate of employment in the information, media and telecommunication sector. Therefore, the growth rate used to project employment in this sector is the growth rate of all other industries;
- **Finance and insurance services:** projection of employment in the finance and insurance services is based on the additional amount of Gross Floor Area released for commercial purposes and the Gross Floor Area per employment – which equals that of professional and business services – obtained from consultancy with industry stakeholder;
- **Property and business services:** projection of employment in the professional and business services is based on the additional amount of Gross Floor Area released for commercial purposes and the Gross Floor Area per employment obtained from consultancy with industry stakeholder;
- **Government administration and defence:** employment in the government administration and defence industry comprises:
 - Employment in the public administration and safety is driven primarily by the number of population. The relationship between population and employment in the public administration and safety is assumed to follow a logarithmic pattern, i.e. increasing at a decreasing rate, based on the evidence of a limit in the growth of government employment. Employment in this sector is boosted further by the additional number of people hired by the State Government whose figures are obtained from desktop research (Queensland Government Media Release (May 2008), Queensland Government Ministerial Media Statements (March 2008), City of Ipswich Economic Update (April 2008) and Sydney Morning Herald (2008));
 - Employment in the Public order, safety and regulatory services is driven primarily by the number of population. The relationship between population and employment in this sector is assumed to follow a logarithmic pattern, i.e. increasing at a decreasing rate, based on the evidence of a limit in the growth of government employment; and
 - Employment in the defence sector is based on average between defence employment contained in the RAAF Base Amberley Redevelopment Stage 3 – Statement of Evidence to the Parliamentary Standing Committee (Australian Government Department of Defence, 2007) and obtained from stakeholder consultancy.

- **Education and training:** employment in the education industry is distinguished between:
 - Employment in the school and non-tertiary education and tertiary education sectors. For school and non-tertiary education sector, employment depends on population with the relationship being estimated to the fourth power. The estimation is performed by regressing employment in the school and non-tertiary education sector on the size of population at a particular point in time using data on employment and population of all LGAs in Queensland and big LGAs in New South Wales and Victoria. This effectively assumes that on average, there is homogeneity in the school and non-tertiary education sector among the LGAs; and
 - Employment in the tertiary education sector is concentrated in the Education City at Springfield. A constant staff-student ratio is assumed throughout the projection period, which in turn is based on the number of staffs working in the tertiary education sector and the number of students enrolled in tertiary education in Australia in 2006.
- **Health and community services:** employment in the health and community sector is assumed to follow population with the relationship estimated to the fourth degree. The estimation is performed by regressing employment in the health and community services sector on the size of population at a particular point in time using data on employment and population of all LGAs in Queensland and big LGAs in New South Wales and Victoria. This effectively assumes that on average, there is homogeneity in the health and community services sector among the LGAs;
- **Cultural and recreational services:** employment in the cultural and recreational sector is assumed to follow population with the relationship estimated to the fourth degree. The estimation is performed by regressing employment in the cultural and recreational services sector on the size of population at a particular point in time using data on employment and population of all LGAs in Queensland and big LGAs in New South Wales and Victoria. This effectively assumes that on average, there is homogeneity in the cultural and recreational services sector among the LGAs;
- **Personal and other services:** employment in the personal and other services sector is assumed to follow population with the relationship estimated to the fourth degree. The estimation is performed by regressing employment in the personal and other services sector on the size of population at a particular point in time using data on employment and population of all LGAs in Queensland and big LGAs in New South Wales and Victoria. This effectively assumes that on average, there is homogeneity in the personal and other services sector among the LGAs.

It should be noted that employment estimates have been produced without factoring in any productivity and efficiency increases that may occur between now and 2026. As such, there is some potential that employment estimates for some industries may be over-stated (and/or Gross Regional Product estimates under-stated), in particular those that would be expected to benefit from productivity increases, for example manufacturing where it is anticipated that high-value adding businesses will be targeted.

2.2.3 Gross Regional Product

Projections of Ipswich LGA Gross Regional Product is based on Ipswich LGA's employment by industry and the Gross Value Added per employee in South East Queensland, kept constant at 2007-08 estimated values. Gross Regional Product

3. Context Analysis

3.1 Review of Planning Documents

3.1.1 Overview of the SEQ Region

The SEQ region is Australia's fastest growing region attracting an average of 55,000 new residents each year, which has coincided with rapid employment growth and national and international recognition of the region as a hub of economic activity (DLGPSR, 2005). The implications of this rapid growth within the Southeast corner of Queensland is that the majority of planning will be focused around managing growth and growth impacts, particularly in the planning and provision for the demand of:

- Infrastructure;
- Employment opportunities;
- Services;
- Residential housing; and
- Industrial land & commercial space.

In the management of these demands, a focus key focus of the SEQ regional plan is the creation of principle activity centres and the movement away from CBD centre concentration within the Brisbane LGA (DLGPSR, 2005). This will result in the concentration of future growth of business, employment, research, education, services, higher density living and social interaction in regional activity centres. The aim is to improve regional accessibility and the creation of focal points for employment, residential development and multimodal transport nodes. The aim of the SEQ regional plan is to manage this growth and change in the most sustainable and efficient manner and to protect and enhance the quality of life for the region (DLGPSR, 2005).

3.1.2 Ipswich LGA within SEQ

Ipswich LGA is the fastest growing region within the SEQ region, recording an average annual growth in employment of 2.9 percent over the past five years to 148,700 persons in 2007 (ABS, 2008). This is an additional 4,010 persons each year. It is expected that Ipswich LGA growth will continue above the rate of the state and for all other regions within SEQ over the next 20 years. To support growth over this period it is forecast that an additional 81,374 jobs must be created within the Ipswich LGA (NIEIR, 2008).

As part of the SEQ growth management strategy, the SEQ regional plan supports Ipswich as being a key area of growth and development and a major regional activity centre for the western corridor over the next 10 to 20 years (DLGPSR, 2005). As such, the Ipswich region is expected to continue to develop at a rapid rate with opportunity for further economic development in the areas of aviation industry, intermodal freight hub and development of extensive industrial lands suitable large and difficult to relocate industries that will not be found elsewhere in the SEQ region (DLGPSR, 2005). Employment in knowledge based industries will also provide potential for economic growth as local university courses are linked with industry skills demand for the region.

As such, the Ipswich region will have some of the largest planning and development requirements for the provision of adequate infrastructure and employment opportunities in the region. An important condition is that the infrastructure investment should support employment and industry growth and enhance the overall connectivity of the region, including access by its businesses to a diverse, high-quality pool of appropriately skilled labour (NIEIR, 2008).

3.1.3 Implications for Planning in the Ipswich LGA

As one of the fastest growing regions in the Southeast Queensland region, Ipswich LGA will have a high demand for the development of employment opportunities, improved transport networks, effective land use planning and major infrastructure investment, whilst maintaining existing environmental assets and community spirit (ICC, 2005). The implications of effective and targeted planning will be the diversification of the current

business, industry and community characteristics to support ongoing sustainable development of the Ipswich LGA over the next 20 years and beyond.

In order to deliver anticipated economic and social growth objectives within Ipswich LGA, the following target areas were identified as key themes from the review of Council planning documents:

- Development and specialisation of education in the Ipswich Regional Centre to support industry growth and provide a knowledge based workforce for industry and business growth and support;
- Improved connectivity for all modes of transport to provide economical easy access to the regional centre whilst creating connectivity between communities and the industry chain within Ipswich and with surrounding regions of SEQ;
- Strategic planning and land use that is supported by appropriate infrastructure development to ensure that all forms of development are fully supported within the region and fully sustainable over the long term;
- Provision of population driven core industries to promote liveability and attractiveness of the region and increase the prominence of the Ipswich region as a regional centre for the Western Corridor. Key industries include health & community services, government services cultural, sporting & recreational facilities and parks and green spaces; and
- Attraction and capitalisation of future employment opportunities in industrial business and ancillary business services.

3.2 Industry Research Findings

3.2.1 Key Areas of Existing Activity

There are a number of established developments in Ipswich that currently contribute significantly to employment and economic activity in the region and are expected to continue to do so into the future. An example of the types of key activity areas in Ipswich includes (but is not limited to) the following:

- Commercial/ office:
 - Ipswich Central (CBD);
- Industrial/ manufacturing:
 - Carole Park Industrial Estate;
 - Wulkuraka Industrial Estate;
 - Dinmore Abattoir;
- Retail:
 - Ipswich Central (CBD);
 - Riverlink;
 - Orion Springfield;
- Health:
 - Ipswich Hospital;
- Education:
 - University of Queensland (Ipswich campus);
 - Southern Queensland TAFE;
- Utilities:
 - Swanbank Power Station;
- Defence:
 - Amberley Air Force Base;
- Sport and recreation:
 - Willowbank Raceway.

In general, current activity at these established areas is incorporated in the baseline statistics. As such, rather than focusing on established areas of activity, this report looks at future areas of development activity as a driver to employment and economic growth. These future areas of economic activity are examined in the next section.

3.2.2 Key Areas of Future Development Activity

3.2.2.1 Springfield

Greater Springfield development activity has surpassed \$1.5 billion, with significant additional investment anticipated through to 2030. Once fully developed, Greater Springfield will provide employment lands for over 30,000 jobs in professional business and financial services, ICT, education, health, retail and entertainment, and residential accommodation for over 100,000 people (Springfield Land Corporation, 2008a).

Commercial Activity

In terms of commercial development activity (i.e., offices, etc.), Greater Springfield is expected to provide commercial space in a number of business precincts, including the Parkside Business Address, Springfield Tower, Springfield Technology Park and Springfield City Point. The following can be noted regarding planned commercial activity in Greater Springfield (M. Kelly, Springfield Land Corporation, *pers. comm.*, 29th July 2008):

- Springfield has approval for 220,000m² of development in their commercial precinct;
- The first building (approximately 10,000m²) will be completed in August 2008 and:
 - Is currently 60% leased;
 - Is anticipated to be 100% leased by the end of 2008;
 - Tenant activities include engineering, surveying, property development, insurance, ICT and administration;
- Springfield Land Corporation anticipate approximately 1 employee per 15-20m² of commercial space; and
- The business structure is expected to be focused around finance, insurance, business and professional services.

Springfield Land Corporation are not certain of the development timelines for commercial space, with the timing of development largely impacted by market demand, construction prices and overall economic and financial conditions, among other factors. An estimate of commercial floor space development is as outlined in the table below.

Table 3.1. Commercial Land Development Activity, Springfield

Year	2009	2011	2013	2015	2017	2019	2021	2023	2025	2027
Space (m ²)	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000

Source: M. Kelly, Springfield Land Corporation, *pers. comm.*, 29th July 2008

Using Springfield Land Corporation's assumptions on employment per m², this yields:

Table 3.2. Assumed Employment Capacity, Commercial Land, Springfield

	2009	2011	2016	2021	2026
Space (m ²)	10,000	20,000	50,000	70,000	90,000
Employment	571	1,143	2,857	4,000	5,143
m ² per employee	17.5				

Source: M. Kelly, Springfield Land Corporation, *pers. comm.*, 29th July 2008

Light Industrial Activity

The Greater Springfield development will include some light industrial activity. Key points of note regarding the development of light industrial areas is as follows (M. Kelly, Springfield Land Corporation, *pers. comm.*, 29th July 2008):

- Springfield is currently in the process of gaining approval for their light industrial precinct;
- Eventually, space could range from 100,000m² to 400,000m²;

- Activity will be heavily focused on the transport and storage sector, and will have a high office component;
- Additional activities could include light, precision assembly (e.g., electrical/ medical devices);
- The precinct will not support manufacturing as roads are not suitable for heavy transport and numerous container shipments.

Education City

Education City is an 18 hectare precinct within Greater Springfield that will eventually house up to 10,000 students. Approximately 8,500 of these students will be tertiary students (Springfield Land Corporation, 2008a and 2008b), while Education City will also cater to primary and secondary school education.

Education providers currently located at Education City include the University of Southern Queensland, the Bremer Institute of TAFE, Union Institute of Languages, ABC Development Centre and Australian City College. Education City opened in 2006 with 550 students and had 2,400 students as of April 2008 (Springfield Land Corporation, 2008b). Education City is expected to be developed strategically over the next 10 to 15 years (Education City, 2008).

Based on Australian averages, post school education institutions require approximately one staff member per 12 students (Department of Education, Science and Training, 2008a and 2008b). At capacity (8,500 tertiary students), this equates to approximately 700 staff.

Health City

Greater Springfield is developing a comprehensive Health and Wellness precinct, located in the Springfield CBD alongside education, retail and business precincts. Springfield Health City will occupy approximately 50 hectares and is planned to provide fully integrated preventive and remedial health and wellness solutions. It is expected to become a regional hub for the delivery of health services to the rapidly growing population of the western corridor (Springfield Land Corporation, 2008a).

Health City will deliver both public and private health care services, with Stage One planned to open by 2010. Major components of Health City include:

- Public and Private Health Services;
- Specialist Medical Service;
- Research and Development Facilities;
- Medical Suites;
- Health and Wellness Centre/Community Centre;
- Aged Care Facility;
- Motel/ Serviced Apartments;
- Resort/Spa Hotel;
- Residential (mid-rise and low-rise);
- Allied health depositories including pathology and testing facilities; and
- e-health and tele-medicine.

3.2.2.2 Amberley

Significant growth is anticipated in Ipswich LGA in the defence and aerospace sectors connected to anticipated and planned growth at Amberley Air Force Base. Future growth in employment will involve significant increases to defence personnel as various units are relocated to the base as well as additional defence related activities including repair and maintenance of aircraft and design and engineering.

RAAF Base

The defence forces at the Amberley Air Force Base are estimated by Australian Government Department of Defence (2007) to increase from approximately 2,000 uniformed personnel in 2006 to approximately 4,000 by 2015. Consultation indicates that

defence personnel may increase to 6,500 by 2014 (G. Volk, Defence Industry Development, Queensland Department of Tourism, Regional Development and Industry, *pers. comm.*, 31st July 2008).

The increase in personnel is primarily due to the relocation of:

- No. 36 Squadron to operate the new C-17 Globemaster III (early 2007);
- Army's 9th Force Support Battalion (late 2007); and
- Multi-Role Tanker Transport No. 33 Squadron (2009);
- New F18F fighter squadron (2010); and
- Joint strike fighter squadron (2013).

While actual workforces for defence will fluctuate, the average capacity is expected to same relatively constant.

Aerospace Park

The Queensland State Government purchased approximately 170 hectares of land in 2005 adjacent to the Amberley Air Force Base to assist in the development of business and industry in conjunction with the activities of the air force base.

This land is expected to be developed in line with the redevelopment of the Amberley Air Force Base, with future growth anticipated to involve defence related contractors and onsite support activities.

The types of companies that are expected to operate at the Aerospace Park include Thales, Goodrich, Raytheon, Boeing, and General Dynamics. The activities of these companies is generally in engineering, maintenance, avionics design, and potentially some manufacturing.

Contractor employment is anticipated to increase from approximately 2,500 in 2011 to approximately 5,000 employees by 2026 in the industries of professional business services and some manufacturing (G. Volk, Defence Industry Development, Queensland Department of Tourism, Regional Development and Industry, *pers. comm.*, 31st July 2008), as follows.

Table 3.3. Assumed Employment Growth, Aerospace Park

Year	2011	2016	2021	2026
Employment	2,500	4,000	4,500	5,000

Source: G. Volk, Defence Industry Development, Queensland Department of Tourism, Regional Development and Industry, *pers. comm.*, 31st July 2008

The Aerospace Park site will also have amenities including cafés, restaurants, etc. to support the large number of anticipated workers.

3.2.2.3 Ipswich State Development Area

The Queensland State Government announced plans in March 2008 to make Ipswich Central a State Development Area and take responsibility for its planning to revitalise the Ipswich city heart. As part of this plan, the State Government will develop "office space for more than 1,200 State Government and other workers" (Department of Premier and Cabinet, 2008), which will include the relocation of State Government employees to the Ipswich CBD, with Main Roads, the Environmental Protection Agency and Home and Community Care already announcing plans to relocate staff to Ipswich (Department of Premier and Cabinet, 2008).

For the purposes of this assessment, the office space is assumed to be occupied 50% by State Government employees and 50% by private business in the finance, property and business service industries. In addition to the office space, the development could potentially include a transport hub, community space and residential facilities.

3.2.2.4 Industrial Land

Ipswich has strong development capability for industrial development in the short and long term, and holds approximately 42% (4,393 hectares) of the total undeveloped

industrial land in South East Queensland (S. De Nys, National Director, Industrial, Jones Lang LaSalle, *pers. comm.*, 1st August 2008).

Key industrial parks for development over the next 20 to 30 years in Ipswich include (but not limited to):

- Carole Park Industrial Estate/ Synergy Park;
- Citiswich (formerly Bremer Park);
- Redbank River Park;
- Swanbank Enterprise Park; and
- Ebenezer Industrial Park.

An aerospace park is also being established at Amberley Air Force Base, as outlined in section 3.2.2.2. Industrial development in Ipswich will be focused on the manufacturing and transport/ storage/ wholesale sectors.

Growth Since 2006

The industrial growth in Ipswich since 2006 has focused in the Carole Park area. Approximate growth is as follows:

Table 3.4. Growth in Industrial Land, Ipswich, 2006 to 2008

Industrial Area	Increase
Land Area (m ²)	100,000
Building Area (m ²)	50,000

Source: S. De Nys, National Director, Industrial, Jones Lang LaSalle, *pers. comm.*, 1st August 2008

The development has been split between manufacturing and transport/ storage/ wholesale activities approximately 60%/40%.

Estimated job ratios for transport/ storage/ wholesale is approximately 2-3 employees per 1,000m² of building space (this does not include road freight drivers). For manufacturing, an estimated ratio is approximately 8 employees per 1,000m² of building space.

Table 3.5. Growth in Industrial Employment, Ipswich, 2006 to 2008

Industrial Activity	Building Space (m ²)	Employment Ratio (per 1,000m ²)	Employment Increase
Manufacturing	30,000	8	240
Transport/ Storage/ Wholesale	20,000	2.5	50

Source: S. De Nys, National Director, Industrial, Jones Lang LaSalle, *pers. comm.*, 1st August 2008

Future Growth

Uptake of industrial land in SEQ is anticipated at approximately 100 to 150 hectares per year moving forward. For the future, the uptake rate of industrial land in Ipswich is estimated at approximately 50 ha per year. The structure of this uptake is estimated to be approximately 50% manufacturing and 50% transport/ storage/ wholesale. Typically, land to building ratios are in the order of 2:1.

Table 3.6. Growth in Industrial Land and Employment, Ipswich, 2008 to 2026

Industrial Activity	2011	2016	2021	2026
Industrial Land				
Uptake of Industrial Land (ha)	150	250	250	250
Manufacturing Building Space (m ²)	375,000	625,000	625,000	625,000
Transport/ Storage/ Wholesale Building Space (m ²)	375,000	625,000	625,000	625,000
Employment				
Manufacturing	3,000	5,000	5,000	5,000
Transport/ Storage/ Wholesale	1,067	1,778	1,778	1,778

Source: S. De Nys, National Director, Industrial, Jones Lang LaSalle, *pers. comm.*, 1st August 2008

3.2.2.5 Mining

Consultation outcomes suggest that employment in the mining sector in Ipswich is not expected to change noticeably between 2008 and 2026 (D. Armbrust, Human Resources Manager, New Hope Corporation Limited, *pers. comm.* 4th August, 2008). Despite changes in mine activity with New Oakleigh projected to close February 2009 (making 52 employees redundant) and Jeebropilly reopened (hiring approximately 30 of the 52 employee made redundant by the closing of New Oakleigh mine) the consultation indicates little change in mining operations in Ipswich LGA into the future.

3.2.2.6 Other Developments

The sections above outline the anticipated development in key sectors of the economy, in particular activity in commercial, industrial, mining, defence force and State Government sectors.

Other developments are also expected or may occur in Ipswich outside of those indicated above, for example retail developments, residential developments (such as Ripley Valley), expansion of Ipswich Hospital and the University of Queensland Ipswich campus. However, the majority of these developments will be largely linked to demand driven by population or growth in economic activity generated by the above mentioned sectors and, as outlined in the methodology (refer section 2.2), employment growth in these sectors have been modelled based on population based benchmarks. As such, individual developments in other sectors have not been included as part of this project.

3.3 Implications for Industry and Economic Growth

Agriculture, Forestry & Fishing

Employment in the agriculture, forestry and fishing sector declined by an average annual rate of 4.7% between 2001 and 2006, largely attributable to drought conditions throughout Queensland over the period as well as a general trend away from agriculture in metropolitan areas of Queensland. Demand for labour in the agriculture, forestry and fishing sector is largely influenced by a number of external factors such as climate change, water availability, and long-term changes in consumer preferences.

In projecting future employment growth in the agriculture, forestry and fishing sector, a scenario-based approach to the long-term trend in the sector has been assessed. In the low scenario employment in this sector is assumed to decline at a constant rate of 4.7% as per the period 2001 to 2006. In the medium scenario, a marginal decline in employment of -0.6% has been assumed between 2008 and 2026. while in the high scenario employment is assumed to increase marginally (1.0% per annum) as demand for agricultural commodities nationally and internationally increases.

Mining

Consultation outcomes suggest that employment in the mining sector in Ipswich is not expected to change noticeably between 2008 and 2026. The New Oakleigh mine is projected to close around February 2009, with Jeebropilly reopened. Consultation also indicates that little change is anticipated in mining companies' operations in Ipswich LGA into the future.

Manufacturing

Projections of employment in the manufacturing industry are based on the additional amount of Gross Floor Area released for manufacturing purposes and the manufacturing related employment in the Aerospace Park in Amberley.

Uptake of industrial land in Ipswich is anticipated to be approximately 50 hectares per annum between 2008 and 2026 (40 hectares used in low scenario, 60 hectares in high). The structure of this uptake is estimated to be approximately 50% manufacturing and 50% transport/ storage/ wholesale, with land to building ratios in the order of 2:1.

The estimated job ratio for manufacturing is approximately 8 employees per 1,000m² of building space.

Table 3.7. Growth in Manufacturing Space and Employment, Ipswich, 2008 to 2026

Industrial Activity	2011	2016	2021	2026
Manufacturing Building Space (m²)				
Low	300,000	500,000	500,000	500,000
Medium	375,000	625,000	625,000	625,000
High	450,000	750,000	750,000	750,000
Manufacturing Employment Increase				
Low	2,400	4,000	4,000	4,000
Medium	3,000	5,000	5,000	5,000
High	3,600	6,000	6,000	6,000

Source: S. De Nys, National Director, Industrial, Jones Lang LaSalle, *pers. comm.*, 1st August 2008

In addition to manufacturing employment increases from the uptake of industrial land at industrial parks in Ipswich, additional manufacturing employment is anticipated at the Aerospace Park in Amberley. In total, the Aerospace Park is expected to result in an increase in employment between 2011 and 2026 of 2,500 contract workers in the industries of manufacturing and professional services, with approximately 460 of these anticipated to be in manufacturing.

Electricity, Gas & Water

Demand for electricity, gas and water will be driven by both industry and population growth in Ipswich LGA and surrounding areas. In this assessment, employment in electricity, gas & water has been assumed to grow at an equivalent rate to overall industry growth.

Construction

Employment in the construction sector comprises:

- Employment in the residential sector driven primarily by the number of dwellings constructed, which in turn is driven by demand for housing (calculated based on population growth and average household size);
- Employment in the non-residential sector is driven primarily by the expected amount of industrial and commercial development, and the historical relationship between employment and construction activity in the non-residential building sector and non-building sector; and
- Employment in construction trade services and other construction-related services is assumed to increase at the rate of growth of employment in the combined residential and non-residential sectors.

Wholesale Trade

Projections of employment in the wholesale trade industry is based on the additional amount of Gross Floor Area released for wholesale purposes.

Uptake of industrial land in Ipswich is anticipated to be approximately 50 hectares per annum between 2008 and 2026 (40 hectares used in low scenario, 60 hectares in high). The structure of this uptake is estimated to be approximately 50% manufacturing and 50% transport/ storage/ wholesale, with land to building ratios in the order of 2:1.

The estimated job ratio for wholesale is approximately 3 employees per 1,000m² of building space. Based on historical trends in employment and employment ratios per 1,000m² of building space in the wholesale trade and transport and storage sectors, wholesale trade accounts for approximately 85% of industrial land used for these purposes.

