

Surveyor	New South Wales (NSW)
ANZSCO Code: 2322-12	April 2009
Labour market rating:	No shortage
Comment: <i>Employers were generally able to fill vacancies for surveyors in cadastral surveying, mine surveying, engineering surveying and for project work in a range of sectors such as rail and road infrastructure.</i>	

Occupational demand

ABS Census data indicate that employment of surveyors grew by 1.7 per cent per annum from 2001 to 2006. Demand for the occupation has been mixed over the past year with the value of residential building in NSW falling by 4.6 per cent in 2008, non-residential building falling by 3.8 per cent and engineering construction rising by 25.8 per cent. Engineering construction has been boosted by the NSW Government's State Capital Program, involving \$56.8 billion in capital expenditure over the four years to 2011-12: a 57 per cent increase on the previous four years. As would be expected, the consensus of employers was that demand was currently strong for engineering and project surveyors with experience in infrastructure but subdued for those specialising in the building sector.

Occupational supply

DEEWR estimates show that completions of relevant NSW university courses have been stable at about 30 per annum since 2004, while supply from net overseas immigration has also been steady at about 18 per annum over the same period. The annual training rate (course completions as a percentage of employed surveyors) is 1.1 per cent, based on estimated employment of 2800. DEEWR estimates the wastage rate for surveyors, based on Census data, was 1.6 per cent per annum from 2001 to 2006, which implies that supply from local training is not sufficient to offset annual losses from the profession. However, employers reported a recent increase in surveyors returning to NSW from overseas and interstate which would reduce net wastage.

Employer and industry comments/current labour market

A DEEWR survey of employers and recruitment agencies who had recently advertised for surveyors found that 86 per cent of vacancies were filled within six weeks of advertising. This was an increase on the 60 per cent success rate in 2006. Employers were generally able to fill vacancies for surveyors in cadastral surveying, mine surveying, engineering surveying and for project work in a range of sectors such as rail and road infrastructure. The consensus of those surveyed was that the supply of surveyors seeking employment had increased appreciably in the previous few months. A number of vacancies were filled by surveyors who had recently returned from overseas or interstate while others were filled by surveyors canvassing for work without the employer needing to advertise. In other cases, advertising attracted a suitable applicant but the employer and the applicant were unable to agree on remuneration. Employers also commented that advertisements often attracted qualified surveyors who had poor communications skills and were therefore unsuitable for positions requiring extensive liaison with clients and the writing of technical reports. The small number of unfilled and hard-to-fill vacancies were mostly in specialised areas such as hydrographic surveying or in inland towns. There was insufficient evidence, however, to establish a definite shortage in any particular specialisations or geographic area.

Labour market outlook

The Construction Forecasting Council expects total construction activity to grow by 14.5 per cent (in current prices) in 2009-10, with residential building and non-residential building contributing most of the increase. If these forecasts are realised, demand for the occupation is likely to improve over the next 12 months. DEEWR projections do not indicate any major increase in supply to the occupation from university completions over the short term and recruitment difficulties may emerge in some specialisations by 2010.

Surveyor	Victoria
ANZSCO Code: 2322-12	March 2009
Labour market rating:	Shortage
Comment:	

Occupational demand

Demand for surveyors is generated by business levels within the overall economy and more specifically by the level of construction activity. The Australian Bureau of Statistics (ABS) 2006 Census data indicate about 80 per cent of surveyors are employed in the building and construction sector with 29 per cent working in housing construction. Housing Industry Association forecast data indicate construction activity will improve only marginally from 2009-2010. The National Building Economic Stimulus plan may generate some demand for surveyors through major projects. DEEWR Skilled Vacancy Index data suggests demand for surveyors has remained stable since 2006.

Occupational Supply

To register as a licensed surveyor under the *Surveying Act 2004* you must successfully complete a university degree in surveying or geomatics or an equivalent qualification as approved by the Surveyors Registration Board of Victoria (the Board). To practise cadastral surveying in Victoria you must be registered as a licensed surveyor and obtain practical training in cadastral surveying following graduation under the supervision of a licensed surveyor, and pass examinations in cadastral surveying set by the Board. There are 535 people currently registered as licensed surveyors registered by the Board in Victoria, this includes eight female surveyors. Data from the Department of Immigration and Citizenship indicate net immigration of surveyors into Victoria during 2007-2008 was negligible.

Employer and industry comments/current labour market

A survey of employers who had recently advertised for surveyors was conducted for this report. Vacancies were difficult to source and only represented employers in metropolitan Melbourne so a number of employers in Regional Victoria were also canvassed for their experiences. Overall, only 10 per cent of advertised positions were filled and the number of applicants per vacancy and number of suitable applicants per vacancy were also very low. A number of employers indicated they had had vacancies for over 3 months with a small number indicating they had been trying to fill their positions for over a year. More established companies and recruitment agencies did not believe there was a shortage of surveyors in Victoria, however, other employers had a different experience finding difficulties in placing experienced and qualified surveyors and indicating the quality of applicants was low. Regional employers found sourcing suitable applicants particularly difficult as it required moving to regional areas or extensive travel.

