

# Overview of demand for managers, professionals and technicians: Queensland – June 2009

## Economic Background

The impact of the global recession on household wealth, investment, commodity prices and exports resulted in Queensland's economic growth slowing from a high last year of 5.8 per cent to an estimated 0.5 per cent over the year to June 2009. Although interest rate cuts, public investment and stimulus measures have contributed greatly to cushioning the fall, the decline in domestic economic activity and declining business confidence have seen overall labour market conditions in Queensland weaken over the second half of the 2008-09 financial year.

Trend *Labour Force Survey* data for June 2009 show that the number of employed persons in Queensland peaked at 2 341 100 in February before declining by approximately 4000 persons each month until June 2009. Contrasting with last year's jobs growth of 2.75 per cent or 55 000 persons, the State recorded jobs growth of only 0.6 per cent or 13 200 persons over the year. The year-average participation rate continued to grow however by 0.5 percentage points, reaching 67.6 per cent in June 2009. This was primarily due to a sustained increase in female labour force participation, which rose to an historic high of 61.5 per cent in February 2009.

In June 2009, the total trend number of employed persons in Queensland was 2 221 800 persons. Full-time employed persons (1 670 100) accounted for 72 per cent of total employed persons. The five industries with the most number of employed persons were Retail trade (253 200), Construction (235 000), Health care and Social Assistance (246 100), Manufacturing (187 100) and Education and Training (168 800). Those industries employing the least number of persons included Electricity, Gas, Water and Waste Services (29 300), Information, Media and Telecommunications (34 900) and Arts and Recreation Services (38 100). The trend estimate number of unemployed persons in Queensland in June 2009 was 126 500 persons. This equates to an unemployment rate of 5.4 per cent. In annual terms, the trend unemployment rate in Queensland increased by a modest 0.5 per cent, to average 4.2 per cent over the year to June 2009.

Over 2008-09, Queensland continued to record the largest population growth of all Australian states and territories. With net interstate migration of 21 200 people, net overseas migration of 49 700, and a natural increase of 35 800 people, the total population grew by 106 700 persons. Queensland's population grew by 2.5 per cent representing the second fastest growing population of all states and territories.

In the first half of 2009, 39 professions and associate professions were examined to determine current, emerging or regressing occupational demand and skill shortages in Queensland. The occupations under discussion are most likely to be employed in the broader industries of Manufacturing, Construction, Mining, Health Care and Social Assistance, Education and Training, Professional, Scientific and Technical Services, Public Administration and Safety. While employment levels and jobs growth varied across industries, most sectors reported a general improvement in the number of applicant responses over the last year, but very little improvement in the quality of candidates applying for jobs. As such, this state continued to record significant skill shortages and the 2008-09 SERA research shows that, although demand flowed at a more moderated pace over the last six months, Queensland businesses continued to generate steady demand for nearly all of the occupations examined.

The DEEWR Skilled Vacancy Index (SVI) for Queensland indicates that over the year to June 2009, the combined annual count of newspaper advertisements for professionals and technicians fell by

38.7 per cent and 47.5 per cent respectively. When asked about their recruitment experiences however, a large number of employers and recruitment specialists reported this year that there has been a major shift away from offers of contract work to offers of permanent employment arrangements. More specifically over the second half of the 2008-09 year, large numbers of employers disengaged from recruitment services and conducted their own recruitment exercises, which did not necessarily entail newspaper or internet advertising. In some cases employers simply approached existing contract workers and offered them permanent positions. Given this, the SVI may not be reflecting the full scale of demand for these occupations. Looking ahead, indicators of employment growth such as DEEWR's Leading Indicator of Employment suggest that labour market conditions in Australia will continue to moderate over the second half of 2009.

In relation to supply, a small number of occupations may see slight improvement in the future as a result of growth in student numbers and/or increases in overseas or interstate migration, but for many of these professions, supply once again failed to meet demand. Consequently, 36 of the 39 professional and technicians occupations examined this year were found to be in shortage.

### **13 Specialist Managers**

The three occupations examined in this sub-major group included Construction Project Managers, Engineering Managers and Production Managers (Mining). These occupations fall within the unit groups of *Construction Managers*, *Engineering Managers* and *Production Managers* respectively. Quarterly ABS *Labour Force Survey* data show that over the year to May 2009, employment levels of Construction Project Managers increased by 2900 persons; Engineering Managers grew by 1200 persons and Production Managers recorded employment growth of 4600 persons. As is commonly the case with management positions, the overall demand was greatest for those with extensive experience and specific skill sets, which essentially disqualified new graduates and junior level professionals and thereby limited the overall pool of applicants.