Table 3.8. Growth in Wholesale Trade Space and Employment, Ipswich, 2008 to 2026

Industrial Activity	2011	2016	2021	2026
Wholesale Trade Building Space (m²)				
Low	253,620	422,700	422,700	422,700
Medium	317,025	528,375	528,375	528,375
High	380,430	634,050	634,050	634,050
Wholesale Trade Employment Increase				
Low	761	1,268	1,268	1,268
Medium	951	1,585	1,585	1,585
High	1,141	1,902	1,902	1,902

Source: S. De Nys, National Director, Industrial, Jones Lang LaSalle, *pers. comm.*, 1st August 2008

Retail Trade

Demand in the retail trade sector is primarily population driven. As such, employment in the retail trade sector has been modelled based on the observed relationship population and employment in the retail trade sector across the following areas:

- All LGAs in Queensland;
- Metropolitan areas in New South Wales and Victoria with population greater than 75,000 people; and
- Major regional areas in New South Wales (population of greater than 100,000 people).

The estimation is performed by regressing employment in the retail trade sector on the size of population at a particular point in time using data on employment and population for the above regions. This effectively provides a benchmark rate of growth for employment in the retail trade sector based on population size.

Accommodation, Cafés & Restaurants

As with the retail trade sector, demand in the accommodation, cafés and restaurants sector is largely driven by population. The same approach has been used as per retail trade to model employment growth in the accommodation, cafés and restaurants sector.

Transport & Storage

The transport and storage sector consists of two key sectors – freight and passenger services. Projections of employment in the freight transport and storage industry is based on the additional amount of Gross Floor Area released for freight transport and storage purposes.

Uptake of industrial land in Ipswich is anticipated to be approximately 50 hectares per annum between 2008 and 2026 (40 hectares used in low scenario, 60 hectares in high). The structure of this uptake is estimated to be approximately 50% manufacturing and 50% transport/ storage/ wholesale, with land to building ratios in the order of 2:1.

The estimated job ratio for transport and storage (not including road freight drivers) is approximately 2 employees per 1,000m² of building space. Based on historical trends in employment and employment ratios per 1,000m² of building space in the wholesale trade and transport and storage sectors, the transport and storage sector accounts for approximately 15% of industrial land used for these purposes.

Table 3.9. Growth in Freight Transport & Storage Space and Employment, Ipswich, 2008 to 2026

Industrial Activity	2011	2016	2021	2026
Transport & Storage Building Space (m²)				
Low	46,380	77,300	77,300	77,300
Medium	57,975	96,625	96,625	96,625
High	69,570	115,950	115,950	115,950
Transport & Storage Employment Increase				
Low	93	155	155	155
Medium	116	193	193	193
High	139	232	232	232

Source: S. De Nys, National Director, Industrial, Jones Lang LaSalle, *pers. comm.*, 1st August 2008

In addition to freight transport and storage workers employed 'on-site', employment in the freight transport and storage sector will also grow based on the number of 'off-site' freight transport workers working in Ipswich (e.g., truck drivers, etc.). Based on historical ratios of employment 'on-site' to 'off-site', it is assumed that approximately 5 off-site workers will be required to every 1 on-site worker.

Passenger transport demand is largely driven by population, and as such has been modelled as per retail trade.

Communication Services

Demand for communication services will be driven by both industry and population growth in Ipswich LGA. In this assessment, employment in communication services has been assumed to grow at an equivalent rate to overall industry growth.

Finance & Insurance

Projections of employment in the finance and insurance services is based on the estimated additional amount of Gross Floor Area released for commercial purposes. The majority of commercial land is expected to be released in Springfield, the Aerospace Park and the Ipswich CBD following revitalisation (some of which will be occupied by State Government employees).

Between 2008 and 2026, approximately 90,000m² of commercial space is expected to be released in Springfield. Using Springfield Land Corporation's assumptions on employment of 17.5 m² per employee, the following table outlines the commercial space expected to be released and corresponding employment estimates.

Table 3.10. Assumed Employment Capacity, Commercial Land, Springfield

	2011	2016	2021	2026
Space (m ²)	20,000	50,000	70,000	90,000
Employment	1,143	2,857	4,000	5,143

Source: M. Kelly, Springfield Land Corporation, *pers. comm.*, 29th July 2008

In addition, the Aerospace Park is expected to provide commercial floor space for up to 4,500 professional employees by 2026, while revitalisation of the Ipswich CBD, which is assumed to occur between 2010 and 2015, is expected to result in additional office space for 1,200 employees (half of which are assumed to be State Government employees, with the remainder consisting of finance, property and business service employees).

Based on historic information, finance and insurance accounts for approximately 15% of total employment in the professional service industries, and this is assumed to remain constant.

Property & Business Services

Projections of employment in the property and business services is based on the estimated additional amount of Gross Floor Area released for commercial purposes. The majority of commercial land is expected to be released in Springfield, the Aerospace Park

and the Ipswich CBD following revitalisation (some of which will be occupied by State Government employees).

Between 2008 and 2026, approximately 90,000m² of commercial space is expected to be released in Springfield. Using Springfield Land Corporation's assumptions on employment of 17.5 m² per employee, the following table outlines the commercial space expected to be released and corresponding employment estimates.

Table 3.11. Assumed Employment Capacity, Commercial Land, Springfield

	2011	2016	2021	2026
Space (m ²)	20,000	50,000	70,000	90,000
Employment	1,143	2,857	4,000	5,143

Source: M. Kelly, Springfield Land Corporation, *pers. comm.*, 29th July 2008

In addition, the Aerospace Park is expected to provide commercial floor space for up to 4,500 professional employees by 2026, while revitalisation of the Ipswich CBD, which is assumed to occur between 2010 and 2015, is expected to result in additional office space for 1,200 employees (half of which are assumed to be State Government employees, with the remainder consisting of finance, property and business service employees).

Based on historic information, property and business services accounts for approximately 85% of total employment in the professional service industries, and this is assumed to remain constant.

Government Administration & Defence

Employment in the government administration and defence industry comprises:

- Employment in the public administration sector, which includes all levels of Government. Local Government employment is driven primarily by population, and growth in this sub-sector has been modelled based on the relationship between population and employment in public administration as per the retail trade industry. Employment in public administration will also be impacted by plans by State Government to relocate State Government jobs to the Ipswich CBD following revitalisation (it is assumed in this assessment that approximately half the 1,200 additional office jobs expected to be created by revitalisation of the Ipswich CBD will be occupied by State Government employees);
- Employment in the public order, safety and regulatory services, which is driven primarily by population and has been modelled based on the observed relationship between population and employment in public order, safety and regulatory services; and
- Employment in the defence sector, which will be driven by plans to redevelop and expand the Amberley Air Force Base, including the relocation of a number of squadrons to the base between now and 2015. The defence forces at the Amberley Air Force Base are estimated by Australian Government Department of Defence (2007) to increase from approximately 2,000 uniformed personnel in 2006 to approximately 4,000 by 2015. Consultation indicates that defence personnel may increase to 6,500 by 2014 (G. Volk, Defence Industry Development, Queensland Department of Tourism, Regional Development and Industry, *pers. comm.*, 31st July 2008). In the medium scenario, the mid-point between Australian Government estimates and consultation has been used.

Education & Training

Employment in the education industry is distinguished between:

- Employment in the school and non-tertiary education sectors, where employment is largely driven by population (as per retail trade); and
- Employment in the tertiary education sector, which will be largely driven by growth in tertiary students at Education City in Springfield. It is estimated that there will be approximately 8,500 tertiary students at Education City at capacity, with development ramping up over a 10 to 15 year period from 2006. A constant staff-to-

student ratio is assumed throughout the projection period, approximately one staff member per 12 students (Department of Education, Science and Training, 2008a and 2008b). At capacity (8,500 tertiary students), this equates to approximately 700 staff.

Health & Community Services

As with the retail trade sector, demand in the health and community services sector is largely driven by population. The same approach has been used as per retail trade to model employment growth in the health and community services sector.

Cultural & Recreational Services

As with the retail trade sector, demand in the cultural and recreational services sector is largely driven by population. The same approach has been used as per retail trade to model employment growth in the cultural and recreational services sector.

Personal & Other Services

As with the retail trade sector, demand in the personal and other services sector is largely driven by population. The same approach has been used as per retail trade to model employment growth in the personal and other services sector.

4. 2006 Labour Market Profile

4.1 Labour Market Characteristics

Ipswich LGA recorded a total labour force of 66,167 persons in 2006, 18.5% more than in 2001. Growth in the labour force size was partially attributable to a 3.5 percentage point increase in the labour force participation rate, to 66.0% in 2006. Labour force participation was slightly lower in Ipswich LGA than in Southeast Queensland (66.7%) in 2006, despite Ipswich LGA recording faster growth (18.5% compared to 14.5%).

Ipswich LGA recorded 44,887 full time employed and 17,899 part time employed persons residing in the LGA in 2006. The number of full time employed persons in Ipswich LGA increased at a faster rate between 2001 and 2006 (29.5%) than in Southeast Queensland (24.5%), while part time employment increased at a similar rate (8.6% compared to 8.8%).

The number of unemployed persons in Ipswich LGA declined by 28.3% to 3,381 persons between 2001 and 2006. This resulted in Ipswich's unemployment rate falling 3.3 percentage points to 5.1% in 2006, which was below the decline recorded in Southeast Queensland (-3.7 percentage points to 4.7%).

Table 4.1. Labour Market Characteristics, Ipswich LGA and Southeast Queensland, Based on Place of Usual Residence

Labour Market Indicator	Ipswich LGA			Southeast Queensland		
	2006	2001	% Change	2006	2001	% Change
Labour Force						
Labour Force Size	66,167	55,856	18.5%	1,336,279	1,167,036	14.5%
Participation Rate ^(a)	66.0%	62.5%	3.5%	66.7%	63.2%	3.5%
Employment						
Full-Time Employed	44,887	34,664	29.5%	869,331	698,039	24.5%
Part-Time Employed	17,899	16,477	8.6%	404,325	371,502	8.8%
Total Employed	62,786	51,141	22.8%	1,273,656	1,069,541	19.1%
Unemployment						
Unemployed Persons	3,381	4,715	-28.3%	62,623	97,495	-35.8%
Unemployment Rate ^(a)	5.1%	8.4%	-3.3%	4.7%	8.4%	-3.7%

Note: (a) The "% Change" figures presented for this item are percentage point differences.
Source: Australian Bureau of Statistics (2007), Australian Bureau of Statistics (2003).

4.2 Employment by Occupation

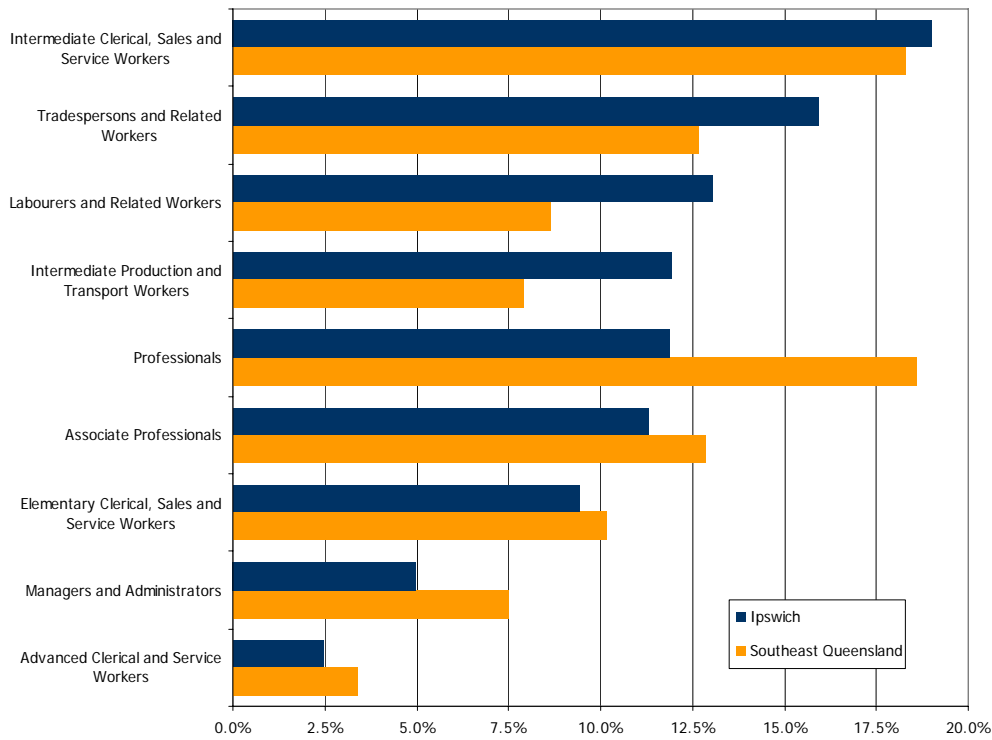
Ipswich LGA is characterised by a high level of blue collar workers residing in the region, recording a considerably higher proportion of workers compared to Southeast Queensland in the occupations of:

- Tradespersons and related workers (15.9% compared to 12.7%);
- Labourers and related workers (13.0% compared to 8.6%); and
- Intermediate production and transport workers (11.9% compared to 7.9%).

Conversely, Ipswich LGA has a considerably lower proportion of residents than Southeast Queensland employed in the occupations of:

- Professionals (11.9% compared to 18.6%);
- Managers and administrators (5.0% compared to 7.5%); and
- Associate professionals (11.3% compared to 12.8%).

Figure 4.1. Employment by Occupation, Ipswich LGA vs Southeast Queensland, 2006



Source: Australian Bureau of Statistics (2007).

4.3 Local Labour Supply and Labour Demand

This section assesses Ipswich LGA's flow of labour into, out of and within the region by breaking down labour supply (as estimated from employment by place of usual residence) and labour demand (as estimated from employment by place of employment). Labour supply is broken down into those that work in Ipswich LGA and those that work outside Ipswich LGA, while labour demand is broken down by those that reside in Ipswich LGA (which is equivalent to labour supply working in Ipswich LGA) and those that reside outside Ipswich LGA.

Table 4.2 below shows the total labour supply and demand in Ipswich LGA by industry. As can be seen, total labour supply (62,787 persons) outstrips demand (45,456 jobs), meaning that Ipswich LGA is a net exporter of labour. This is consistent across all industries in Ipswich LGA, with the notable exception of education, which has 374 more jobs in Ipswich LGA than residents employed in this sector.

The industries of construction, wholesale trade, transport and storage, communication services, finance and insurance, and property and business services have particularly high levels of labour supply in Ipswich LGA compared to demand (or, said another way, have particularly low retention rates of employed persons in the region), potentially indicating that these sectors could be targeted in terms of increasing employment opportunities for local residents to increase retention rates in the region.

Table 4.2. Local Labour Supply and Demand, Employed Persons, Ipswich LGA, 2006

Industry	Labour Supply			Labour Demand		
	Work in Ipswich	Work Outside Ipswich	Total Local Labour Supply	Reside in Ipswich	Reside Outside Ipswich	Total Local Labour Demand
Agriculture, Forestry & Fishing	402	221	623	402	107	509
Mining	147	229	376	147	94	241
Manufacturing	5,471	5,811	11,282	5,471	4,174	9,645
Electricity, Gas & Water Supply	308	249	557	308	165	473
Construction	1,413	3,240	4,653	1,413	821	2,234
Wholesale Trade	970	2,099	3,069	970	640	1,610
Retail Trade	5,503	3,455	8,958	5,503	1,226	6,729
Accommodation, Cafés & Restaurants	1,056	790	1,846	1,056	248	1,304
Transport & Storage	1,446	2,416	3,862	1,446	584	2,030
Communication Services	203	476	679	203	61	264
Finance & Insurance Services	573	886	1,459	573	210	783
Property & Business Services	2,118	2,863	4,981	2,118	984	3,102
Government Administration & Defence	2,413	1,765	4,178	2,413	1,270	3,683
Education	2,723	1,385	4,108	2,723	1,759	4,482
Health & Community Services	4,213	2,964	7,177	4,213	1,571	5,784
Cultural & Recreational Services	445	375	820	445	135	580
Personal & Other Services	1,202	1,375	2,577	1,202	427	1,629
<i>Non-Classifiable Economic Units</i>	<i>239</i>	<i>490</i>	<i>729</i>	<i>239</i>	<i>103</i>	<i>342</i>
<i>Not Stated</i>	<i>28</i>	<i>825</i>	<i>853</i>	<i>28</i>	<i>4</i>	<i>32</i>
Total	30,873	31,914	62,787	30,873	14,583	45,456

Source: Australian Bureau of Statistics (2008a).

The issue of low retention rates is more readily observed in Table 4.3, below, which depicts the share of labour supply/ demand by place of work/ residence. As can be seen, construction, wholesale trade, transport and storage, communication services, finance and insurance and property and business services all have a proportion of labour supply working locally of well below the Ipswich average of 49.2% (as does the mining industry), as resident workers are forced to seek employment outside of Ipswich LGA due to comparatively low levels of local employment demand in these industries.

By comparison, employees in industries such as agriculture, forestry and fishing, retail trade, education and health and community services are primarily employed locally.

Table 4.3. Local Labour Supply and Demand, Share of Employment by Location, Ipswich LGA, 2006

Industry	Labour Supply			Labour Demand		
	Work in Ipswich	Work Outside Ipswich	Total Local Labour Supply	Reside in Ipswich	Reside Outside Ipswich	Total Local Labour Demand
Agriculture, Forestry & Fishing	64.5%	35.5%	100.0%	79.0%	21.0%	100.0%
Mining	39.1%	60.9%	100.0%	61.0%	39.0%	100.0%
Manufacturing	48.5%	51.5%	100.0%	56.7%	43.3%	100.0%
Electricity, Gas & Water Supply	55.3%	44.7%	100.0%	65.1%	34.9%	100.0%
Construction	30.4%	69.6%	100.0%	63.2%	36.8%	100.0%
Wholesale Trade	31.6%	68.4%	100.0%	60.2%	39.8%	100.0%
Retail Trade	61.4%	38.6%	100.0%	81.8%	18.2%	100.0%
Accommodation, Cafés & Restaurants	57.2%	42.8%	100.0%	81.0%	19.0%	100.0%
Transport & Storage	37.4%	62.6%	100.0%	71.2%	28.8%	100.0%
Communication Services	29.9%	70.1%	100.0%	76.9%	23.1%	100.0%
Finance & Insurance Services	39.3%	60.7%	100.0%	73.2%	26.8%	100.0%
Property & Business Services	42.5%	57.5%	100.0%	68.3%	31.7%	100.0%
Government Administration & Defence	57.8%	42.2%	100.0%	65.5%	34.5%	100.0%
Education	66.3%	33.7%	100.0%	60.8%	39.2%	100.0%
Health & Community Services	58.7%	41.3%	100.0%	72.8%	27.2%	100.0%
Cultural & Recreational Services	54.3%	45.7%	100.0%	76.7%	23.3%	100.0%
Personal & Other Services	46.6%	53.4%	100.0%	73.8%	26.2%	100.0%
<i>Non-Classifiable Economic Units</i>	<i>32.8%</i>	<i>67.2%</i>	<i>100.0%</i>	<i>69.9%</i>	<i>30.1%</i>	<i>100.0%</i>
<i>Not Stated</i>	<i>3.3%</i>	<i>96.7%</i>	<i>100.0%</i>	<i>87.5%</i>	<i>12.5%</i>	<i>100.0%</i>
Total	49.2%	50.8%	100.0%	67.9%	32.1%	100.0%

Source: Australian Bureau of Statistics (2008a).

Comparing Ipswich LGA to other LGAs in the Brisbane Statistical Division (Brisbane SD) shows that Ipswich LGA has the third highest share of local labour supply working locally behind Brisbane City (81.9%) and Gold Coast (73.5%), indicating that Ipswich LGA is more self-reliant than most LGAs in the Brisbane SD. Brisbane City is the only LGA in the Brisbane SD that has a higher labour demand than supply (is a net importer of labour), which is in keeping with its standing as the economic centre of Southeast Queensland.

Table 4.4. Local Labour Supply and Demand, Share of Employment by Location, Comparison to Other LGAs in Brisbane SD, 2006

Region	Labour Supply			Labour Demand		
	Work in Region	Work Outside Region	Total Local Labour Supply	Reside in Region	Reside Outside Region	Total Local Labour Demand
Brisbane (C)	81.9%	18.1%	100.0%	69.4%	30.6%	100.0%
Caboolture (S)	43.7%	56.3%	100.0%	75.9%	24.1%	100.0%
Gold Coast (C)	73.5%	26.5%	100.0%	88.3%	11.7%	100.0%
Ipswich (C)	49.2%	50.8%	100.0%	67.9%	32.1%	100.0%
Logan (C)	32.9%	67.1%	100.0%	50.9%	49.1%	100.0%
Pine Rivers (S)	27.3%	72.7%	100.0%	61.0%	39.0%	100.0%
Redcliffe (C)	36.9%	63.1%	100.0%	55.6%	44.4%	100.0%
Redland (S)	40.0%	60.0%	100.0%	77.0%	23.0%	100.0%

Source: Australian Bureau of Statistics (2008a).

5. 2008 Economic Profile

5.1 Population

Ipswich LGA's population is estimated to have grown by 4.8% per annum on average between 2006 and 2008, recording an increase of 14,052 residents over this period to 157,701 residents in 2008 (Table 5.1).

All age groups between 0 and 79 years are estimated to have recorded considerable growth between 2006 and 2008, ranging from 4.6% per annum on average (0-4 years) and 7.0% per annum on average (75-79 years). In absolute terms, the 10-14 year age group is estimated to have recorded the largest increase in population, increasing by 1,223 residents between 2006 and 2008 to 12,943 people.

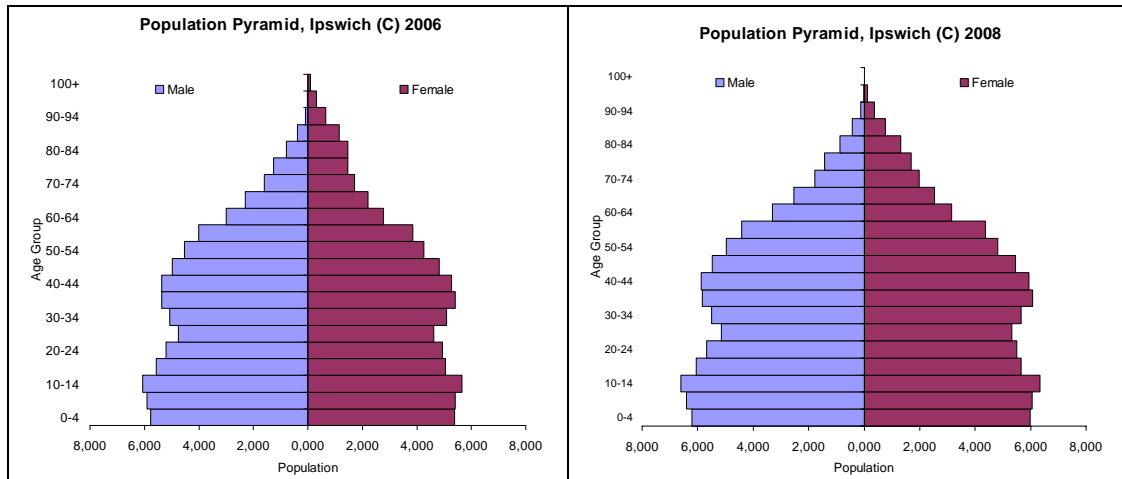
Table 5.1. Population Estimates, Ipswich LGA, 2006 to 2008

Age Group	2006	2008	Change, 2006-2008	Average Annual % Growth, 2006-2008
0-4	11,152	12,194	1,042	4.6%
5-9	11,308	12,440	1,132	4.9%
10-14	11,720	12,943	1,223	5.1%
15-19	10,618	11,719	1,101	5.1%
20-24	10,145	11,174	1,029	4.9%
25-29	9,367	10,462	1,095	5.7%
30-34	10,158	11,146	988	4.8%
35-39	10,788	11,904	1,116	5.0%
40-44	10,652	11,814	1,162	5.3%
45-49	9,816	10,921	1,105	5.5%
50-54	8,795	9,780	985	5.5%
55-59	7,868	8,770	902	5.6%
60-64	5,773	6,465	692	5.8%
65-69	4,508	5,067	559	6.0%
70-74	3,315	3,757	442	6.5%
75-79	2,731	3,126	395	7.0%
80-84	2,239	2,205	-34	-0.8%
85-89	1,518	1,195	-323	-11.3%
90-94	760	479	-281	-20.6%
95-99	324	130	-194	-36.7%
100 and over	94	11	-83	-65.8%
TOTAL	143,649	157,701	14,052	4.8%

Source: ABS Census of Population and Housing, ABS (2006), Department of Education, Employment and Workplace and Relations (June 2008), Queensland Government Department of Infrastructure and Planning (2006), Australian Government Actuary (1999) and AECgroup Demographic Projection Model.

Figure 5.1 further highlights that the Ipswich population has expanded across the 0 to 79 years age brackets between 2006 and 2008, and shows that Ipswich LGA is characterised by a large proportion of children aged 0 to 14 years (accounting for 23.8% of total population) and adults aged 30 to 44 years (22.1%).

