

# Overview of demand for trades: Queensland – December 2008

## Economic Background

Underpinned by a constantly growing population of almost 2000 people a week, Queensland's economy strengthened by 5.1 per cent in 2007-08, well above the forecasted growth of 3.75 per cent and the 3.4 per cent growth recorded for the rest of Australia. The latest Access Economics *Investment Monitor* indicated that following a 17.6 per cent increase in the September quarter, the total value of known investment projects in Queensland grew to reach \$157.4 billion. The value of work under construction in September 2008 reached an historic high of \$44.4 billion.

The key drivers of economic growth over the year included domestic final demand and solid levels of both private and public sector investment. According to the latest National Accounts, the trend volume of private investment in the September 2008 quarter in Queensland was 9.1 per cent higher than it was in the September 2007 quarter. Over the same time, seasonally adjusted figures for public sector investment showed an increase of 8.0 per cent. While the global financial crisis has moderated economic development for most major economies, and at the national level, business investment looks set to weaken due to a significant deterioration in business confidence and conditions, Queensland Treasury have forecast that economic growth in this State will continue to exceed national growth for the thirteenth consecutive year in 2008-09.

Given the strength of Queensland's economy, the State recorded trend employment growth of 3.0 per cent (or 65 200 persons) over the year to October 2008. The year-average participation rate was 67.2 per cent and the trend unemployment rate averaged 3.7 per cent. Australian Bureau of Statistics (ABS) *Labour Force Survey* data for November 2008 show that in trend terms, total employment in Queensland rose to 2 216 700 persons. Full-time employed persons (1 616 000) accounted for 73 per cent of total employed persons. The trend estimate number of unemployed persons in Queensland for November 2008 was 85 500 persons. The trend estimate participation rate was 67.5 per cent which is 2.4 percentage points higher than November 1998.

The preliminary estimated resident population for Queensland as at June 2008 was 4 279 411, representing an increase of almost 98 000 persons (2.3 per cent) since 30 June 2007. At that time, Queensland accounted for 20 per cent of the Australian population. Net overseas migration was the greatest contributor to population growth (41 290) followed by natural increase (33 605) and net interstate migration (23 085). Both overseas migration and natural increase figures were the highest on record since the introduction of this series in 1971 and the level of interstate migration continues to be the highest of all Australian States and Territories.

## Employed Persons by Industry

In November 2008, the industries with the most number of employed persons in Queensland were Retail Trade (335 800), Property and Business Services (251 300) and Construction (241 000)<sup>1</sup>. Those industries employing the least number of persons included Mining (40 200), Communication services (33 300), and Electricity, Gas and Water (20 900). The five major industries with the most number of employed persons accounted for over half (56 per cent) of Queensland's employed. Over the year to November 2008, the greatest increase of employed persons occurred in Construction (11

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<sup>1</sup> ABS *Labour Force Survey* data on employment by industry and occupation quoted in this paper are original data averaged over four quarters. The figures should be regarded as an indication of employment levels, particularly for smaller industries and occupations, which are more affected by sampling errors in the survey

500) and Manufacturing (10 800). In the same period, Cultural and Recreational Services had the greatest decrease in employed persons (down 8500).

In the first half of 2008-09, 39 trade occupations were examined to determine current and emerging skill shortages in Queensland. The trades under discussion are most likely to be employed in the broad industries of manufacturing, construction, mining, communication services, retail, accommodation, cafes and restaurants, property and business services and transport and storage. While employment opportunities varied across industries, jobs growth was recorded in all of the above mentioned industries and ongoing activity in each sector has generated persistent demand for all of the trades examined this year.

ABS *Labour Force Survey* data show that annual average employment of Trades and Related Workers increased by 6.7 per cent, or by 19 100 persons, over the year to November 2008. The Department of Education, Employment and Workplace Relations (DEEWR) Skilled Vacancy Index (SVI) for Queensland indicates that the annual count of newspaper advertisements for trades fell by 37 per cent over the year to December 2008. However, in each of the trades examined, the vast majority of employers this year reported that they tend to use word of mouth and poaching as the most effective ways to attract suitable applicants. Given this, the SVI may not be indicative of the full strength of demand for tradespersons in Queensland.

The enduring tight labour market in Queensland has prolonged skills shortages across the majority of occupations. Many of the trades and technicians assessed in the first half of 2008 are known to have long-term established shortages lasting for at least several years, but the view of most employers contacted in the course of this year's Survey of Employers who have Recently Advertised (SERA) was that shortages are easing slightly. On the whole, this is supported by minor increases in the vacancy filling rate determined in the SERA for that occupation. At the same time, a large number of contacts reported that a recent easing of the labour market has produced a higher number of applicants with qualifications and skills, whereas in previous years most applicants did not have the requisite qualifications for the work being offered, the implication being that employers had little option but to accept unskilled workers and provide training. It was therefore widely held by employers in Queensland that any further easing of the labour market will have a positive impact on recruitment and consequently their businesses.