A significant issue amongst surveying professionals is an ageing workforce, the median age for a surveyor is 55 plus. The majority of employers described a marked decline in business during late 2008 to early 2009. Some employers cited they were currently preparing for large future projects through the National Building Economic Stimulus plan. Generally, employers described the turnover of surveyors to be low across the industry. There were general comments relating to the low exposure of surveying as a career option for school leavers and graduates. Employers viewed current surveying courses as too theoretical and stated students perceived the courses as 'too difficult'.

Labour market outlook

There was no evidence to suggest that the labour market outlook will change for surveyors in the next six months.

Surveyor		Queensland
ANZSCO Code: 2322-12	March 2009	
Labour market rating	Shortage	
Comment:		

Occupational demand

Surveyors plan, direct or conduct survey work to determine, delineate and precisely position tracts of land, natural and constructed features, coastlines, marine floors and underground works and manage related information systems. Most surveyors in Queensland are employed in surveying and technical services, construction, engineering and mining firms or in the public sector. Much of the demand for surveyors is generated by activity in construction and mining. Both the mining and construction industries in Queensland have experienced high levels of activity over the last several years. For instance, the Australian Bureau of Statistics reports that the volume of construction work done in Queensland has increased for the last 22 quarters, while \$256.2 million was spent on mineral exploration in 2007-08, an increase of almost 62 per cent from the previous year.

Occupational supply

Entry to this profession is generally via the completion of a four year bachelor degree in spatial science or urban development. Registration with the Surveyors Board of Queensland is mandatory. Specific commencement figures for surveyors are difficult to ascertain as some universities offer a year of generic development subjects prior to students choosing a discipline. However, Department of Education, Employment and Workplace Relations data indicate the average number of students commencing specialist surveying courses in 2006 and 2007 was 66 and approximately 360 students commenced the generalist urban development degree over this same period. Historically, the number of students leaving specialist courses before completion averaged around 30 per cent and, if completions stay commensurate with enrolments, it is anticipated that around 137 newly qualified surveyors will graduate and enter the labour market at the end of 2009. The Surveyors Board reports that 262 graduate surveyors were registered during 2007-08, representing an increase of 26 per cent when compared with 2006-07. Arrivals and departures data from the Department of Immigration and Citizenship show that overseas migration may be a moderate source of supply to this profession as 64 self-identified surveyors migrated to Queensland in 2007-08.

Employer and industry comments/current labour market

This year's study showed that only 60 per cent of advertised vacancies for surveyors in Queensland were filled within six weeks of advertising. Generally, most employers reported an increase in the number of responses to their advertising compared with the last few years, with a number noting a strong response from surveyors in Western Australia. Despite this, only 26 per cent of the applicants were considered suitable. Employers deemed applicants as unsuitable in most cases because they lacked experience with local conditions, had insufficient experience, or they lacked knowledge of specific industries such as mining. Employers outside the mineral resources sector reported difficulties attracting Australian applicants due to their inability to match the remuneration offered by that sector. Recruitment specialists advised that employers are taking advantage of the changing labour market conditions by limiting their vacancies to include specific skill sets and industry experience.

Labour market outlook

Australian Bureau of Statistics data show that the value of construction work still in the pipeline for Queensland in the December quarter was 20.6 per cent higher in 2008 than it was in 2007. This, combined with the high level of investment and planned infrastructure development across the State, indicates that demand for surveyors looks set to continue. At the present time, supply to this profession from immigration or tertiary education is failing to meet demand. It is therefore anticipated that the labour market for surveyors in Queensland will continue to be in shortage throughout 2009.

Surveyor	South Australia
ANZSCO Code: 2322-12	February 2009
Labour market rating	Shortage
Comment	

Occupational demand

According to the 2006 ABS Census, there were approximately 370 employed surveyors in South Australia. This represented an increase of 15 per cent compared to the number reported in the 2001 Census. Around 61 per cent of surveyors work in the professional, scientific and technical services industry, particularly in surveying and mapping services. A further 15 per cent are employed in the public administration and safety industry, eight per cent in the mining industry and seven per cent in the construction industry. Demand for surveyors is influenced by the level of mining, engineering construction and building activity. Apart from a modest downturn in late 2006 and early 2007, South Australian building activity has been expanding strongly since 2001. ABS data show that the total value of building work done (in trend terms) increased for seven consecutive quarters to the December quarter 2008 (the latest available). There has also been a substantial increase in engineering construction activity in the State over the past few years with the value of work done in the December quarter 2008 being the highest on record. DEEWR's Skilled Vacancies Index data recorded a sharp increase in the number of newspaper vacancies for surveyors in 2007, followed by a fall in 2008. Given growth in both engineering and building construction activity, demand for surveyors has probably increased. Employers contacted for this research reported a slight increase in their surveyor workforce size over the past 12 months. The workforce of licensed surveyors represents a sub-set of the total surveyor workforce and in 2008 there were 150 licensed surveyors in South Australia, compared to 143 the previous year.