Figure 5.1. Ipswich (C) Population Pyramid, 2006 and 2008



Source: ABS Census of Population and Housing, ABS (2006), Department of Education, Employment and Workplace and Relations (June 2008), Queensland Government Department of Infrastructure and Planning (2006), Australian Government Actuary (1999) and AECgroup Demographic Projection Model.

5.2 Employment by Industry

5.2.1 2008 Employment by Industry (Place of Employment)

In the two years between 2006 and 2008, employment in the Ipswich LGA increased by 6,334 jobs. This is equivalent to an increase of 13.9% over the two-year period or 6.7% per annum.

In terms of the distribution of jobs between industry sectors, the largest absolute increases took place in the retail, professional & business services and construction sectors each adding 2,961 jobs, 887 jobs and 660 jobs, respectively.

Over the same period, there were reductions in employment in the accommodation, cafes & restaurants and finance & insurance sector, as well as virtually no growth in the electricity, gas & water sector.

The strong growth in construction, retail and business services sectors is representative of an area going through rapid population growth as new residents move into recently constructed homes and need retail and other services near to home. Solid gains in manufacturing, transport and storage also represents healthy business growth. The decrease of employment in accommodation, cafes and restaurants sector is surprising. Generally, this sector would demonstrate growth from the increase in population and business growth.

Table 5.2. Change in Employment by Industry Sector 2006 - 2008

Industry Sector	2006	2008	Change	% Change
Agriculture, Forestry and Fishing	491	637	146	29.7%
Mining	239	360	121	50.6%
Manufacturing	9,559	9,842	283	3.0%
Electricity, Gas and Water	610	611	1	0.2%
Construction	2,286	2,946	660	28.9%
Wholesale Trade	1,403	1,420	18	1.3%
Retail Trade	5,353	8,314	2,961	55.3%
Accommodation, Cafés and Restaurants	2,346	1,727	-620	-26.4%
Transport and Storage	2,198	2,596	398	18.1%
Communication Services	389	445	56	14.4%
Finance and Insurance	795	751	-43	-5.4%
Property and Business Services	3,384	4,271	887	26.2%
Government Administration and Defence	4,319	4,507	188	4.4%
Education	4,604	4,848	244	5.3%
Health and Community Services	5,728	6,178	449	7.8%
Cultural and Recreational Services	379	781	402	106.0%
Personal and Other Services	1,373	1,555	181	13.2%
Total	45,455	51,789	6,334	13.9%

Source: AECgroup

5.3 Gross Regional Product

Ipswich LGA industry Gross Value Add (i.e., industry contribution to Gross Regional Product) is estimated to have increased by 17.8% between 2005-06 and 2007-08 in real terms (i.e., at current prices), to approximately \$4.9 billion in 2007-08. Manufacturing is the main contributor to Gross Value Add (GVA), accounting for 21.9% of total Ipswich GVA in 2007-08 or \$1.1 billion. Retail trade is also a large contributor to GVA at 12.6%, followed by property and business services (9.2%), health and community services (8.8%) and construction (8.2%).

Key industries of growth between 2005-06 and 2007-08 have been cultural and recreational services (118.5%) and retail trade (66.7%), as well as mining, which has been largely impacted by strong growth in mineral prices.

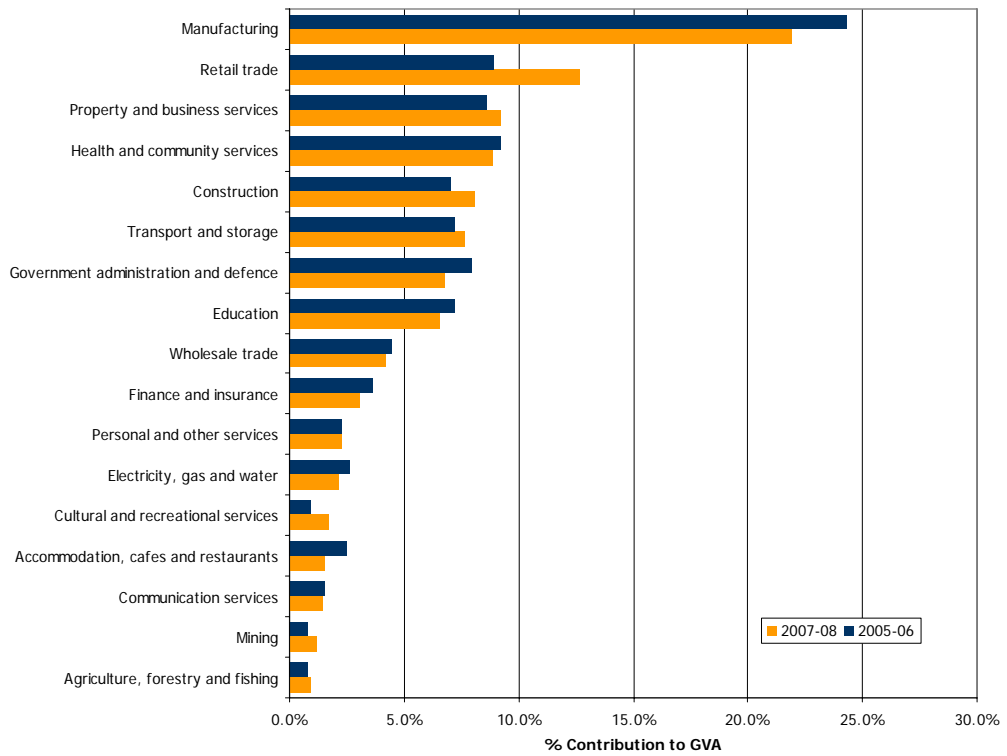
Table 5.3. Change in Gross Value Add by Industry Sector 2006 - 2008

Industry Sector	2005-06 (\$M)	2005-06 (%)	2007-08 (\$M)	2007-08 (%)	% Change
Agriculture, Forestry and Fishing	\$32.0	0.8%	\$43.7	0.9%	36.4%
Mining	\$32.0	0.8%	\$56.1	1.1%	75.7%
Manufacturing	\$1,011.0	24.3%	\$1,075.3	21.9%	6.4%
Electricity, Gas and Water	\$110.0	2.6%	\$105.4	2.2%	-4.1%
Construction	\$292.4	7.0%	\$395.7	8.1%	35.3%
Wholesale Trade	\$184.5	4.4%	\$206.7	4.2%	12.0%
Retail trade	\$371.7	8.9%	\$619.6	12.6%	66.7%
Accommodation, Cafés and Restaurants	\$104.9	2.5%	\$73.7	1.5%	-29.7%
Transport and Storage	\$300.1	7.2%	\$373.0	7.6%	24.3%
Communication Services	\$64.1	1.5%	\$70.8	1.4%	10.4%
Finance and Insurance	\$149.1	3.6%	\$150.2	3.1%	0.8%
Property and Business Services	\$358.2	8.6%	\$451.9	9.2%	26.2%
Government Administration and Defence	\$331.3	8.0%	\$331.8	6.8%	0.1%
Education	\$299.2	7.2%	\$319.0	6.5%	6.6%
Health and Community Services	\$384.8	9.3%	\$432.6	8.8%	12.4%
Cultural and Recreational Services	\$38.6	0.9%	\$84.3	1.7%	118.5%
Personal and Other Services	\$94.4	2.3%	\$110.0	2.2%	16.5%
Total	\$4,158.2	0.8%	\$4,899.8	0.9%	17.8%

Source: AECgroup, Office of Economic and Statistical Research (2008).

In terms of contribution to total GVA, retail trade recorded the most significant increase from 8.9% to 12.6%, while construction, property and business services, transport and storage and cultural and recreational services also recorded an increase in percent contribution.

Figure 5.2. % Contribution to Gross Value Add by Industry, 2006 vs 2008



Source: AECgroup

6. Future Growth Projections for Ipswich City

6.1 Population

Population projections indicate that population growth in Ipswich between 2008 and 2026 is expected to range between 3.4% per annum on average and 5.7% per annum on average, with an anticipated (medium scenario) growth rate of 4.6% per annum. Population growth is expected to be driven by significant employment growth in Ipswich LGA over the next 18 years as well as the development of a number of large residential precincts such as Greater Springfield and Ripley Valley.

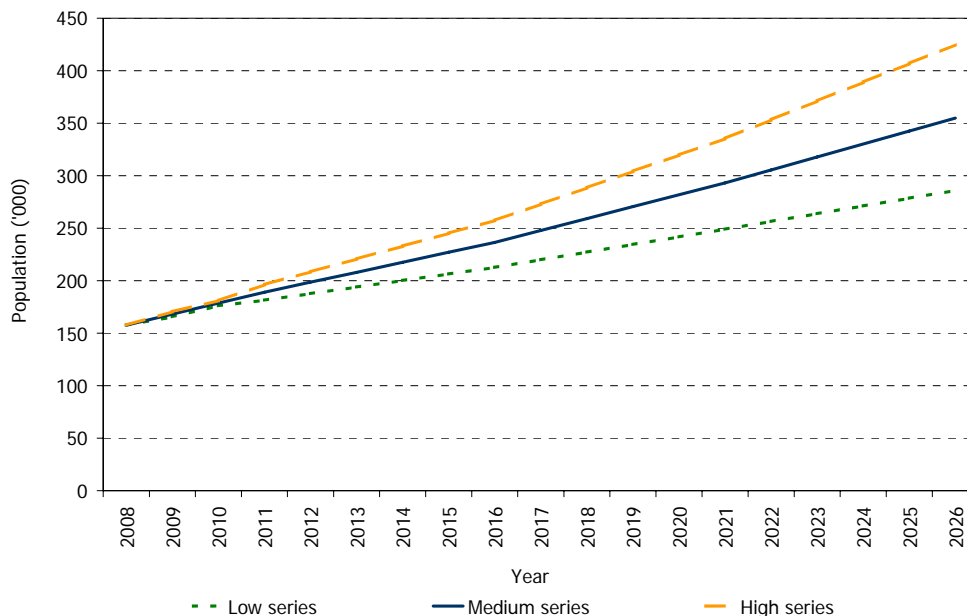
Table 6.1. Population Projections, Ipswich LGA, 2008 to 2026

Scenario	2008	2011	2016	2021	2026	Average Annual % Growth, 2008-2026
Low Scenario	157,701	181,455	212,663	249,065	286,020	3.4%
Medium Scenario	157,701	189,105	236,521	293,251	354,956	4.6%
High Scenario	157,701	196,223	257,350	335,372	424,859	5.7%

Source: ABS Census of Population and Housing, ABS (2006), Department of Education, Employment and Workplace and Relations (June 2008), Queensland Government Department of Infrastructure and Planning (2006), Australian Government Actuary (1999) and AECgroup Demographic Projection Model.

In the medium scenario, the Ipswich population is expected to more than double over the next 18 years, from 157,701 residents in 2008 to approximately 354,956 residents in 2026. In the low scenario Ipswich's population is estimated to increase to 286,020 residents in 2026, while in the high scenario a population of approximately 424,859 residents is projected.

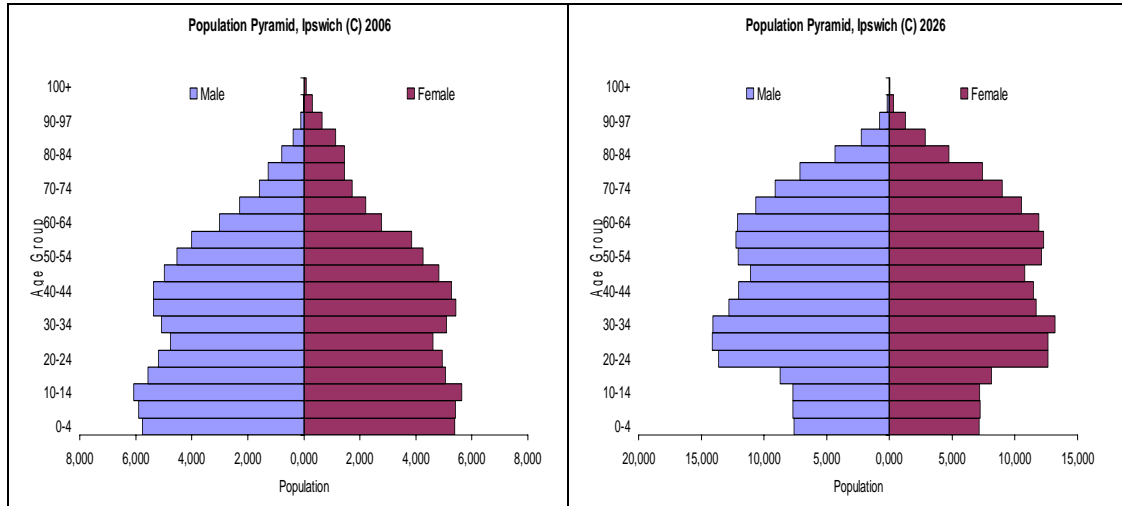
Figure 6.1. Ipswich Total Population Forecast, 2008 to 2026



Source: ABS Census of Population and Housing, ABS (2006), Department of Education, Employment and Workplace and Relations (June 2008), Queensland Government Department of Infrastructure and Planning (2006), Australian Government Actuary (1999) and AECgroup Demographic Projection Model.

Figure 6.2 shows that over the years to 2026 the composition of Ipswich population shifts towards older age groups. The pace of this shift however is less pronounced due to the strong net migration into Ipswich City.

Figure 6.2. Ipswich (C) Population Pyramid, 2006 and 2026, Medium Scenario



Source: ABS Census of Population and Housing, ABS (2006), Department of Education, Employment and Workplace and Relations (June 2008), Queensland Government Department of Infrastructure and Planning (2006), Australian Government Actuary (1999) and AECgroup Demographic Projection Model.

As demonstrated in Table 6.2, the most pronounced change – in terms of share of total population – occurs in the 0-14, 65-74 and 75-84 age groups¹. In each scenario the share of the 0-14 age group almost halves from 23.8% in 2006 to approximately 12.0% in 2026 while for the 65-74 and 75-84 age groups the shares almost double. These changes have the implication in terms of the provision of aged care related services due to the significant growth in the older age groups (65 years and over).

Table 6.2. Ipswich (C) Population, 2006 to 2026

Scenario	Year					Share	
	2006	2011	2016	2021	2026	2006	2026
Low Scenario							
0-14	34,179	36,127	34,680	32,114	34,917	23.8%	12.2%
15-24	20,763	27,806	33,222	37,585	34,382	14.5%	12.0%
25-44	40,965	50,433	57,999	69,282	82,655	28.5%	28.9%
45-64	32,252	45,595	56,459	67,697	76,503	22.5%	26.7%
65-74	7,823	12,073	17,943	25,060	31,948	5.4%	11.2%
75-84	4,969	6,406	8,829	12,869	19,280	3.5%	6.7%
85+	2,697	3,014	3,531	4,458	6,336	1.9%	2.2%
Total	143,649	181,455	212,663	249,065	286,020	100.0%	100.0%
Medium Scenario							
0-14	34,179	37,734	38,838	38,544	44,570	23.8%	12.6%
15-24	20,763	28,961	36,933	44,213	43,044	14.5%	12.1%
25-44	40,965	52,562	64,502	81,350	102,012	28.5%	28.7%
45-64	32,252	47,476	62,685	79,572	94,641	22.5%	26.7%
65-74	7,823	12,560	19,862	29,319	39,310	5.4%	11.1%
75-84	4,969	6,671	9,778	15,028	23,616	3.5%	6.7%
85+	2,697	3,141	3,923	5,225	7,764	1.9%	2.2%
Total	143,649	189,105	236,521	293,251	354,956	100.0%	100.0%

¹ In contrast with PIFU's population projection, which assumes different life expectancy for different scenario, AECGroup's population projection is based on the assumption that life expectancy improvement is the same under each scenario. The basis of AECGroup' projection of single-year mortality rates is the Australian Government Actuary (1999) 25-year trend. Allowing for different assumption on mortality improvement factors will result in a more pronounced difference in population composition between the scenarios.

Scenario	Year					Share	
	2006	2011	2016	2021	2026	2006	2026
High Scenario							
0-14	34,179	39,256	43,090	46,932	59,125	23.8%	13.9%
15-24	20,763	30,031	40,057	50,147	51,238	14.5%	12.1%
25-44	40,965	54,533	69,977	92,136	120,048	28.5%	28.3%
45-64	32,252	49,217	67,923	90,186	111,576	22.5%	26.3%
65-74	7,823	13,011	21,474	33,113	46,154	5.4%	10.9%
75-84	4,969	6,917	10,576	16,948	27,632	3.5%	6.5%
85+	2,697	3,258	4,253	5,910	9,086	1.9%	2.1%
Total	143,649	196,223	257,350	335,372	424,859	100.0%	100.0%

Source: ABS Census of Population and Housing, ABS (2006), Department of Education, Employment and Workplace and Relations (June 2008), Queensland Government Department of Infrastructure and Planning (2006), Australian Government Actuary (1999) and AECgroup Demographic Projection Model.

Table 6.3 shows the evolution of youth and elderly dependency ratio between 2006 and 2026. As can be seen, youth dependency ratio is projected to decline while elderly dependency ratio is projected to increase over time. The almost non-existent difference in the elderly dependency ratio between the scenarios is due to the application of the same mortality improvement factors (Australian Government Actuary 25-year trend) to the projection under the different scenarios. Allowing for different assumption on mortality improvement factors will widen the discrepancy between elderly dependency ratio in the low scenario and that in the high scenario.

Table 6.3. Dependency Ratio⁽¹⁾, Ipswich LGA, 2006 to 2026

Scenario	2006	2011	2016	2021	2026
Low Scenario					
Youth dependency ratio	36.4%	29.2%	23.5%	18.4%	18.0%
Elderly dependency ratio	16.5%	17.4%	20.5%	24.3%	29.7%
Total dependency ratio	52.9%	46.5%	44.0%	42.7%	47.8%
Medium Scenario					
Youth dependency ratio	36.4%	29.3%	23.7%	18.8%	18.6%
Elderly dependency ratio	16.5%	17.3%	20.5%	24.2%	29.5%
Total dependency ratio	52.9%	46.6%	44.1%	43.0%	48.1%
High Scenario					
Youth dependency ratio	36.4%	29.3%	24.2%	20.2%	20.9%
Elderly dependency ratio	16.5%	17.3%	20.4%	24.1%	29.3%
Total dependency ratio	52.9%	46.7%	44.6%	44.3%	50.2%

Notes:

(1) Youth dependency ratio is defined as the ratio between those aged 0-14 and those aged 15-64 while elderly dependency ratio is defined as the ratio between those aged 65+ and those aged 15-64.

Source: ABS Census of Population and Housing, ABS (2006), Department of Education, Employment and Workplace and Relations (June 2008), Queensland Government Department of Infrastructure and Planning (2006), Australian Government Actuary (1999) and AECgroup Demographic Projection Model.

6.2 Employment by Industry

In the period between 2008 and 2026, the total number of employment in the Ipswich LGA is expected to increase by 79,282 jobs. This is equivalent to an increase of 153.1% over the eighteen-year period or an average of 5.3% per annum.

Between 2008-2026 the sectors exhibiting the most dramatic growth (in percentage terms) are cultural and recreational services (9.5% per annum), wholesale trade (9.4% per annum), accommodation, cafes & restaurants (8.5% per annum), personal & other services (7.1% per annum) and manufacturing (6.0% per annum). The sectors demonstrating the lowest growth (in percentage terms) are agriculture, forestry & fishing (-1.4% per annum), mining (0% per annum), education (3.7% per annum), construction (3.8% per annum), and health & community services (4.1% per annum).

In actual job terms, manufacturing showed the greatest growth, adding over 18,000 jobs. The largest remaining growth sectors included retail (10,405 jobs), health & community services (6,577 jobs), property & business services (6,571 jobs) and accommodation, cafes & restaurants (5,788 jobs).



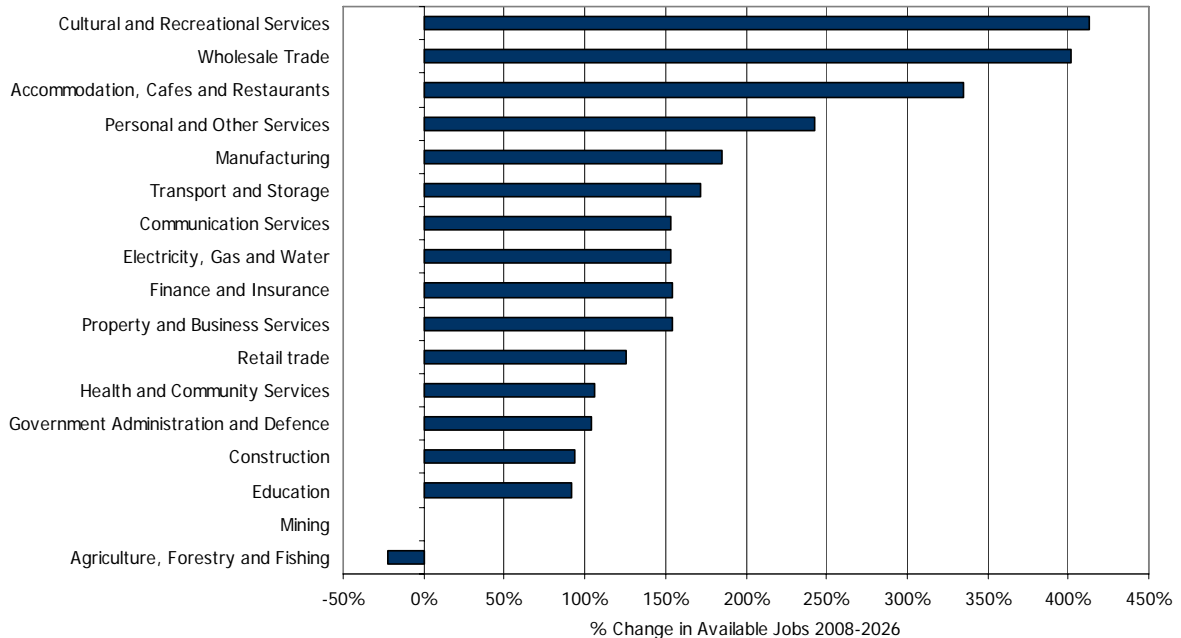
The strong growth demonstrated by the manufacturing, wholesale, transport & storage sectors relates to the strengths of the Ipswich economy and the abundance of available industrial land in Ipswich compared to SEQ. This growth is further supported by the projected growth at Amberley Air Force Base, which makes up part of the growth in the government administration & defence sector, which adds 4,709 jobs in the period between 2008-2026. Strong growth in the retail, accommodation, cafes & restaurants, health & community services and cultural & recreational services sectors is a function of the strong business and population growth in the region.