### **Engineering Trades Workers**

The trades examined in this group include locksmiths, fitters, fitter turners, fitter welders, metal fabricators (boilermakers), metal machinists, sheetmetal workers and welders. Apart from locksmiths, who can be found working mostly in the retail sector, the majority of tradespersons in this group are employed in manufacturing firms where demand for their skills has been sustained by steady orders for manufactured products from upstream industries such as mining and engineering construction.

The Australian Industry Group's *Performance of Manufacturing Index* (PMI) for November 2008 reflects the declining business confidence apparent across Australia with national manufacturing activity falling for the sixth consecutive month. Australian Bureau of Statistics' (ABS) *Labour Force Survey* data show the number of people employed in the manufacturing sector in Queensland grew by 5.6 per cent or by 10 800 persons over the year to November 2008 with employment growth recorded in seven of the nine industry sub-sectors. At the occupational level, the annual average employment of mechanical and fabrication engineering tradespersons increased by a solid 7.4 per cent or by 3500 over the year, the number of fitters and machinists grew by 13.5 per cent and a substantial increase of 48.6 per cent was recorded for sheetmetal workers.

Despite the SVI showing a 16 per cent decline in the annual number of newspaper advertisements for the engineering trades over the year to December 2008, vacancies increased for a number of occupations. They include welders (up by 28 per cent), metal machinist (up by 20 per cent) and fitters (up by 4 per cent). Over the same time, advertisements for sheet metal workers fell by 72 per cent and metal fabricator vacancies declined by 56 per cent.

Supply to these trades is varied. For example, Queensland's Department of Education, Training and the Arts (DETA) data show that the numbers entering and completing fabrication, welding and machining apprenticeships have grown strongly in recent years. On the contrary, sheetmetal worker and locksmith numbers recorded only minor increases while the number of apprentices entering fitter apprenticeships declined by over 30 per cent in 2006 and have not recovered. Department of Immigration and Citizenship arrivals and departures data show supply to these trades through migration is limited for sheetmetal workers and locksmiths but may be significant for fitters, machinists, fabricators and welders.

Although the majority of employers reported that they are uncertain about future industry and economic conditions, the majority stated that there continues to be a steady flow of orders for manufactured products and services in Queensland and most qualified tradespersons have regular overtime opportunities available. All eight trades were rated as being in State-wide shortage in 2008 and the shortages are expected to continue in 2009.

### **Construction Trades Workers**

A total of 15 skilled construction trades were assessed in 2008 namely, bricklayers, stonemasons, carpenters, joiners, plumbers, drainers, gasfitters, roof plumbers air-conditioning and mechanical services plumbers, wall and floor tilers, roof tilers, glaziers, fibrous plasterers, solid plasterers and painting trades workers.

Demand for joiners and stonemasons stems mostly from the manufacturing sector while demand for the remaining trades in this group is more likely to come from the construction industry. According to the ABS, the trend volume of construction work done in Queensland over the year to the September quarter 2008 increased by 10.9 per cent. This increase represents growth in construction for 21 consecutive quarters. While much of the growth can be attributed to developments in engineering construction, building activity figures indicate that the building of new housing increased by 4.4 per cent and non-residential building grew by 8.1 per cent over the same time.

ABS *Labour Force Survey* figures indicate that annual average employment of construction tradesperson increased as a whole by 3.8 per cent or by 3000 persons over the year to November 2008. Employment levels varied between trades with the highest jobs growth recorded for plumbers (up 26.5 per cent) followed by signwriters (up 13.3 per cent) carpenters and joiners (up 1.6 per cent) and painting trade workers (up 0.3 per cent). Employment weakened for roof slaters and tilers (down 35.9 per cent), solid plasterers (down 9.2 per cent), bricklayers (down 3.7 per cent), wall and floor tilers and stonemasons (down 1.7 per cent) and fibrous plasterers (down 0.2 per cent). Over the year to December 2008, the SVI for Queensland suggests that the annual number of newspaper advertisements for construction trades as a whole decreased by 31 per cent. Again, numbers varied with increases noted for stonemasons (up 68.2 per cent) and solid plasterers (up 58.3 per cent), while bricklayers recorded substantial falls (50.3 per cent).

