

Logan & Ipswich

A Skills Needs Analysis

November 2011



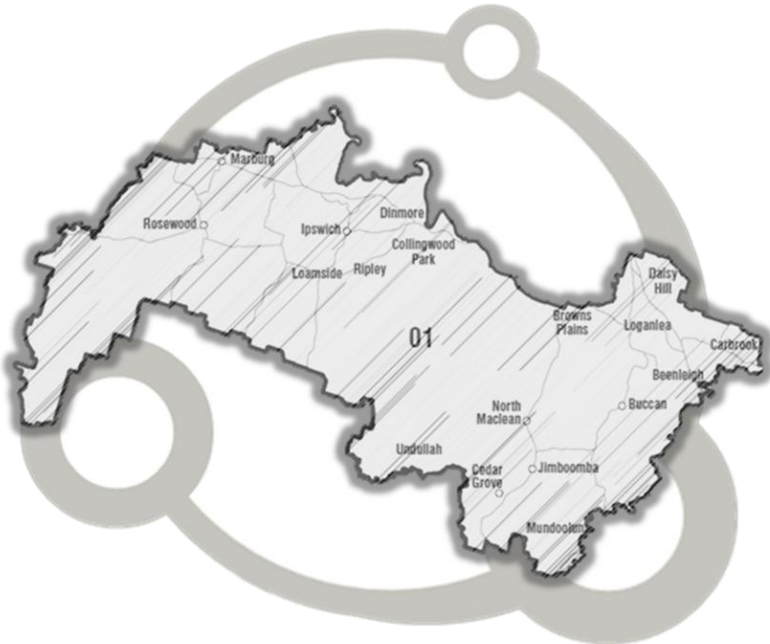
Community partnerships promoting...
enterprise, employment, education and training



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1. Executive Summary



South East Queensland's Western Corridor is destined to be the home of one of Queensland's largest population centres attracting unprecedented growth over the next twenty years. To sustain this growth the Logan and Ipswich region needs a skilled and well informed workforce.

In collaboration with the Commonwealth Department of Education, Employment and Workplace Relations, the Queensland Department of Employment, Economic Development and Innovation, the Queensland Department of Education and Training, Local Government, Industry Skills Councils and Regional Development Australia; Worklinks Inc. Partnership Brokers have developed this **Skills Needs Analysis** for the **Logan and Ipswich region**.

The Logan and Ipswich – A skills needs analysis provides information on the region, including a current industry profile. The skill shortage and future skill needs sections will help inform workforce planning as well as young people's career choices. The key industries section gives a detailed insight into the main industry sectors, listing occupations and skills in demand and specific industry links. The VET and SATs in schools section lists what Certificates each school is currently offering and what SATs students are currently undertaking. The Next Steps section outlines what young people in Logan and Ipswich are now doing after finishing school in 2010.

The final links section is a comprehensive list of resources that provides further information on education and training, career information, labour market and skills information and Logan and Ipswich regional information.

In the five years prior to 2011 and over the next five years, the top five industries are projected to change and grow in the region. Currently the top five industries by employment in the Ipswich region are Retail Trade, Health Care and Social Assistance, Public Administration and Safety, Construction and Accommodation and Food Services.

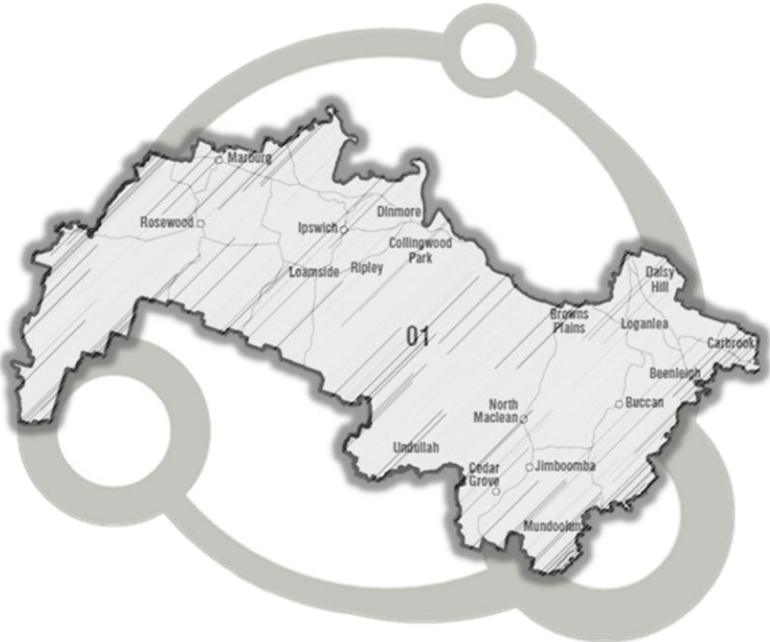
In comparison, the main employing industries in the Logan region (measured by the ABS through the South and East BSB Labour Force Region) are Education and Training, Health Care and Social Assistance, Professional, Scientific and Technical Services, Transport and Logistics and Construction.

It is projected that by 2015/16 the main industry by employment growth areas for both regions will include Construction, Health care and Social Assistance, Transport & Logistics, Wholesale Trade and Manufacturing. To address these future skills needs education and training priorities may need to change, ensuring that a well informed and appropriately skilled workforce is developed.

This document will help inform the future workforce development and planning for skilled workers. This information will be a valuable resource for schools, career pathways employers, recruiters, parents and young people; in fact all stakeholders interested in the skills requirements of the Logan and Ipswich regions.

As the Partnership Broker for Logan and Ipswich Worklinks Inc. is committed to supporting and improving the links between industry and schools so that learning continues beyond the classroom and transitions into pathways for young people, which are broad and encompassing.

2. Acknowledgements



Worklinks Inc. Partnership Brokers would like to thank the following people for their valuable contribution to this report:

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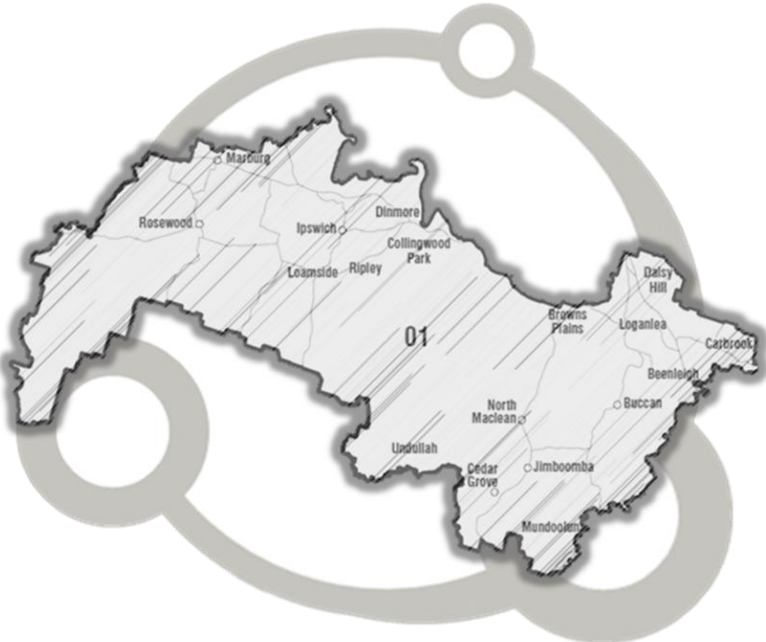
Deb Jones – Mining Industry Skills Centre

Robyn Keenan – Queensland Tourism Industry Council

Kristine Skippington – National Retail Association

Denise Poole – Transport and Logistics Industry Skills Council

3. Regional Profile



a. The Region

Ipswich-Logan, south and west of Brisbane, comprises two Local Government Areas (LGAs) covering in the vicinity of 2,000 square kilometres with a current population of approximately 440,000. The majority of the population growth in the South-East corner of Brisbane is expected to be in the Ipswich-Logan corridor with the combined medium series population projection of the area to reach approximately 861,000 by 2031.

South East Queensland's Western Corridor is destined to be the home of one of Queensland's largest population centres attracting unprecedented investment by both private and government sectors. State and Local Government, in partnership with industry have planned this growth as part of the South-East Queensland Regional Plan with the purpose of creating economically sustainable communities with balance between population growth, infrastructure, services, industry and employment.

The Ipswich-Logan region is culturally diverse, with residents from over 180 different ethnic groups and with over 80 different languages spoken making it one of the most culturally diverse regions in Australia.

The area is also characterised by a relatively young population. In the Ipswich and Logan City Council regions as at 30 June 2008, 23.6% and 23.3% of persons were aged 0-14 years, 66.6% and 68.4% were aged 15 to 64 years and 9.7% and 8.1% were aged 65 years and over, respectively. 53.9% of the Ipswich-Logan population was aged less than 35 years. In comparison, 50% of the Queensland population falls within this age bracket

Ipswich

At the time of the 2006 Census there were 4,729 persons in Ipswich City Council LGA who identified as Aboriginal or Torres Strait Islander origin. The indigenous population of Ipswich makes up 3.4% of the population of the region, well above the national percentage of 2.3% and above the Queensland average of 3.3%. The median age in the indigenous population in Ipswich is 17 years.

At the time of the 2006 Census a total of 15.4% of Ipswich residents were born overseas (lower than the national figure of 22.2%); the main countries of birth being England (4.0%), New Zealand (3.5%), Samoa (0.7%), Vietnam (0.7%) and Scotland (0.6%). The number of residents born overseas has risen since the 2001 census data by 14.84%.

The 2006 Census states that English is the only language spoken at home by 88.0% of Ipswich residents. The most common languages spoken at home other than English were Samoan 1.5%, Vietnamese 1.0%, Spanish 0.5%, German 0.3% and Dutch 0.2%.

Logan

At the time of the 2006 Census there were 6,156 persons in the Logan City Council LGA who identified as Aboriginal or Torres Strait Islander origin. The indigenous population of Logan makes up 2.5% of the population of the region, just above the national percentage of 2.3% and below the Queensland average of 3.3%. The median age in the indigenous population in Logan is 25-34 years.

At the time of the 2006 Census a total of 23.6% of Logan residents were born overseas (higher than the national figure of 22.2% and the Queensland figure of 17.9%); 9.8% were born in non English speaking countries (higher than the Queensland figure of 7.9%). 15.5% of Logan residents were born overseas (a rise of 14.84% when compared to the 2001 Census).

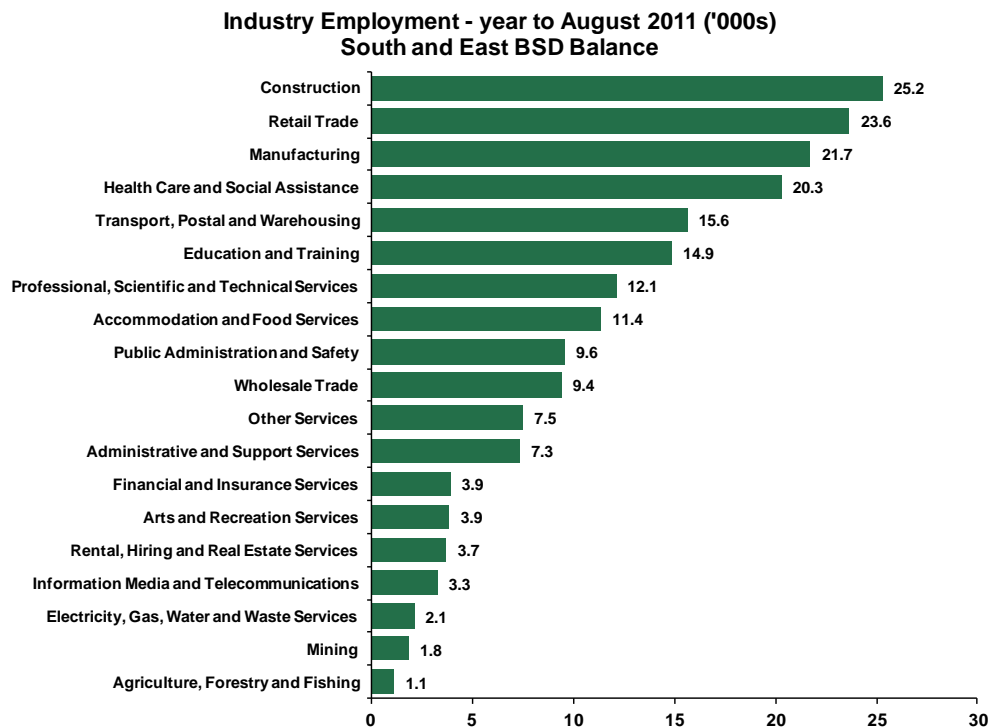
The top five languages (other than English) spoken at home are: Samoan (12%), Chinese (7%), Spanish (5%), Khmer (4%) and Tagalog/Filipino (4%). Logan is a major immigration destination for displaced and refugee people, which creates significant economic and social issues.

b. Current Industry Profile

Key industries in both the Ipswich and Logan regions include manufacturing and retail sectors, business and community services, building and construction and agricultural industries. This already diverse economy has the potential to grow and diversify further in the next 5 years while adding a stronger focus on technology and knowledge based industries.

Employment by Industry

NB. Specific data is not available for Logan, which is included in S & E BSD Balance (this also includes Redland City Council LGA).



Source: Department of Education, Employment and Workplace Relations' (DEEWR) Queensland Labour Economics Office (LEO)



Source: Department of Education, Employment and Workplace Relations' (DEEWR) Queensland Labour Economics Office (LEO)

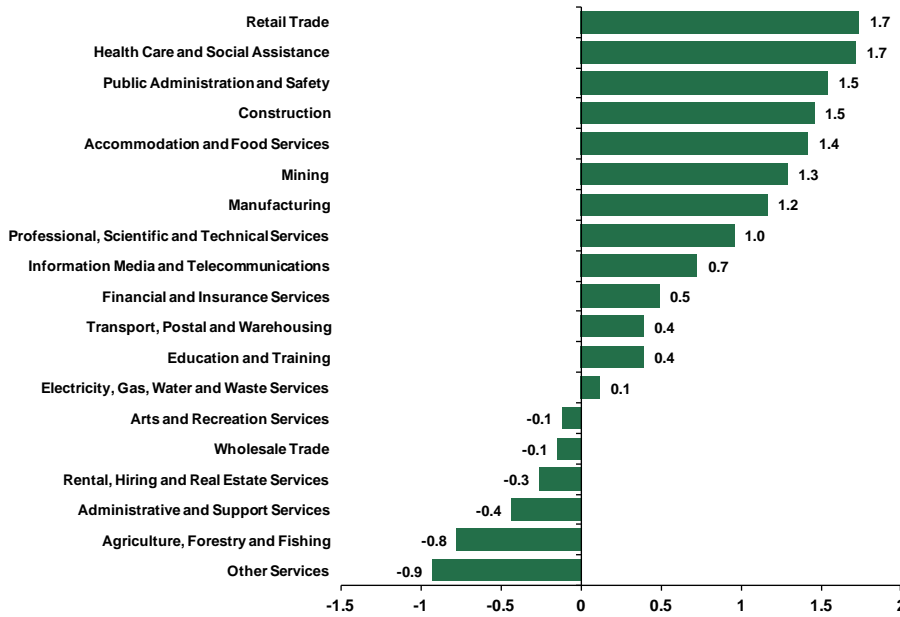
c. Industry Growth

Ipswich

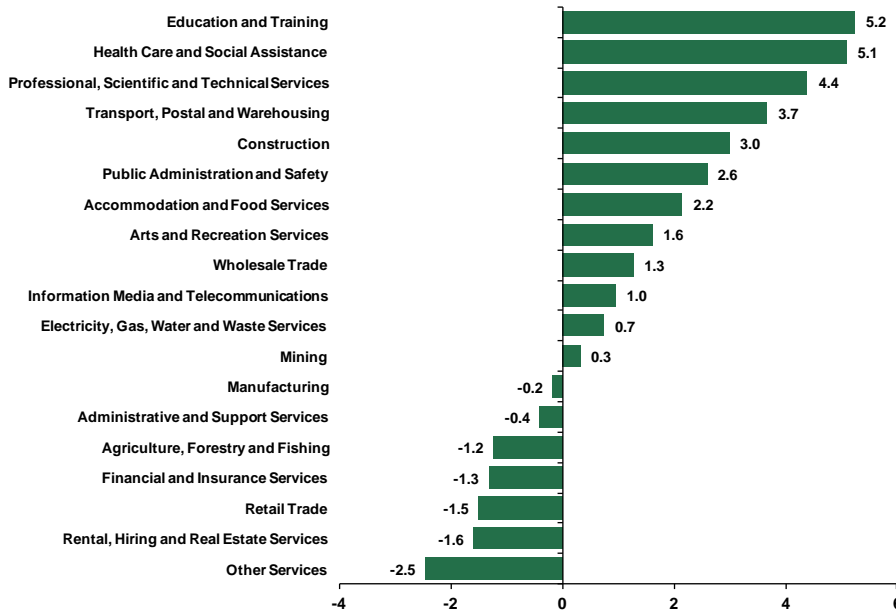
Ipswich LGA is the fastest growing region in Queensland with a current population of approximately 170,000 which is expected to increase by 265,000 by 2031. This growth will require an additional 120,000 jobs and 118,000 residential dwellings. Ipswich LGA has 43% of the available industrial land in SE Queensland. Currently there are fifteen industrial/commercial parks to meet the demands of industry in creating new jobs. A number of these parks are still in the early stages of development and will provide a diverse range of opportunities for businesses. The major residential development areas are in the master planned communities of Springfield and Ripley Valley.