Table 6.4. Change in Employment by Industry Sector 2008 – 2026

Industry Sector	2008	2011	2016	2021	2026	Change
Agriculture, Forestry and Fishing	637	534	496	491	495	-142
Mining	360	360	360	360	360	-
Manufacturing	9,842	12,842	17,980	23,026	28,072	18,230
Electricity, Gas and Water	611	771	1,023	1,267	1,546	935
Construction	2,946	3,355	4,057	4,802	5,718	2,771
Wholesale Trade	1,420	2,371	3,956	5,542	7,127	5,706
Retail trade	8,314	9,860	12,272	15,285	18,720	10,405
Accommodation, Cafés and Restaurants	1,727	2,544	3,853	5,537	7,515	5,788
Transport and Storage	2,596	3,345	4,575	5,808	7,043	4,447
Communication Services	445	562	746	924	1,127	682
Finance and Insurance	751	934	1,430	1,669	1,908	1,156
Property and Business Services	4,271	5,306	8,126	9,484	10,842	6,571
Government Administration and Defence	4,507	7,007	8,687	9,085	9,216	4,709
Education	4,848	5,671	6,919	8,033	9,290	4,442
Health and Community Services	6,178	6,936	8,145	9,971	12,754	6,577
Cultural and Recreational Services	781	969	1,437	2,388	4,009	3,228
Personal and Other Services	1,555	1,966	2,677	3,758	5,330	3,775
Total	51,789	65,334	86,739	107,428	131,071	79,282

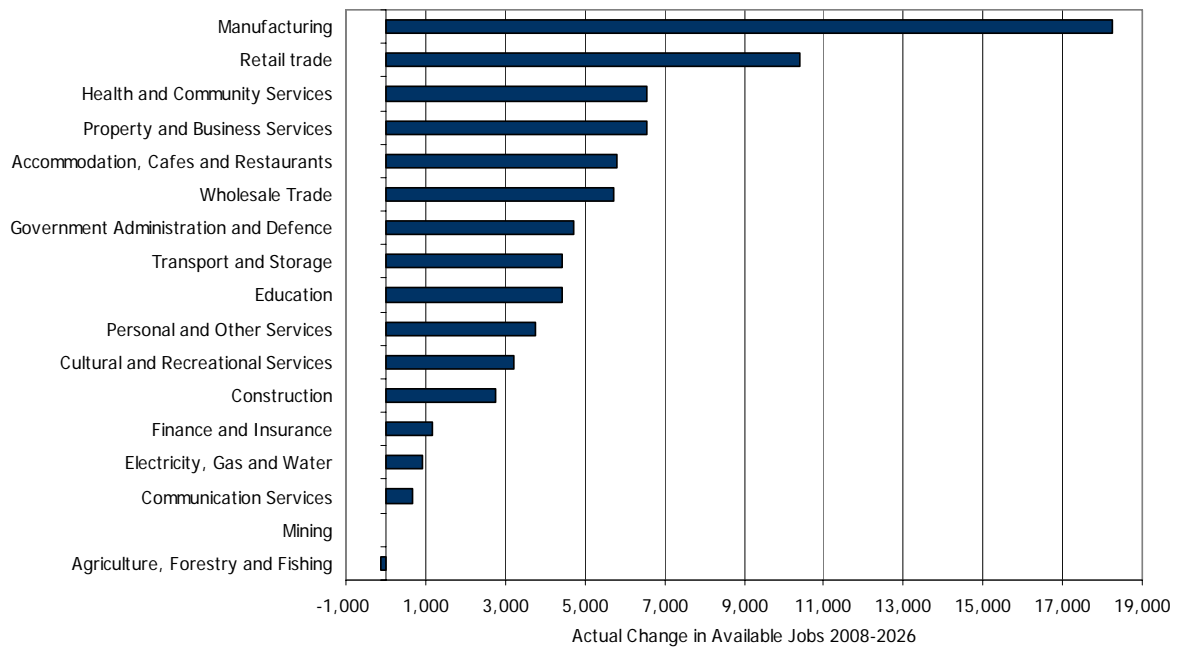
Source: AECgroup

Figure 6.3. Change in % Share of Employment by Industry Sector 2008 - 2026



Source: AECgroup

Figure 6.4. Actual Change in Available Jobs by Industry Sector 2008 - 2026



Source: AECgroup

6.3 Gross Regional Product

Between 2007-08 and 2025-26, GVA in Ipswich is expected to increase from approximately \$4.9 billion to \$12.7 billion. This is expected to be primarily driven by an increase of approximately \$2.0 billion in GVA from the manufacturing industry, as Ipswich is projected to attract a large share of total new, high value manufacturing industry development over the projection period.

Other key sectors of growth in GVA are projected to include:

- Wholesale trade (\$206.7 million to \$1.0 billion);
- Transport and storage (\$373.0 million to \$1.0 billion);
- Retail trade (\$619.6 million to \$1.4 billion); and
- Property and business services (\$451.9 million to \$1.1 billion).

Table 6.5. Change in Gross Value Add by Industry Sector 2008 - 2026

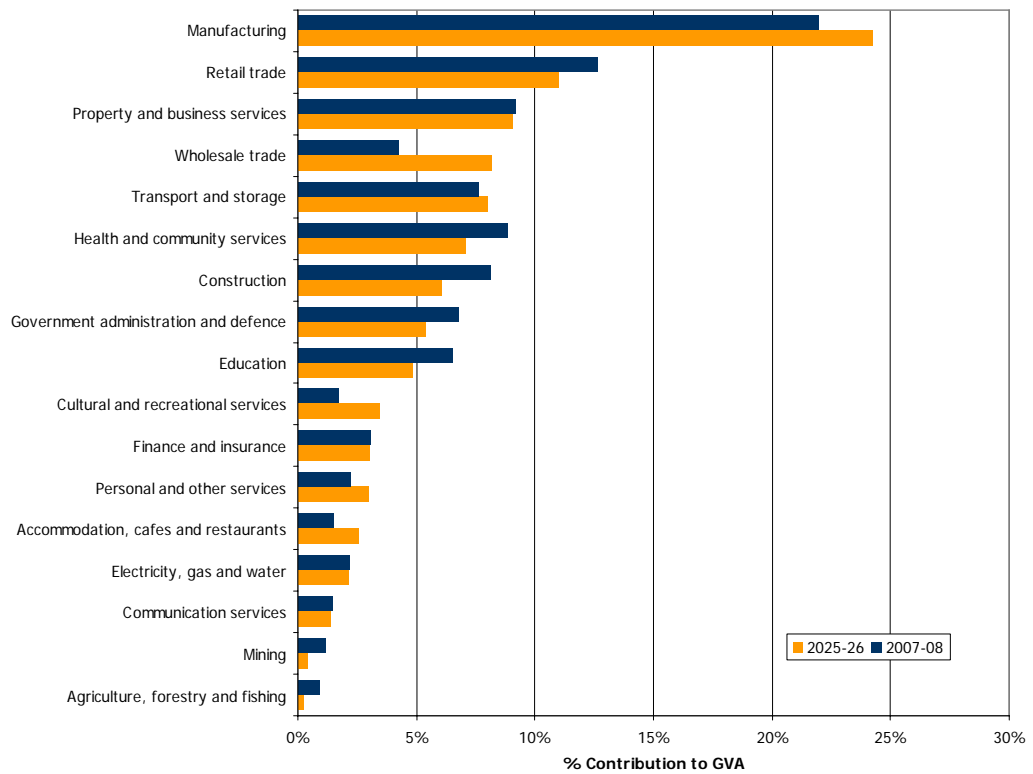
Industry Sector	2007-08 (\$M)	2010-11 (\$M)	2015-16 (\$M)	2020-21 (\$M)	2025-26 (\$M)
Agriculture, Forestry and Fishing	\$43.7	\$36.6	\$34.0	\$33.7	\$34.0
Mining	\$56.1	\$56.1	\$56.1	\$56.1	\$56.1
Manufacturing	\$1,075.3	\$1,403.0	\$1,964.4	\$2,515.6	\$3,066.9
Electricity, Gas and Water	\$105.4	\$133.0	\$176.6	\$218.7	\$266.8
Construction	\$395.7	\$450.7	\$544.9	\$645.0	\$768.0
Wholesale Trade	\$206.7	\$345.1	\$575.8	\$806.6	\$1,037.3
Retail trade	\$619.6	\$734.8	\$914.6	\$1,139.0	\$1,395.1
Accommodation, Cafés and Restaurants	\$73.7	\$108.6	\$164.5	\$236.4	\$320.9
Transport and Storage	\$373.0	\$480.6	\$657.3	\$834.4	\$1,011.9
Communication Services	\$70.8	\$89.3	\$118.5	\$146.8	\$179.1
Finance and Insurance	\$150.2	\$186.6	\$285.8	\$333.5	\$381.3
Property and Business Services	\$451.9	\$561.4	\$859.8	\$1,003.5	\$1,147.2
Government Administration and Defence	\$331.8	\$515.8	\$639.5	\$668.8	\$678.5
Education	\$319.0	\$373.1	\$455.2	\$528.5	\$611.2
Health and Community Services	\$432.6	\$485.8	\$570.4	\$698.3	\$893.2
Cultural and Recreational Services	\$84.3	\$104.6	\$155.2	\$257.9	\$432.9
Personal and Other Services	\$110.0	\$139.1	\$189.4	\$265.9	\$377.1
Total	\$4,899.8	\$6,204.4	\$8,362.0	\$10,388.7	\$12,657.4

Source: AECgroup, Office of Economic and Statistical Research (2008).

In terms of contribution to total GVA, the following sectors are expected to record a considerable increase:

- Wholesale trade (4.0 percentage points);
- Manufacturing (2.3 percentage points);
- Cultural and recreational services (1.7 percentage points);
- Accommodation, cafés and restaurants (1.0 percentage point); and
- Personal and other services (0.7 percentage points).

Figure 6.5. % Contribution to Gross Value Add by Industry, 2006 vs 2008



Source: AECgroup

7. Ipswich's Competitive Position

7.1 Introduction

The Ipswich economy has unique strengths and weaknesses that provide for specific opportunities for growth in the future and define its competitive position in Southeast Queensland. The AECgroup has utilised location quotients, cluster mapping and strategic asset assessments to identify and define these strengths, weaknesses and opportunities for economic development in Ipswich and the surrounding LGAs.

Location quotients used employment data at a two and three digit ANZSIC code level to demonstrate the strengths and weakness of the economy in Southeast Queensland, Ipswich and the surrounding LGAs. Location quotients measure the specialisation of an economy, demonstrating its inherent strengths and weaknesses.

In order to analyse specific opportunities for economic development, these location quotients were portrayed in a cluster map, which also considers overall industry growth in Queensland. This process clearly defines specific target sector opportunities for growth where Ipswich has a natural competitive advantage.

A strategic asset assessment considers what specific and unique assets are located in Ipswich as well as special characteristics that can further assist in the development of economic opportunities. Strategic assets can include specific property developments, universities, defence installations, or specific population demographics, etc.

Before identifying strengths, weaknesses and opportunities for Ipswich, it is important to understand the dynamics of the overall SEQ region. The analysis first examines the SEQ region followed by a detailed review of the Ipswich LGA. This analysis is followed by a comparison of Ipswich to other LGAs within the SEQ region to further determine the key similarities and differences between the Ipswich economy and the neighbouring communities in order to define Ipswich's relative competitive position.

The overall focus of the analysis is the identification of specific industry sectors for economic development growth opportunities in the future. It is important to focus economic development efforts on

- High-value adding business activities that use a large degree of technology and knowledge-driven processes;
- Export oriented businesses; and
- Innovative companies that use a high degree of technology and develop new products.

These types of companies (in any sector) will typically offer higher paying jobs that are less likely to be 'offshored'. By recruiting and developing these high value-adding industry sectors, communities can increase per capita income, diversify their economies and raise the standard of living for every resident. The analysis of location quotients, cluster maps and strategic assets will provide solid direction to identify these specific industry sectors and focus economic development efforts to grow a sustainable and knowledge-based economy.

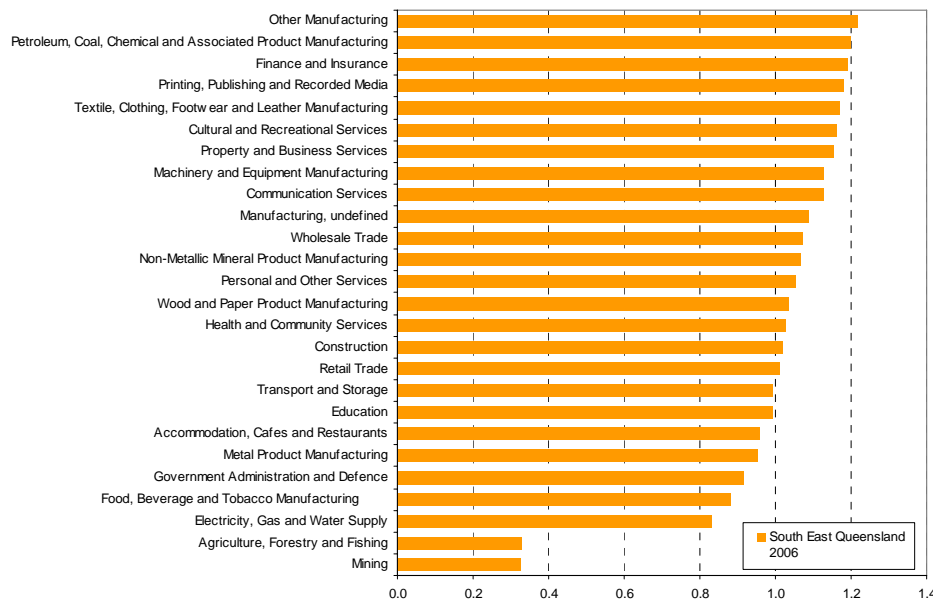
7.2 Southeast Queensland Region

7.2.1 Strengths & Weaknesses

In comparison with Queensland, Southeast Queensland has strengths in certain manufacturing and service sector industries and weaknesses in mining, agriculture and utility supply, as depicted by the location quotients below. Any industry above "1" indicates a specialisation in this industry compared to Queensland, which implies the proportion of employment in this sector is higher in SEQ than in Queensland. Higher location quotients point to a strength in the economy, where lower than average employment (<1) indicates a weakness of the economy.

When interpreting location quotients, it is important to keep in mind that just because an industry sector appears to be a weakness, specific niche opportunities may exist within a sub-sector. These opportunities will generally come to light through a strategic asset assessment. Additionally, in an area of large employment, sectors of relatively large employment may appear to be a weakness. For example, Brisbane may show weaknesses in manufacturing, which does not mean that there is no manufacturing in Brisbane but rather, the proportion of employment in manufacturing is significantly less than in service sectors.

Figure 7.1. Industry Location Quotients, Southeast Queensland (SEQ) Region



Source: Australia Bureau of Statistics (2007a)

Specific industry strengths and weaknesses of the current Southeast Queensland economy are highlighted in the table below.

Table 7.1. Industry Strengths and Weaknesses, Southeast Queensland

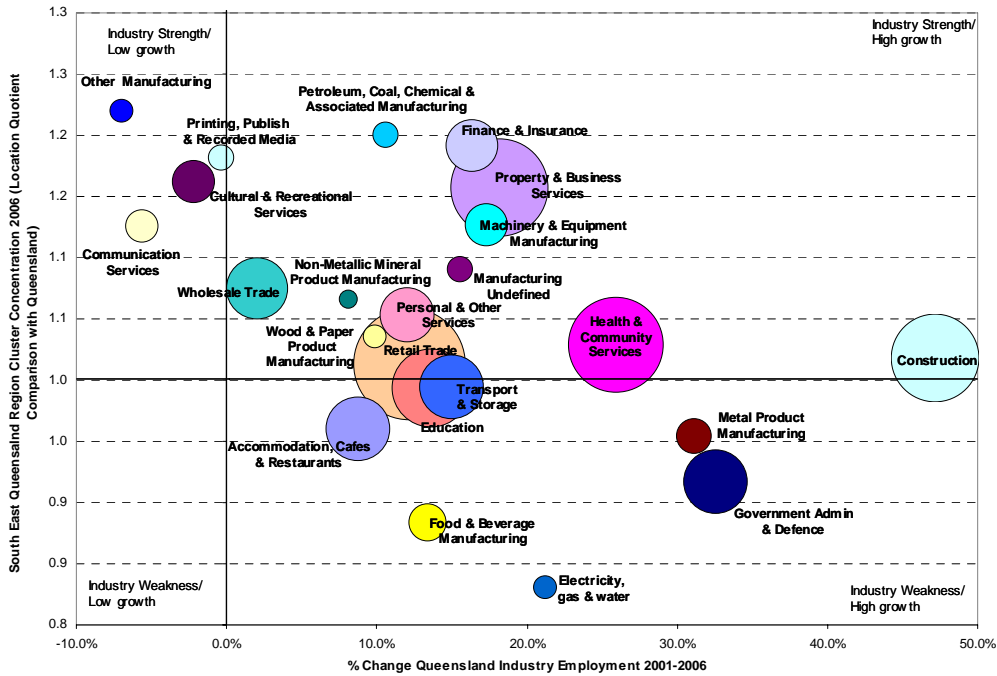
Strengths	Weaknesses
<ul style="list-style-type: none"> • Other manufacturing; • Petroleum, coal, chemical and associated product manufacturing; • Finance & insurance; • Printing, publishing & media; • Textile, clothing & footwear; • Cultural & recreational services; • Property & business services; • Machinery & equipment manufacturing; • Communication services; • Wholesale trade; • Non-metallic mineral product manufacturing; and • Personal & other services. 	<ul style="list-style-type: none"> • Mining; • Agriculture, forestry & fishing; • Electricity, gas & water supply; • Food, beverage & tobacco manufacturing; and • Government, administration & defence.

7.2.2 Opportunities for Growth

In order to identify growth opportunities for the future, the inherent strengths of an economy need to be seen in the light of overall economic growth. It is very difficult to generate economic development outcomes in an industry sector that is contracting. Analysis of the cluster map below clearly demonstrates targeted sectors for growth opportunities in the future by identifying those sectors that are growing in Queensland and at the same time are a natural strength of the region. The analysis also points to specific sectors that are growing in the State but are underrepresented in the local economy. Some of these sectors may prove to be opportunities for growth as well. This

analysis allows the region to focus on its core strengths for future growth instead of trying to create specialisations or specific niche sectors that may not be compatible with their economy.

Figure 7.2 Industry Cluster Map, Southeast Queensland



= 60,000 employees

Source: Australia Bureau of Statistics (2007a)

In the cluster map above, industry employment growth is charted along the x-axis (horizontal axis) and the location quotients are seen along the y-axis (vertical axis). Industries located in the upper right-hand quadrant demonstrate industry strength in the region and are sectors of high employment growth. Industries located in the bottom right-hand quadrant demonstrate high employment growth but are currently underrepresented in the economy (current industry weakness). Note that industries that are experiencing negative growth in Queensland should not be a priority industry sector for economic development activities since they are currently shedding jobs.

At the same time, growth in many industries is driven by demand. For example, construction, accommodation, electricity, etc. are all driven by population increase and business growth. These sectors will naturally grow if other sectors of the economy are growing and population is increasing over time. Targeting these types of sectors should be done cautiously because they may grow as a flow on effect from other developments.

The table below summarizes the analysis of the cluster map and the opportunities for growth in the future.

Table 7.2. Opportunities for Growth, Southeast Queensland

High Growth Sectors/ Current Strength	High Growth Sectors/ Current Weakness
<ul style="list-style-type: none"> • Finance & insurance; • Property & business services; • Machinery & equipment manufacturing; • Non-metallic mineral product manufacturing; and • Wholesale trade. 	<ul style="list-style-type: none"> • Metal product manufacturing; • Food & beverage manufacturing; and • Transport & storage.

7.2.3 Strategic Asset Assessment

A strategic asset assessment of the Southeast Queensland region confirms that there are a number of unique locational, geographical and existing industry characteristics in the SEQ region that can further assist in economic development opportunities. These key characteristics include:

- **Port of Brisbane:** The Port of Brisbane is Queensland's largest multi-user and general cargo commodity port and Australia's fastest growing port (Queensland Transport, 2007). The Port is currently undergoing significant expansion. It is today, and will remain in the future, SEQ's main transportation hub for manufacturing and wholesale trade sectors.
- **Brisbane Airport (international and domestic):** Brisbane Airport is the main national and international gateway for the SEQ region. The Airport facilitates numerous flights per day to other capital cities and regional hubs within Australia as well as 28 direct international destinations (Brisbane Airport, 2008), thereby allowing companies to move both people and product.
- **Significant Population Growth:** The SEQ region is Australia's fastest growing region and is a highly urbanised region within Queensland. Population increase can drive economic growth and increase the labour pool.
- **Major Government Centre:** The SEQ region is a major government centre within Queensland and Australia. This region is home to Queensland's capital, a number of major government departments, offices and representatives from state and national levels. It is a major centre for planning and economic activity within Queensland.
- **Major Education Centre and Research & Development:** The SEQ region is home to a number of major education and research centres including the University of Queensland, Queensland University of Technology and Griffith University. Combined with CSIRO, various Cooperative Research Centres (CRCs), these Universities offer considerable R&D capabilities in Queensland and Australia.
- **Major Business & Financial Services Centre:** The SEQ region is a major regional service centre that supports the economic activity of the region and the state. It offers highly sophisticated business services including legal, accounting, banking/finance, engineering and other professional consulting services. This specialisation is evidenced by various major headquarter operations based in Brisbane for Boeing, Queensland Investment Corporation, IBM, Rio Tinto Alcan, and many others.

These strategic assets can further assist with the development of opportunities for the future as highlighted in the table below.

Table 7.3. Opportunities Provided by Strategic Assets, Southeast Queensland

Strategic Asset	Opportunity it Supports	How it can be leveraged
Port of Brisbane	<ul style="list-style-type: none"> • Supports existing manufacturing export activity within the region; • Critical for the transportation, storage & wholesale trade sectors; • Supports ongoing provision of property & business services and finance & insurance activity through export. 	Due to growth at the port and its strategic location to Asia-Pacific destinations (shorter shipping time to Asia compared to other Australian Ports), it can enable greater export activity from SEQ based businesses in the future as well as act as an import centre for products from around the world.
Brisbane Airport (international & domestic)	<ul style="list-style-type: none"> • Supports all businesses by facilitating movement of people and products; • Supports export activity through its air freight capability. 	With capacity to expand the airport, this asset will be crucial to growth of any business by providing critical transportation links both domestically and internationally.
Significant Population Growth	<ul style="list-style-type: none"> • Supports growth of service sectors and demand driven industries including retail, construction, health & community services and government administration; 	With any skills shortage, having a growing population should assist in alleviating the situation. Additionally, being a location that attracts population makes it easier to retain highly skilled and innovative people.

Strategic Asset	Opportunity it Supports	How it can be leveraged
	<ul style="list-style-type: none"> Assists all sectors through the expansion of the labour pool. 	
Major Government & Services Centre	<ul style="list-style-type: none"> Supports all business grow by focusing attention of government. 	Provide strategic support & direction for economic development activity and allows business leaders to more easily access top government officials.
Major Education Centre & R&D	<ul style="list-style-type: none"> Supports manufacturing and development of new value added production and innovation Provides highly skilled workers to the region and the state; Supports all business & industry activity through education and training 	Strengthen linkages between education, research & development and industry to gain competitive edge in specialised areas. Universities can generate innovation and significantly increase knowledge-based economic activities by leveraging current strengths and areas of expertise in industry.
Major Business & Financial Services Centre	<ul style="list-style-type: none"> Supports all industry and business activity by providing high level services such as finance/banking, legal, accounting, engineering and other consulting services. 	Available of high level and specialised business support services will assist with new investment and existing companies that wish to expand.

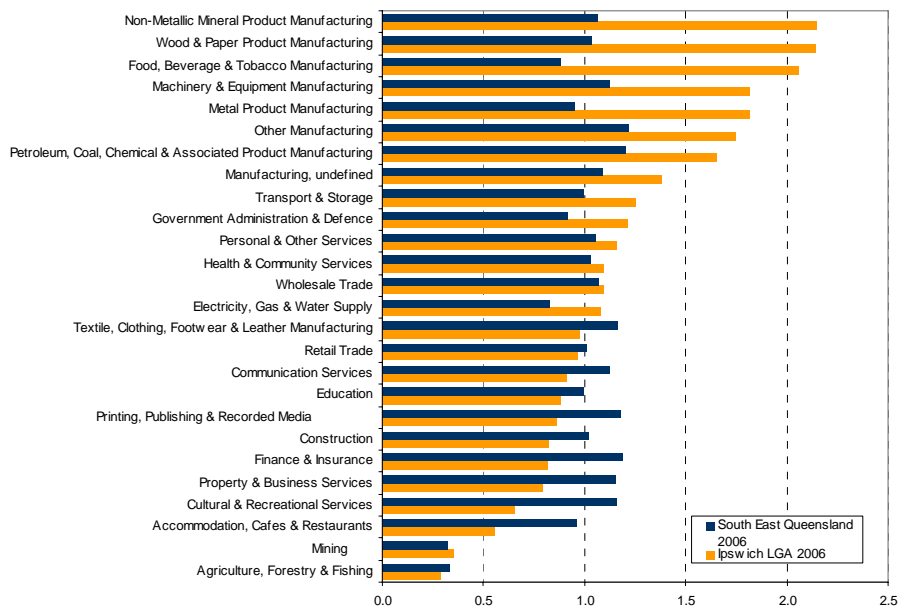
7.3 Ipswich LGA

7.3.1 Strengths & Weaknesses

In comparison with Queensland the Ipswich LGA has a number of industry strengths particularly in the manufacturing, transport & storage and some key service sectors. In particular the manufacturing sectors for Ipswich demonstrate significant strength and specialisation when compared to Queensland and the SEQ region.

Key strength industries are indicated in the graph below by any location quotients that are above "1".

Figure 7.3. Industry Location Quotients, Ipswich LGA & Southeast Queensland (SEQ) Region



Source: Australia Bureau of Statistics (2007a)

Specific strengths and weaknesses of the Ipswich economy are highlighted in the table below.