Although the strength of demand for Engineering Managers relaxed somewhat over 2008-09, the flow of demand remained steady due to strong capital investment in engineering construction projects, particularly government funded infrastructure projects. According to the latest Access Economics Investment Monitor, Queensland infrastructure investment continues to soar, with public sector investment in Queensland leading the national charge on infrastructure investment.

Concerning supply to this profession, data from DEEWR indicate steady growth in the number of students entering engineering management programs while arrivals and departures data from the Department of Immigration and Citizenship (DIAC) show a similar trend in supply growth coming through overseas migration. Nonetheless, even with the ease in demand for this profession, the supply of suitable candidates fell well below demand and with a filled rate of only 43 per cent, engineering managers were found to be in shortage.

Despite the downturn in commodity prices and some job losses in the mining sector, capital investment in advanced minerals and energy projects continues to expand in Queensland and demand for Production Managers (Mining) remained unchanged over much of the year. However, supply to this profession has not been increasing with growth in demand as DEEWR student commencement and completions data for Mining Engineers showed minimal growth since 2003. Arrivals and departures data from DIAC show that the number of Production Managers migrating to Queensland has declined for the last five years. The combined effects of ongoing strong demand and diminishing supply led to no vacancies for Production Managers (Mining) being filled this year and the occupation was rated as being in state-wide shortage.

Demand for Construction Project Managers weakened over the year in line with a contraction in private sector non-residential and residential building activity. As such, this occupation was found to be 'not in shortage' in the first half of 2009, with 50 per cent of the surveyed vacancies withdrawn before the study was completed. Job withdrawals were attributed to postponed or cancelled projects. Since that time, resounding activity in the public non-residential sector may result in a shortage of this profession emerging in the near future. Given this, the labour market for construction project managers will be re-examined in the first half of 2009-10.

### **23 Design, Engineering, Science and Transport Professionals**

The 11 professionals examined in this Major Group include Civil, Structural, Transport, Mechanical, Chemical, Electrical, Electronics and Mining Engineers, as well as Surveyors, Quantity Surveyors and Architects. Although ABS *Labor Force Survey* figures show that annual average employment in the design, engineering, science and transport professions decreased overall by approximately 2900 over the year to May 2009, employment levels for individual professions in this group varied greatly. For instance, positive employment growth was recorded for Electronics, Mechanical and Electrical Engineers, while negative employment growth was recorded for Architects, Surveyors, Civil, Mining and Chemical Engineers.

With the exception of demand for Architects weakening in the aftermath of recent falls in private sector residential building activity, the flow of demand for the remaining occupations in this group remained relatively constant. Over the year to March 2009, the trend volume of engineering construction work done continued to grow by a solid 22.9 per cent, effecting steady demand for Surveyors, Quantity Surveyors, Civil, Structural, Transport and Mechanical Engineers. Ongoing population growth sustained demand in the energy supply and communication sectors, which subsequently drove demand for both Electrical and Electronics Engineers. Queensland as the world's largest seaborne coal exporter performed strongly in mining once again, with raw coal production up 8.0 per cent and saleable coal up 6.5 per cent over the year to April 2009. This combined with new or expanding mining investment and a whole of industry shift towards advancing low emissions technologies ensured that demand for both Mining and Chemical Engineers remained firm.

Supply to these professions is varied. For example, DEEWR's student enrolments and completions records show that the number of Surveyor, Quantity Surveyor, Electronics and Mining Engineer students remaining fairly stable between 2003 to 2007. Over the same time, architectural and chemical engineering student numbers grew steadily, while electrical, mechanical and civil engineering numbers declined. Arrivals and departures data from DIAC indicate that while overseas migration may have provided some support to the workforces for Architects, Chemical, Electrical and Electronics Engineers, there were minimal increases in the number of Manufacturing and Mining Engineers migrating to Queensland. The number of migrant Civil and Electrical Engineers strengthened considerably.

Regardless of all these factors, all of the professions in discussion were found to be in state-wide shortage in 2008-09 with seven of the eleven occupations recording less than one third of their vacancies filled. The shortages are expected to persist over the coming year.