Ipswich LGA industry Gross Value Add (i.e. industry contribution to Gross Regional Product (GRP)) 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%).

**Industry Employment Growth - 5 years to August 2011 ('000s)
Ipswich City**



**Industry Employment Growth - 5 years to August 2011 ('000s)
South and East BSD Balance**



Source: Department of Education, Employment and Workplace Relations' (DEEWR) Queensland Labour Economics Office (LEO) NB. Specific data is not available for Logan, which is included in S & E BSD Balance.

Logan

Logan LGA has a population of over 270,000, which is growing by 2% each year. Most of this growth will occur in the south western areas of the City in the new major residential development areas of Park Ridge, Greater Flagstone and Yarrabilba.

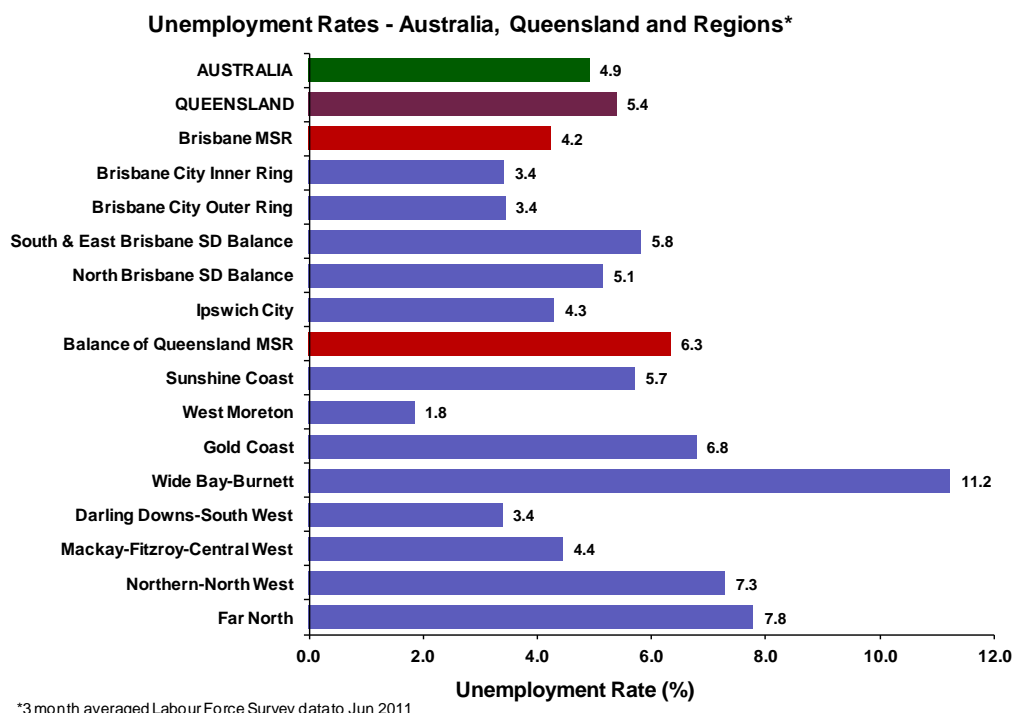
Logan has an estimated gross regional product of \$8.99 billion and a total output estimate of just over \$19 billion. The major contributors to output were manufacturing (28.0%), property and business services (12.8%) and construction (12.7%).

Logan exports 29.0% of its output and imports represent 25.6% of the output value. This economy has the potential to grow and further diversify in the next five years while adding a increased focus on

technology, innovation and knowledge-based industries. Logan City is a major economic destination within south east Queensland.

d. Unemployment Areas

Unemployment rates - national, state and local comparison.



Logan City					
Statistical Local Areas (SLAs)	Unemployment Rate (%) June 2010	Unemployment June 2010	Unemployment Rate (%) June 2011	Unemployment June 2011	Labour Force June 2011
Beaudesert (S) - Pt A	7.2	1,894	6.8	1,778	26,275
Browns Plains	6.8	1,279	6.4	1,191	18,720
Carbrook-Cornubia	3.4	84	3.5	84	2,434
Daisy Hill-Priestdale	6.8	199	6.6	195	2,938
Greenbank-Boronia Heights	7.2	338	6.5	306	4,690
Kingston	22.4	1,430	20.0	1,275	6,361
Logan (C) Bal	7.3	103	6.8	96	1,402
Loganholme	4.2	396	4.0	373	9,377
Loganlea	13.1	616	11.5	541	4,702
Marsden	13.3	1,398	12.3	1,292	10,521
Rochedale South	4.0	412	3.5	362	10,385
Shailer Park	3.8	318	3.4	279	8,243
Slacks Creek	6.7	496	6.6	488	7,354
Springwood	6.7	288	6.6	283	4,257
Tanah Merah	3.8	26	3.4	23	678
Underwood	5.0	158	4.4	138	3,145
Waterford West	10.1	314	9.8	304	3,110
Woodridge	22.5	1,962	20.2	1,758	8,716

Source: DEEWR Small Area Labour Markets estimates for June 2011, smoothed series (from Table 1 in the Small Area Labour Markets publication).

Ipswich City						
Statistical Local Areas (SLAs)	Unemployment Rate (%) June 2010	Unemployment June 2010	Unemployment Rate (%) June 2011	Unemployment June 2011	Labour Force June 2011	
Ipswich (C) - Central	5.1	1,974	6.1	2,396	39,134	
Ipswich (C) - East	5.6	1,657	6.3	1,895	30,191	
Ipswich (C) - North	2.4	126	2.7	143	5,225	
Ipswich (C) - South-West	2.8	71	3.2	82	2,581	
Ipswich (C) - West	2.8	122	3.2	139	4,344	

Source: DEEWR Small Area Labour Markets estimates for June 2011, smoothed series (from Table 1 in the Small Area Labour Markets publication).

e. Current Skill Shortages at a Glance

The Queensland Skill Shortage List - Queensland (Research to end June 2010) (showing all industry sectors) can be viewed at:

http://www.deewr.gov.au/Employment/LMI/SkillShortages/Documents/SSL_QLD.pdf

Automotive – automotive electricians, motor mechanics (general), diesel motor mechanics, small engine and motorcycle mechanics, specialist mechanical technology (light vehicle, heavy vehicle), high performance, custom-facing sales people; vehicle body builder, vehicle trimmer, outdoor power equipment mechanics

Construction – Plumbing, Bricklayer, Joiner, Painting Trades Worker, Solid Plasterer, Roof Tiler, Plumber (General), Drainer, Gasfitter, Roof Plumber

Creative Industry – Arts Administrator/ Manager (inc. business and financial skills), Broadcast Technologist/Outside Broadcasting Technician/Screen and Media Technician, Community Cultural Development Officer/Exhibition Developer and Manager, Designer (graphic, interactive media, multimedia, new media, social media and web), Digital Photographic Printer, Film Armourer, Games Developer/3D Animator/Visual Effects, Illustrator, Knowledge/Information Manager, Library Assistant/Library Technician, Make-up/Prosthetist/Colourist, Multimedia Specialist, Private Teacher/Tutor (art, dance, drama, music), Web Development (content management, database development, editing and publishing), Writers/Editors (digital and print), Binder and Finisher, Business Development/Sales and Marketing Manager, Digital Printer/Digital Press Operator (Inkjet; Continuous; Web Fed; Wide Format), Print Production/Machinist (including digital), Production Manager

Energy and Telecommunications (including ICT) – Electricians, Electrical and Instrumentation & Control dual tradespeople, Powerline Tradesperson, Telecommunications Tradespeople, Coals Seam Gas Drillers, Process Plant Operators, Mechanical and Diesel Fitters, Pipe Fitters and Coded Welders, Engineers of all persuasion, Various Construction and Engineering Tradespeople and semi skilled workers

Health and Allied Services – Chiropractor, Clinical Psychologist, Dental Technician, Dentist, Director of Nursing, Enrolled Nurse, Environmental Health Officer, Hospital Pharmacist, Medical Diagnostic Radiographer, Medical Radiation Therapist, Nuclear Medicine Technologist, Nurse Educator, Nurse Manager, Occupational Therapist, Optical Dispenser, Optometrist, Physiotherapist, Podiatrist, Mental

Health Nurse, Registered Midwife, Registered Nurse, Rehabilitation Counsellor, Retail Pharmacist, Social Worker, Speech Pathologist

Food Processing – Multi skilling of staff is important for smaller operations and regional sites – Food and Drink Factory Worker, Baker, Pastry Cook, Butcher, Meat Packer, Meat Process Worker, Meat Inspector, Slaughter, Boner, Slicer

Manufacturing – Aircraft Maintenance Engineer, Structures, School Laboratory Technician, Medical Laboratory Technician, Apparel Cutter, Clothing Pattern, Dressmaker, Tailor, Clothing Trade Worker, Fitter and Turner, Boiler maker, Metal Machinist, Industrial Painter, Sand Blaster, Refrigeration Mechanic, Welder, Metal Fabricator, Sheet Metal Worker, Boat Builder, Locksmith, Cabinet Maker, Glazier

Mining – Production Manager Mining, Accountant, Surveyor, Civil Engineer, Electrical Engineer, Mechanical Engineer, Mining Engineer, Petroleum Engineer, Geologist, Metal Fabricators, Welder (First Class), Fitter (General), Metal Machinist, Carpenter, Plumber (General), Electrician, Air conditioning and Refrigeration Mechanic, Motor Mechanic including Diesel Mechanic, Automotive Electrician, Driller

Retail – Sales Assistants – entry level, Cashiers, Area / Department Supervisors

Tourism and Hospitality – Customer service skills, Gaming worker, Hotel service manager, Fast food cook, Chef, Social media manager, Compliance / risk manager, Open innovation skills and knowledge, Language skills – mandarin, Green skills / sustainable tourism, Leadership & entrepreneurial skills – new product development, E-commerce (digital economy skills), Human Resource qualifications

Transport and Logistics – Truck Drivers: Local Delivery Driver (M/R – H/R licence), B-Double Driver/General Freight (particularly interstate driver), Dangerous Goods Driver (particularly tanker), Transport/Logistics Manager (Operations, Middle and Front-line Managers), Transport/Logistics Supervisor/Scheduler, Warehouse Manager, Forklift Operator, Transport and Logistics Trainers/Assessors, Aircraft Baggage Handler/Ground Crew, Aeroplane Pilot, Air Traffic Controller, Flying Instructor (Aeroplane and Helicopter), Deck Officer/Ship's Officer, Marine Engineer, Marine Pilot, Ship's Captain/Ship's Master, Deck Hand/General Purpose Hand/Integrated Rating, Maritime Trainer/Assessor, Train Driver, Railway Track Worker, Signal Technician/Signal Electrician, Rail Engineer, Signalling Engineer, Railway Track Plant, Driver/Operator, Train Controller, Possession Planner/Project Manager, Railway Shunter/Yard Assistant, Rail trainer/Assessor, Marine Pilot, Harbour master, Assistant/Deputy Harbour Master, Stevedore – Crane Driver, Forklift Operator, Port Engineer, Tug master

f. Emerging Industries

Water security, energy supply and environmental sustainability capabilities and Green/Clean Technology Industries are emerging industries in the Logan and Ipswich regions.

There will be new development in service delivery nodes that support improved liveability and working with groups that are disadvantaged, and with multicultural communities, with investment in retirement villages and support services for retirees.

These developing industries will require up-to-the minute technology with associated training which is not currently widely available in the region. The digital economy for this region as a result of the National Broadband Network (NBN), will present an opportunity to identify and deliver new on-line supported technology based training for the region.

In Australia, the (NBN) will become the key infrastructure that supports growth of our digital economy. The NBN is predicted to change the way Queenslanders do business through:

- new technologies and industries
- new products and services
- new domestic and international markets
- new ways of communicating with customers and suppliers
- new work habits, especially an increase in telecommuting.

As the Digital Economy develops resulting from the implementation of the National Broadband Network, this will provide opportunities for training and education to support new business technology development in Queensland and for training new staff with the appropriate technology software skills and ICT support services. This will also have a flow on affect for education such as Business Management, trade and investment, product development, planning etc. Business will be changing to meet the global digital economic advancements and capabilities available, impacting on suitable skills across all education sectors.

There will be a growth in the knowledge industry in this region in order to train for the new projects currently being planned in information technology, professional services, small business skills and the traditional trades in building, construction and engineering, civil construction, property development and eco business and associated service industry training.

With the ageing population the Health and Community Services Industry is also expected to increase, which will place pressure on current health services and increase the need for labour.

There will be a growth in the supply chain partners linked to these new industries.

Ipswich

Emerging industries in the Ipswich region include improving connectivity and creating the “InfoCity” infrastructure network and digital innovation. Ipswich is seeking to be at the forefront of information technology services with Springfield’s Polaris Data Centre being a major point of presence for internet connectivity and a leading data centre facility in Australia.

Another emerging industry is Aerospace with the Aerospace and Defence Support Centre – Amberley (ADSC-A) to be located on 183.5 hectares of land set aside for strategic aerospace innovation and defence support services for the Amberley mega airbase. The facilities will be divided into three main operational areas: Aerospace Maintenance Sub Area - 72.5 ha; Service Industry Precinct - 29.0 ha; Business and Office Precinct - 13.1 ha. The remaining area of 68.9 ha will be green space and future development areas.

Health and Community Services is also growing in the region as “Health City” at Springfield comes on line. This includes a hospital, allied health services, mental health, disability and aged care services with hotel accommodation being built to house families in the plan as well.

Logan

The health and wellbeing sector is an emerging industry with significant export potential and wealth creation for Logan City.

Tourism has also become an emerging industry with the development of the Loganholme Tourism Precinct, including the planned relocation of Alma Park Zoo.

Logan’s economic development vision includes attracting new investment in knowledge based, education, creative and sustainable industries.

g. Future Skill Needs (Australia)

Most new jobs will be in a small number of industries.

Nationally, all industries are projected to increase their employment over the next five years except *Manufacturing*, where employment is expected to decline (continuing a long-term trend). Over the five years to 2015-16, though, more than half of the new jobs in Australia are expected to be provided by just three of the 19 industries. The pie chart below shows that one in four new jobs (323 300 or 24.5% of new jobs) are expected to be in *Health Care and Social Assistance*, with *Construction* and *Professional, Scientific and Technical Services* together also creating more than a quarter of new jobs (195 800 and 149 800 respectively).