Table 7.4. Industry Strengths and Weaknesses, Ipswich LGA

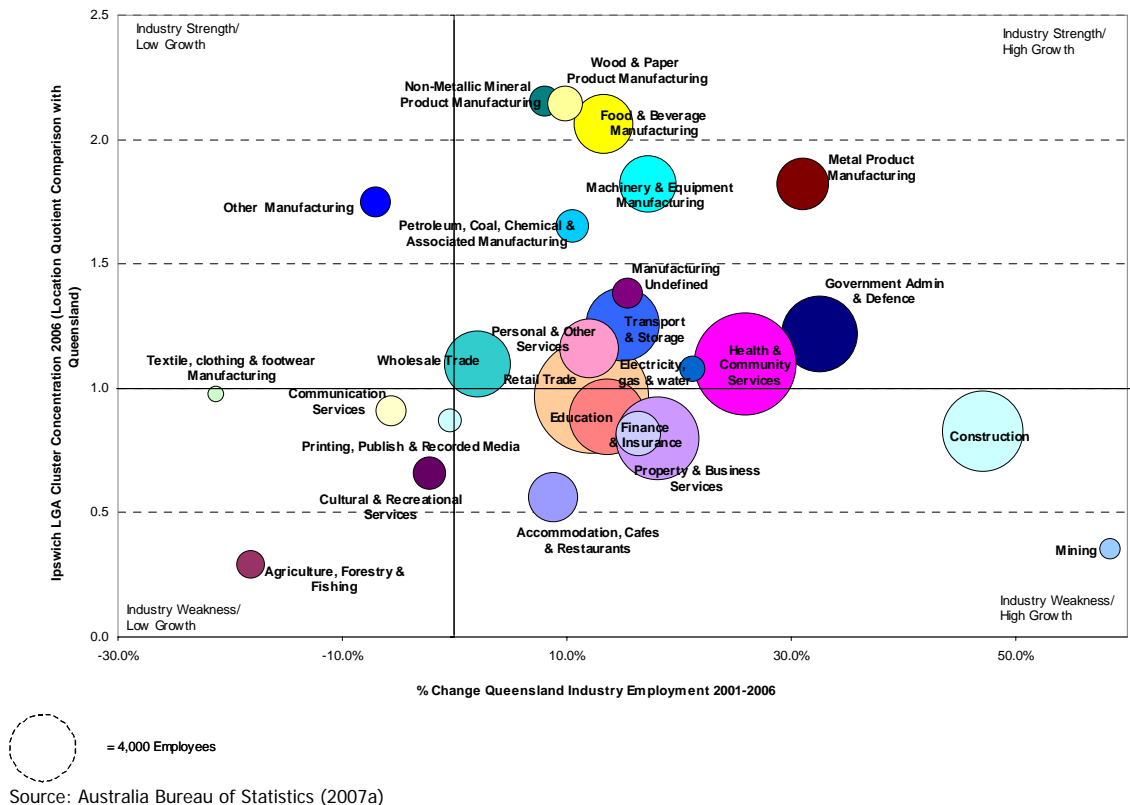
Strengths	Weaknesses
<ul style="list-style-type: none"> • Non-metallic mineral product manufacturing; • Wood & paper product manufacturing; • Food, beverage & tobacco manufacturing; • Metal product manufacturing; • Machinery & equipment manufacturing; • Other manufacturing; • Transport & storage; and • Government administration & defence. 	<ul style="list-style-type: none"> • Agriculture, forestry & fishing; • Cultural & recreational services; • Property & business services; • Finance & insurance; • Printing, publishing & recorded media; • Education; and • Communication services.

7.3.2 Opportunities for Growth

Industry cluster mapping confirms that various manufacturing activities such as metal fabrication, food & beverage manufacturing, wood & paper product manufacturing and non-metallic mineral product manufacturing as well as transport & storage, wholesale are key growth sectors for Ipswich in the future. These sectors are located in the upper right quadrant (Industry strength/High growth) and represent industries that are growing in Queensland and are a strength of the Ipswich economy. These sectors can continue to grow and diversify. By comparison, the lower right quadrant (Industry weakness/High growth) indicates sectors that are growing in the State but are underrepresented in Ipswich. In the case of the property, business, finance and insurance sectors, these are areas that have demonstrated growth in Queensland but have not yet developed strongly in Ipswich. Given Ipswich's growing population, increases in commercial property, and strong labour pool these sectors represent opportunities for growth in the future. Note that many service sectors like retail, accommodation, recreation services are driven by population and business growth and are unlikely to be priority sectors for targeted economic development activity.

At the same time, it is always important to keep a focus on building high value-adding capability as opposed to any development in a particular sector. By focusing on areas that are already strengths in the local economy, Ipswich City Council can receive the largest return on investment from its economic development activities.

Figure 7.4. Industry Cluster Map, Ipswich LGA



The table below summarizes the analysis of the cluster map and the specific opportunities for growth in the future.

Table 7.5. Opportunities for Growth, Ipswich LGA

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Food, beverage & tobacco manufacturing; • Metal product manufacturing; • Machinery & equipment manufacturing; • Wood & paper product manufacturing; • Non-metallic mineral manufacturing; • Petroleum, coal, chemical & associated manufacturing; and • Transport & storage. 	<ul style="list-style-type: none"> • Property & business services; • Finance & insurance; and • Education.

7.3.3 Strategic Asset Assessment

A strategic asset assessment of the Ipswich LGA confirms that there are a number of locational, geographical and existing industry characteristics in the Ipswich LGA that would further support the growth opportunities identified above. These key characteristics include:

- **Abundance of industrial zoned land:** The SEQ region is one of the fastest growing regions in Queensland and will have a high demand for industrial land to support employment opportunities over the next 20 years. The Ipswich LGA has over 42 percent of available industrial land in SEQ and will be a key area of opportunity for investment in the future.
- **Springfield Parkside Development:** Springfield is one of the fastest growing *satellite cities* in the SEQ region and is forecast to continue to experience significant growth in years ahead. Parkside is the commercial development in Springfield and will offer significant commercial space for businesses in the future. Together with other amenities in Springfield, the Polaris Data Centre will assist in attracting professional, business, finance and insurance services to Ipswich.
- **Ipswich CBD:** The Ipswich CBD will also offer additional commercial space for the growth of professional, business, finance and insurance service sectors.
- **Swanbank Power Station:** Swanbank is a major energy supplier to the Queensland energy market. Beyond power generation, Swanbank Enterprise Park offers available industrial land with significant and highly reliable utility infrastructure (electricity, gas and water). Additionally, any future expansion of the existing gas infrastructure (gas pipeline from Casino, NSW) should further develop this strategic asset.
- **Amberley Air Force Base:** The Amberley Air Force Base is a significant employer in Ipswich in its own right. As a growing defence installation, the base together with the adjacent Amberley Aerospace Park, offer significant opportunity for growth in aerospace/ defence /engineering related businesses.
- **Proximity to Brisbane:** The proximity to the Brisbane Airport and Port of Brisbane is a key advantage for many businesses to facilitate the movement of people and product.
- **Available Infrastructure:** The Ipswich LGA is currently serviced by highways, roads, rail and utility infrastructure that are suitable for business development and growth. The ongoing and future upgrades will assist in delivering transportation infrastructure that assists in the movement of people and product.

One of the key challenges for the Ipswich region in the future will be the ability of to expand existing infrastructure at a timely rate in order to keep up with the growth of the region.

- **Existing Industry:** The Ipswich region already has a substantial base and core strength industries across the majority of manufacturing sub-sectors. This core industry base provides a strong existing workforce, supply chains and various support services to manufacturing operations.

- **Education & TAFE:** The Ipswich region has existing university of Queensland and University of Southern Queensland tertiary education institutions to support business and industry growth. The Bremer Institute of TAFE also provides significant technical education for the region to support business and industry.

Ipswich can leverage these strategic assets and characteristics to further advance their economic development growth opportunities as highlighted in the table below.

Table 7.6. Opportunities Provided by Strategic Assets, Ipswich LGA

Strategic Asset	Opportunity it Supports	How it can be leveraged
Abundance of Industrial	<ul style="list-style-type: none"> • Development & expansion of existing manufacturing industry; • Attraction of other major manufacturing companies; and • Attractive for transport, storage & distribution activities 	Given the long-term shortage of industrial land in SEQ, land availability will be a strategic advantage for Ipswich in the future.
Springfield Parkland & Ipswich CBD	<ul style="list-style-type: none"> • Availability of commercial space will support the growth of professional, business, finance and insurance sectors. 	As a suburban office/back office location, Ipswich can offer lower costs, solid workforce and shorter commute times for employees compared to a Brisbane CBD or fringe location.
Swanbank Power Station	<ul style="list-style-type: none"> • Supports growth in various manufacturing sub-sectors. 	Available land and excellent workforce combined with strong electricity and gas supply and reliability are attractive to many high value-adding, export oriented manufacturers.
Amberley Air Force Base	<ul style="list-style-type: none"> • Supports large defence workforce • Supports a range of manufacturing and engineering sectors 	Private sector defence-related businesses would find the adjacent aerospace park attractive due to its access to the base as well as the local workforce.
Proximity to Brisbane & Available Infrastructure	<ul style="list-style-type: none"> • Supports export activity of manufacturing industries and increases the attractiveness of the region to major industrial companies with export and distribution activities; • Supports wholesale, transport and storage sector 	Together with available industrial land, solid infrastructure and access to the Port and Airport of Brisbane make Ipswich an attractive location for many manufacturing, wholesale, transport and storage sector companies.
Existing Industry	<ul style="list-style-type: none"> • Supports manufacturing, transport & storage sectors. 	Having a strong existing workforce, established supply chains, and related services is attractive to many similar manufacturing industries. Additional activity within existing sectors can also build greater diversification through further development of industry clusters.
Education (University & TAFE)	<ul style="list-style-type: none"> • Supports the local manufacturing industry with the opportunity for specialisation in research & development. • Supports education requirements for professionals in property & business, finance & insurance services. 	Establishment of linkages between education providers and business/industry allow for customized training opportunities for local residents/employees. Additionally, joint R&D in specialised sectors between universities and businesses generates innovation and significantly increases value add.

7.4 Potential for Export Growth from Ipswich

As previously mentioned, the Ipswich region is currently a centre for various advanced manufacturing activities and this area presents great opportunity for growth in the future across numerous sub-sectors. Also, the proximity to the Port of Brisbane for exports is a strategic asset.

As advanced manufacturing continues to develop across various high growth sectors mentioned above, the potential to grow exports from the region to other areas of Australia and abroad is significant. While Ipswich (and the Southeast Queensland region) will see dramatic population increases in the future, this population growth is not likely to enable the local economy to consume all of the goods produced by the advanced manufacturing activities.

Table 7.5 highlighted many high growth sectors in the advanced manufacturing field for Ipswich. Food and beverage manufacturing would typically service Queensland and/or all of Australia and generate significant exports from the region to other parts of Australia. The remaining manufacturing sectors would equally be producing goods for the Australian markets and also be strong candidates for international exports as well. For example, many machinery and equipment manufacturers in the Southeast Queensland region typically send product to all parts of Australian as well as international markets in the Asia-Pacific region.

The development of export growth is important because it assists a region to diversify away from a reliance on the local market for demand. For example, if there were a downturn in Southeast Queensland economy, export markets in other parts of Australia or abroad could pick up the excess capacity.

7.5 Comparison of Ipswich LGA to other SEQ Region Areas

Location quotients are used in the following section to identify the strengths and weaknesses of other Local Government Areas within the Southeast Queensland region.

The following section will discuss the competitive advantages identified in the previous section against other key neighbouring areas within the SEQ region. Key areas of comparison include:

- Brisbane LGA;
- Moreton Bay Region (comprising Caboolture, Redcliffe and Pine Rivers LGAs);
- Logan LGA;
- Redland LGA;
- Beaudesert LGA;
- Gold Coast LGA;
- Sunshine Coast Region (comprising Caloundra, Maroochy and Noosa LGAs); and
- West Moreton Region (comprising Kilcoy Boonah, Gatton, Laidley, Esk LGAs).

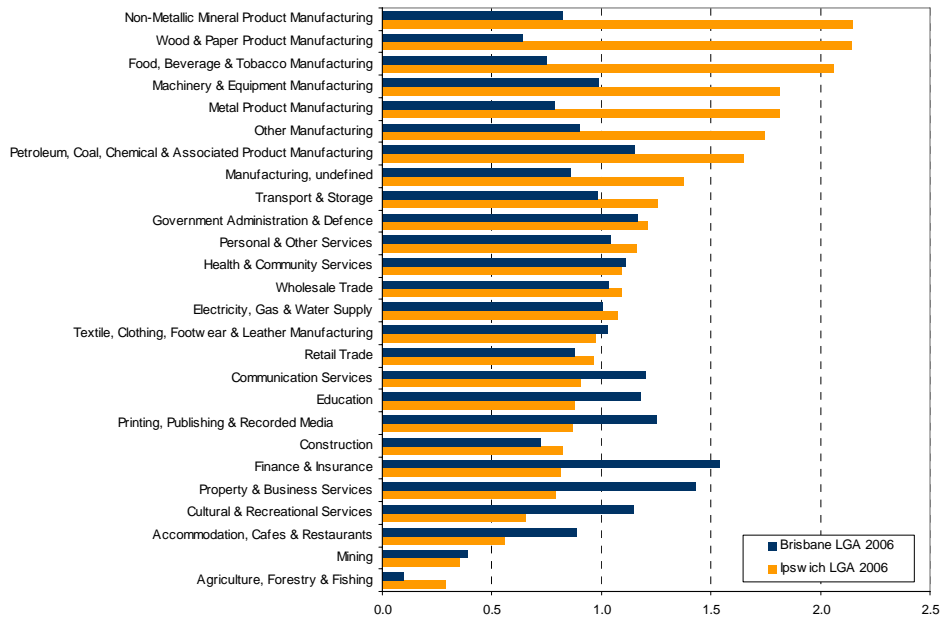
7.5.1 Brisbane LGA

In comparison with Queensland, the Brisbane LGA has key strengths in the service sector (property, business & finance sectors), which emphasises Brisbane's role as the central business service centre for the SEQ region and Queensland.

Figure 6.5 shows that there are a number of core differences between the Brisbane and Ipswich economies. The overall economic structure and key areas of strength are very different, with Ipswich having a clear advantage in manufacturing.

Key strength industries are indicated in the graph below by any location quotients that are above "1".

Figure 7.5. Industry Location Quotients, Brisbane LGA & Ipswich LGA



Source: Australia Bureau of Statistics (2007a)

Specific strengths and weaknesses of the Brisbane economy are highlighted in the table below.

Table 7.7. Industry Strengths and Weaknesses, Brisbane LGA

Strengths	Weaknesses
<ul style="list-style-type: none"> • Finance & insurance; • Property & business services; • Cultural & recreational services; • Government, administration & defence; • Petroleum, coal, chemical & associated manufacturing; • Health & community services; • Printing, publishing & media; • Communication services; and • Education. 	<ul style="list-style-type: none"> • Agriculture, forestry & fishing; • Mining; • Other Manufacturing; • Metal manufacturing; • Food, beverage & tobacco manufacturing; • Wood & paper manufacturing; and • Non-metallic mineral product manufacturing.

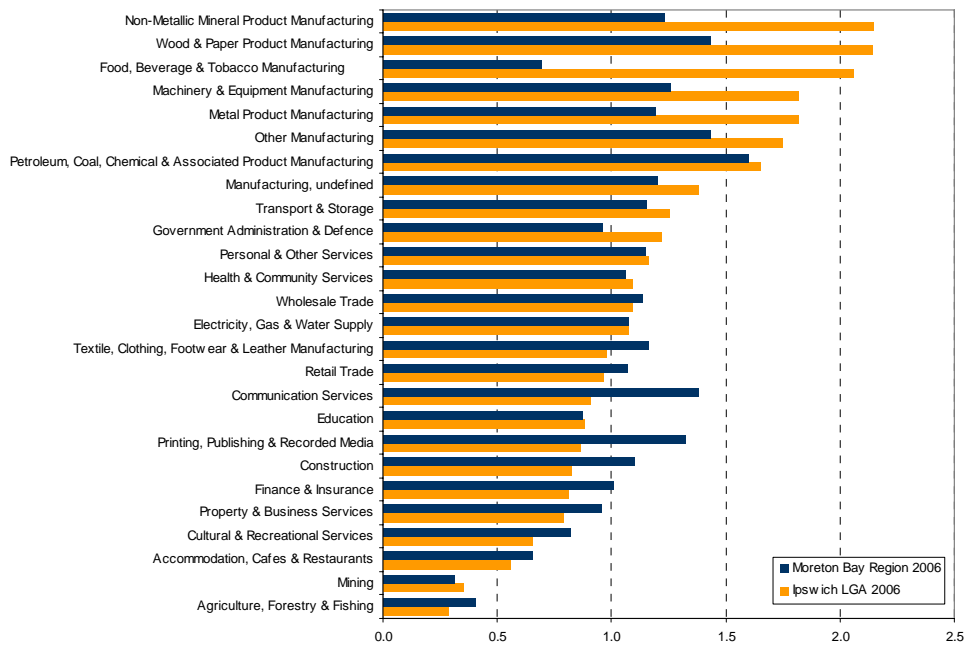
7.5.2 Moreton Bay Region

In comparison with Queensland, the Moreton Bay Region has key strengths and areas of specialisation in manufacturing & some service based sectors that have been driven by population growth in the region over the past few years.

Comparison of the Moreton Bay region with Ipswich LGA shows that the economic structure of both are very similar with core strengths in manufacturing industries, however the Moreton Bay region tends to have a greater strength in service based industries like property, business, finance, insurance, communications, and media.

Key strength industries are indicated in the graph below by any location quotients that are above "1".

Figure 7.6. Industry Location Quotients, Moreton Bay Region & Ipswich LGA



Source: Australia Bureau of Statistics (2007a)

Specific strengths and weaknesses of the Moreton Bay regional economy are highlighted in the table below.

Table 7.8. Industry Strengths and Weaknesses, Moreton Bay Region

Strengths	Weaknesses
<ul style="list-style-type: none"> • Non-metallic mineral product manufacturing; • Wood & paper product manufacturing; • Machinery & equipment manufacturing; • Metal product manufacturing; • Other manufacturing; • Petroleum, coal, chemical & associated manufacturing; • Transport & storage; • Wholesale trade; • Textile, clothing, footwear & leather manufacturing; • Communication services; and • Printing, publishing & recorded media. 	<ul style="list-style-type: none"> • Agriculture, forestry & fishing; • Mining; • Cultural & recreational services; • Property & business services; • Education; • Government administration & defence; and • Food, beverage & tobacco manufacturing.

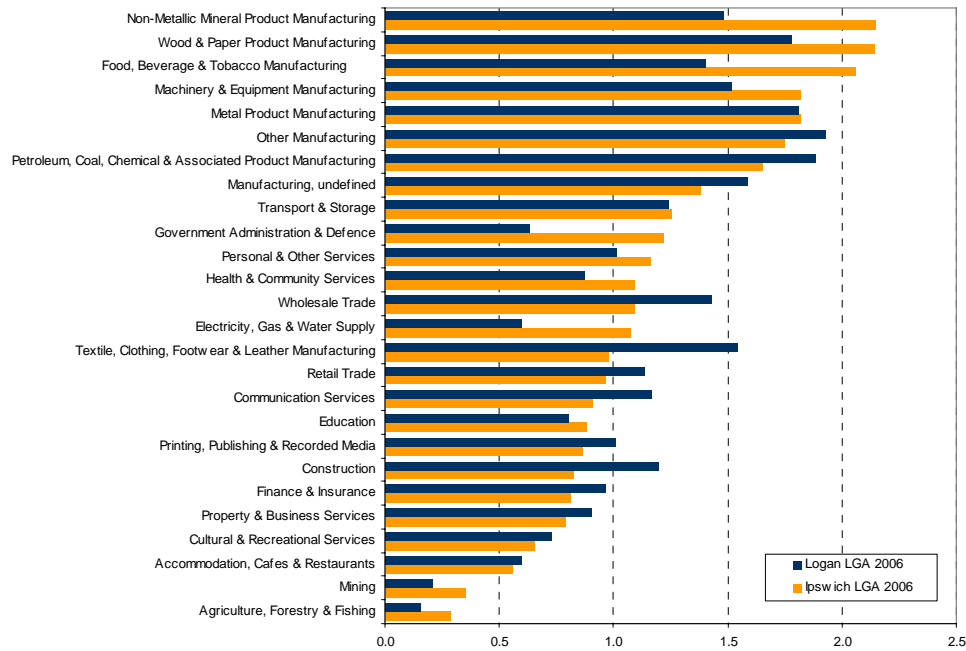
7.5.3 Logan LGA

In comparison with Queensland, the Logan LGA has key strengths and areas of specialisation in manufacturing based sectors.

Comparison of the Logan LGA with Ipswich LGA shows that manufacturing across the majority of sub sectors as well as transport & storage are core strengths for both areas. Ipswich tends to have a greater strength in service sector industries. Besides the degree of specialisation in various manufacturing industry sectors, the greatest difference between Ipswich and Logan is in wholesale trade, construction and communications.

Key strength industries are indicated in the graph below by any location quotients that are above "1".

Figure 7.7. Industry Location Quotients, Logan LGA & Ipswich LGA



Source: Australia Bureau of Statistics (2007a)

Specific strengths and weaknesses of the Logan economy are highlighted in the table below.

Table 7.9. Industry Strengths and Weaknesses, Logan LGA

Strengths	Weaknesses
<ul style="list-style-type: none"> • Non-metallic mineral product manufacturing; • Wood & paper product manufacturing; • Food, beverage & tobacco manufacturing; • Machinery & equipment manufacturing; • Metal product manufacturing; • Other manufacturing; • Petroleum, coal, chemical & associated manufacturing; • Transport & storage; • Wholesale trade; • Textile, clothing, footwear & leather manufacturing; and • Communication services. 	<ul style="list-style-type: none"> • Agriculture, forestry & fishing; • Mining; • Cultural & recreational services; • Property & business services; • Finance & insurance; • Education; and • Government administration & defence.

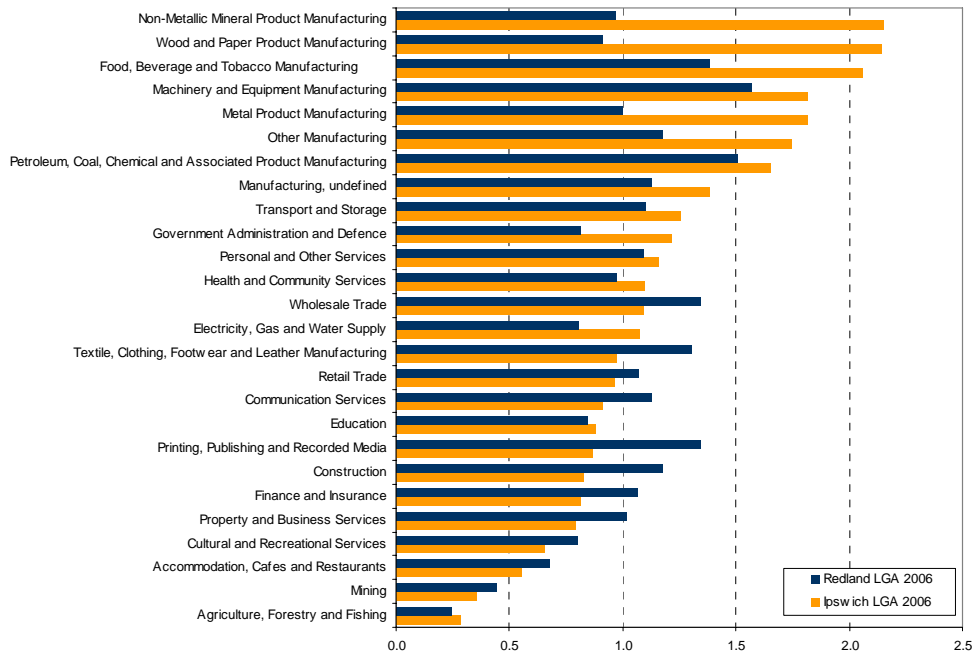
7.5.4 Redland LGA

In comparison with Queensland, the Redland LGA has key strengths and areas of specialisation in some manufacturing industries, transport & service based sectors.

A comparison with Ipswich LGA shows Redland has greater strengths in service based and transport related industries like wholesale trade, media, and business services. However Ipswich clearly has a greater strength in the manufacturing sector.

Key strength industries are indicated in the graph below by any location quotients that are above "1".

Figure 7.8. Industry Location Quotients, Redland LGA & Ipswich LGA



Source: Australia Bureau of Statistics (2007a)

Specific strengths and weaknesses of the Redland economy are highlighted in the table below.

Table 7.10. Industry Strengths and Weaknesses, Redland LGA

Strengths	Weaknesses
<ul style="list-style-type: none"> • Food, beverage & tobacco manufacturing; • Machinery & equipment manufacturing; • Other manufacturing; • Petroleum, coal, chemical & associated manufacturing; • Transport & storage; • Personal & other services; • Wholesale trade; • Textile, clothing, footwear & leather manufacturing; • Communication services; • Printing, publishing & recorded media; and • Finance & insurance. 	<ul style="list-style-type: none"> • Agriculture, forestry & fishing; • Mining; • Cultural & recreational services; • Education; • Government administration & defence; • Health & community services; • Wood & paper product manufacturing; and • Non-metallic metal product manufacturing.