### **24 Education Professionals**

Four education professions were examined in 2009, namely Special Needs Teachers, Early Childhood (Pre-primary School) Teachers, Primary School Teachers and Secondary School Teachers. Findings from the SERA research showed shortages in the Special Needs Teacher and Early Childhood Teacher labour markets while Primary School and Secondary School teachers were

found to be not in shortage. Although ABS *Labour Force Survey* figures indicate that overall employment in the education professions declined by 2000 persons over the year to May 2009, employment levels for the four occupations under discussion were mixed. For instance, over the same time Secondary School Teachers, Special Needs Teachers and Early Childhood Teachers all recorded positive growth of 600 400 and 700 persons respectively, while Primary School Teachers recorded negative growth of 2900 persons.

Demand for teachers is generally dependent on the number of students in the population, but it is also influenced by government funding and policy on curriculum and class sizes. As one indicator, Education Queensland figures show that there were 307 143 primary and preparatory students attending State schools and 169 577 students attending State secondary schools as at August 2008. This represents student growth of almost 7.0 per cent since August 2004.

Student commencements and completions data from DEEWR show that supply to these professions through education varies. For instance, the number of primary and secondary teacher graduates appears to be on a downward trend, whereas early childhood and special education teacher numbers are showing steady growth. Arrivals and departures data from DIAC indicate minimal contributions from overseas migration for all four occupations.

Of the two professions found to be in shortage, demand for Early Childhood Teachers was not easily met outside of the school system and employers attributed this to the lower remuneration on offer and poor perceptions of the child care sector. Employers who could not fill Special Needs Teacher vacancies attributed their difficulties to a general lack of qualified applicants and advised that the situation will not improve until the remuneration offered to a special needs teacher is consistent with the additional time and cost of study, increased level of skills, duties and workplace responsibility required for the position. It is anticipated that the labour markets for these two occupations will remain in shortage until these matters are resolved.

## **25 Health Professionals**

In the first half of 2009, six allied health professions, eleven nursing professions and the associated occupation of enrolled nurse were assessed.

The professions included ten Registered Nurse Specialties (Aged Care, Child and Family Health, Community Health, Critical Care and Emergency, Disability and Rehabilitation, Medical, Medical Practice, Mental Health, Perioperative and Surgical), Midwives, Dentists, Dental Specialists, Hospital Pharmacists, Retail Pharmacists, Physiotherapists, and Occupational Therapists.

There has been unyielding demand for Health Professionals in Queensland generated by ongoing population ageing and growth and the consequent growth in aged care facilities and major infrastructure development of the State's public health system. The strength of demand for nurses alone can be indicated by figures from Queensland Health, who advised in late 2008 that despite recruiting more than 5100 additional nurses since June 2005, approximately 1400 vacancies for Registered Nurses and Midwives remain unfilled across the State.

ABS *Labour Force Survey* data show positive growth in annual average employment in the health professions, with overall numbers rising by approximately 7300 persons over the year to May 2009. However, a breakdown of the occupations under examination show that two of the professions in this group recorded negative jobs growth over the same time. They include Dentists (down 400 persons) and Registered Nurses (down 1800 persons). While the declining numbers may be due to volatility in the underlying series, they may also be attributed to an ageing workforce and subsequent retirements, low numbers of students entering health related programs, falls in interstate and overseas migration,

and to some extent, regulation standards and employment conditions. The remaining occupations all showed growing workforces with Pharmacists (up 2700 persons), Physiotherapists (up 300 persons), Midwives (up 300 persons) and Occupational Therapists (up 1700 persons).

Regarding supply from the education sector, DEEWR data indicate moderate growth in the number of graduate Midwives, Dentists, Dental Specialists, '*undergraduate*' Registered Nurses, Occupational Therapists, and Pharmacists over the last five years. In contrast, the number of physiotherapy graduates recorded minimal growth and the number of '*post-graduate*' nursing graduates contracted over the same time. Arrivals and departures figures from DIAC show that overseas migration may have contributed moderately to the supply of Registered Nurses, Midwives and Dental professionals but the numbers are insignificant for Pharmacists, Occupational Therapists and Physiotherapists.

Queensland continues to experience workforce shortages across all of the health professions examined this year with shortages reported to be more acute outside of Brisbane and in certain industry sectors. In particular, vacancies for Registered Nurses, Occupational Therapists and Physiotherapists were more readily filled in the public hospital sector, while aged care facilities, private hospitals and community organisations reported chronic difficulties attracting and retaining these professions. In contrast, the private sector was able to secure suitably qualified Pharmacists and Dentists more easily than the public sector. In either case, respondents reported that disparities in remuneration and working conditions remain the main drivers of recruitment difficulties. Based on this year's research all of the occupations in this group were rated as being shortage with demand outstripping supply. No change is expected over the coming year.