DETA figures indicate that there has been strong and steady growth in apprenticeship commencements and completions for most of the occupations in this group. The exceptions are roof tilers, glaziers and stonemasons where numbers have shown no pattern of improvement since 2003. In January 2007, and in an effort to encourage additional people into the trades and

ultimately boost supply, the Queensland Government reduced the expected timeframe for apprenticeship courses for most of the construction trades from 48 months to 42 months. These trades include bricklayer, fibrous plasterer, carpenter, solid plasterer, wall and floor tiler, floor finisher and roof slater and tiler. Apprentices in painting trades or roof plumbing can expect to complete their training in 36 months. The nominal timeframe for all other plumbing apprenticeships remains at 48 months. DIAC records for 2007-08 show that supply to the stonemason, solid plasterer and roof tiler trades may have been strongly supported by overseas migration. In contrast, the DIAC figures show that the carpenter, glazier and bricklayer trades were only moderately supported and there was minimal aide to supply from overseas for the plumbing, painting, fibrous plastering and wall and floor tiling trades.

Construction activity looks set to continue in Queensland with the total value of work still in the pipeline in the September Quarter recorded at 12.4 per cent higher in 2008 than it was in 2007. In addition, employers are anticipating that the recent Australian Government boost to the first home buyer's grant will stimulate new housing construction across the State. Supply to the construction trades is expected to grow in line with ascending apprenticeships, the shorter duration of some apprenticeship programs and for some trades, overseas immigration, but at present, the labour markets of all the fifteen construction trades examined are in State-wide shortage in Queensland and they are likely to stay that way in the short-term.

### **Electrotechnology and Telecommunications Trades Workers**

Trades in this group include general electricians, refrigeration and air conditioning mechanics, electronic equipment tradespersons and telecommunications technicians. The majority of electricians and refrigeration and air conditioning mechanics work in the construction industry and to a lesser degree the manufacturing industry. The status of the manufacturing sector in Queensland was discussed in the engineering trades section, while the construction industry was examined in the section on skilled construction occupations. Demand for telecommunications technicians has been increasing with the State's growing population and subsequent expansion of consumer demand for communication equipment and services while demand for electronic equipment tradespersons stems predominantly from retail or property and business services and is subject to consumer demand for associated products and services.

ABS *Labour Force Survey* data for Queensland show that annual average employment of electrical and electronics tradespersons increased by 1.9 per cent or 900 persons over the year to November 2008. In annual average terms, the number of employed electricians grew by 8.5 per cent or 2 300 persons. Over the same time, electronic and office equipment trades showed significantly stronger employment growth at 26.4 per cent. Employment weakened by 23 per cent for both refrigeration and air conditioning mechanics and telecommunications technicians. The SVI for Queensland indicates that the annual number of newspaper advertisements for electrical and electronic trades fell by 43 per cent over the year to December 2008, but this decrease can be attributed mostly to a fall in advertisements for electricians which declined by 55 per cent. The number of advertisements for refrigeration and air conditioning mechanics grew by 31 per cent and advertisements doubled for both electronic equipment trades and communication trades.

Data from DETA indicate that the number of student commencements and completions in electrical, refrigeration and air conditioning and electronic equipment apprenticeships have been growing strongly, achieving a twofold increase between 2003 and 2007. In contrast, the numbers entering telecommunication courses have been irregular with 11 commencements in 2005, compared to 108 in 2006, followed by a decrease in 2007 to 41. Arrivals and departures figures from DIAC indicate that overseas migration may be providing some aide to supply for electricians, refrigeration and air conditioning mechanics and telecommunication technicians while the number of self-identified

electronic and office equipment trades persons entering the State represent double the number coming from training.

Demand for all four trades is expected to be sustained by ongoing industry activity, the State's rising population and the subsequent consumer demand for electrical, electronic and telecommunications products and services. Although apprenticeship numbers for most of these trades have been rising and overseas migration appears to be providing some support, this year's research concluded that the current supply is not meeting demand and all four occupations were found to be in State-wide shortage in Queensland. This outlook is not expected to change in 2009.

### **Food trades**

Tradespersons examined this year include cooks and chefs. In Queensland, approximately 80 per cent of chefs and 52 per cent of cooks are employed in the accommodation, cafes and restaurants sector where demand for their skills fluctuates in line with tourism activity, disposable income and consumer spending. According to the ABS, tourism activity in Queensland continues to perform strongly. For instance, between the 2008 June and September quarters, hotels, motels and serviced apartments catered for 2.96 million guest arrivals and the trend estimate of total takings for hotels, motels and serviced apartments increased by 9.0 per cent over the year to September 2008. That said, industry sources have expressed some concern about the short to medium term outlook for tourism related demand particularly from the international sector. To date, however, there is no evidence of these concerns significantly impacting on employment or occupational demand.