Other industries which are expected to provide large numbers of new jobs include *Transport, Postal and Warehousing* (77 000), *Retail Trade* (76 400) and *Mining* (69 200).

Projected Employment Growth to 2015-16, Top 10 Industries ('000)



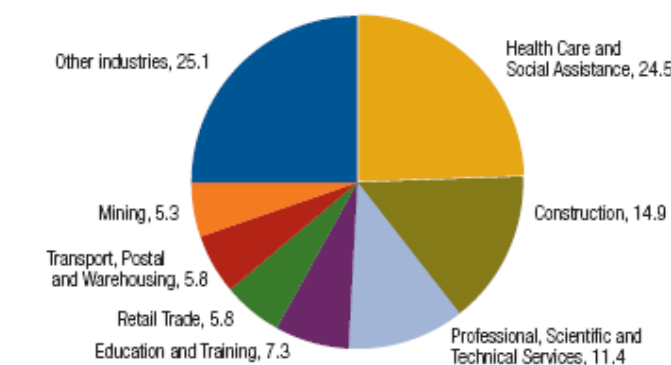
Source: DEEWR employment projections

Projected Employment Growth to 2015-16 Occupation Major Group ('000)



Source: DEEWR employment projections

Projected Employment Growth to 2015-16 Industry (% share)



Source: DEEWR employment projections

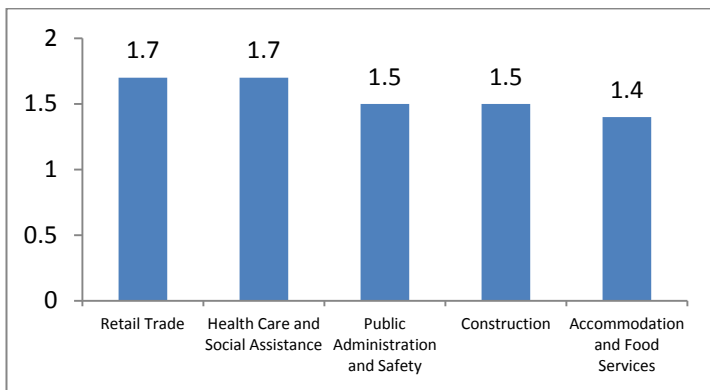
The national top ten industry subdivisions providing the most new jobs are expected to be:

- Building Installation Services (78,100)
- Hospitals (71,500)
- Architectural, Engineering and Technical Services (68,200)
- Cafes, Restaurants and Takeaway Food Services (67,900)
- Residential Care Services (56,200)
- Other Social Assistance Services (54,700)
- School Education (49,400)
- Building Completion Services (47,300)
- Allied Health Services (44,300)
- Computer System Design and Related Services (42,000)

Source: Australian Jobs 2011

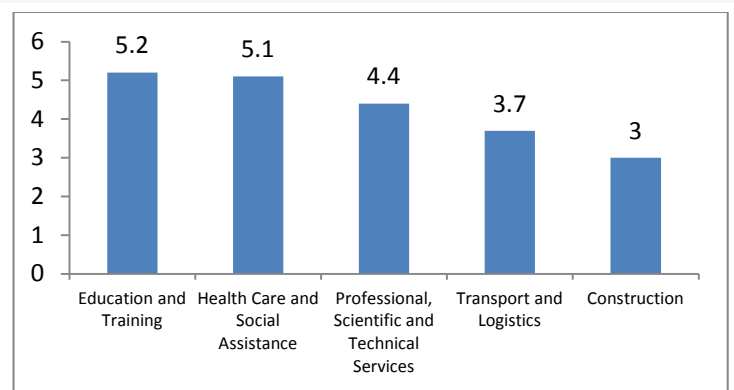
Logan & Ipswich Cities – Top 5 Industries – Employment Growth Comparison
 -5yrs ← 2011 → +5yrs

Industry Employment Growth - 5 Years to August 2011
 Ipswich City - Top 5 Industries (000's)



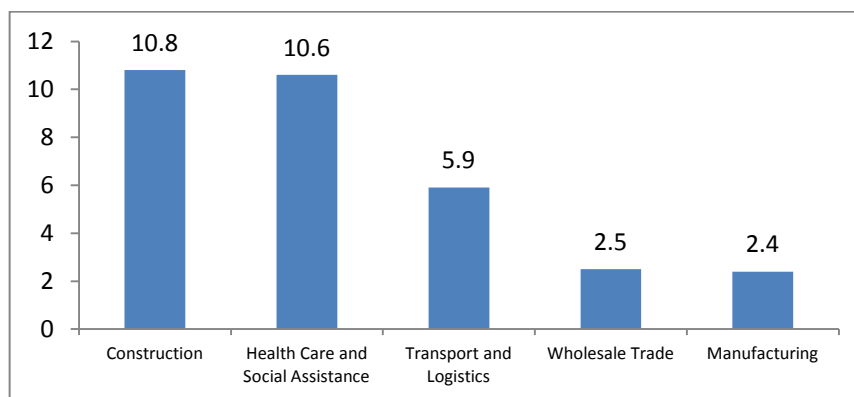
Source: DEEWR Queensland Labour Economics Office (LEO)

Industry Employment Growth - 5 Years to August 2011
 S&E BSD Balance (including Logan) - Top 5 Industries (000's)



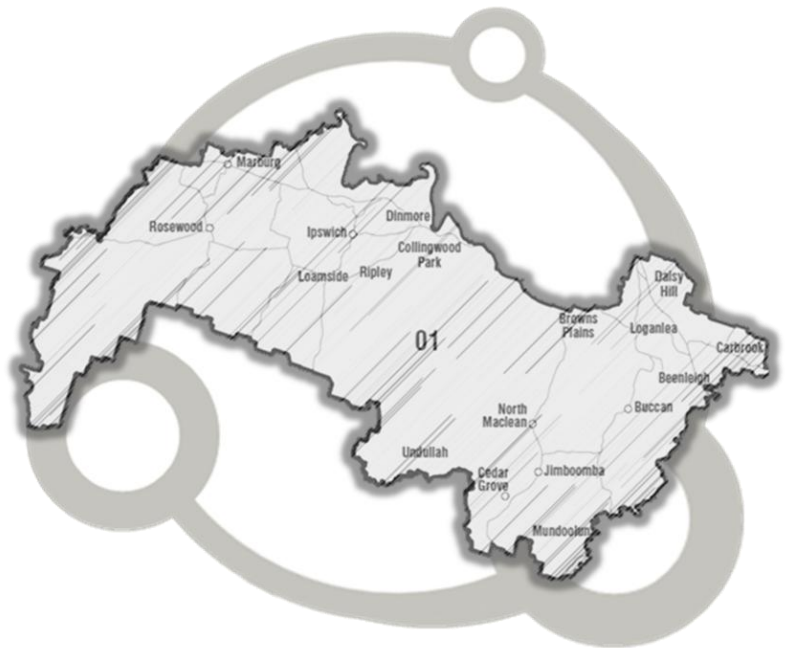
Source: DEEWR Queensland Labour Economics Office (LEO)

Projected Industry Employment Growth - 5 Years to 2015/16
 Logan & Ipswich Cities - Top 5 Industries (000's)



In many areas across Australia, manufacturing is an industry that is shrinking. However in the Logan and Ipswich regions food manufacturing, such as abattoirs and food processing plants as well as advanced metal manufacturing are expected to grow bucking this trend.

4. Key Industry Sectors



a. Automotive

Workforce Profile –

The Automotive Retail, Service & Repair (RS&R) industry covers the activities of businesses in almost the entire downstream of the motor industry (i.e. all activities related to the selling, maintenance and repairing of all vehicles). The sector includes:

Mechanical Technology (Light Vehicle, Heavy Vehicle & Specialist)

Light Vehicle

Heavy Vehicle & Heavy Equipment

Sales/Administration

Vehicle Body

Electrical Technology

Motorcycles

Outdoor Power Equipment

Marine

Bicycles

Motorsport

The Queensland Region –

The automotive industry sector generates revenue of \$13.1 billion annually and employs approximately 25,700 people or 1.1% of the Queensland workforce. Skilled trades staff represents the largest proportion of the industry workforce, the next largest group is managers and senior officials.

Entry level skill requirements are increasing, as is the requirement for upskilling the existing workforce. The automotive industry is making rapid technological advances which require a range of new technical skills. Most automotive systems such as braking, transmission and steering systems are controlled primarily by computers and electronic components. Vehicles are incorporating new technologies such as GPS and integration with mobile phones and the internet.

Automotive technicians are increasingly required to diversify their skills, and are frequently moving into areas of work which were previously undertaken by specialists, for example that of advanced diagnostic technicians.

Employers will increasingly require staff with critical thinking, quantitative, IT and communication skills. Problem solving and research skills will also be very valuable as the range of vehicles and technologies increases.

Occupations in demand for each industry sector:

Mechanical Technology (Light Vehicle, Heavy Vehicle & Specialist)

Mechanics

Vehicle Body Builder

Light Vehicle

Vehicle Trimmer

High demand for well trained multi skilled employees

Electrical Technology

Managers and supervisors

Automotive Electricians

Heavy Vehicle & Heavy Equipment

Motorcycles

Junior applicants

Mechanics

Employees need to be current with Outdoor Power Equipment technology

Sales/Administration	Mechanics
High performance, custom-facing salespeople including:	Sales people
Reception	Marine
Clerical	Employees with specialist knowledge and skills
Finance/accounts and insurance	Bicycles
Admin – vehicle stock movements	Repairers
	Employees with specialist knowledge and skills

5 Year Skills Outlook

- The greater need for Dual Trade Qualifications – this will be especially important for regional areas that already lack skilled tradespeople.
- Legislative pressures both in Australia and overseas will impact on the 5 year outlook. The Australian Government will impose from 2013, lower “Euro 5” exhaust emissions standards on all new cars, and further tightened to “euro 6” levels in 2018.
- Strong increase in the employment of vehicle inspectors and test certifiers due to increasing compliance regulations, especially around emissions.
- Decline in employment of collision repair technicians and automotive refinishers due to a slowing of demand for collision repair because of the trend to replace parts rather than repair. Furthermore, the insurance industry will take on the responsibility of repairing vehicles through their own shops.
- The demand for diesel technicians will be higher due to the faster growth of heavy vehicles and the increase in diesel light vehicles.
- There has been relatively strong growth in motorcycle dealing for a number of years, leading to a strong demand for small engine technicians.

10 Year Skills Outlook

- Sophisticated diagnostic equipment will become more common over the next ten years. The rise in electronic contents in vehicles will also contribute to the growth in technology in the future. This will need to be reflected in future training packages.
- Opportunities will exist in developing a service base for four-wheel drive vehicles and sport utility vehicles. The use of these vehicles grew strongly in the past decade, and will continue to represent a large proportion of vehicles on the road (although decreasing as consumers switch from the larger cars). This is because there are a number of smaller four-wheel drive vehicles on the market that are affordable to younger working people.
- The introduction of new types of cars into the market will create additional demand for mechanics. The technology of hybrid and electric cars is relatively new. As a result, these cars will require new types of repairs that do not exist in the more common cars that have been on the road for decades. Companies need to keep up with these potential repair areas and this can be done by constantly training staff. The way hybrid-electric vehicles (and electric vehicles in the longer term) are maintained will also change, as hybrid cars rely less heavily on the internal combustion engine, while electric cars do not require petrol to run at all.

- New vehicles will be fitted with advanced telematics technology, which will require sophisticated remote diagnostics equipment. Telematics refers to the technology used to facilitate the retrieval of electronic data from a vehicle.

Links –

Automotive Skills Queensland - www.asqld.org.au

Automotive Skills Australia – <http://www.autoskillsaustralia.com.au/>

Motor Traders Australia Queensland – <http://www.mtaq.com.au/>

Institute of Automotive Mechanical Engineers – <http://www.iame.com.au/>

Commercial Vehicle Industry Association of Queensland – <http://www.cviaq.com.au/>

Construction & Mining Equipment Industry Group – <http://www.cmeig.com.au/>

Australian Manufacturing Workers Union – <http://www.amwu.org.au/>

b. Construction

Workforce Profile –

The construction industry in May 2011 employed in Brisbane 97,800 people and made up 41% of the total Queensland construction workforce. (Source: ABS 6291.0.55.003 - Labour Force, Australia, Detailed, Quarterly, May 2011).

Logan & Ipswich Cities (Local Government Area) – Residential

The South East Queensland Infrastructure Plan forecasts considerable future growth in SEQ, including at least 754,000 additional dwellings by 2031. (Department of Local Government and Planning. Queensland Infrastructure Plan. Consultation Paper. July 2011.)

The population of Greater Brisbane (including Logan, Redland, Ipswich, Moreton Bay and West Moreton) has increased by 13% over the past five years and is now almost 2.2 million. However, growth in housing delivery has not kept pace with population growth. Over the past three years, only about 40,300 dwelling units have been approved – 60% of these houses and 40% other residential. (ABS 8731.0 Building Approvals, Australia, June 2011. Monthly. Original.)

The target of 754,000 additional dwellings in the next 20 years would require slightly less than this number (around 38,000) to be built *every year* to meet these targets.

While the building industry remains sluggish, major projects have been planned to meet the increasing demand for affordable housing, including new communities at Yarrabilba (near Logan:

20,000 dwellings); Flagstone (west of Jimboomba: 50,000 dwellings) and Ripley Valley (near Ipswich: 50,000 dwellings) to accelerate delivery and accommodate some of the anticipated future growth.

Non Residential

Substantial investment in industrial development is planned and underway, but much of the major works are public sector led. New Government office buildings are to be developed at Ipswich in order to drive growth in emerging communities. Ipswich hospital is being expanded and upgraded and expanded health facilities are planned for Logan. A replacement police station is to be constructed at Carina. A new Police Academy at Wacol is set to provide a significant boost to law enforcement training, as is a forensic facility at Oxley.

Engineering

The local and Queensland economy will be supported by key roads upgrades in the Brisbane region including upgrades to the Pacific and Ipswich Motorways. Transport investment is also planned to ensure efficient mass transit, including expanding existing bus and rail networks. Road reconstruction projects following the floods include the AJ Wylie Bridge, Brisbane Woodford Road and Mt Lindsay Highway. A Cross River Rail project is being investigated to boost the capacity of Brisbane's Inner City Rail Network. The Moreton Bay Rail Link is set to cater for rapid growth in Brisbane's northern corridor (Department of Local Government and Planning. Queensland Infrastructure Plan. Consultation Paper. July 2011.)

Construction Employment

Despite Brisbane having a relatively low unemployment rate overall, the construction industry in Brisbane lost 10,000 employees between November 2010 and May 2011. In May 2011, the construction industry in Brisbane (including West Moreton) employed 97,800 people and made up 41% of the total Queensland construction workforce. In line with the soft industry conditions, advertisements for construction tradespersons declined over the year in Brisbane. Adverts for construction and mining labour have also fallen off slightly over the past quarter, but remain above those at the same time last year. Conversely, increased adverts for associated occupations indicate increasing tightness in the market for electrical, telecommunications and mobile plant trades.

Apprentices & Trainees

Brisbane accounted for 43% of Queensland's construction apprentices and trainees in training in July 2011. The distribution of apprentices and trainees between the different construction subsectors in Brisbane was similar to that for Queensland overall. The Ipswich region is a notable exception with a significantly higher proportion of engineering (26%) and civil (15%) apprentices and trainees and a lower proportion of electrical (17%) apprentices and trainees.