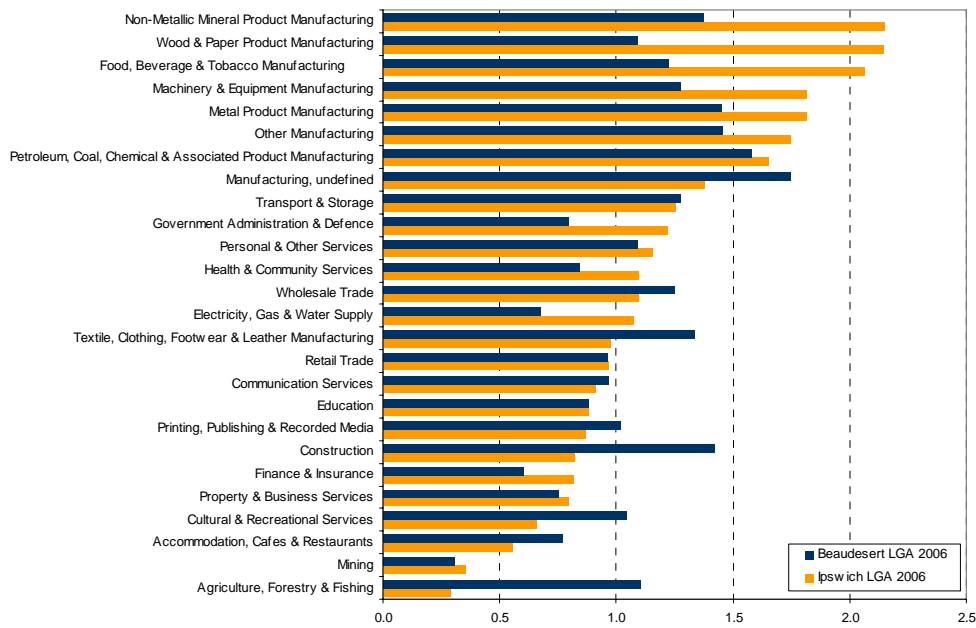
7.5.5 Beaudesert LGA

In comparison with Queensland, the Beaudesert LGA has key strengths and areas of specialisation in agriculture, forestry & fishing, transport & storage and manufacturing based sectors.

A comparison of the Beaudesert LGA with Ipswich LGA shows that the two are very similar and based on manufacturing. Beaudesert does have advantages over Ipswich in agriculture, forestry & fishing and construction. Even though both Beaudesert and Ipswich are strong in manufacturing, Ipswich shows greater specialisation over the majority of the manufacturing sub-sectors.

Key strength industries are indicated in the graph below by any location quotients that are above "1".

Figure 7.9. Industry Location Quotients, Beaudesert LGA & Ipswich LGA



Source: Australia Bureau of Statistics (2007a)

Specific strengths and weaknesses of the Beaudesert LGA economy are highlighted in the table below.

Table 7.11. Industry Strengths and Weaknesses, Beaudesert LGA

Strengths	Weaknesses
<ul style="list-style-type: none"> • Non-metallic metal product manufacturing; • Wood & paper product manufacturing; • Food, beverage & tobacco manufacturing; • Machinery & equipment manufacturing; • Metal product manufacturing; • Other manufacturing; • Petroleum, coal, chemical & associated manufacturing; • Transport & storage; • Personal & other services; • Wholesale trade; • Textile, clothing, footwear & leather manufacturing; and • Agriculture, forestry & fishing. 	<ul style="list-style-type: none"> • Government administration & defence; • Health & community services; • Communication services; • Education; • Finance & insurance; • Property & business services; • Mining.

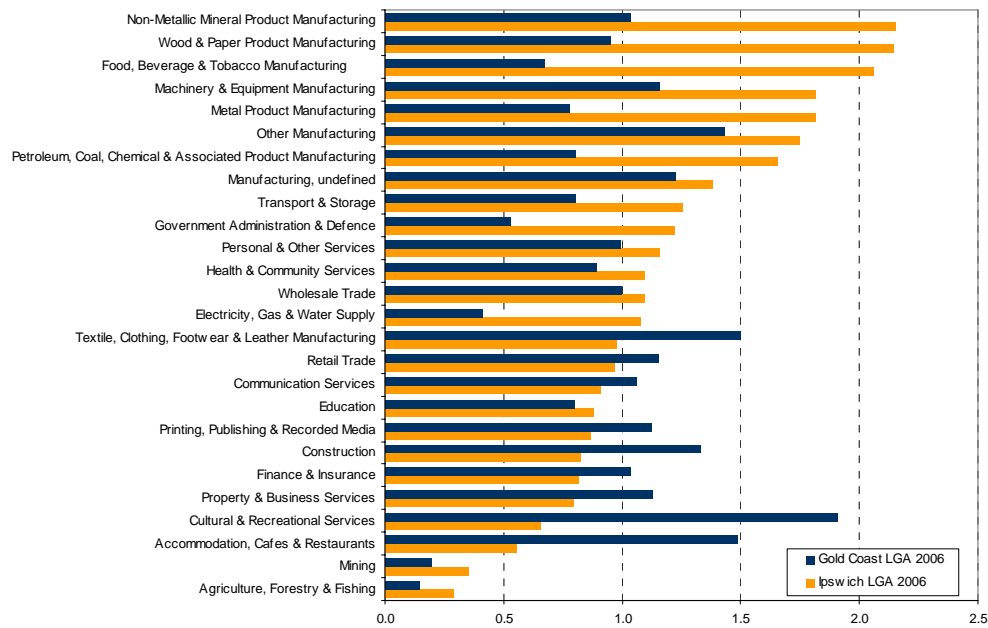
7.5.6 Gold Coast LGA

In comparison with Queensland, the Gold Coast LGA has key strengths and areas of specialisation in service based industries and some sub-sectors of manufacturing.

A comparison of the Gold Coast LGA with Ipswich LGA reveals there are a number of core differences between Gold Coast and Ipswich economic structures and core strengths. In particular, the Gold Coast has a specialisation in textiles & clothing manufacturing (particularly surfwear) and service based sectors, such as retail, accommodation, restaurant, recreation, which all demonstrate the strength of tourism in the area. The Gold Coast also shows a strength in general professional, business, finance and insurance services.

Key strength industries are indicated in the graph below by any location quotients that are above "1".

Figure 7.10. Industry Location Quotients, Gold Coast LGA & Ipswich LGA



Source: Australia Bureau of Statistics (2007a)

Specific strengths and weaknesses of the Gold Coast LGA economy are highlighted in the table below.

Table 7.12. Industry Strengths and Weaknesses, Gold Coast LGA

Strengths	Weaknesses
<ul style="list-style-type: none"> • Non-metallic metal product manufacturing; • Machinery & equipment manufacturing; • Other manufacturing; • Textile, clothing, footwear & leather manufacturing; • Retail trade; • Communication services; • Printing, publishing & media; • Finance & insurance; • Property & business services; • Cultural & recreational services; and • Accommodation, cafes & restaurants. 	<ul style="list-style-type: none"> • Agriculture, forestry & fishing; • Mining; • Education; • Government administration & defence; • Health & community services; • Wood & paper product manufacturing; • Food, beverage & tobacco manufacturing; • Metal product manufacturing; • Petroleum, coal, chemical & associated manufacturing; and • Transport & storage.

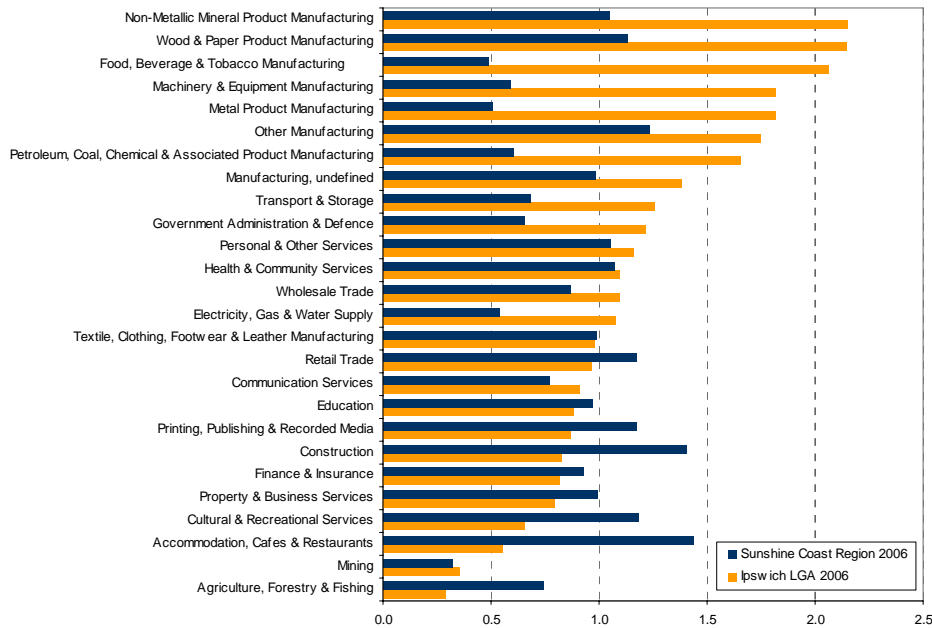
7.5.7 Sunshine Coast SD

In comparison with Queensland, the Sunshine Coast region has key strengths and areas of specialisation in service based industries, particularly those that are inputs to the local tourism industry, and some sub-sectors of manufacturing.

The comparison of the Sunshine Coast Region with Ipswich LGA reveals there are a number of core differences between the economies of the Sunshine Coast and Ipswich. In particular, many of the Sunshine Coast strengths revolve around tourism compared to Ipswich, which has a strong manufacturing base.

Key strength industries are indicated in the graph below by any location quotients that are above "1".

Figure 7.11. Industry Location Quotients, Sunshine Coast Region & Ipswich LGA



Source: Australia Bureau of Statistics (2007a)

Specific strengths and weaknesses of the Sunshine Coast regional economy are highlighted in the table below.

Table 7.13. Industry Strengths and Weaknesses, Sunshine Coast Region

Strengths	Weaknesses
<ul style="list-style-type: none"> • Non-metallic metal product manufacturing; • Wood & paper product manufacturing; • Other manufacturing; • Health & community services; • Personal & other services; • Retail trade; • Printing, publishing & media; • Cultural & recreational services; and • Accommodation, cafes & restaurants. 	<ul style="list-style-type: none"> • Agriculture, forestry & fishing; • Mining; • Finance & insurance; • Education; • Communication services; • Textile, clothing, footwear & leather manufacturing; • Government administration & defence; • Wholesale trade; • Transport & storage. • Food, beverage & tobacco manufacturing; • Machinery & equipment manufacturing; • Metal product manufacturing; and • Petroleum, coal, chemical & associated manufacturing.

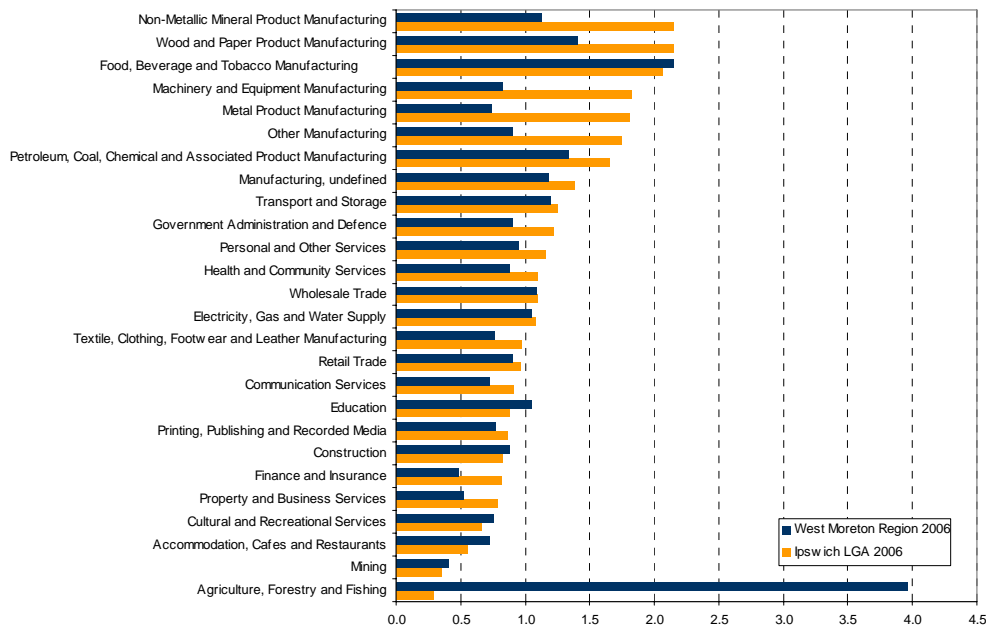
7.5.8 West Moreton SD

In comparison with Queensland, the West Moreton region has key strengths and areas of specialisation in agriculture & forestry and some manufacturing based industries.

Compared with Ipswich LGA, the main difference with West Moreton Region is its clear strength in agriculture & forestry related activities. Similarly, both regions share a core strength in manufacturing activities for all non-metals manufacturing activities (Food & beverage, wood products and non-metallic products).

Key strength industries are indicated in the graph below by any location quotients that are above "1".

Figure 7.12. Industry Location Quotients, West Moreton Region & Ipswich LGA



Source: Australia Bureau of Statistics (2007a)

Specific strengths and weaknesses of the West Moreton regional economy are highlighted in the table below.

Table 7.14. Industry Strengths and Weaknesses, West Moreton SD

Strengths	Weaknesses
<ul style="list-style-type: none"> • Non-metallic metal product manufacturing; • Wood & paper product manufacturing; • Food, beverage & tobacco manufacturing; • Petroleum, coal, chemical & associated manufacturing. • Wholesale trade; • Transport & storage; • Education; and • Agriculture, forestry & fishing. 	<ul style="list-style-type: none"> • Mining; • Cultural & recreational services; • Finance & insurance; • Property & business services; • Printing, publishing & media; • Communication services; • Textile, clothing, footwear & leather manufacturing; • Government administration & defence; • Personal & other services; • Other manufacturing; • Machinery & equipment manufacturing; and • Metal product manufacturing.

7.6 SEQ Competition for Economic Growth

Section 6.3 identified the following opportunities as high priority areas and key industry strengths for economic development in the Ipswich LGA, followed by medium priority industries, which are currently underrepresented within the LGA:

Table 7.15. Opportunities for Growth, Ipswich LGA

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Food, beverage & tobacco manufacturing; • Metal product manufacturing; • Machinery & equipment manufacturing; • Wood & paper product manufacturing; • Non-metallic mineral manufacturing; • Petroleum, coal, chemical & associated manufacturing; and • Transport & storage. 	<ul style="list-style-type: none"> • Property & business services; • Finance & insurance; and • Education.

Each of these sectors was assessed against unique strategic assets to further highlight the develop opportunity for the Ipswich LGA.

Through cluster mapping, opportunities were identified for each of the other communities in SEQ. A full list of the cluster maps is available in Appendix B. A comparison of the opportunities identified for Ipswich with those of the other communities in SEQ shows that there are some similarities.

The following table summarizes the opportunities identified for Ipswich and shows how the other communities in SEQ compare. The relative strength of each given industry within each area is either classified as:

- W= Weakness compared to Queensland (LQ<1) (Grey); or
- S= Strength compared Queensland (LQ >1) (Light Orange); or
- CS= Competitive strength compared to Queensland and the Ipswich LGA (LQ > 1 and the Ipswich LQ for the given industry) (Dark Orange).

Any industry that is **Light Orange** in the table below is a key **strength** for the area of observation when compared to the Queensland and SEQ region. This means that the region has an above average strength in the industry however this strength is below that of Ipswich when compared on a regional level.

Any industry that is **Dark Orange** in the table below has a key **competitive strength** in this activity for the area of observation, which means that the community has greater specialisation in this sector than Ipswich and the state.

Conversely, the industries that are **Grey** in the table below are those identified not to be a strength industry for the comparison area. This means that the area of observation has a below average industry representation or **weakness** when compared to Queensland and the SEQ region.

For example, the Brisbane LGA has a **competitive strength (dark orange)** for finance & insurance and property & business services. This advantage reflects that business services are a key strength and area of specialisation for the Brisbane LGA compared to Queensland and the Ipswich LGA. The Brisbane LGA also has **strength (light orange)** in the industry of petroleum, coal, chemical and associated manufacturing compared to Queensland, however this strength is less than that of Ipswich LGA (**competitive strength**).

Observation of the table below also suggests that other manufacturing industries within the Brisbane LGA are a **weakness (grey)** compared to Queensland, the SEQ region and Ipswich LGA.

The table below allows for clearer identification of where the Ipswich region sits within the regional context for its key priority industries. At the same time, this comparison should not be seen as how Ipswich competes with other communities in SEQ for business in these industry sectors but rather to show and compare the Local Government Areas based on their economic specialisations. In economic development, Ipswich is more likely to compete with regions in Victoria, New South Wales, United States, Hungary, Czech Republic, Singapore, and Shanghai rather than other communities within SEQ.

Table 7.16. Potential Development Opportunities by Region, Southeast Queensland

SEQ Regional Area of Comparison	Potential Priority Industries								
	Machinery & Equipment/ Metal Product Manufacturing	Non-Metallic Mineral Manufacturing	Wood & Paper Product Manufacturing	Food & Beverage Manufacturing	Petroleum, Coal, Chemical & Associated Manufacturing	Finance & Insurance/ Property & Business services	Transport & Storage/ Wholesale Trade	Education	Electricity, gas & water supply
Ipswich LGA	CS	CS	CS	CS	S	W	CS	W	CS
Brisbane LGA	W	W	W	W	S	CS	W	CS	W
Moreton Bay Region	S	S	S	W	W	W	S	W	CS
Logan LGA	S	S	S	S	CS	W	S	W	W
Redland LGA	S	W	W	S	S	CS	S	W	W
Beaudesert LGA	S	S	S	S	S	W	CS	W	W
Gold Coast LGA	S	S	W	W	W	CS	W	W	W
Sunshine Coast Region	W	S	S	W	W	W	W	W	W
West Moreton Region	W	S	S	S	S	S	S	CS	S
SEQ Region	S	S	W	W	S	S	S	S	W

8. SWOT Analysis, 2008 – 2026

In order to complement the industry and opportunity analysis for economic development as well as our economic projections for Ipswich LGA, a SWOT analysis (2008-2026) provides additional insights for the future strengths, weaknesses, opportunities and threats for the Ipswich LGA region. The diagram below highlights the findings of the SWOT analysis, which is followed by a discussion of the factors that will facilitate and/or impede growth in Ipswich until 2026.

Figure 8.1. Ipswich SWOT Analysis, 2008-2026



Source: AECgroup, 2008

8.1 Factors Facilitating Growth in Ipswich City

The following is a summary list of this internal and external factors that can facilitate economic growth and development in Ipswich in the future.

8.1.1 Internal

- Strong manufacturing sector across metals, food & beverage, non-metallic mineral products, and chemical products:
 - Large existing workforce;
 - Established supply chains and support services;

- Available industrial land;
- Increasing population (expanding labour pool);
- Available land for residential, retail, and commercial development;
- Current infrastructure (and future planned upgrades);
- Swanbank power station (and adjacent available industrial land);
- Existing quality of life assets;
- Existing educational and training institutions; and
- Amberley Air Force Base.

8.1.2 External

- Proximity to Port of Brisbane and Brisbane Airport (both expanding capacity);
- Rising demand for wholesale, transport and storage services (increasing population in SEQ);
- Mining boom in Australia (increased demand for mining machinery, equipment and support services);
- Strong economic growth (and demand) in Asia (export opportunities);
- Growth opportunities in selected target industry sectors (based on global and Australian demand);
- Increasing demand (from population and business growth) for service sectors and social assets (retail, recreational, health, food services); and
- Growing potential demand for higher-level R&D and training activities with universities to support growing knowledge based businesses.

8.2 Factors Impeding Growth in Ipswich City

The following is a summary list of internal and external factors that may impede economic growth and development in Ipswich in the future.

8.2.1 Internal

- Infrastructure not keeping pace with population and business growth;
- Cultural, recreational, retail, and health services not keeping pace with population and business growth;
- Underrepresented employment in education;
- Current lack of professional, business, finance and insurance employment;
- Delays at any level of government in permitting process for large developments; and
- Lack of R&D activities and research centres (CSIRO, CRCs, etc.).

8.2.2 External

- Global economic factors:
 - Slowing global growth (US particularly);
 - Potential of China/India growth to slow in the future;
 - Credit crisis in the US (has spread to other parts of the world, making it more difficult for overseas investors to source capital for Australian investments);
- Monetary policy and interest rate levels in Australia;
- Inflation levels in Australia;
- Slowing of the Australian economy;
- Historically high value of Australian dollar (impedes export growth);
- Difficulty of corporate and property development entities to source capital for major investments; and
- Current skills shortage.

8.3 Best Practice Economic Development Implications and Learnings for Ipswich City Council

The review of Australian and overseas economic development organisations and practices to compile and summarize best practice learnings for Ipswich City Council. This review identified the following economic development organizations as having attributes of best practice.

Table 8.1. Best Practice Economic Development Examples

Australia	International
<ul style="list-style-type: none"> • Parramatta City Council • Gold Coast City Council • City of Greater Geelong 	<ul style="list-style-type: none"> • IDA Ireland • Singapore Economic Development Board • Mooresville NC (USA) • John Pappajohn Entrepreneurship Center (JPEC), University of Iowa

A summary of the key findings (learnings) from the review of organisations identified as undertaking best practice economic development initiatives and activities is included in the below. An individual review of these programs and the learnings from each is attached as Appendix A.

Table 8.2. Findings from the Review of Practice Economic Development Examples

Best Practice Attribute/ Activity	Why its important
Existing industry programs	Successful economic development programs and growing regions generally have very active existing industry programs, which facilitate communication between industry and government as well as business development for economic development opportunities
Focus on specific sectors with competitive advantage	A very specific target industry focus allows many successful economic development groups to specialize in this industry sector, build productive industry networks (internal and external) and communicate more effectively with targeted businesses, as well as assist in communicating specific growth opportunities to business
Collaboration with regional and state groups	Many successful economic development programs foster collaboration with regional, state, education, and industry groups to convey a specialised value proposition and collectively market and attract business
Engage and foster relationships between private sector and universities	Building strong private sector relationships with universities fosters a greater level of private sector driven R&D, which can then lead to the generation of innovation and new knowledge, thereby growing valuable parts of the economy
Focus on high value-adding business activities that utilise high degree of technology and knowledge	The focus on high value-adding and knowledge intensive business and industry has assisted many communities and economic development groups to provide significant value to their local economies, provide fantastic job opportunities for their residents and build (or often rebuild) very strong local and regional economies

9. Moving Forward for Ipswich City Council

The sections above have discussed and demonstrated the tremendous economic growth that Ipswich has and is expected to experience in the future as well as highlighted various strengths, weaknesses, opportunities and threats for the Ipswich economy moving forward along with Ipswich's relative competitive advantage and strategic assets supporting economic development.

9.1 High Value-adding Business Activities

In order to capitalise on the current strengths and strategic assets of the Ipswich region to fully capture these opportunities and achieve strong economic growth, Ipswich City Council needs to focus economic development initiatives toward those business activities that have the ability to bring true value and diversity to the local economy and leverage the current strengths and economic opportunities in Ipswich. Generally speaking, those businesses and business activities to be targeted should demonstrate the following characteristics:

- **High Value-Adding:** Businesses and industries that are producing high valued output are less likely to move offshore in search of lower labour costs because labour skill levels are more important than labour costs. Additionally, due to the high value nature of the final product, labour costs represent a much lower portion of total costs, further insulating these jobs from being 'offshored';
- **Knowledge-Driven:** Businesses and industries should employ a high degree of technology in their process by using sophisticated machinery (e.g. CNC machinery, specialised software, automated warehousing systems) which requires a higher degree of skilled worker and increased the use of technology;
- **Export Oriented:** Businesses and industries should not rely solely on the Australian market for revenue. Growing exports allows firms to grow revenues on annual basis and businesses with high export ratios tend to be market leaders as they have to be globally competitive; and
- **Innovative:** Business and industries that are constantly developing and investing in new products and solutions for their customers. These businesses tend to compete successfully against "low cost" countries by offering customized, cutting edge solutions and often generate or are attempting to maintain a first leader advantage. Additionally, innovative firms tend to interact more with Universities for new product development, which also stimulates R&D activities (generating innovation, new knowledge-based solutions, etc.).