The SVI for Queensland suggests that demand for these occupations declined over the year to December 2008 as the annual count of newspaper advertisements for chefs and cooks fell by 23 per cent and 21 per cent respectively. At the same time, ABS *Labour Force Survey* figures indicate that annual average employment of food tradespersons as a whole increased by 21.1 per cent or by 4200 persons over the year to November 2008 and in particular, chefs and cooks recorded very strong employment growth of 28 per cent or 1900 persons.

According to DETA statistics, supply from training to these occupations has been slowly increasing but wastage from training is historically high averaging around 70 per cent. From 2007 the expected timeframe for completing a cooking apprenticeship was reduced from 48 months to 36 months and employers are hopeful this will help with retention and boost supply in the future. DIAC arrivals and departures data suggest that supply from overseas migrations is declining. This year both cooks and chefs were rated as being in shortage in Queensland with only 61 per cent of surveyed vacancies filled. Employers attributed the shortages to high levels of wastage from both training and the workforce and an inability and lack of incentives to attract apprentices into the trade. They reported low remuneration and shift work as the main drivers of wastage.

### **Other Technicians and Trades Workers**

The occupations from this group under discussion this year including cabinetmakers, boat builders and repairers, shipwrights, signwriters, binders and finishers, screen printers, graphic pre-press trades workers and printing machinists. The majority of persons working in these trades are employed in the manufacturing industry although approximately one third of all signwriters can be found working in property and business services.

November quarter 2008 ABS *Labour Force Survey* data showed that annual average employment in the manufacturing sector grew by 5.6 per cent or by 10 800 persons while the property and business services sector held steady with a marginal increase of 0.2 per cent or 500 persons. In particular, jobs growth in Printing and Services to Printing increased by 16.1 per cent and Wood and Paper Product manufacturing increased by 24.1 per cent.

The annual average employment for other technicians and trades workers as a whole recorded solid growth of 16.4 per cent or 6700 persons over the year to November 2008. Of the occupations examined, positive growth was recorded for printing machinists (up 54.9 per cent) and signwriters (up by 13.3 per cent) while graphic pre-press tradespersons tripled in numbers. Binders and finishers, screen printers and cabinetmakers all recorded negative growth falling by 1.5 per cent, 4.8 per cent and 9.4 per cent respectively. The SVI for Queensland shows a decrease in the annual count of newspaper vacancies for each of these occupations. However, the SVI might not fully reflect the strength of demand coming from some sectors as a large number of contacts from the screen printing and signwriting trades preferred methods of recruitment other than newspaper advertising.

In an attempt to help boost supply to these trades, the expected timeframe for completing an apprenticeship was reduced from 48 months to 42 months and the first cohort of students to graduate since the change is expected to enter the labour market in mid-2010. However, DETA figures show that signwriting, screen printing, binding and finishing and printing machinist apprenticeships have remained virtually unchanged since 2003 and the number of graphic pre-press apprentices almost halved in 2007. Over the same time, apprenticeship numbers for cabinetmakers showed slow but steady improvement while boat building numbers recorded significant growth, more than doubling between 2005 and 2007. Arrivals and departures data from DIAC indicate that supply to all of these occupations through overseas migration is minimal.

The SERA research found that the labour markets for all eight occupations were in shortage in Queensland in 2008 with signwriters recording the lowest vacancy filled rate at seven per cent.

### **Aircraft Maintenance Engineers**

Demand for aircraft maintenance engineers depends on activity in the aerospace and related industries. Over the last decade, Queensland's aerospace industry has recorded a rate of growth stronger than the national average and the Queensland Government anticipates further solid employment growth linked to Qantas increasing their capacity within the State, a number of existing and planned defence projects and to a general expansion and maturity of industry capability. Qantas announced in its 2008 Annual Report a capacity increase with the addition of services and larger aircraft on many key routes servicing Western and Northern communities from April 2008 for the next five years. At the same time, there are currently 10 major defense aerospace projects valued at over \$35 billion underway in Queensland. In addition, the National Australia Banks' Business Survey for November 2008 reported a strengthening in the transport sector which is possibly related to falling oil prices.

Queensland's SVI suggests that the annual number of newspaper advertisements for aircraft maintenance engineers declined over the year to December 2008 but the majority of employers this year reported receiving no applicants to their newspaper advertisements and recruitment specialists are using alternative recruitment methods to secure suitable applicants. It is therefore likely that the SVI is not representing the full strength of demand for these trades.