For the Logan and Ipswich regions, the key priority construction industry sectors for training in 2011 include the following:

- Civil Construction
- Electrical
- Engineering

- General Construction (including Bricklaying, Painting & Decorating, Wall & Floor Tiling, Cabinet Making, Plastering etc.)
- Off Site

Occupations and Skills in Demand –

- Plumbing
- Bricklayer
- Joiner
- Painting Trades Worker
- Solid Plasterer
- Roof Tiler
- Plumber (General)
- Drainer
- Gasfitter
- Roof Plumber

(Source: Skill Shortage List, Queensland Department of Education, Employment and Workplace Relations Page 2 of 5 Current at 30 June 2011)

Links –

Construction Skills Queensland – <http://www.csq.org.au/>

Energy Skills Queensland – www.energyskillsqld.com.au

Master Builders – www.masterbuilders.asn.au/

Housing Industry Association – www.hia.com.au/

c. Creative Industry

Workforce Profile –

The true economic value of the creative and cultural industries is somewhat masked by the fact that at least one third of creative professionals engage in work in other Industries. The lines between creative fields are increasingly blurred. Visual artists use interactive and moving images, performers use digital media in site-specific works, and collaborative teams create sophisticated productions that captivate our senses.

The Australian creative capability comprises the following sectors:

- Architecture, Design and Visual Arts
- Music and Performing Arts
- Film, Radio and Television
- Writing and Publishing
- Advertising and Marketing
- Creative Software Applications

The Queensland Region –

The creative industries are a priority in Queensland's Smart State initiative, because they are innovation led, knowledge intensive and highly exportable. According to the Australian Bureau of Statistics (ABS), over 3.5 million or 22 per cent of Australians were involved in work in the creative and leisure industries in 2007.

In Queensland in August 2011 40,526 people were employed in the Arts and Recreation sector realistically taking into account creative workers in other industries and flow on impacts, this figure is more likely to be 65,000 people. The sector also contributes approximately \$1 billion to the value of all goods (1.2% to 1.4% of gross state product) and generates between \$75 million and \$100 million in exports annually.

Occupations and Skills in demand –

Arts Administrator/ Manager (inc. business and financial skills)	Make-up/Prosthetist/Colourist
Broadcast Technologist/Outside Technician/Screen and Media Technician	Multimedia Specialist
Community Cultural Development Officer/Exhibition Developer and Manager	Private Teacher/Tutor (art, dance, drama, music)
Designer (graphic, interactive media, multimedia, new media, social media and web)	Web Development (content management, database development, editing and publishing)
Digital Photographic Printer	Writers/Editors (digital and print)
Film Armourer	Binder and Finisher
Games Developer/3D Animator/Visual Effects	Business Development/Sales and Marketing Manager
Illustrator	Digital Printer/Digital Press Operator (Inkjet; Continuous; Web Fed; Wide Format)
Knowledge/Information Manager	Print Production/Machinist (including digital)
Library Assistant/Library Technician	Production Manager

Links –

Creative Industries Skills Council – <http://www.cisc.com.au/>

Creative Industries – Queensland University of Technology – <http://www.qut.edu.au/creative-industries>

Australian Council – Creative Industries –

http://www.australiacouncil.gov.au/research_hub/hot_topics/creative_industries

Arts Queensland – <http://www.arts.qld.gov.au/>

Design Institute of Australia – <http://www.dia.org.au/>

Australian Copyright Council – <http://copyright.org.au/>

Australia Business and Arts Foundation – <http://www.abaf.org.au/>

Australian Graphic Design Association – <http://www.agda.com.au/>

d. Education and Training

Workforce Profile –

The Education and Training industry is the fourth largest industry in Australia, employing 829 800 people nationally (or 7.6 per cent of the total workforce) as at February 2010. This sector is expected to grow at around 2.1% equating to an extra 95,700 jobs by 2015/16. (Source: DEEWR Employment Projections – Australian Jobs 2011.)

Education and Training is divided into five sectors consisting of:

- Preschool Education
- School Education
- Tertiary Education
- Adult, Community and Other
- Education and Educational Support Services

The Queensland Region –

In 2010, the proportion of the Queensland population aged 25-64 with a Certificate III or above qualification, including higher education qualifications, stood at 54.1 per cent, an increase from 50.3 per cent in 2007. Queensland is currently ranked sixth in Australia against other states and territories. In 2009, 91 per cent of Year 12 students completed a School-based Apprenticeship or Traineeship, Queensland Certificate of Education, International Baccalaureate Diploma or Vocational Education and Training (VET) certification, up from 89 per cent in 2008. In 2010, 180,881 publicly funded students participated in VET courses at Certificate III and above, up from 176,140 in 2009 and 162,704 in 2007. In 2009, there were 20,125 bachelor degree completions at Queensland higher education institutions.

Queensland's qualification profile has been slowly but steadily improving over the past decade in response to shifting aspirations, improvements in education and training systems, increased demand for skills in traditional and emerging industries, and interstate and overseas migration to Queensland. The Education and Training Reforms for the Future initiatives have transformed the senior phase of schooling in Queensland, giving students greater means to achieve a senior certificate. Ongoing reform of the Queensland VET system over recent years has improved the alignment of skills delivery with industry needs, and the Skilling Queenslanders for Work initiative is providing disadvantaged jobseekers and low skilled workers with foundation skills to help them secure and sustain employment or attain higher.

Toward Q2

Toward Q2 is the Queensland Governments vision to meet the future challenges of Queensland.

Q2 has been divided up into 5 key areas:

- Strong Economy
- Smart Education
- Healthy Queenslanders
- Fair Communities

Smart Education

- Three out of four Queenslanders will hold a trade, training or tertiary qualifications.
- Measure – Proportion of 25-65 year olds with a Certificate III or higher.

Occupations and Skills in Demand –

Teaching in State Schools:

The Department of Education and Training needs high achieving and skilled professionals who are dedicated and enthusiastic, flexible and team orientated to teach in our schools. Employment as a teacher in Queensland state schools are vacancy driven and aim to match school needs with the expertise of applicants.

Currently Education Queensland is in considerable demand for the following specialist areas in high school:

- Chemistry
- Home Economics
- Industrial Technology and Design
- Junior Secondary
- Language Studies, (Japanese)
- Mathematics B & C
- Physics
- Senior English
- Special Education

It is predicted that these will continue to be in demand in the future.

Queensland currently has a significant number of qualified primary teachers seeking employment each year. The majority of permanent vacancies for primary school are in rural, remote or regional locations.

Teaching in Early Childhood

The Early Childhood and Education (ECEC) Sector is one of the fastest growing industries in Australia offering a range of job and career progression opportunities for entry through to professional levels. The Queensland and Australian Government have committed \$900 million dollars to the early childhood sector to improve access to kindergarten, improve the quality of care and create extra services throughout the state.

Teaching in TAFE

Teaching in TAFE is a fulfilling and rewarding career that enables people to share their extensive trade, professional or technical knowledge, skills and experience to develop the skills of a next generation.

Embracing innovation, technology and links with industry, TAFE teachers are highly valued in their contribution to critical skills shortage areas, boosting Queensland's skills base and building the future workforce.

Links –

Teaching Current Vacancies – <http://education.qld.gov.au/hr/recruitment/teaching/current-vacancies.html>

Teaching Related Careers – <http://education.qld.gov.au/hr/recruitment/teaching/related-careers.html>

Towards TQ – <http://www.towardq2.qld.gov.au>

e. Energy and Telecommunications (including ICT)**Workforce Profile –**

The energy and telecommunications industry is moving towards an exciting but challenging period. Australia is on the verge of entering what is perhaps the largest energy and resources boom in its history creating unprecedented demand for skilled workers. Workforce projections indicate that between 45,000 and 72,000 new jobs will be created by the energy and resources industry over the next three years with a peak workforce demand occurring in 2013/14.

This industry in Qld includes:

- CSG/LNG (Coal Seam Gas/Liquid Natural Gas)
- Electricity Generation
- Electricity Supply Industry
- Electrotechnology
- Gas Transmission and Distribution
- Sustainable Energy
- Telecommunication

The Queensland Region –

The energy and telecommunication industries in Queensland currently employs 136,000 workers and this number is expected to increase by 4.4% over the next 12 months, and could potentially grow to 155,000 by 2021. However, the existing age profile of the energy and telecommunication workforce shows that many workers are approaching retirement age. With the planned energy and electricity projects for Queensland in the coming 5 to 10 years, it is predicted that there will be a major shortage of professionals and paraprofessionals in the engineering, electrotechnology and construction trades, estimating that the energy and telecommunication industries alone will need approx. 35,000 new employees.

Logan and Ipswich Cities –

Ipswich City is a stage 2 implementation site for rollout of the National Broadband Network commencing late 2011. This will eventually make its way to surrounding areas such as Logan City in the near future. Skills and employment is a key focus for this industry for the Ipswich and surrounding areas to support the required workforce. In addition to Telecommunications Cablers, Satellite installation and in-home wiring, this initiative will also require supporting occupations such as Project Managers, OH&S Advisors, Quality Assurance, Design OAD and Traffic Controllers. The implementation of infrastructure for the NBN will also generate employment in a range of supporting

industries such as transport and logistics, hospitality, waste management, warehousing and distribution.

ICT Streams –

- **Technology/application builders** are responsible for all aspects of building ICT systems, applications and technologies
- **Technology services** cover all areas of the delivery of ICT services to users, from helpdesk to network management, systems administration to account management
- **Enterprise implementation** covers aspects of ICT that relate to changes to the management or operation of the enterprise
- **Enterprise governance** includes all aspects of policy and strategy including strategic information management and enterprise architecture

Occupations in demand for each industry sector –

- Electricians
- Electrical and Instrumentation & Control dual tradespeople
- Powerline Tradesperson
- Telecommunications Tradespeople
- Coals Seam Gas Drillers
- Process Plant Operators
- Mechanical and Diesel Fitters
- Pipe Fitters and Coded Welders
- Engineers of all persuasion
- Various Construction and Engineering Tradespeople and semi skilled workers

Critical occupations – 5 Year Outlook

Electrical Supply Industry	Electrotechnology
Electrical engineers	Electrical engineers
Electrical distribution trades workers	Electronics engineers
Electronic trades workers	Electrical engineering draftspersons, technicians
Chemical, gas, petroleum and power plant operators	Electricians
Telecommunications	Electrical distribution trades workers
ICT Trainers	Electronics trades workers
ICT support technicians	Gas, LPG and CSG/LNG
Telecommunications technical specialists	Electrical engineers
Electrical distribution trades workers	Electronics engineers
Telecommunications trades workers	Utilities/gas operators (chemical, gas, petroleum and power plant operators)
	Drillers, miners and shot firers
	Drillers assistant

Links –

Energy Skills Qld - www.energyskillsqld.com.au/

Coal Seam Gas/Liquefied Natural Gas Sector -

CSG/LNG Projects in Qld - <http://www.energyskillsqld.com.au/industry-sectors/coal-seam-gas-liquefied-natural-gas-industry/csglng-in-queensland>

Electricity Generation Sector –

CS Energy - Careers Page - [http://www.csenergy.com.au/content-\(29\)-careers.htm](http://www.csenergy.com.au/content-(29)-careers.htm)

ERM Power - Careers Page - <http://www.ermpower.com.au/about/careers>

NRG Gladstone Power Station - Careers Page - <http://www.nrggos.com.au/page/Careers/>

Origin Energy - Careers Page - <http://www.originenergy.com.au/566/Careers>

Stanwell Corporation - Careers Page - <http://www.stanwell.com/careers.aspx>

Electricity Supply Industry Sector -**Industry Associations**

The Electrical and Communications Association (ECA) - www.masterelectricians.com.au/page/ECA/

Master Electricians - www.masterelectricians.com.au/

Electrical Trades Union (ETU) - <http://www.etu.org.au/>

Energy Networks Association - <http://www.ena.asn.au/>

Energy Supply Association of Australia (ESAA) - <http://www.esaa.com.au/>

Electrotechnology Sector –**Industry Associations**

Australian Institute of Refrigeration, Air-conditioning and Heating (AIRAH) -

www.airah.org.au/iMIS15_Prod/AIRAH/

Australian Refrigeration Council Ltd - www.arctick.org/index.php

The Electrical and Communications Association (ECA) - www.masterelectricians.com.au/page/ECA/

Gas Transmission and Distribution Sector -**Industry Associations**

Australian Gas Industry Trust (AGIT) - <http://www.agit.org.au/>

Australian Petroleum Production and Exploration Association (APPEA) - <http://www.appea.com.au/>

Australian Pipeline Industry Association (APIA) - <http://www.apia.net.au/>

Energy Retailers Association of Australia - <http://www.eraa.com.au/>

Sustainable Energy Sector –

Sustainable & Renewable Energy Initiatives - <http://www.energyskillsqld.com.au/sustainable-energy/news-events-and-links>

Telecommunication Sector -**Industry Associations**

Australian Communications & Media Authority (ACMA) -

<http://www.acma.gov.au/WEB/HOMEPAGE/PC=HOME>

Communications and Information Technology Training Ltd (CITT) - <http://www.citt.com.au/>

Innovation & Business Skills Australia (IBSA) - <http://www.ibsa.org.au/>

f. Health and Community Services

Workforce Profile –

The Health and Community Services industry is divided into eight sectors including:

- Medical Services
- Other Health Care Services
- Hospitals
- Pathology and Diagnostic Imaging Services
- Allied Health Services
- Other Social Assistance Services
- Residential Care Services
- Child Care Services

The Health and Community Services industry continues to have difficulty attracting sufficient skills and labour to the industry and experiences high turnover of staff, with a significant proportion of staff exiting the sector every year.

The Queensland Region –

The Health and Community Services industry is the second-largest employing industry in Queensland with 10.9% of the labour market, and is the largest employing industry nationally. The industry currently has an average annual growth in employment of 5.9%.

The Health Industry represents approximately 59% of the Health and Community Services workforce in Australia. Hospitals account for 31.2% of this workforce and Medical and Other Health Services account for a further 27.7%. In Queensland, Health employs approximately 164,190 workers as at May 2011, or 7% of the Queensland workforce.

Community Services represent approximately 42% of this workforce, providing community care and social assistance services in all communities. Key sectors within Community Services include Children's Services, Aged and Community Care, Child Protection, Youth, Disability, Community Mental Health, Advocacy Services, Social Welfare, Mediation and Counselling services.

There is a global shortage of physicians, nurses, allied professionals, support workers and administrators, and Queensland is no exception.

Occupations and Skills in Demand

Chiropractor	Clinical Psychologist
Dental Technician	Dentist
Director of Nursing	Enrolled Nurse
Environmental Health Officer	Hospital Pharmacist
Medical Diagnostic Radiographer	Medical Radiation Therapist
Nuclear Medicine Technologist	Nurse Educator
Nurse Manager	Occupational Therapist
Optical Dispenser	Optometrist
Physiotherapist	Podiatrist
Mental Health Nurse	Registered Midwife

Registered Nurse	Rehabilitation Counsellor
Retail Pharmacist	Social Worker
Speech Pathologist	

Five Year Skilling and Workforce Development Priorities

- Training and development programs redesigned to enable new and changed roles and respond to the multiple reforms in the industry
- Investigate funding models that support clinical placements and backfill in recognition of the current blockages due to an existing skill and labour shortage
- Improve industry's understanding of VET and industry's role in influencing the training system and the training they purchase
- Development of partnership broker roles to support industry partnerships with VET in key occupations and sectors
- Support for regional clusters of service providers, education and training providers and policy-makers to facilitate regional workforce planning, role design and regional training networks
- Implement prolongation and participation programs for the ageing workforce such as re-entry programs, refresher courses, occupational transition, knowledge management programs
- Increase training places and incentives for health professionals including medical assistants

Ten Year Skilling and Workforce Development Outlook

Health industry will continue to grow rapidly over the next decade. The industry will continue to experience significant skill and labour shortages, particularly in the professions. This, in turn will place increased pressure on the training and education sectors, and availability of clinical placements to support training will remain a potential blockage in developing the future health workforce.