## **27 Legal, Social and Welfare Professionals**

The occupations examined in this unit group include Solicitor and Student Counsellor. ABS *Labour Force Survey* data show that overall employment levels for this unit group decreased by 5200 persons over the year to May 2009. Of those assessed, negative growth was recorded for Student counsellors (down 400 persons) while solicitors experienced a rise in employment numbers (up 2900 persons).

Compared to previous years, this year saw a shift in demand for Solicitors from historically high levels of demand for conveyancing and construction law specialists to strengthening demand for commercial, litigation, property and corporate law practitioners. In particular, the public sector generated the greatest demand within the survey period. It was noted by several respondents however that there has been a substantial increase in demand for criminal and family law solicitors over the last six months and they attribute this to the additional financial pressures placed on individuals and families in the wake of the economic downturn.

International migration shows no supporting role to this profession with arrivals and departures data from DIAC indicating net losses to the overall supply of Solicitors in Queensland. While this profession has recorded significant increases to student numbers in the recent past, employers this year reported that the volume of potential supply, as indicated by student numbers, is not represented in the labour market and at times even graduate vacancies are difficult to fill. Given all of these issues, the labour market for Solicitors was found to be in shortage this year and it looks set to remain that way over 2009.

Historically, Student Counsellors have been rated as being 'Not in Shortage' but as anticipated and noted in last year's study, a number of factors have led to emerging shortages in particular sectors and regions. Over the last twelve months there has been a departure in the standard of qualifications

sought by various industry sectors with some employers seeking applicants at the *Masters* level only. Consequently, a number of what would have been previously suitable applicants failed to meet the new criteria. At the same time, regional and rural employers who generally have minimal problems recruiting staff reported acute difficulties both attracting and securing suitable applicants this year. Although DEEWR education data show student numbers for this profession are strengthening and DIAC figures indicate international migration makes a steady contribution to supply, the combined number is failing to satisfy current demand and the labour market for student counsellors was found to be in 'Recruitment Difficulty' this year. The outlook for this profession is not likely to improve until the numbers of appropriately qualified applicants draw level with demand.

### **31 Engineering, ICT and Science Technicians**

In 2008-09, five associate professionals from this unit group were assessed. They included mine deputies, construction estimators, building associates, architectural draftspersons and metallurgical technicians. The same factors impacting on demand for the engineering professions are impacting on the labour markets of these occupations and with the exception of metallurgical technicians, employers reported that demand for these occupations remained reasonably constant over the last twelve months.

*ABS Labour Force Survey* figures suggest that annual average employment in this unit group contracted by 700 persons over the year to May 2009. A breakdown of the figures show however that 'architectural, building and surveying technicians' (which includes mine deputies and architectural draftspersons) recorded jobs growth of 100 persons, while the corresponding figures for 'other building and engineering technicians' (which includes building associates, construction estimators and metallurgical technicians) showed employment growth of 700 persons over the same time.

In terms of supply to these occupations, numbers are difficult to quantify for construction estimators and metallurgical technicians as most employers reported a willingness to accept applicants directly from school and train them on-the-job through traineeships or cadetships. This year, there were no vacancies notified in Queensland in the survey period for metallurgical technicians and with potentially unrestricted supply, this occupation was found to be 'not in shortage'. In contrast, most of the demand for construction estimators this year was for senior level or highly experienced workers and with employers receiving minimal responses to their advertisements, the occupation was subsequently found to be in shortage.

Although employers seeking building associates were relaxed about applicants holding *Diploma* level qualifications, they were required to have at least trade qualifications, industry experience and building and safety licences. Architectural technicians were only rated suitable if they were appropriately qualified and it was mandatory that mine deputies be formally qualified, certified and have a minimum of three years experience.

With one exception, all of the assessed occupations in this group were rated as being in State-wide shortage. In particular, mine deputies had a filled rate of only four per cent. The sole exception is the metallurgical technician, where SERA contacts indicated that employers have addressed historical shortfalls of workers by placing heavy emphasis on training relatively inexperienced new recruits in-house and quickly developing them to perform at least some associate-level duties. The present status of the labour markets for mine deputies, construction estimators, architectural associates and building associates are not expected to change over 2009-10.