In recent years, a number of specific industry and government skilling initiatives have been established in an effort to boost supply to these trades and, as a result, apprenticeship and migration numbers are steadily increasing. Nevertheless, employers identified moderate levels of wastage as workers leave to pursue similarly skilled trades and only one in five vacancies were filled this year. The labour market for aircraft maintenance engineers was found to be in shortage in 2008 and this is expected to continue at least over the coming year.

## **Automotive Trades – (Not assessed at State level)**

Demand for automotive trades is driven by the number of vehicle registrations, the stock and age of motor vehicles, the number of motor vehicle accidents and consumer expenditure on automotive services. ABS Motor Vehicle Census data show the number of vehicles registered in Australia increased by 3.5 per cent between 2007 and 2008. Between 2003 and 2008 the number of vehicles registered increased by a total of 16.2 per cent, at a rate of 3.0 per cent per year.

ABS Labour Force Survey data show that in the two years to November 2008 employment in the automotive trades has been varied. Employment of motor mechanics has increased by 13.4 per cent; automotive electricians has decreased by 20.2 per cent; panelbeaters has decreased by 17.4 per cent; vehicle body builders and trimmers has increased by 20.3 per cent and vehicle painters has increased by 22.4 per cent.

The Department of Education, Employment and Workplace Relations (DEEWR) Skilled Vacancy Index shows the number of advertised vacancies for automotive tradespersons decreased significantly (approximately 40 per cent) over the year to December 2008.

Research conducted by DEEWR shows shortages persist across all automotive trades. Following a survey of employers who had recently advertised, employers across the motor mechanic specialisations reported filling between a quarter and a half of advertised vacancies within four weeks. Diesel mechanic vacancies were the most difficult to fill.

Employers who advertised for automotive electricians, panelbeaters, vehicle body builders and vehicle trimmers filled less than half of their vacancies within four weeks and commonly reported difficulties in attracting trade qualified staff. Employers also reported a number of vacancies receiving no suitable applications and cited staff retention as an issue. Employers recruiting for vehicle painters filled slightly more than half of their vacancies but expressed similar difficulties.

## **Food Trades (not assessed at state level)**

Demand for food trades is largely dependant on levels of food retail expenditure. In light of other recent economic indicators, food retail spending has surprisingly experienced relatively strong expenditure. ABS figures show that spending in food retailing increased, albeit at a slower rate than seen in recent years, through the year to November 2008 by 6 per cent.

ABS Labour Force Survey data show in the year to November 2008 employment growth in food trades was varied. Employment of Butchers and Smallgoods Makers increased by 7 per cent, Chefs and Cooks remained fairly stable and employment of Bakers and Pastrycooks decreased by 9 per cent.

The DEEWR Skilled Vacancy Index shows a steady decline since December 2006 in the number of vacancies for food trades with the count at December 2008 being the lowest it has been in approximately seven years.

Research conducted by DEEWR through a survey of employers who had recently advertised showed shortages exist across all occupations in food trades. Employers recruiting these occupations reported being able to fill approximately half advertised vacancies within four weeks of advertising. Employers commented that lack of qualifications, specialised or extensive experience and staff retention were the main problems associated with attracting staff.

## **Horticultural Trades (Not assessed at State level)**

Demand for horticultural services and products in Australia depends on a number of factors including the general level of economic activity, the level of disposable income, consumer expenditure, activity in wholesale and retail trade and weather conditions.

In the year to November 2008, employment across the horticultural trades has been varied. Employment of Gardeners (which includes general and landscape gardeners and arborists) decreased slightly, down 3 per cent, While employment of Greenkeepers increased by 3 per cent. Employment of Nurserypersons decreased by 26 per cent.

Surveyed employers indicated the continuing drought and consequent water restrictions in most of Australia are impacting on demand for horticultural services and products. Despite this, following a survey of employers who had recently advertised, DEEWR research shows there to be no shortages of Greenkeepers and General Gardeners, with both occupations filling more than 60 per cent of vacancies within four weeks of advertising. For both occupations employers received approximately 3 suitable applicants per vacancy. Employers advertising for Nurserypersons had mixed results with recruitment difficulties evident in regional areas but no shortages in metropolitan areas. Both Arborist and Landscape Gardener were found to be in shortage, with employers filling less than half of their vacancies within four weeks. A number of vacancies did not attract any applications at all, with wages and working conditions thought by employers to be the reasons for existing recruitment difficulties.

In general, employer's comments suggest that the main difficulties which exist in recruiting for these trades are finding qualified staff, finding staff with specialist or extensive knowledge and experience, an ageing workforce, comparatively poor wages and conditions compared to other trades and staff retention. Several employers also suggested these trades are over-serviced.