New technologies and advances in health care will continue to create rapid changes in the nature and complexity of health services. The focus of priority will continue to move toward the community setting and on preventive and primary health services. Significant changes to the structure and funding of key parts of the industry will have significant impact on the work roles and career pathways.

Links –

Health & Community Services Workforce Council – <http://www.workforce.org.au/about.aspx>

Health Skills Formation Strategy – <http://www.workforce.org.au/media/72886/hsfs%20report%20-%20low%20res.pdf>

Health Workforce Australia – <http://www.hwa.gov.au/>

Dept of Health and Aging – <http://www.health.gov.au/>

Queensland Health – <http://www.health.qld.gov.au/>

Australian Research Alliance for Children and Youth – <http://www.aracy.org.au/>

g. Manufacturing

Workforce Profile

The manufacturing sector in Queensland is made up of a number of diverse industry subsectors and employs a total of approximately 187,520 people (*ABS Labour Force Australia, cat. no. 6291.0.55.003*).

Logan City (Local Government Area)

The manufacturing sector in Logan is a lead industry sector, contributing an estimated \$5.47+ billion (28.5%) of total output or gross revenue for the City. Manufacturing employs an estimated 9,370 people and contributes \$1.29+ billion (16.5 %) of total value added to intermediate inputs (*Source - Logan Office of Economic Development*).

For the Logan region, the key priority manufacturing industry sectors for training in 2011 include the following:

- Engineering – General
- Process Manufacturing – Chemicals, Building Products, Plastics and Fibre Composites
- Laboratory
- Food Processing
- Meat Processing
- Furniture

Ipswich City (Local Government Area)

Between 2007-08 and 2025-26, Gross Value Added (GVA) for manufacturing in Ipswich is expected to increase by approximately \$2.0 billion. In the same period, total employment is expected to increase by 153.1% or 79,282 jobs. Manufacturing is projected to provide 6.0% per annum to this growth figure. The strong growth demonstrated by the manufacturing sector relates to the strengths of the Ipswich economy and the abundance of available industrial land. The growth in this sector is further supported by other developments such as the expansion of Amberley Air Base (*Source – Ipswich City Council Economic Profile*).

For the Ipswich City region, the key priority manufacturing industry sectors for training in 2011 include the following:

- Engineering – General
- Engineering – Aeroskills
- Process Manufacturing – Chemicals, Building Products, Plastics and Fibre Composites
- Laboratory
- Food Processing
- Meat Processing
- Furniture

Occupations in demand for each industry sector:

Engineering – Aeroskills

Aircraft Maintenance Engineer, Structures

Meat Processing

Butcher

Laboratory	Meat Packer
School Laboratory Technician	Meat Process Worker
Medical Laboratory Technician	Meat Inspector
Food Processing	Slaughter
Food and Drink Factory Worker	Boner
Baker	Slicer
Pastry Cook	Engineering – General
Textiles, Clothing and Footwear	Fitter and Turner
Apparel Cutter	Boiler maker
Clothing Pattern	Metal Machinist
Dressmaker	Industrial Painter
Tailor	Sand Blaster
Clothing Trade Worker	Refrigeration Mechanic
Furniture	Welder
Cabinetmaker	Metal Fabricator
Glazier	Sheet Metal Worker
	Boat Builder
	Locksmith

Links –

Manufacturing Skills Queensland

<http://www.msq.org.au/>

Job Outlook is a careers and labour market research information site to help you decide on your future career. The link below is: Manufacturing

<http://joboutlook.gov.au/pages/industryspecific.aspx?industry=C>

Skills Australia link to industry snapshots: Manufacturing

http://www.skillsaustralia.gov.au/PDFs_RTFs/IndustrySnapshots/Manufacturing.pdf

Manufacturing Skills Australia

<http://www.mskills.com.au/>

<http://www.makeit.net.au/>

Agrifood Skills Australia - The key body on skills, training and workforce development issues for the national agrifood industry: rural and related industries, food processing (including beverages, wine and pharmaceuticals), meat, seafood and racing

<http://www.agrifoodskills.net.au/>

h. Mining

Workforce Profile –

The mining industry makes up 8% of the Queensland State's workforce and is predicted to undergo rapid expansion over the next 10 years, across the State. The purpose of this report is to identify

where this growth will be in relation to the available workforce, and the skills gaps that exist to enable workforce sustainability. Within Queensland there are current skills shortages for critical roles in the mining industry as the sector competes for a shrinking workforce on a scale never experienced before. Timing of new and expanding projects is predicted to increase workforce participation by over 60,000 including construction workers, placing further pressure on an already stretched workforce supply.

The Queensland Region –

The Mining industry makes a direct contribution of approximately 21% to the Queensland economy. This includes:

- Income to residing employees and contractors
- Goods and services expenditure and voluntary community contributions
- Royalties paid by industry. In 2009-10 royalties paid by industry were just over \$2.14bn. This is forecast to increase by just over 50% by 2021, leading to a royalty payment to the state of \$3.21bn

When indirect contributions are added, this can equate to an increase of approximately 50% total contribution. Indirect contributions include:

- Additional income to other services in the local areas and jobs created in different industries as a result of the mining industry operation, e.g. banking and retail
- Consumption effects that the contribution income generated both directly and indirectly has had through its expenditure

In Queensland:

- There are 38 mineral and 41 coal mines operating in Queensland, with further 9 mines currently under construction
- 58 new mining projects have been proposed, and 51 are planned for first mine within the next 10 years
- Within Queensland there are more than 25 different minerals mined
- The primary activities of the Queensland mining industry include:
 - coal mining
 - metal ore mining

Occupation and Skills in Demand –

The Skills Australia 2011 Interim Report on mining sector skills needs has detailed positions identified as skills shortage positions in the mining and mining sector over the past ten years. These include:

Occupation and Skills in Demand –

Production Manager Mining	Welder (First Class)
Accountant	Fitter
Surveyor	Metal Machinist
Civil Engineer	Carpenter
Electrical Engineer	Plumber (general)
Mechanical Engineer	Electrician
Mining Engineer	Air conditioning and Refrigeration Mechanic

Petroleum Engineer	Motor Mechanic including Diesel Mechanic
Geologist	Automotive Electrician
Metal Fabricators	Driller

High operational efficiency delivering a substantial reduction in energy consumption and emissions will require more advanced trade level skills in the following roles:

- Energy/Emissions Accountants
- Fixed Plant Mechanic/Diesel Fitters
- Equipment Operators
- Electricians
- Drill and Blast Technicians

The pursuit of operational efficiency and added focus on energy and emissions reduction will need to be supported by a higher proportion of people skilled in the following areas:

- Instrumentation Technicians Drillers
- Boilermakers (gas piping)
- Electricians
- Mechanics/Electricians
- Underground Mine Workers
- Underground Coal Gasification (UCG) Workers

Five year skilling and workforce development priorities –

All economic predictions are indicating that it is unlikely the mining industry will experience a down turn over the next five years. The priorities of 2011-12 will have to be further developed and implemented across the mining sector.

- Workforce Planning
- Critical Roles and Training Capacity
- 457 Visas
- Professional Development of Trainers
- Industry Pathway Programs
- Supervisor Training
- Statutory Training
- Associate Professionals
- Role Profiling
- Automation Technicians

Ten year skilling and workforce development priorities –

- **Global Resource Training Centre**
The output of the mining sector will continually place pressure on the skills available globally. The introduction of the accelerated skilling hubs will establish Queensland as an international centre of education innovation across the mining sector. It is a priority of the Skills Centre to demonstrate the effectiveness of these centres to produce the skills aligned to the current and emerging career pathways required for the industry.
- **Research and Development**

The need for continual research on the impact of advanced technologies in production as well as learning will ensure these centres are aligned to industry needs. The focus will be on further establishing partnerships with leaders in workforce planning.

Links –

Mining Industry Skills Centre Inc. – <http://www.miskillscentre.com.au/our-services/workforce-planning-initiatives/skills-strategy.aspx>

SkillsDMC – <http://www.skillsdmc.com.au/>

Project Canary – <http://www.projectcanary.com/>

Queensland Resources Council – <https://www.qrc.org.au/default.asp>

Anglo Coal – <http://www.anglocoal.com.au/>

Australia Coal Association Research Program – <http://www.acarp.com.au/>

BHP Billiton – <http://www.bhpbilliton.com/home/businesses/metallurgicalcoal/Pages/default.aspx>

Rio Tinto – <http://www.riotinto.com/>

Xstrata – <http://www.xstrata.com/>

Simulation Industry Association of Australia – <http://www.siaa.asn.au/>

Fatigue Calculator – http://www.fatiguecalculator.com.au/html/s01_home/home.asp

i. Retail

Workforce Profile –

The retail sector in Queensland is made up of industry subsectors Food Retailing, Household Goods, Clothing, Footwear, Personal Accessories, Department Stores, Cafes, Restaurants, Takeaway Food Services and other Retailing. The retail industry employs a total of approximately 212,422 people, 11.6% of Queensland employment. *(Qld Regional Profiles Qld Government – Office of Economic and Statistical Research)*

Logan City (Local Government Area) –

The retail sector in Logan is a lead employment sector. Retail in the Logan area employs an estimated 14,440 people. *(Source - Logan Office of Economic Development)*

For the Logan region, the key priority retail industry sectors for training in 2011 include the following:

- Sales Assistants – entry level
- Cashiers
- Area / Department Supervisors

Ipswich City (Local Government Area) –

The retail sector in Ipswich is a lead employment sector. Retail in the Ipswich area employs an estimated 6,931 people. *(Source - Ipswich City Council's Office of Economic Development).*

Retail spending in Ipswich is predicted to increase from \$2.4 billion in 2011 to \$4.5 billion in 2021, due to population growth.

A three-storey shopping centre planned as part of the billion-dollar Ipswich City Heart redevelopment has already attracted interest from potential major tenants. The 63,000sq m city heart redevelopment site is expected to receive interest from national and international investors, with the proposed shopping precinct set to rival centres in Brisbane's south and west once completed. (Source – Ipswich Economic Update)

For the Ipswich region, the key priority retail industry sectors for training in 2011 include the following:

- Sales Assistants – entry level
- Cashiers
- Area / Department Supervisors

Links –

National Retail Association

NRA is a not for profit employer association that has been representing the interests of the retail, fast food and broader service sector for almost 100 years. NRA is Australia's largest and most representative retail industry organisation servicing its members from offices located in Melbourne, Sydney, Brisbane and Cairns.

The majority of Australia's national retail chains rely on NRA for the delivery of professional services. NRA operates as a one-stop shop for these organisations providing them with advice and representation across all Australian jurisdictions.

NRA assists businesses to comply with an ever changing and growing regulatory environment.

<http://www.nra.net.au>

National Retail Institute – Registered Training Organisation

The NRA has served the industry as a Registered Training Organisation (RTO), operating since 1998. Additionally, the NRA provides an important advisory service to government regarding skilling, training and workforce development issues and needs.

The NRA delivers a range of pre-employment skills programs specifically designed to train and motivate various categories of job seekers to obtain current skills and knowledge to gain employment in the ever growing retail industry.

NRI has been delivering these programs to priority population groups throughout Australia

The NRA has built a reputation throughout its members, clients, job service agencies and state-based government networks as having a “world class practice” in delivering accredited pre-employment pathways for job seekers wishing to gain employment in the retail, hospitality and services sectors.

National Retail Institute has Government funded jobseeker training programs* in both the Logan and Ipswich areas for 2011 – 2012. To enquire please phone 1800 732 066.

*Accredited Training provided through these projects are at no cost to eligible participants. Projects have been funded by the Department of Employment, Economic Development & Innovation. This is a joint Commonwealth and Queensland Government Incentive through the Skilling Queenslanders for Work Productivity Places Program.

<http://www.nra.net.au>

j. Tourism and Hospitality

Workforce Profile –

Tourism, hospitality and events businesses are at the frontline of Queensland's economy providing consumer goods and personal and leisure services to both domestic and overseas consumers. The industries are influenced by continual changes in local, national and international customer demand and expectations, as well as trends in an increasingly global market place. Tourism and hospitality is a labour intensive, 24/7 industry. It has one of the lowest levels of post-school qualification and is growing at a rate faster than most other sectors of the workforce.

The tourism, hospitality and events industries include accommodation, restaurants, cafés, bars, catering, gaming, meetings, events (business and leisure), conference organisers, tour operations, tourist information services, tour guiding, holiday parks and resorts, cultural tourism, casinos and caravan park operations.

The Queensland Region –

In 2008-09 tourism directly accounted for 118,000 jobs and indirectly accounted for a further 102,000 jobs, or 9.9% of total employment in the state. This is substantially more than the mining sector (43,800 direct jobs) or even agriculture, forestry and fishing (81,900 direct jobs). Cafes, restaurants and takeaway food services had the largest share of tourism employment (26%), followed by retail trade (21%) and accommodation (15%).

In the year ended June 2007, Queensland had 115,500 tourism related businesses, representing 28.5% of all registered businesses in the state. Queensland tourism related businesses account for 19.7% of all tourism related businesses in Australia. No other sector of the economy has more small businesses, with 9 in 10 tourism businesses employing less than 20 persons.

In 2008-09 direct and indirect tourism Gross State Product (GSP) was \$17 billion, or 7.0% of total Queensland GSP.

For the year ended December 2010 tourism exports were \$3.8 billion for Queensland.

For the year ending March 2011 domestic overnight visitors spent \$10.8 billion (down 8%), domestic day visitors spent \$3.6 billion International visitors spent \$3.7 billion on their trips, representing an annual change of -7%, in the year ended March 2011.

Queensland welcomed 2 million international visitors in the year ended March (up 1%).

There were 16 million domestic overnight trips taken in Queensland in year ended March 2011, up 3%. Interstate visitors totalled 5.3 million (up 5%), and intrastate visitors totalled 10.7 million (up 3%).

Occupation and Skills in Demand –

Skills needs across the industry are complex and are driven by a range of factors. Solutions for skills and labour shortages are not confined to providing more training but need to be addressed in the context of broader industry issues.

Tourism and hospitality employed 674,000 workers nationally in 2009, an increase of 93,000 from 2001. This represents a growth rate of 1.8 per cent per year. Tourism Satellite Accounts for 2008-09 showed that 118,000 Queenslanders were directly employed in tourism with a further 102,000 indirectly employed. This comprised a total 9.9 percent of the Queensland workforce.

Changes in tourism and hospitality employment between 2001 and 2009 are shown across occupational classes in the table below. By far the two most prominent occupations in the sector are those of waiter and kitchen hand. Over 100,000 people nationally were employed in each of these occupations in 2009. The next largest occupations are those of chef, cafe or restaurant manager, bar attendant, cook and fast food cook.

As identified in the below table, the occupations in demand include (change over the period shown in percentages):

- Gaming worker up 9.5%
- Hotel service manager up 9.6%
- Fast food cook up 8.7%
- Chef up 5.2%

The Centre for the Economics of Education and Training (CEET) report proposes the industry will require 18,000 chefs and 13,000 fast food cooks in 2010-2015. While growth in the fast food cooking occupation is the main factor affecting requirements for qualified chefs, growth and replacements needs are both affecting requirements of qualified fast food cooks. Despite a high rate of turnover in the occupation, requirements for qualified cooks are relatively low (6,000). This is because employment is forecast to decline in this occupation.

Leadership and entrepreneurial skills are particularly important across tourism and hospitality businesses, with an emphasis on recruitment and retention, cultural awareness/diversity, sustainability and innovation.

Furthermore, it is worth noting other skill sets in demand include:

- Tourism qualifications for marine tourism operators;
- Tourism qualifications for adventure tourism;
- Indigenous arts and culture for Indigenous tourism; and
- Training and Assessing (TAE10) qualifications to build capacity for industry trainers.