By focusing efforts on these types of high value-adding business activities, Ipswich City Council can drive economic development outcomes that truly impact the community by generating higher income per capita, creating greater economic diversity, encouraging sustainable business, and raising the standard of living for every resident.

9.2 Specific Economic Development Targets

The sections above have highlighted specific industry sectors for economic development as well as projected employment in various sectors. The following discussion highlights very specific examples of high value-adding activities that use a large degree of technology and leverage both the existing competitive advantages of the Ipswich economy as well as the strategic assets in the region identified previously in the report. These specific economic development targets can be explored further and can deliver high value-adding economic growth to Ipswich.

The following table reviews the priority sectors for growth in the future as identified in section seven of this report.

Table 9.1. Opportunities for Growth, Ipswich LGA

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Food, beverage & tobacco manufacturing; • Metal product manufacturing; • Machinery & equipment manufacturing; • Wood & paper product manufacturing; • Non-metallic mineral manufacturing; • Petroleum, coal, chemical & associated manufacturing; and • Transport & storage. 	<ul style="list-style-type: none"> • Property & business services; • Finance & insurance; and • Education.

The following strategic assets were also highlighted in section seven of this report as being key elements in the future economic growth of the region:

- Abundance of industrial land;
- Springfield Parkland and Ipswich CBD;
- Swanbank Power Station and Swanbank Enterprise Park;
- Amberley Air Force Base;
- Proximity to Brisbane & available infrastructure;
- Existing industry base; and
- Education assets (University & TAFE).

The following table outlines specific value-adding activities within the priority sectors identified in section seven of the report and highlighted above as well as exploring the reasons why Ipswich would be suitable for these activities. These location factors leverage the existing strengths of the Ipswich economy as well as the specific strategic assets also listed above and identified in section seven. Additionally, these location factors make up the base business case on why a business engaged in these activities would be interested in Ipswich.

Beyond broad categories (manufacturing, wholesale, metal fabrication, etc.) for economic development initiatives, these specific high value-adding activities offer very targeted opportunities for economic development. These opportunities utilise the existing and natural strengths of the Ipswich economy as well as the strategic assets in the area. More importantly, these specific opportunities can deliver the significant economic development outcomes due to the high value-adding nature and high use of knowledge and technology.

This list is not extensive and every activity may not fit, but these opportunities highlight very specific targets for economic development that would deliver the highest value for money or return on investment.

Table 9.2. Specific Economic Development Targets

Priority sector	High Value-Adding Activity	Why Ipswich?
Food & Beverage Manufacturing	<ul style="list-style-type: none"> • Beverage manufacturing and bottling (water, sports drinks, etc.) • Food processing (bakery, packaged foods, etc.) 	<p>Location: centrally located in growing population centre, SEQ (proximity to end consumer important for food sector)</p> <p>Distribution: back loading rates for distribution to NSW/VIC, proximity to Port of Brisbane for export</p> <p>Workforce: large existing workforce with similar skills, QLD advantages in payroll, workcover, and industrial relations</p> <p>Land: sufficient industrial land with utility and transportation infrastructure, good workforce catchment area</p>
Metal Products / Machinery & Equipment Manufacturing	<ul style="list-style-type: none"> • Industrial M&E manufacturing (mining equipment, food processing equipment, electrical components and equipment, other high-tech industrial equipment) • Medical device manufacturing (dental equipment, medical examination equipment, etc.) • Solar manufacturing (PV modules and panels, PV wafer manufacturing, etc.) • Defence related manufacturing (avionics, engines, maintenance, aerospace, etc.) 	<p>Workforce: large existing workforce with similar skills, QLD advantages in payroll, workcover, and industrial relations</p> <p>Land: sufficient industrial land with utility and transportation infrastructure, good workforce catchment area</p> <p>Distribution: proximity to Port of Brisbane for export</p> <p>Universities: QLD Universities offer R&D linkages for further product development</p> <p>Amberley Air Force Base: large defence station for fighter planes, tankers, etc. which will have private sector defence contracts for upgrades and maintenance</p>
Non Metallic Mineral Manufacturing	<ul style="list-style-type: none"> • Solar manufacturing (solar glass) • Glass manufacturing (specialised glass for building industry, medical industry, etc.) • Ceramic materials manufacturing (refractory, building materials, pipes, etc.) 	<p>Workforce: existing workforce with similar skills</p> <p>Land: available land (Swanbank Enterprise Park), good workforce catchment area</p> <p>Utility Infrastructure: strong existing utility (gas and electric) infrastructure and potential for future gas expansion (pipeline from Casino NSW)</p> <p>Distribution: back loading rates for distribution to NSW/VIC, proximity to Port of Brisbane for export</p> <p>Universities: QLD Universities offer R&D linkages for further product development</p>
Petroleum, Coal, Chemical & Associated Product Manufacturing	<ul style="list-style-type: none"> • Plastic manufacturing (medical device, food packaging, bottles, etc.) • Specialty chemical (specialty resins, polymers, films, etc.) • Specialty recycling (chemical, oil, industrial lubricants, etc.) 	<p>Workforce: existing workforce with similar skills</p> <p>Land: available land (Swanbank Enterprise Park), good workforce catchment area</p> <p>Utility Infrastructure: strong existing utility (gas and electric) infrastructure and potential for future gas expansion (pipeline from Casino NSW, additional development from Surat Basin)</p> <p>Distribution: back loading rates for distribution to NSW/VIC, proximity to Port of Brisbane for export</p>

Priority sector	High Value-Adding Activity	Why Ipswich?
Property & Business Services	<ul style="list-style-type: none"> • Engineering (defence related engineering, professional engineering, etc.) • Property development/Business services (legal, accounting, IT consulting, etc.) • Business customer service centres (NOT outbound call centres, but inbound customer service centres requiring higher degree of skill (IT related industries, engineering, etc.) • Training centres (IT, engineering, etc.) 	<p>Workforce: future population growth and current workforce catchment area supports these skill sets (employees currently travelling to Brisbane will experience increased congestion, making travelling to Ipswich/Springfield more appealing)</p> <p>Land/Property: growing amount of commercial space coming available now and more planned for the future. Suburban office growth is normal trend for a region like Brisbane, experiencing dramatic population growth)</p> <p>Property development: given the amount of developable property in Ipswich, property development market should be attracted to Ipswich</p> <p>Amberley Air Force Base: large defence station for fighter planes, tankers, etc., which will have private sector defence, contracts for upgrades and maintenance. In the future further engineering skills will be required with significant advancements in avionics and aerospace systems.</p>
Financial & Insurance	<ul style="list-style-type: none"> • Back office/processing centres (mortgage loan processing, insurance processing, financial instrument processing, etc.) • Training centres (financial, insurance, etc.) 	<p>Workforce: future population growth and current workforce catchment area supports these skill sets (employees currently travelling to Brisbane will experience increased congestion, making travelling to Ipswich/Springfield more appealing)</p> <p>Land/Property: growing amount of commercial space becoming available in Ipswich and Springfield. Growing office rents in Brisbane CBD and fringe will force companies to relocate cost centre activities to nearby, lower cost option.</p>
Wholesale, Transport & Storage	<ul style="list-style-type: none"> • Australian subsidiary and distribution operation of overseas equipment manufacturers (Kärcher, Fuji, Xerox, etc.) 	<p>Workforce: large existing workforce with similar skills</p> <p>Land: sufficient industrial land with transportation infrastructure, good workforce catchment area</p> <p>Distribution: proximity to Port of Brisbane for import, back loading rates for distribution to NSW/VIC</p>

Source: AECgroup, 2008

The specific economic development targets mentioned above provide solid, practical examples of opportunities that can deliver high valued, economic outcomes to the community. The development of these specific sectors will add not only to employment in Ipswich but will further enforce existing sectors and businesses, expand current supply chains, further develop training programs, and increase the innovative and value-adding sectors of the economy. All of these developments further broaden the overall Ipswich economy, which makes it more sustainable over the long term in a globally competitive world.

This list above is not exhaustive but rather demonstrates how Ipswich City Council can leverage the current (and future) strengths and opportunities of their economy to achieve outstanding economic development returns for their residents.

9.3 Quality of Life

At the same time, it is very important that Ipswich maintain a high level of services that build an attractive quality of life. Quality of life is an important “soft factor” for businesses and individuals making location decisions. While often difficult to bring into the quantitative analysis, an attractive quality of life is essential to facilitating economic and business growth for a community. Services that effect quality of life include:

- Retail trade;
- Education;
- Accommodation and food services;
- Health care and social assistance;
- Arts, cultural and recreational services; and
- Other personal services.

As demonstrated in the cluster mapping and location quotients for Ipswich, some of these activities fall into the category of industry weakness/low growth and industry weakness/high growth.

Table 9.3. Sectors Influencing Quality of Life

Weaknesses (Location Quotient <1)	Low Growth Sectors/ Current Industry Weakness	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Cultural & recreational services; • Education; • Retail trade; and • Accommodation, cafes & restaurants. 	<ul style="list-style-type: none"> • Cultural & recreational services 	<ul style="list-style-type: none"> • Accommodation, cafes & restaurants; • Education; and • Retail.

Source: AECgroup

Additionally, projections identify these sectors will also grow as the population and business sector grows. It is important that Ipswich City Council encourages and plans for the development of these sectors by promoting and supporting development further recreational, cultural, retail, and other personal service sectors to meet population and business driven demand.

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Appendix A: Best Practice Economic Development

Introduction

The following examples highlight solid and proven economic development programs that have generated positive outcomes and can be applied to Ipswich. Key sources of information for each of the examples are as follows:

- Parramatta City Council – Parramatta City Council (2008);
- Gold Coast City Council – Business Gold Coast (2008);
- City of Greater Geelong – City of Greater Geelong (2008);
- Mooresville, North Carolina – Mooresville South Iredell Economic Development Corporation (2008);
- Ireland – Industrial Development Agency, Ireland (2008);
- Singapore – Singapore Economic Development Board (2008); and
- John Pappajohn Entrepreneurship Center (JPEC) University of Iowa – John Pappajohn Entrepreneurship Center (JPEC) University of Iowa (2008).

Examples

Parramatta City Council

Parramatta is located 24 km from Sydney with a population of 152,000. Parramatta's economy is estimated at \$9 billion and supports 39,000 jobs. The region has seen dramatic growth in white-collar employment over the past years including finance, insurance, legal, and other business services. The region's continued focus on these areas and their Parramatta Economic Development Partnership strategy helped single the group out as a finalist for the 2007 Economic Development Australia awards "strategic" category.

Parramatta has been successful in leveraging their position and proximity to Sydney (Airport and other assets) to generate high value adding employment.

Key Learnings for Ipswich

- Collaboration among all levels of government, business, and academia; and
- Focus on specific business sectors with competitive advantage.

Gold Coast City Council

Gold Coast region has a population of 470,000 and is located just south of Brisbane. The Gold Coast has very developed business sectors such as creative and film, marine, food, among others. Gold Coast Council received the 2007 Economic Development Australia Award for promotion – business attraction.

The Gold Coast Council Economic Development unit has a team of industry development officers, each with a focus on a specific sector. Additionally, local industry/business associations are active which offers additional support and growth opportunities for businesses. Council also provides export promotion services for their existing businesses through the organization of trade missions and housing an Austrade TradeStart officer.

Key Learnings for Ipswich

- Active interaction with existing industry;
- Strong focus on specific industry sector;
- Encourage local industry specific associations; and
- Active export promotion activities to generate additional growth.

City of Greater Geelong

Geelong is a region of 200,000 people located 75 km southwest of Melbourne, VIC. While the regional economy was hit hard last year with the announcement that Ford will

close its production facility, the Economic Development team won the best overall performance award from Economic Development Australia in 2007. Geelong has identified specific industry sectors and provided information about each. Additionally, there is a focus on knowledge-based jobs and collaboration with educational and research institutions.

Key Learnings for Ipswich

- Focus on specific business sectors for growth; and
- Focus on knowledge-based jobs and collaboration with universities and research organisations.

Mooreville, North Carolina (USA)

Mooreville NC has a population of 27,000 people and is located 30 miles north of Charlotte NC, the region's major urban core with a population of 700,000. Over the last five years, Mooreville has created 8,000 new jobs and \$2.1 billion in new investment. It has a diverse economy including motor sports manufacturing, plastics and fibre composite manufacturing, headquarters and services, as well as metal fabrication. Mooreville NC has been ranked #1 Micropolitan Location in the US by Site Selection Magazine three years running (2004, 2005, 2006).

Mooreville has very successfully leveraged its proximity to Charlotte, the proximity to Charlotte International Airport, strong workforce, excellent infrastructure, and high quality of life to recruit leading and sustainable businesses. Mooreville has an active existing industry program as well as an aggressive investment attraction program that often works in partnership with the Charlotte Regional Partnership (regional economic development group) and the State of NC Department of Commerce.

Key Learnings for Ipswich

- Leverage natural competitive advantages;
- Focus on specific targeted business sectors for development;
- Active existing industry program to encourage re-investment;
- Aggressive investment attraction program to recruit new investment; and
- Partnerships with regional and state level agencies to maximise marketing activities.

Ireland

Just 30 years ago, Ireland was one of the poorest countries in Europe. Today, Ireland boasts an impressive list of companies and accomplishments. Last year, they announced 71 new business projects representing €2.6 billion in new investment and 11,846 jobs.

IDA Ireland has been very successful in transforming their economy due to numerous factors; positive business policy environment, competitive costs, strong workforce, excellent partnership programs with universities and research centers, and aggressive investment attraction programs. IDA Ireland has a strong focus on niche industry sectors that match their competitive advantages with an emphasis on R&D partnerships and knowledge-based jobs.

Key Learnings for Ipswich

- Importance of "business friendly" environment;
- Focus on specific target business sectors for development; and
- Aggressive marketing and investment attraction programs for targeted business sectors.

Singapore

The Economic Development Board (EDB) in Singapore is often held up as a model example for economic development. With a land area of only 707 km², Singapore's population of 4.5 million people produce an economy of \$230 billion. Last year alone, Singapore attracted \$8.4 Billion worth of corporate investments including an Intel Flash Drive manufacturing facility, Genetech biologics manufacturing plant, GE Water's global R&D centre, and a recent announcement of a \$700 million Novartis biologics production plant.

Singapore combines a very competitive cost structure, a protected and business friendly policy environment, with a well-trained, multi-lingual workforce to produce a powerful proposition to business. The EDB has industry sector experts that have not only knowledge of the specific drivers of their sector but local industry and university contacts to support the investment project. Singapore has also organized its land use around various clusters, which has promoted additional synergies for business in their target sectors looking for new sites due to proximity of suppliers and customers. Singapore forms a powerful partnership with companies providing them a wide array of assistance, both financial and non-financial. The EDB is also fully engaged with the business sector, as evidenced by their board of directors.

Key Learnings for Ipswich

- Strong focus on specific business sectors with competitive advantages;
- Aggressive investment attraction programs;
- Excellent facilitation service including introduction to service providers and assistance registering businesses, recruiting workforce, etc.; and
- Strong collaboration with private sector and universities.

John Pappajohn Entrepreneurship Center (JPEC) University of Iowa

The JPEC provides a wide variety of services including entrepreneurship training, technology transfer, technology commercialization, business advice, financial assistance to start-ups, and venture capital. As part of the University of Iowa, JPEC houses classes that deliver the university's entrepreneurship curriculum, including a Bachelor of Arts degree in Entrepreneurship. Additionally, it is open to all citizens of Iowa for training and advice on start-up companies, commercialization of technology, and financial assistance. It has strong ties with the local business community and many business owners offer their time and advice for student and non-student projects. JPEC also has a business incubator and works with university staff for commercialization and technology issues. JPEC also administers a \$5 million venture capital fund.

To date, JPEC has spun out many successful companies including Planet-save.com (which was acquired by a larger web-based environmental company), a bioinformatics company, and a video/media company, Premis.

Key Learnings for Ipswich

- Strong collaborative efforts to encourage entrepreneurship and innovation from existing businesses; and
- Successfully leverages university and educational assets for economic and job growth.

Appendix B: Review of Planning Documents

Ipswich City Council Documents

Ipswich Planning Scheme

The Ipswich planning scheme provides guidelines for landuse planning for the entire LGA and the eight localities including:

- Ipswich Urban Area locality;
- City Centre locality;
- Regionally Significant Business Enterprise and Industry Areas locality;
- Amberley locality;
- Rosewood locality;
- Townships locality;
- Rural Areas locality; and
- Springfield locality.

The planning scheme identifies the future zoning of the region and specifically addresses:

- Regulations and rules to be complied with for building and planning approval for all zoned areas;
- The purpose and designed outcomes of these regulations; and
- The specific outcomes and probable solutions for each development zone including maps of relevant development areas and networks.

Ipswich Regional Centre Strategy

The Regional Centre Strategy is based on five principles for the development of the *Vibrant and Prosperous Regional Activity Centre for the Western Corridor of Southeast Queensland*. The five principles of the Ipswich regional centre are Ipswich as a:

- *Working centre;*
- *Living centre;*
- *Connected centre;*
- *Centre of celebration & place; and*
- *Centre that fosters community, health, education & well-being.*

The *Ipswich Regional Centre Strategy* identified the following opportunities for Ipswich as a regional centre:

- To strengthen the retail base within the Ipswich Regional Centre;
- To develop Ipswich Regional Centre as an educational node;
- To promote Government services and realise potential for the Ipswich Regional Centre to serve as the regional head office for a number of government departments;
- Expand university facilities within the Regional Centre and develop an innovation centre with important links between research and private enterprise;
- Further strengthen the medical base at Ipswich in the Regional Centre at both the private and public hospital level;
- Capitalise on future employment opportunities in industrial business and ancillary business services;
- Promote Ipswich as a major professional services node fro the western corridor of SEQ;
- Strengthen sporting facilities within the Regional Centre to enhance Ipswich's reputation as the main sporting centre for the western corridor of SEQ;
- Develop a multi-purpose performing arts complex to strengthen the role for Ipswich Regional Centre as a centre for arts, entertainment, culture and events;

- Develop a major attractions precinct reinforcing the themes of heritage, knowledge and learning;
- Encourage tourism development based on the river, heritage, parks and gardens; and
- Capitalise on the existence of Amberley Air Base to develop an aerospace/ aero technology precinct and also a freight and logistics hub.

The outcome of this report is 17 key catalytic strategies designed to actively incubate, facilitate, stimulate and kick-start the revitalisation of the Ipswich Regional Centre and realise key opportunities.

Ipswich City Council 2020

Six key areas of importance and value were identified by the Ipswich 2020 process and are listed in the table below with a list of goals for action to achieve the 2020 vision.

Table B.1. Key Areas of Importance, Ipswich 2020

Natural Environment	Growth Management	A Strong Diverse Economy Table
<ul style="list-style-type: none"> • Protection of biodiversity; • Open space & recreation; • Clean & health waterways; • Environmental respect; • Appreciation of ecosystem services; and • Ecosystem infrastructure. 	<ul style="list-style-type: none"> • Sustainable land use; • A network of centres & unique communities; • Ipswich CBD- the Civic Heart; • Range of Lifestyle Needs Addressed; • Sustainable development embraced; • Protection of cultural heritage, environmental, landscape and rural values; • Significant enterprise districts; and • A hub of Southeast Queensland. 	<ul style="list-style-type: none"> • Major employment generator; • A strong stable economy; • A knowledge based economy; • Rural Assets; and • Key role in the western corridor.
Community Spirit & Well Being	Infrastructure & Services	Integrated Transport & Movement
<ul style="list-style-type: none"> • Identity & inclusion; • Participation & community capacity; • Sense of belonging & culture; • Healthy community; • The Ipswich Identity; • A safe community; and • A sporting city. 	<ul style="list-style-type: none"> • Integrated infrastructure, planning & provision; • Coordination & community services; • Water a valuable resource; • Energy supply; • Technologically advanced community; • Managing waste as a resource; and • Recreation, facilities & open space. 	<ul style="list-style-type: none"> • Connected communities; • Efficient & affordable access; • Collaborative transport & planning; • Transport for the economy; and • Minimal use of private vehicle.

Source: Ipswich 2020 and Beyond, ICC (2005).

Implications for Ipswich City Council

Ipswich is one of the fastest growing regions in the Southeast Queensland region and as such will have a high demand for the development of employment opportunities, improved transport networks, effective land use planning and major infrastructure investment, whilst maintaining existing environmental assets and community spirit (ICC, 2005). The implications of the above planning documents are the diversification of the current business, industry and community characteristics to support ongoing sustainable development of the Ipswich City Council over the next 20 years and beyond. In order to achieve this development key target areas outlined by council documents can be summarised as:

- Development and specialisation of education in the Ipswich Regional Centre to support industry growth and provide a knowledge based workforce for industry and business growth and support;

- Improved connectivity for all modes of transport to provide economical easy access to the regional centre whilst creating connectivity between communities and the industry chain within Ipswich and with surrounding regions of SEQ;
- Strategic planning and land use that is supported by appropriate infrastructure development to ensure that all forms of development are fully supported within the region and fully sustainable over the long term;
- Provision of population driven core industries to promote liveability and attractiveness of the region and increase the prominence of the Ipswich region as a regional centre for the Western Corridor. Key industries include health & community services, government services cultural, sporting & recreational facilities and parks and green spaces; and
- Attraction and capitalisation of future employment opportunities in industrial business and ancillary business services.

In order to achieve the development objectives in the Ipswich city council, the ICC has a comprehensive planning scheme, which complements land use activities and location characteristics with the provision of future planned development activities and the overall goals of the region. The planning scheme also has in place protects the natural and community values of the Ipswich LGA.

Queensland Government Documents

Southeast Queensland Regional Plan

The SEQ region is Australia's fastest growing region attracting an average of 55,000 new residents each year, which has coincided with rapid employment growth and national and international recognition of the region as a hub of economic activity. The aim of the SEQ regional plan is to manage this growth and change in the most sustainable and efficient manner and to protect and enhance the quality of life for the region.

One of the key management strategies is the concentration of business, employment, research, education, services, higher density living and social interaction in regional activity centres. Outside of the Brisbane CBD, principle activity centres will provide key focal points of regional employment and in centre residential development and key nodes for multimodal public transport services.

The SEQ regional plan identifies Ipswich as a key regional centre for the Western Growth Corridor and suggested the significance of Ipswich within this zone will only strengthen, particularly as Ipswich takes advantage of and develops the abundance of residential, commercial and industrial lands available for development over the next 20 years. It is expected that Ipswich will have a major role in relieving the urban growth stresses of coastal areas to be experienced within the SEQ region.

Key areas of investigation for future development of industry were also identified by the plan. Identified areas in the Ipswich LGA or in proximity to it were:

- **Purga:** This area was examined for two uses: a possible extension of the Amberly Aerospace Park adjoining the air force base to the North and a potential inland port including logistics, distribution and warehousing to the South. This location has linkages with good infrastructure (e.g. Cunningham highway and rail transport) with potential for expansion and is identified as a potential location in SEQ to capitalise on future defence and civilian aerospace opportunities.
- **Rosewood & Warrill View:** Located to the south and south west of Ipswich City within Ipswich LGA, these areas were identified as potential areas for commercial, business and industrial development, particularly if the North Beaudesert /Mount Lindesay area develops over the next 20 years.

Implications for Ipswich City Council

The SEQ regional plan supports Ipswich as being a key area of growth and development and a major regional activity centre for the western corridor over the next 10 to 20

years. As such, the Ipswich region is expected to continue to develop at a rapid rate with opportunity for further economic development in the areas of aviation industry, intermodal freight hub and development of extensive industrial lands suitable large and difficult to relocate industries that will not be found elsewhere in the SEQ region. Employment in knowledge based industries will also provide potential for economic growth as local university courses are linked with industry skills demand for the region.

A key requirement to facilitate this growth for the Ipswich Region will be the timely and adequate provision or facilitation of infrastructure to support this anticipated industry, business and community growth, which includes the generation of employment opportunities to sustain the population. Planning is required to facilitate sustainable economic development to ensure Ipswich's future as one of the key centres of the Western Corridor and Southeast Queensland.

Southeast Queensland Council of Mayors Documents

Economic Activity and Employment Forecast 2006 – 2026

This publication provides forecasts for economic activity and employment over the next 20 years to 2026. These forecasts were prepared as an input to infrastructure investment planning (NIEIR, 2008). The economic benefits of adequate infrastructure are considerable, while infrastructure shortfalls exact serious penalties. It therefore pays to keep ahead of demand, however this can be difficult due to the long lead times in infrastructure construction. For the Ipswich region the Economic Activity & Employment Forecasts predicts that over the next 20 years Ipswich will experience growth in number of employed of 81,374 jobs, behind only the Brisbane LGA (365,612 jobs) and Gold Coast LGA (120,774 jobs) (NIEIR, 2008). This means that Ipswich LGA will experience the highest percentage increase in employment over the 20 years of 164 percent (NIEIR, 2008) with the majority of these jobs created in Ipswich Central and Ipswich East.