In addition, a number of Queensland business operators have identified that several jobs are in high demand:

- Social media manager
- Compliance / risk manager
- Open innovation skills and knowledge
- Language skills – mandarin
- Green skills / sustainable tourism
- Leadership & entrepreneurial skills – new product development
- E-commerce (digital economy skills)
- Human Resource qualifications

Links –

Queensland Tourism Industry Council – <http://www.qtic.com.au/>

SkillsLink – www.qtic.com.au/skillslink

Hospitality Crew – <http://hospitalitycrew.com.au/>

Tourism Queensland – <http://www.tq.com.au/>

Tourism in Brisbane Fact Sheet –

http://www.tq.com.au/fms/tq_corporate/research%20%28NEW%29/Economic%20and%20Forecasts%20Data/Brisbane%20Tourism%20Economic%20Facts%20-%20Nov%2010.pdf

Tourism Australia – <http://www.tourism.australia.com/home.asp>

Tourism Forecasting Committee – http://www.tourism.australia.com/en-au/default_3936.aspx

Tourism Research Australia – <http://www.ret.gov.au/tourism/tra/Pages/default.aspx>

k. Transport and Logistics

Transport and Logistics Industry Skills Council – Skill Shortages

The skills base and labour pool in Australia’s Transport and Logistics Industry will need to increase in size and capability if it is to respond to the challenges from the increasing freight task and population growth. Conservative estimates put employment growth in transport and logistics at an average of 2.3 percent a year until 2014-15, which equates to around 67,000 new jobs.

Australia’s freight task in 2020 will be double that of 2006. By 2050 it will have tripled. The skills base and labour pool in Australia’s Transport and Logistics Industry will need to increase in size and capability if it is to respond to the challenges arising from the productivity agenda and population growth.

Occupations and Skills in Demand –

Logistics Management, Road Transport and Rail

Warehousing

Truck Drivers: Local Delivery Driver (M/R – H/R licence) Train Driver

B-Double Driver/General Freight Railway Track Worker

(particularly interstate driver)	
Dangerous Goods Driver (particularly tanker)	Signal Technician/Signal Electrician
Transport/Logistics Manager (Operations, Middle and Front-line Managers)	Rail Engineer, Signalling Engineer
Transport/Logistics Supervisor/Scheduler	Railway Track Plant Driver/Operator
Warehouse Manager	Train Controller
Forklift Operator	Possession Planner/Project Manager
Transport and Logistics Trainers/Assessors	Railway Shunter/Yard Assistant
Aviation	Rail trainer/Assessor
Aircraft Baggage Handler/Ground Crew	Ports
Aeroplane Pilot	Marine Pilot
Air Traffic Controller	Harbour master, Assistant/Deputy Harbour Master
Flying Instructor (Aeroplane and Helicopter)	Stevedore – Crane Driver, Forklift Operator
Maritime	Port Engineer
Deck Officer/Ship's Officer	Tug master
Marine Engineer	
Marine Pilot	
Ship's Captain/Ship's Master	
Deck Hand/General Purpose	
Hand/Integrated Rating	
Maritime Trainer/Assessor	

Links –

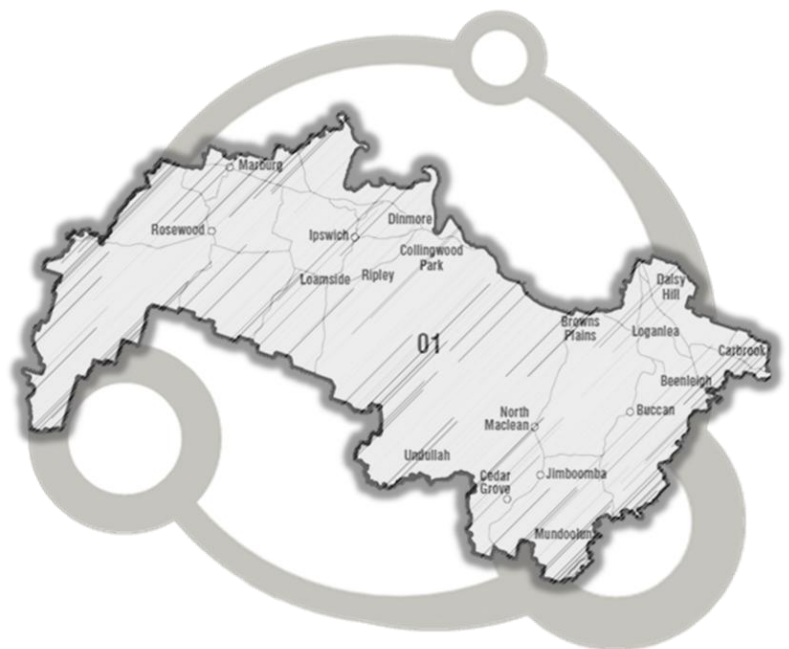
Transport and Logistics industry Skills Council – www.tlisc.com.au

Department of Transport and Main Roads – <http://www.tmr.qld.gov.au/>

Australian Apprenticeship and Traineeships Information Service – <http://www.natinfo.com.au/>

Department of Education, Employment and Workplace Relations – <http://www.deewr.gov.au>

5. VET in Schools



Vocational Education and Training (VET) in Schools

Vocational education and training (VET) is learning which is directly related to work. Courses are developed by industry to give people the knowledge and skills they need to work in a particular job.

You can undertake vocational education and training at school:

- as part of your school studies
- by enrolling in a course at a TAFE or other training organisation
- as a school-based apprenticeship or traineeship.

The type of vocational education and training you do will depend on what your school offers, so talk to your guidance officer, career counsellor, vocational education coordinator or head of senior schooling about the range of programs available.

Enrolling in a course at a TAFE or other training organisation

At some schools, students can enrol in a vocational education and training course delivered by a TAFE institute or other training organisation during school time. Achievement in these courses can also be recorded on your senior certificate.

Pre-vocational and pre-apprenticeship courses

Pre-vocational (which means before work) and pre-apprenticeship courses help you develop skills to get a job, or prepare you to become an apprentice or trainee.

Completing a relevant pre-vocational or pre-apprenticeship course not only allows you to see what working in a particular job is like; it may also reduce the term of an apprenticeship or traineeship if you decide to continue your training.

You can study pre-vocational and pre-apprenticeship courses at high school, before commencing an apprenticeship or traineeship or as a way to get a job.

To find information on the pre-vocational or pre-apprenticeship courses available, visit the Queensland training information service (QTIS) – <http://tsx.dtiir.qld.gov.au/cgi-bin/dycgi03.exe/inetsite/app/qtis/qtis.stm> database and search for the occupation or industry you are interested in (for example, search for 'mechanic' or 'automotive').

More information about VET in schools can be accessed via:

- Queensland Studies Authority – <http://www.qsa.qld.edu.au/576.html>
- Training Queensland – <http://training.qld.gov.au/individuals/students/courses/vet-schools.html>
- Apprenticeships info – <http://www.apprenticeshipsinfo.qld.gov.au/>

Information on VET in schools awards and competitions can be found at:

- World Skills Australia – <http://www.worldskills.org.au/index.php?dashboard=home>
- Queensland Training Awards – <http://www.qta.qld.gov.au/index.htm>
- Australian Vocational Student Prizes – <http://www.deewr.gov.au/Schooling/AustralianVocationalStudentsPrize/Pages/Home.aspx>
- Awards for Excellence in Schools – <http://education.qld.gov.au/community/events/showcase/>

VET currently being offered in Logan and Ipswich schools –

Logan Schools

	Beenleigh State High School	Browns Plains State High	Calvary Christian College	Canterbury College	Chisholm Catholic College	Emmaus College	Flagstone State Community	Groves Christian College	Hills International College	John Paul College	Kimberley College	Kingston College	Loganlea State High School	Mabel Park State High School	Marsden State High School	Park Ridge State High School	Parklands Christian College	Shailer Park State High School	Springwood State High School	St Francis College	The Centre Education	Trinity College	Windaroo Valley State High	Woodridge State High School	YMCA School
Cert I in Automotive			na							na				✓				✓							✓
Cert II in Automotive		✓	na							na															✓
Cert I Engineering	✓	✓	na			✓				na			✓	✓	✓	✓								✓	
Cert I in Construction	✓	✓	na			✓				na			✓	✓	✓	✓	✓			✓			✓	✓	
Cert II in Construction		✓	na							na															
Cert I in Furnishing	✓		na				✓			na	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
Cert II in Furnishing		✓	na							na															
Cert I in Manufacturing			na				✓			na													✓		
Cert II Electro-technology		✓	na							na															
Cert I in Hospitality (Ops)		✓	na	✓	✓	✓	✓		✓	na			✓	✓	✓			✓	✓				✓		
Cert II in Hospitality (Kitchen)	✓	✓	na	✓	✓				✓	na			✓					✓	✓	✓		✓		✓	
Cert I in Transport & Logistics			na							na															✓
Cert I Retail			na							na			✓	✓									✓		
Cert II Retail			na							na			✓	✓											✓
Cert II Fashion Design		✓	na							na															
Cert II in Tourism	✓		na							na			✓	✓				✓	✓		✓			✓	
Cert III in Tourism		✓	na							na															

Logan Schools

	Beenleigh State High School	Browns Plains State High	Calvary Christian College	Canterbury College	Chisholm Catholic College	Emmaus College	Flagstone State Community	Groves Christian College	Hills International College	John Paul College	Kimberley College	Kingston College	Loganlea State High School	Mabel Park State High School	Marsden State High School	Park Ridge State High School	Parklands Christian College	Shailer Park State High School	Springwood State High School	St Francis College	The Centre Education	Trinity College	Windaroo Valley State High	Woodridge State High School	YMCA School
Cert III in Events Management	✓	na								na															
Cert II in Hairdressing	✓	na								na															
Cert I in Business	✓	na	✓					✓	na	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cert II in Business	✓	na	✓	✓	✓	✓	✓	✓	na	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
Cert III in Business	✓	na	✓						na	✓															
Cert IV in Business		na							na	✓															
Cert I in Information Technology	✓	na	✓				✓	✓	✓	na	✓	✓	✓	✓			✓			✓	✓	✓	✓	✓	✓
Cert II in Information Technology	✓	na	✓	✓	✓	✓	✓	✓	✓	na	✓	✓	✓	✓			✓	✓			✓	✓	✓	✓	✓
Cert III in Information Tech		na							✓	na	✓	✓	✓					✓							
Cert III in Aged Care		✓	na							na															
Cert II Live Production & Theatre	✓	na								na					✓								✓	✓	
Certificate I Creative Industries		na								na			✓			✓	✓						✓		
Certificate II Creative Industries		na				✓	✓	✓		na			✓	✓		✓									

Logan Schools

	Beenleigh State High School	Browns Plains State High	Calvary Christian College	Canterbury College	Chisholm Catholic College	Emmaus College	Flagstone State Community	Groves Christian College	Hills International College	John Paul College	Kimberley College	Kingston College	Loganlea State High School	Mabel Park State High School	Marsden State High School	Park Ridge State High School	Parklands Christian College	Shailer Park State High School	Springwood State High School	St Francis College	The Centre Education	Trinity College	Windaroo Valley State High	Woodridge State High School	YMCA School
Certificate II in Music		na				✓				na					✓			✓	✓	✓				✓	
Certificate III in Music		na								na															✓
Certificate II in Visual Arts	✓	na	na							na			✓	✓	✓			✓						✓	✓
Certificate III in Visual Arts		✓	na							na															
Cert I in Community Recreation		na								na				✓				✓					✓	✓	
Cert II in Community Recreation		✓	na			✓				na			✓				✓	✓					✓		
Cert II in Sport Coaching		na								na										✓					
Cert I in Sport & Recreation		na								na	✓														
Cert II in Sport & Recreation		na								na	✓				✓										
Cert III in Sport & Recreation	✓	na								na															✓
Cert IV in Sport & Recreation		na								na															✓
Cert II Outdoor Recreation		na								na													✓		
Cert I Horticulture	✓	na								na															
Cert II Horticulture (Landscape)	✓	na								na					✓										
Cert I Conservation & Land Mmt		na								na			✓												

Logan Schools

	Beenleigh State High School	Browns Plains State High	Calvary Christian College	Canterbury College	Chisholm Catholic College	Emmaus College	Flagstone State Community	Groves Christian College	Hills International College	John Paul College	Kimberley College	Kingston College	Loganlea State High School	Mabel Park State High School	Marsden State High School	Park Ridge State High School	Parklands Christian College	Shailer Park State High School	Springwood State High School	St Francis College	The Centre Education	Trinity College	Windaroo Valley State High	Woodridge State High School	YMCA School
Cert II Conservation		na								na			✓												
Cert II in Agriculture		na								na			✓												
Cert III in Beef Production	✓	na								na															
Cert I Animal Studies	✓	na								na															
Cert II Animal Studies	✓	✓	na							na															
Cert I Rural Operators	✓	na						✓		na		✓													
Cert II Rural Operators	✓	na								na															
Cert III Theology		na								na															
Cert I in Work Readiness		na								na		✓	✓	✓	✓			✓							✓
Cert I Work Education	✓	✓	na		✓	✓		✓	✓	na		✓	✓	✓	✓		✓		✓	✓	✓		✓		
Cert II in Workplace Practices	✓	na		✓	✓			✓	✓	na		✓	✓	✓		✓		✓		✓	✓		✓		

Ipswich Schools

	Bremer State High School	Bundamba SHS	Goodna Special School	Hymba Yumba Community Hub	Ipswich Girls' Grammar School	Ipswich Special School	Ipswich SHS	Redbank Plains SHS	Rosewood SHS	Staines Memorial College	St Augustine's College	St Edmund's College	St Mary's College	St Peter Claver	West Moreton Anglican College	Westside Christian College	Woodcrest College
Cert I in Automotive												✓					
Cert I Beauty							✓										
Cert I in Nail							✓										
Cert I Engineering	✓	✓						✓				✓		✓			
Cert I in Electro Comms														✓			
Cert I in Construction	✓						✓	✓				✓					
Cert I in Construction General							✓	✓				✓					
Cert I in Furnishing	✓	✓					✓	✓	✓					✓	✓	✓	
Cert I in Manufacturing														✓	✓		
Cert I in Hospitality (Ops)					✓		✓	✓	✓					✓	✓	✓	✓
Cert II in Hospitality (Kitchen Ops)					✓		✓	✓	✓					✓	✓		
Cert I Retail		✓						✓					✓				
Cert II Retail		✓						✓					✓				
Cert I in Tourism					✓							✓					
Cert II in Hairdressing							✓										
Cert I in Business	✓	✓	✓				✓	✓	✓		✓	✓	✓				
Cert II in Business	✓	✓		✓	✓		✓	✓		✓	✓	✓	✓	✓		✓	✓
Cert II in Business Comms															✓		
Cert I in Info Tech	✓	✓			✓		✓	✓	✓			✓		✓	✓		✓
Cert II in Info Tech	✓	✓			✓		✓	✓	✓		✓	✓		✓		✓	✓