Over the next 20 years the key driver of economic and employment growth in the SEQ region will be population growth. As such, the key industry growth industries for the SEQ region are expected to be health and community services (128,182 new jobs), followed by property & business services (119,774 jobs, of which 113,107 are in business services), retail (88,651 jobs), education (81,223 jobs) and cultural & recreational (51,411 jobs).

Over this period, the Ipswich region is expected to experience high growth in employment in the industries of health & community services (18,905 jobs), property & business services (16,260 jobs) and construction (11,487 jobs). By comparison the most significant employment growth industries are property & business services (485%), finance (432%) and health & community services (351%).

The largest employment growth in SEQ is forecast for the occupations of professionals (220,263 jobs) followed by managers & administrators (133,731 jobs), intermediate clerical, sales & service workers (120,620 jobs), associate professionals (120,025 jobs) and intermediate production & transport workers (59,896 jobs).

In the Ipswich LGA, key employment growth occupations are forecast as professionals (20,853 jobs), intermediate clerical, sales & services workers (14,005 jobs) and managers & administrators (12,436 jobs).

Implications for Ipswich City Council

As the fastest growing region in the SEQ region, the Ipswich region will have the largest proportion of planning and development required for the provision of adequate infrastructure and employment opportunities in the region. An important condition is that the infrastructure investment should support employment and industry growth and enhance the overall connectivity of the region, including access by its businesses to a diverse, high-quality pool of appropriately skilled labour (NIEIR, 2008).

Also, the Ipswich LGA is forecast to experience significant growth in jobs in the property & business services, finance and health & community services sectors. Of these, the



Ipswich LGA is currently under represented in the property & business services and finance & insurance sectors (see section 6.0).

Appendix C: Regional Competitive Advantage Information

In order to analyse specific opportunities for economic development, location quotients were portrayed in a cluster map, which also considers overall industry growth in Queensland. This process clearly defines specific target sector opportunities for growth where Ipswich has a natural competitive advantage.

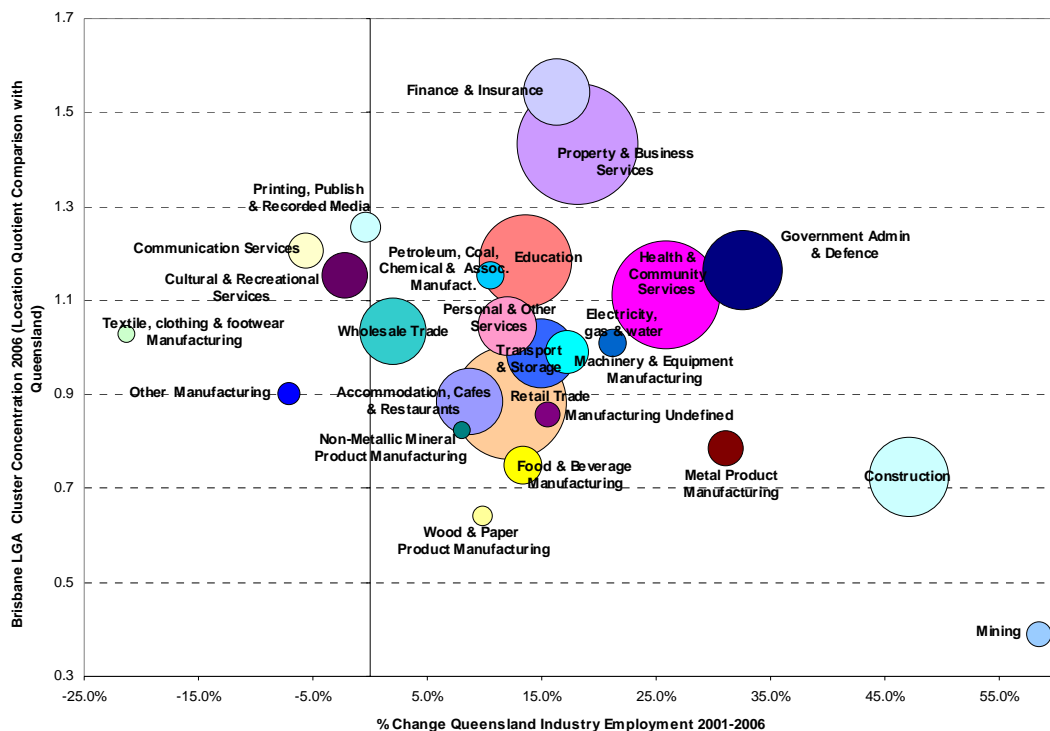
Appendix C contains cluster maps for the key areas of which were not included in the main body of the document. Key areas of comparison include:

- Brisbane LGA;
- Moreton Bay Region;
- Redland LGA;
- Beaudesert LGA;
- Gold Coast LGA;
- Logan LGA;
- Sunshine Coast Region; and
- West Moreton Region.

In Cluster map comparisons, industry employment growth is charted along the x-axis (horizontal axis) and the location quotients are seen along the y-axis (vertical axis). Industries located in the upper right-hand quadrant demonstrate industry strength in the region and are sectors of high employment growth. Industries located in the bottom right-hand quadrant demonstrate high employment growth but are currently underrepresented in the economy (current industry weakness). Note that industries that are experiencing negative growth in Queensland should not be a priority industry sector for economic development activities since they are currently shedding jobs.

Brisbane LGA

Figure C.1. Industry Cluster Map, Brisbane LGA



Source: Australia Bureau of Statistics (2007a)

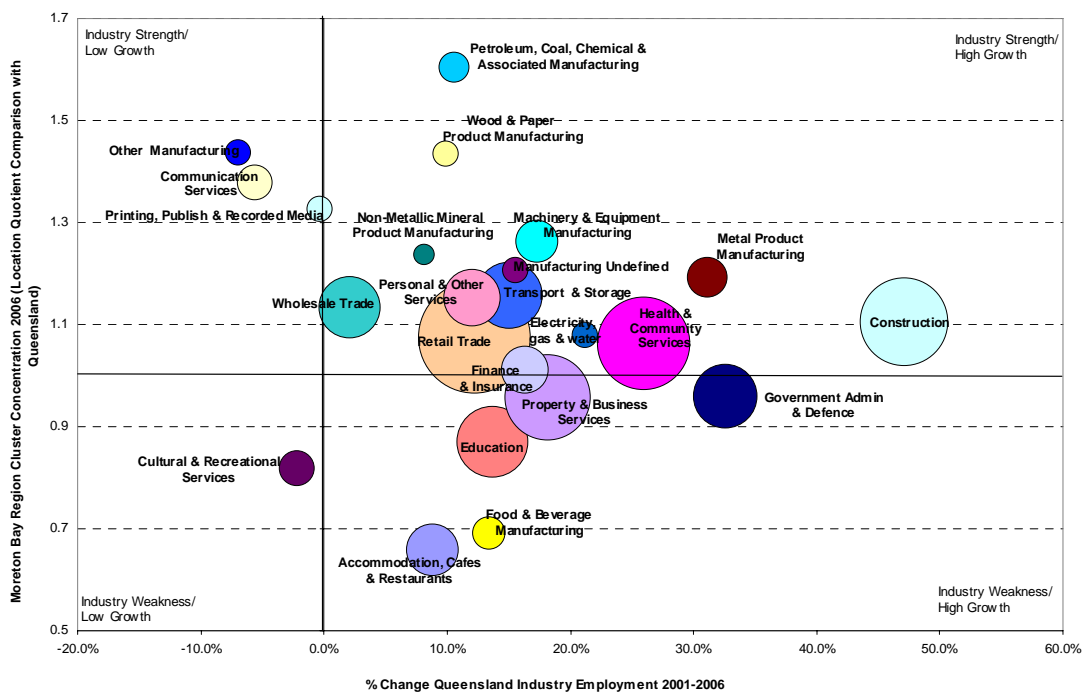
The table below summarizes the analysis of the cluster map and the specific opportunities for growth in the future.

Table C.1. Opportunities for Growth, Brisbane LGA

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Finance & insurance; • Property & business services; • Education; • Petroleum, coal, chemical & associated manufacturing; • Government administration & defence; • Wholesale trade. 	<ul style="list-style-type: none"> • Food & beverage manufacturing; • Wood & paper product manufacturing; • Non-metallic mineral manufacturing; • Metal product manufacturing; • Transport & storage.

Moreton Bay Region

Figure C.2. Industry Cluster Map, Moreton Bay Region



Source: Australia Bureau of Statistics (2007a)

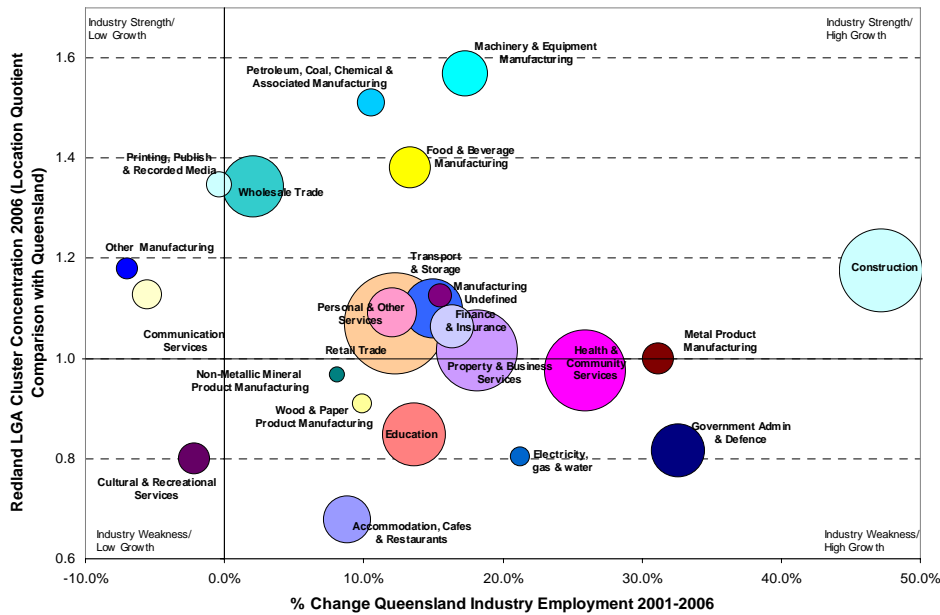
The table below summarizes the analysis of the cluster map and the specific opportunities for growth in the future.

Table C.2. Opportunities for Growth, Moreton Bay Region

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Petroleum, coal, chemical & associated manufacturing; • Wood & paper product manufacturing; • Non-metallic mineral product manufacturing; • Machinery & equipment manufacturing; • Metal product manufacturing; • Wholesale trade; • Transport & storage. 	<ul style="list-style-type: none"> • Property & business services; • Finance & insurance; • Education; • Food & beverage manufacturing.

Redland LGA

Figure C.3. Industry Cluster Map, Redland LGA



Source: Australia Bureau of Statistics (2007a)

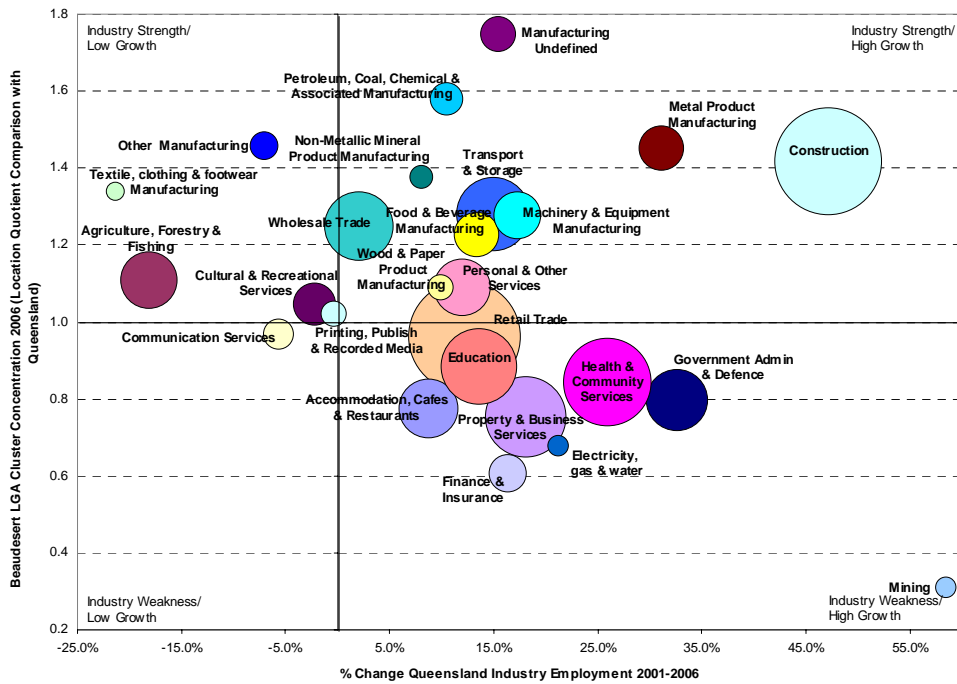
The table below summarizes the analysis of the cluster map and the specific opportunities for growth in the future.

Table C.3. Opportunities for Growth, Redland LGA

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Petroleum, coal, chemical & associated manufacturing; • Machinery & equipment manufacturing; • Wholesale trade; • Transport & storage; • Food & beverage manufacturing; • Finance & insurance; and • Property & business services. 	<ul style="list-style-type: none"> • Metal Product Manufacturing; and • Non-metallic mineral product manufacturing.

Beaudesert LGA

Figure C.4. Industry Cluster Map, Beaudesert LGA



Source: Australia Bureau of Statistics (2007a)

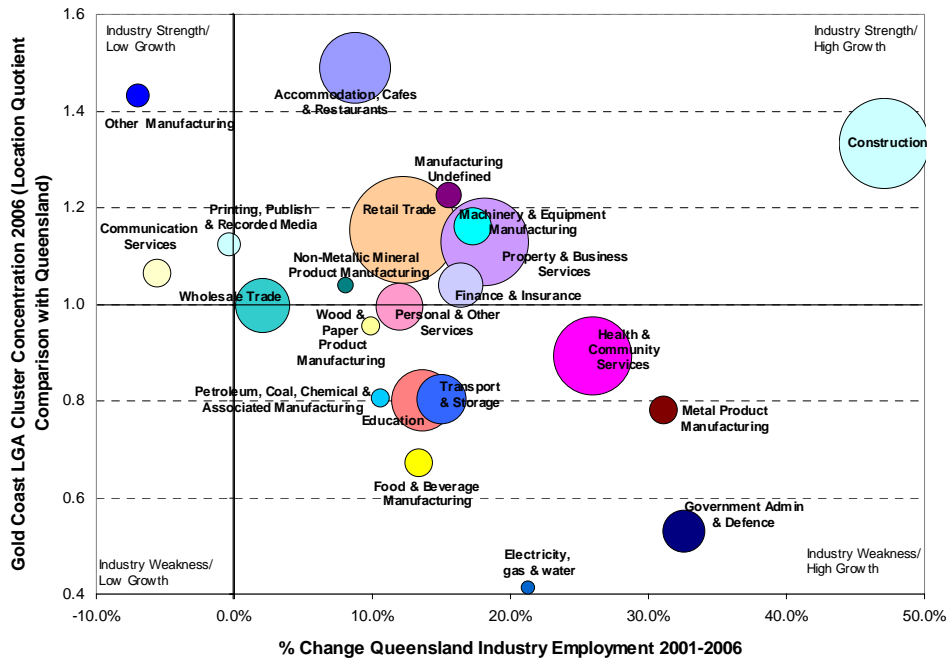
The table below summarizes the analysis of the cluster map and the specific opportunities for growth in the future.

Table C.4. Opportunities for Growth, Beaudesert LGA

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Petroleum, coal, chemical & associated manufacturing; • Non-metallic mineral product manufacturing; • Machinery & equipment manufacturing; • Metal Product Manufacturing; • Wholesale trade; • Transport & storage; • Food & beverage manufacturing. 	<ul style="list-style-type: none"> • Finance & insurance; • Property & business services; • Education.

Gold Coast LGA

Figure C.5. Industry Cluster Map, Gold Coast LGA



Source: Australia Bureau of Statistics (2007a)

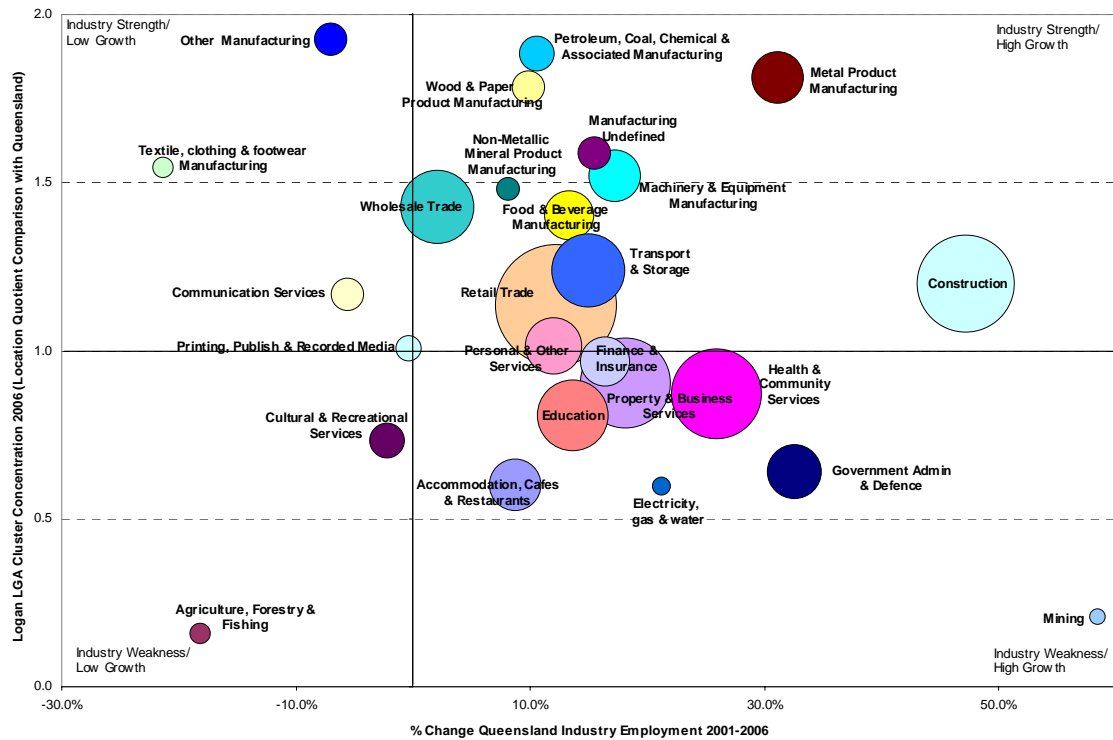
The table below summarizes the analysis of the cluster map and the specific opportunities for growth in the future.

Table C.5. Opportunities for Growth, Gold Coast LGA

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Accommodation, cafes & restaurants; • Machinery & equipment manufacturing; • Non-metallic mineral manufacturing; • Property & business services; • Finance & insurance. 	<ul style="list-style-type: none"> • Metal product manufacturing; • Transport & storage; and • Food & beverage manufacturing.

Logan LGA

Figure C.6. Industry Cluster Map, Logan LGA



Source: Australia Bureau of Statistics (2007a)

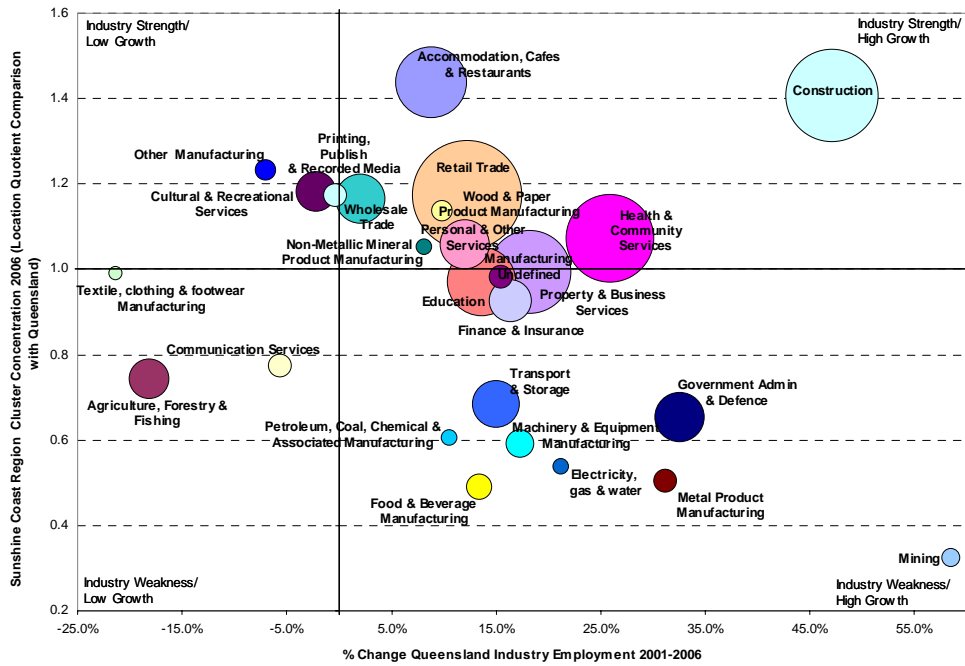
The table below summarizes the analysis of the cluster map and the specific opportunities for growth in the future.

Table C.6. Opportunities for Growth, Logan LGA

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Metal product manufacturing; • Transport & storage; • Wholesale trade; • Food & beverage manufacturing. • Machinery & equipment manufacturing; • Non-metallic mineral manufacturing. 	<ul style="list-style-type: none"> • Property & business services; and • Finance & insurance.

Sunshine Coast Region

Figure C.7. Industry Cluster Map, Sunshine Coast Region



Source: Australia Bureau of Statistics (2007a)

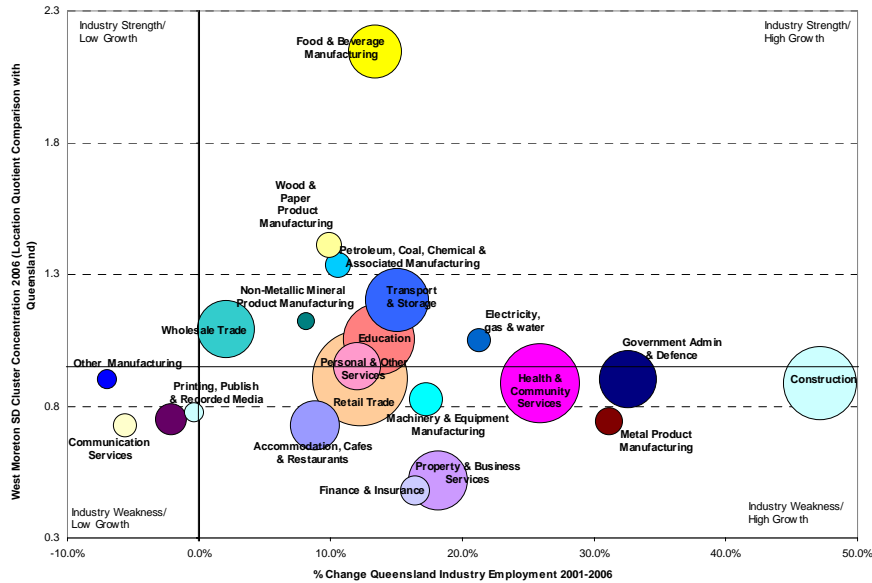
The table below summarizes the analysis of the cluster map and the specific opportunities for growth in the future.

Table C.7. Opportunities for Growth, Sunshine Coast Region

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> Wholesale Trade; Accommodation, cafes & restaurants; Wood & paper product manufacturing; and Non-metallic mineral product manufacturing. 	<ul style="list-style-type: none"> Property & business services; Finance & insurance; Transport & storage.

West Moreton Region

Figure C.8. Industry Cluster Map, West Moreton Region



Source: Australia Bureau of Statistics (2007a)

The table below summarizes the analysis of the cluster map and the specific opportunities for growth in the future.

Table C.8. Opportunities for Growth, West Moreton Region

High Growth Sectors/ Current Industry Strength	High Growth Sectors/ Current Industry Weakness
<ul style="list-style-type: none"> • Food & beverage manufacturing; • Wood & paper product manufacturing; • Petroleum, coal, chemical & associated manufacturing; • Transport & storage; • Wholesale trade; • Non-metallic mineral manufacturing; and • Education. 	<ul style="list-style-type: none"> • Property & business services; • Finance & insurance.

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