Ipswich Schools

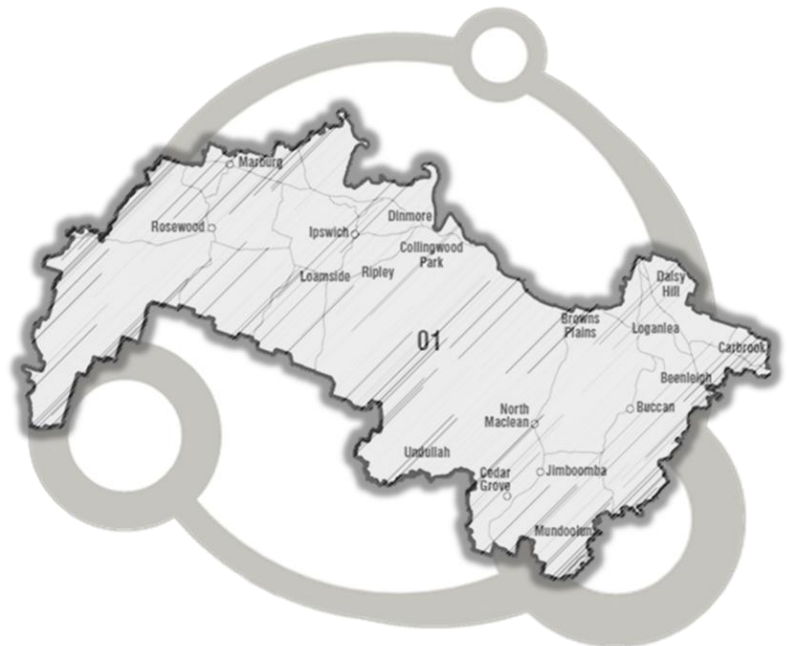
	Bremer State High School	Bundamba SHS	Goodna Special School	Hymba Yumba Community Hub	Ipswich Girls' Grammar School	Ipswich Special School	Ipswich SHS	Redbank Plains SHS	Rosewood SHS	Staines Memorial College	St Augustine's College	St Edmund's College	St Mary's College	St Peter Claver	West Moreton Anglican College	Westside Christian College	Woodcrest College
Cert III in Child Serv														✓			
Cert III in Child Care Studies																✓	
Cert I in Allied Health										✓							
Cert I Live Production & Theatre		✓															
Certificate I Creative Industries								✓									
Certificate I in Music																	✓
Cert I in Music Industry																	✓
Cert II in Music Industry																	✓
Certificate II in Visual Arts & Craft	✓								✓							✓	✓
Cert I in Community Recreation												✓					
Cert II in Sport & Recreation																	✓
Cert III in Agriculture															✓		
Cert I Rural Operators															✓		✓
Cert II Rural Operators																	✓
Cert I in Voc Lit							✓										
Cert I in Voc Num							✓										
Cert I in Pre Train							✓										
Cert I in Work Prep								✓									
Cert I in Work Readiness	✓	✓	✓	✓	✓	✓	✓	✓	✓							✓	✓
Cert I Work Education	✓	✓				✓	✓	✓	✓	✓						✓	✓

Ipswich Schools

Cert II in Workplace Practices

✓	Bremer State High School
✓	Bundamba SHS
	Goodna Special School
	Hymba Yumba Community Hub
	Ipswich Girls' Grammar School
	Ipswich Special School
✓	Ipswich SHS
✓	Redbank Plains SHS
	Rosewood SHS
	Staines Memorial College
	St Augustine's College
	St Edmund's College
	St Mary's College
	St Peter Claver
	West Moreton Anglican College
✓	Westside Christian College
✓	Woodcrest College

6. SATs in Schools



School-based Apprenticeships and Traineeships (SATs) in Schools

School-based apprenticeships and traineeships (SATs) allow students to study towards their Queensland Certificate of Education (Senior Certificate or equivalent), whilst at the same time undertaking an apprenticeship or traineeship.

What is it?

School-based apprenticeships and traineeships allow students, typically in years 10, 11 and 12 to continue studying at school while training towards a qualification in their chosen career. This training may occur at work, school, or with a training organisation.

Important information

For a school-based arrangement to be created, students must have the support of their employer, their school, a training organisation, and their parent/guardian. The employment and/or training arrangements must impact on the student's school timetable for the program to be considered school-based.

The parties of the contract are required to work with the training organisation to negotiate and complete the training plan and Education, Training and Employment Schedule (ETES) – <http://www.apprenticeshipinfo.qld.gov.au/information-resources/forms.html#E> before the training contract can be registered. The ETES is required to show how the apprenticeship or traineeship will impact on the student's school timetable and also confirms the student's school endorses participation in the school-based apprenticeship or traineeship.

Once the ETES has been fully completed and signed by all appropriate parties, the training organisation must forward it to the Australian Apprenticeships Centre (AAC) to lodge the training contract for registration with the Department of Education and Training (DET).

All school-based apprentices and trainees are paid for time spent actually working with their employer. However, whether or not they are paid for time spent undertaking training delivered by the training organisation, or if they accrue leave entitlements (e.g.. sick leave, recreation leave etc.) or are instead entitled to a loaded rate of pay to compensate for not being entitled to leave accruals, will be dependent upon the relevant industrial relations provisions applicable to the employer.

School-based apprentices must not complete more than one-third of the off-the-job training component while participating in a school-based apprenticeship. Approval to exceed the one-third rule must be obtained from the Training and Employment Recognition Council (TERC) and will not be retrospective. Please note the one-third rule does not apply to traineeships.

Periods of paid employment must never fall below the minimum 48 days (80 days for electrotechnology) per year of their apprenticeship or traineeship. If the employer cannot provide the minimum 48 days work per year, a written application from the employer must be made directly to DET before the training contract is signed.

Students who do not complete their apprenticeship or traineeship while at school are required to convert to full-time or part-time arrangements when they finish their final day at school. The amendment of school-based training contract form – <http://www.apprenticeshipinfo.qld.gov.au/resources/pdf/forms/amendment-sbtc.pdf> can be used for this purpose. Once converted, appropriate award wages and conditions apply.

For further information go to –

<http://www.apprenticeshipinfo.qld.gov.au/information-resources/info-sheets/is26.html>

LOGAN – New SATs Commencements Jan-Dec 2010

TYPE	NTIS CODE	LEVEL	QUALIFICATION	COUNT
T	CHC30208	Certificate III	Aged Care	5
T	RUV20104	Certificate II	Animal Studies	6
A	AUR30308	Certificate III	Automotive Electrical Technology	2
A	AUM35108	Certificate III	Automotive Manufacturing (Bus/Truck/Trailer)	3
T	AUR20705	Certificate II	Automotive Mechanical	11
T	AUR20705	Certificate II	Automotive Mechanical (Tyre Fitting Light)	1
T	AUR20705	Certificate II	Automotive Mechanical (Underbody)	1
A	AUR30405	Certificate III	Automotive Mechanical Technology (Heavy Vehicle Road Transport)	5
A	AUR30405	Certificate III	Automotive Mechanical Technology (Light Vehicle)	11
A	AUR30405	Certificate III	Automotive Mechanical Technology (Motorcycle)	2
A	AUR30605	Certificate III	Automotive Specialist	1
A	AUR30805	Certificate III	Automotive Vehicle Body (Panel Beating)	4
A	AUR30805	Certificate III	Automotive Vehicle Body (Vehicle Painting)	1
T	AUR20905	Certificate II	Automotive Vehicle Body (Vehicle Presentation)	1
T	AUR20505	Certificate II	Automotive Vehicle Servicing	1
A	CPC30108	Certificate III	Bricklaying/Blocklaying	2
T	BSB20107	Certificate II	Business	13
T	BSB30107	Certificate III	Business	37
T	BSB40207	Certificate IV	Business	1
T	BSB30407	Certificate III	Business Administration	31
T	BSB31107	Certificate III	Business Administration (Medical)	1
A	LMF32109	Certificate III	Cabinet Making	12
A	CPC30208	Certificate III	Carpentry	32
T	CHC30708	Certificate III	Children's Services	16
T	RII30809	Certificate III	Civil Construction Plant Operations	1
T	SRC20206	Certificate II	Community Recreation	9
T	SRC30206	Certificate III	Community Recreation	8
T	RUV30304	Certificate III	Companion Animal Services	2
T	CPC30308	Certificate III	Concreting	3
T	HLT31807	Certificate III	Dental Assisting	9
T	CHC30408	Certificate III	Disability	1
A	UEE30807	Certificate III	Electrotechnology (Electrician)	4
A	UEE31307	Certificate III	Electrotechnology (Refrigeration and Air-Conditioning)	1
T	MEM20105	Certificate II	Engineering	11
A	MEM30305	Certificate III	Engineering - Fabrication Trade	21
A	MEM30205	Certificate III	Engineering - Mechanical Trade	5
T	SRF30206	Certificate III	Fitness	40
T	SRF40206	Certificate IV	Fitness	1
A	FDF30603	Certificate III	Food Processing (Retail Baking - Bread)	1
A	FDF30503	Certificate III	Food Processing (Retail Baking-Cakes and Pastry)	1
T	LMF20309	Certificate II	Furniture Making	1
A	LMF30402	Certificate III	Furniture Making (Cabinet Making)	2
A	LMF30602	Certificate III	Glass and Glazing	2
A	WRH30109	Certificate III	Hairdressing	30
T	RTF20103	Certificate II	Horticulture	2
A	RTF30403	Certificate III	Horticulture (Landscape)	5
T	RTF20803	Certificate II	Horticulture (Turf)	1
T	SIT30707	Certificate III	Hospitality	41
T	SIT40307	Certificate IV	Hospitality	1

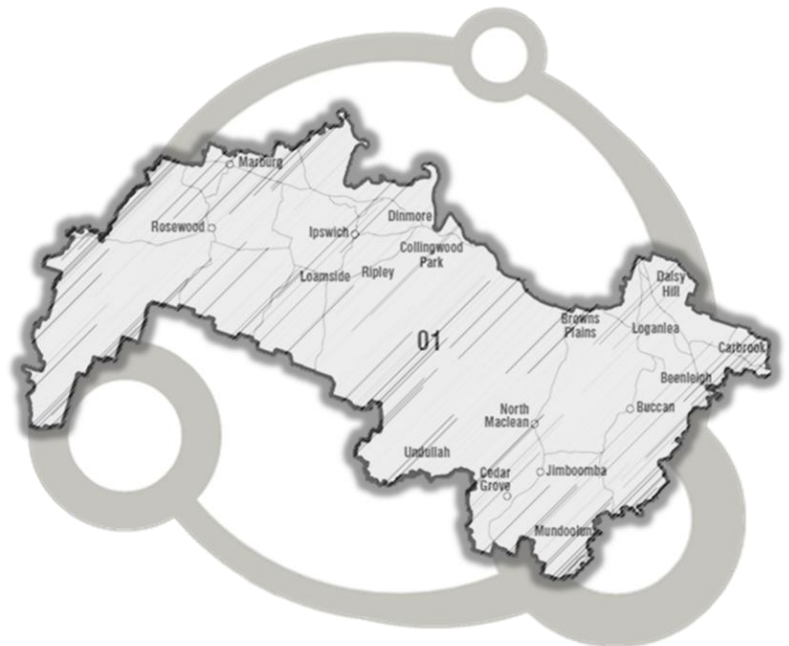
A	SIT30807	Certificate III	Hospitality (Commercial Cookery)	56
T	SIT20307	Certificate II	Hospitality (Kitchen Operations)	3
T	ICA30105	Certificate III	Information Technology	60
T	ICA40805	Certificate IV	Information Technology (Multimedia)	7
T	CUL20104	Certificate II	Library and Information Services	2
T	CUE30203	Certificate III	Live Production Theatre and Events (Technical Operations)	1
A	MTM30807	Certificate III	Meat Processing (Meat Retailing)	2
T	CUF30107	Certificate III	Media	19
A	CPC30608	Certificate III	Painting and Decorating	3
A	CPC32408	Certificate III	Plumbing	2
T	RGR20108	Certificate II	Racing (Stablehand)	3
T	SIR20207	Certificate II	Retail	72
T	SIR30207	Certificate III	Retail	58
T	WRB20304	Certificate II	Retail Cosmetic Services	1
T	RIL31409	Certificate III	Road Construction and Maintenance	1
A	CPC32608	Certificate III	Roof Plumbing	1
T	SRS30306	Certificate III	Sport (Coaching)	6
T	SRO20106	Certificate II	Sport and Recreation	4
T	SRO30106	Certificate III	Sport and Recreation	17
T	CPC31108	Certificate III	Steelfixing	1
T	ZWA20104	Certificate II	Store Operations (Woolworths Supermarkets)	1
T	FPI20505	Certificate II	Timber Manufactured Products	1
T	FPI20605	Certificate II	Timber Merchandising	2
T	TLI20107	Certificate II	Transport and Logistics (Warehousing and Storage)	4
T	TLI30107	Certificate III	Transport and Logistics (Warehousing and Storage)	3
A	CPC31208	Certificate III	Wall and Ceiling Lining	6
A	CPC31308	Certificate III	Wall and Floor Tiling	1
TOTAL				740

IPSWICH – New SATs Commencements Jan-Dec 2010

TYPE	NTIS CODE	LEVEL	QUALIFICATION	COUNT
A	AUR30308	Certificate III	Automotive Electrical Technology	1
A	AUR30405	Certificate III	Automotive Mechanical Technology (Light Vehicle)	3
A	AUR30405	Certificate III	Automotive Mechanical Technology (Light Vehicle)	1
A	AUR30405	Certificate III	Automotive Mechanical Technology (Light Vehicle)	1
A	AUR30405	Certificate III	Automotive Mechanical Technology (Heavy Vehicle Road Transport)	1
A	AUR30605	Certificate III	Automotive Specialist (Diesel Fitting)	1
A	AUR30805	Certificate III	Automotive Vehicle Body (Panel Beating)	3
T	BCC20107	Certificate II	Civil Construction (Civil Construction Worker)	6
T	BSB20107	Certificate II	Business	13
T	BSB30107	Certificate III	Business	2
T	BSB30407	Certificate III	Business Administration	13
T	BSB31007	Certificate III	Business Administration (Legal)	1
T	CHC30208	Certificate III	Aged Care	2
T	CHC30708	Certificate III	Children's Services	8
A	CPC30108	Certificate III	Bricklaying/Blocklaying	2
A	CPC30208	Certificate III	Carpentry	19
A	CPC30608	Certificate III	Painting and Decorating	9
A	CPC32308	Certificate III	Stonemasonry (Monumental/Installation)	1

A	CPC32408	Certificate III	Plumbing	4
T	CUE30203	Certificate III	Live Production Theatre and Events (Technical Operations)	1
T	CUF30107	Certificate III	Media	14
T	CUL30104	Certificate III	Library and Information Services	1
A	FDF30603	Certificate III	Food Processing (Retail Baking - Bread)	3
T	FNS30107	Certificate III	Financial Services	2
T	HLT31807	Certificate III	Dental Assisting	2
T	ICA20105	Certificate II	Information Technology	2
T	ICA30105	Certificate III	Information Technology	11
A	ICP30705	Certificate III	Printing and Graphic Arts (Print Finishing)	1
A	LMF30402	Certificate III	Furniture Making (Cabinet Making)	2
A	LMF31208	Certificate III	Flooring Technology	1
A	LMF32109	Certificate III	Cabinet Making	6
T	MEM20105	Certificate II	Engineering	4
A	MEM30205	Certificate III	Engineering - Mechanical Trade	5
A	MEM30305	Certificate III	Engineering - Fabrication Trade	3
A	MEM30805	Certificate III	Locksmithing	1
T	MTM20407	Certificate II	Meat Processing (Food Services)	2
T	MTM30307	Certificate III	Meat Processing (Meat Safety)	1
A	MTM30807	Certificate III	Meat Processing (Meat Retailing)	3
T	RGR30108	Certificate III	Racing (Trackrider)	1
T	RTE30103	Certificate III	Agriculture	6
T	RTF20103	Certificate II	Horticulture	1
A	RTF30403	Certificate III	Horticulture (Landscape)	2
T	RUV20104	Certificate II	Animal Studies	5
T	SIR20107	Certificate II	Community Pharmacy	1
T	SIR20207	Certificate II	Retail	63
T	SIR30207	Certificate III	Retail	17
T	SIT20207	Certificate II	Hospitality	7
T	SIT20307	Certificate II	Hospitality (Kitchen Operations)	1
T	SIT30207	Certificate III	Tourism (Retail Travel Sales)	1
T	SIT30707	Certificate III	Hospitality	13
A	SIT30807	Certificate III	Hospitality (Commercial Cookery)	11
T	SRC20206	Certificate II	Community Recreation	2
T	SRC30206	Certificate III	Community Recreation	8
T	SRF30206	Certificate III	Fitness	5
T	SRF40206	Certificate IV	Fitness	1
T	SRO20106	Certificate II	Sport and Recreation	2
T	SRO30106	Certificate III	Sport and Recreation	1
T	TLI20107	Certificate II	Transport and Logistics (Warehousing and Storage)	1
T	TLI30107	Certificate III	Transport and Logistics (Warehousing and Storage)	1
A	UEE30807	Certificate III	Electrotechnology (Electrician)	1
A	UEE30807	Certificate III	Electrician/Instrumentation (UEE30807 & UEE31207)	1
A	UEE30807	Certificate III	Electrotechnology (Electrician)	1
T	WRB20304	Certificate II	Retail Cosmetic Services	2
T	WRF30104	Certificate III	Floristry	1
T	WRH20109	Certificate II	Hairdressing	7
A	WRH30109	Certificate III	Hairdressing	17
TOTAL				336

7. Next Step – Regional Report



Next Steps Report – Logan and Ipswich

Ipswich

Ipswich City SSD

Figure 23 Main destinations of Year 12 completers, Ipswich City SSD, 2011

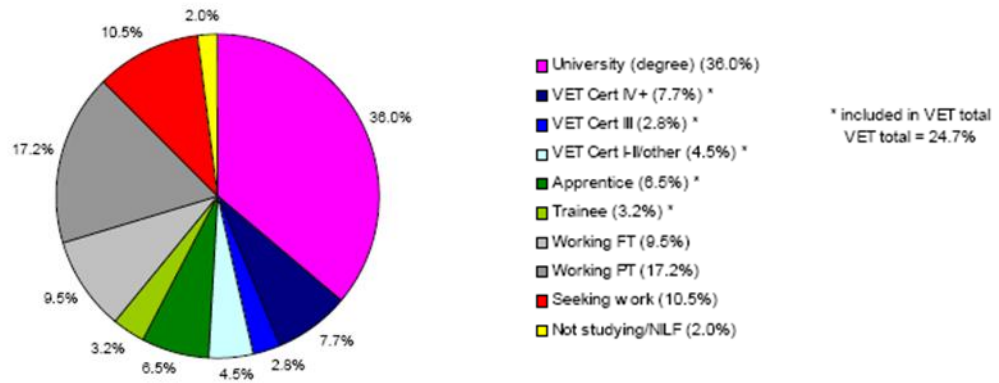
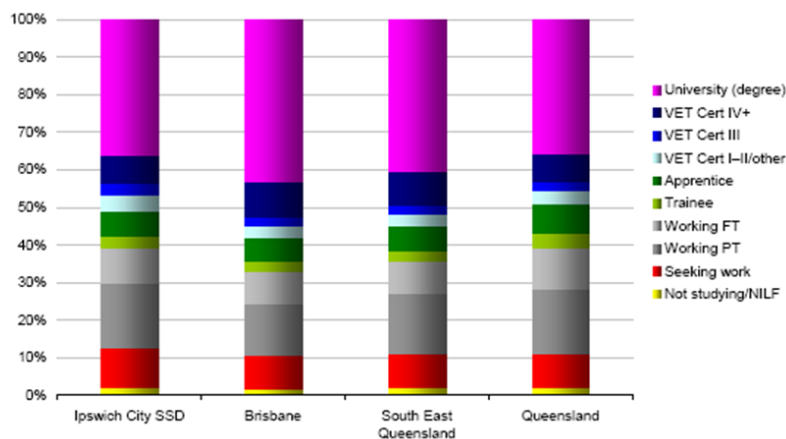


Table 32 Main destinations of Year 12 completers, by sex, Ipswich City SSD, 2011

Main Destination	Males		Females		Total	
	no.	%	no.	%	no.	%
University (degree)	227	31.6	320	40.0	547	36.0
VET Cert IV+ *	45	6.3	72	9.0	117	7.7
VET Cert III *	10	1.4	32	4.0	42	2.8
VET Cert I-II/other *	42	5.8	26	3.2	68	4.5
Apprentice *	89	12.4	10	1.2	99	6.5
Trainee *	20	2.8	29	3.6	49	3.2
Working FT	79	11.0	66	8.2	145	9.5
Working PT	110	15.3	152	19.0	262	17.2
Seeking work	83	11.6	77	9.6	160	10.5
Not studying/NILF	13	1.8	17	2.1	30	2.0
Total VET	206	28.7	169	21.1	375	24.7
Total	718	100.0	801	100.0	1 519	100.0

Figure 24 Main destinations of Year 12 completers, Ipswich City SSD, Brisbane, South East Queensland & Queensland, 2011



Logan

Logan City SSD

Figure 25 Main destinations of Year 12 completers, Logan City SSD, 2011

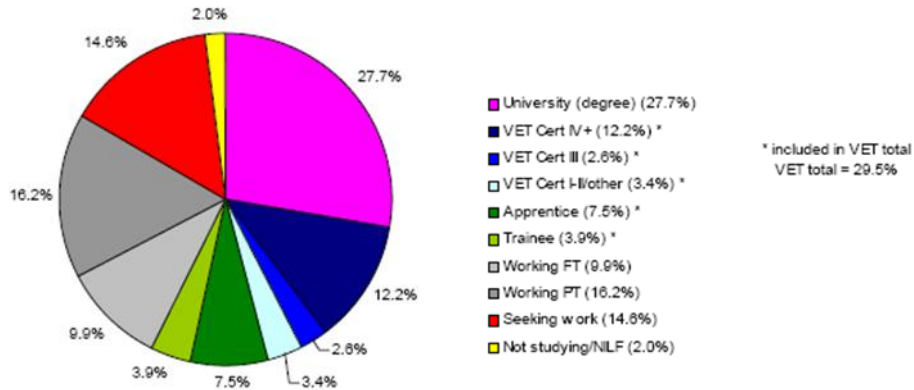
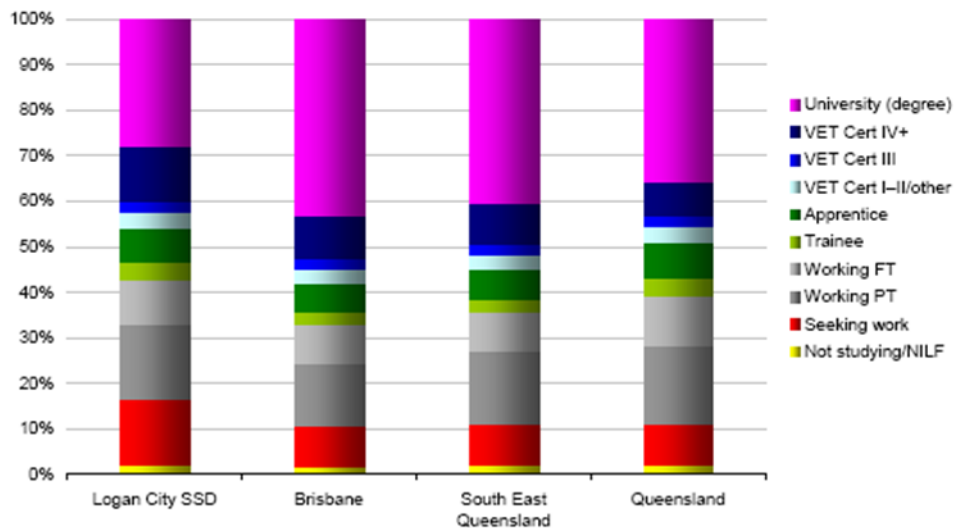


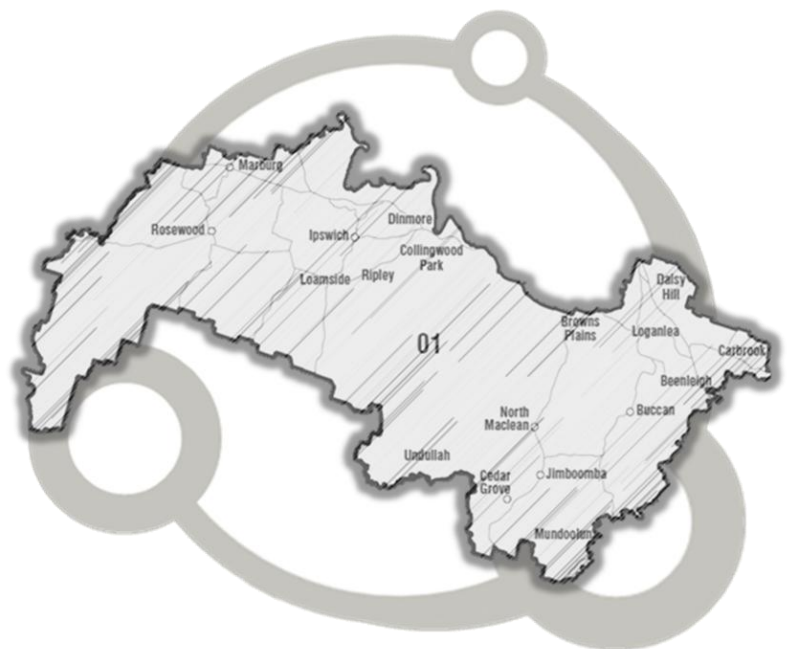
Table 34 Main destinations of Year 12 completers, by sex, Logan City SSD, 2011

Main Destination	Males		Females		Total	
	no.	%	no.	%	no.	%
University (degree)	228	23.1	344	31.9	572	27.7
VET Cert IV+ *	95	9.6	156	14.5	251	12.2
VET Cert III *	15	1.5	39	3.6	54	2.6
VET Cert I-II/other *	43	4.4	27	2.5	70	3.4
Apprentice *	132	13.4	22	2.0	154	7.5
Trainee *	26	2.6	55	5.1	81	3.9
Working FT	113	11.5	92	8.5	205	9.9
Working PT	137	13.9	198	18.4	335	16.2
Seeking work	179	18.2	123	11.4	302	14.6
Not studying/NILF	18	1.8	23	2.1	41	2.0
Total VET	311	31.5	299	27.7	610	29.5
Total	986	100.0	1 079	100.0	2 065	100.0

Figure 26 Main destinations of Year 12 completers, Logan City SSD, Brisbane, South East Queensland & Queensland, 2011



8. Further Information and Links



Education and Training Information

Planning QCE (Queensland Certificate of Education) Pathways –
www.qsa.qld.edu.au/downloads/senior/qce_planning_pathway.pdf

Vocational Education and Training (VET) in Schools –
<http://education.qld.gov.au/students/placement/vet/>

School-based Apprenticeships & Traineeships (SATs) in Schools –
<http://www.apprenticeshipinfo.qld.gov.au/school-based/index.html>
<http://education.qld.gov.au/students/placement/vet/html/apprent.html>

Career Information

My Future – Current career information, articles and links – www.myfuture.edu.au

Job Guide 2011 – includes 100's of occupational profiles – www.jobguide.deewr.gov.au

Australian Job Search – job vacancies available now - <http://jobsearch.gov.au/default.aspx>

Job Outlook is a careers and labour market research information site –
www.joboutlook.gov.au

Year 12 - what next? – a guide to help Year 12 students plan their post-school education and training – <http://www.year12whatnext.gov.au/>

Bullseye – school subjects you like and jobs they can lead to –
<http://www.deewr.gov.au/Schooling/CareersandTransitions/CareerDevelopment/Resources/Pages/CareerBullseyeposters.aspx>

Compact with Young Australians – information on new “learn or earn” and other requirements for young people aged 15 to 24 years –
<http://www.deewr.gov.au/Youth/YouthAttainmentandTransitions/Pages/compact.aspx>

Labour Market & Skills Information

Australian Bureau of Statistics – Labour Force Data –
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/ViewContent?readform&view=ProductsbyCatalogue&Action=Expand&Num=7.2>

Labour Market Information Portal – www.deewr.gov.au/lmip

Skill Shortage Summary 2010 – 2011 –
http://www.deewr.gov.au/Employment/LMI/SkillShortages/Documents/SkillShortagesSummary2010_2011.pdf

Skills Shortage List - Qld Report –

http://www.deewr.gov.au/Employment/LMI/SkillShortages/Documents/SSL_QLD.pdf

Survey of Employers' Recruitment Experiences – Regional Report –

http://www.deewr.gov.au/Employment/LMI/RegionalReports/QLD/Documents/FINAL_Ipswich_Logan_Presentation.pdf

Australian Jobs 2011 –

<http://www.deewr.gov.au/Employment/ResearchStatistics/Documents/AustralianJobs.pdf>

Office of Economic and Statistical Research – Provides monthly labour force briefs and other economic indicators – <http://www.oesr.qld.gov.au>

Department of Education and Training – Quarterly Labour Market and Training Review

<http://training.qld.gov.au/resources/employers/pdf/quarterly-june2011.pdf>

Skill for Jobs and Growth 2010 –

A recent summary of labour market and training developments can be found at:

<http://www.training.qld.gov.au/employers/labour-market-research/research-paper.html>

Skill Australia, Skills Qld and Industry Skill Councils have industry research and data –

<http://www.skillsaustralia.gov.au/>

<http://www.skills.qld.gov.au/>

<http://www.isc.org.au/>

Queensland Labour Market and Training Review is available at:

<http://www.training.qld.gov.au/employers/labour-market-research/quarterly-review.html>

Census Profiles 2006: Queensland's labour market progress

A complete set of 24 Census profiles can now be accessed from the departmental website:

<http://www.training.qld.gov.au/employers/labour-market-research/census-bulletins.html>

Logan & Ipswich Regional Information

Regional Development Australia – Logan & Redlands – Regional Roadmap provides an overview of the region and their priorities for the region.

http://www.rdaloganandredlands.org.au/images/stories/pdf/rda_logan_redlands_roadmap_2011.pdf

Regional Development Australia – Ipswich & West Moreton - Regional Roadmap provides an overview of the region and their priorities for the region.

<http://www.rdaiwm.org.au/wp-content/uploads/2011/04/2011-07-28-Roadmap-FINAL.pdf>

Regional Development Australia – Brisbane - A new RDA Brisbane report predicts that an extra 343,000 positions will be created in the greater Brisbane labour market by 2021. The report 'Skill Shortages in the Greater Brisbane Labour Market 2012-2021' can be viewed at:

http://rdabrisbane.org.au/images/stories/Study/skill_shortages_in_the_greater_brisbane_labour_market_2012-2021.pdf

Keep Australia Working Regional Employment Plan – Logan & Ipswich Priority Area –

http://keepaustraliaworking.gov.au/documents/PDFs_RTfS/ipswich-logan_rep.pdf

Logan City Council Economic Development Strategy –

http://www.loganbiz.com.au/uploads/file/EconomicDevelopStrategy2009-2012_A4_landscape_web.pdf

Ipswich City Council Economic Development Plan –

<http://www.ipswich.qld.gov.au/documents/business/Economic%20Development%20Plan%202009%20-%202031.pdf>

Office of Economic and Statistical Research (OESR) Logan & Ipswich Region Specific Statistics:

<http://www.oesr.qld.gov.au/regions/index.php>

<http://statistics.oesr.qld.gov.au/qld-thematic-maps>

<http://statistics.oesr.qld.gov.au/qld-regional-profiles>

<http://www.oesr.qld.gov.au/products/publications/qld-govt-pop-proj-qld-sd/index.php>

Next Step Data Survey provides the initial study and work destinations of young people who completed school in 2010. The Brisbane Regional Report includes both Ipswich and Logan:

<http://education.qld.gov.au/nextstep/pdfs/2010pdfs/0001-brisbane-nextstep2010.pdf>

Regional Labour Force Data

Source: ABS Labour Force Survey. Data are three month average original data to August 2011 except for the teenage full-time unemployment rate and teenage full-time unemployment to population ratio which are 12 month average original data to August 2011.

S&E BSD Balance (includes Logan) –

<http://www.deewr.gov.au/LMIP/default.aspx?LMIP/LFR/QLD/Brisbane/SouthandEastBSDBalance>

Ipswich – <http://www.deewr.gov.au/LMIP/default.aspx?LMIP/LFR/QLD/Brisbane/IpswichCity>