Occupational supply

Entrants to the profession have usually completed the Bachelor of Geoinformatics and Surveying course offered at the University of South Australia. Up to 1994, there were around 24 commencements per annum which yielded around 13 completions each year. However, there was a substantial drop in the number of commencements in 1995 resulting in an average of 11 commencements per annum to 2006. Consequently, the number of completions also fell to approximately eight per annum in the period to 2007. In response to these low student numbers, the University of South Australia no longer accepted new enrolments into the course from 2007. Based on DEEWR projections, there will be around eight completions in 2009.

Employer and industry comments/current labour market

A survey of employers who had recently advertised for surveyors showed that 50 per cent of total vacancies were filled within six weeks. Employers attracted an average of 7.5 applicants per vacancy though many were deemed unsuitable and so there were 0.5 suitable applicants per vacancy. Main reasons given by employers for rejecting unsuitable applicants were lack of experience and relevant qualifications. Most employers also reported a notable drop in activity during the last months of 2008 but a pick up in demand occurred at the beginning of 2009. Overall, the employer survey suggests that the labour market for surveyors is currently in shortage.

Labour market outlook

Forward indicators of activity in the South Australian construction industry suggest a slowdown is likely. Nonetheless, many of the firms contacted were confident that their businesses will not be significantly affected but reported they were unlikely to recruit additional staff in 2009. Some employers would use a possible economic slowdown as an opportunity to increase staff training. Unless there is a sharp economic contraction, current shortages are likely to persist. Given there will be no new graduates in 2010, shortages may continue beyond the next 12 months.

Surveyor	Western Australia
ANZSCO Code: 2322-12	March 2009
Labour market rating:	No Shortage
Comment	

Occupational demand

The 2006 Australian Bureau of Statistics (ABS) census data show that in WA, the majority of surveyors work in the industry divisions of Professional, Scientific and Technical Services (52 per cent) and Mining (24 per cent). The two main specific industries of surveyor employment are Surveying and Mapping Services and Mining (in particular Iron, Gold and Nickel). Demand is in the specialised work areas of cadastral/land surveying, engineering surveying, geodetic surveying, mine surveying, remote sensing and topographic surveying. ABS census data show the number of surveyors in WA has increased between 2001 and 2006 by 24 per cent to 1120. ABS Labour Force Survey (LFS) data indicate that from November 2007 to November 2008 there was a small reduction in the employment of cartographers and surveyors.

Occupational supply

To become a licensed surveyor in WA (for cadastral work), a four-year Bachelor of Surveying is required, plus a further two years experience working under a licensed surveyor. The individual must then complete an examination conducted by the Surveyors Licensing Board of WA. Curtin University offers bachelor degree courses in Surveying and in Mine and Engineering Surveying. Graduate numbers for these courses have shown a slight decline, with nine graduates of the Surveying course in 2007, from 13 in 2006 and 15 in 2005, and four graduates of the Mine and Engineering Surveying course in 2007, compared with nine in 2006 and five in 2005. TAFE also has a certificate IV and a diploma level course in surveying. However, TAFE level qualification is not enough to become a licensed surveyor. The net gain in overseas migration of those classified as Cartographers and Surveyors to Western Australia was recorded as 53 persons in 2007-08 which was more than the net gain of 29 in 2006-07.

Employer and industry comments/current labour market

A DEEWR survey of employers who had recently advertised for surveyors found that 83 per cent of vacancies were filled within six weeks following advertising. There were approximately 11 applicants per vacancy of whom five per vacancy were considered by employers to be suitable. A small number of employers reported they were unable to fill positions due to the location of the vacancy. All employers surveyed said they were able to attract suitable applicants. This is a notable change from 2006 when the occupation was last surveyed in WA, when less than two thirds of advertised vacancies were filled. A significant proportion of employers said they had received improved responses to their advertised vacancies compared with their recruitment experiences of 12 months ago. They advised that they encountered no difficulties filling positions. A feature of this occupation is that a significant proportion of potential vacancies are for sub-contracting arrangements, rather than outright employment. The employers surveyed said they did not have difficulty filling sub-contracting positions. A large employer indicated that work for surveyors in the metropolitan areas of WA has decreased but work in regional and remote areas had increased due to major construction projects. Most surveyed employers indicated it was unlikely they would recruit for this occupation again in the following six months. The Industry Body for Surveyors in WA indicated the slowing of activity in some areas of the mining and construction industries had increased the availability of surveyors.

Labour market outlook

The current economic climate is contracting demand and no shortage is evident. This is likely to continue in the short term.

Surveyor	Tasmania
ANZSCO Code: 2123-13	March 2009
Labour market rating	Regional difficulty
Comment <i>Most Tasmanian surveying firms are very small and do not directly employ any other surveyors. Those who do employ surveyors indicated they only had difficulty recruiting outside of Hobart.</i>	

Occupational demand

ABS census data indicate the number of surveyors in Tasmania had increased from 147 to 174 in the 5 years to 2006. As of March 2009, however, there were 110 surveyors listed with the Register of Tasmanian Surveyors, whose primary address is in Tasmania. Registration is mandatory for all people engaged in land (cadastral) surveying in Tasmania. Subdivision of land and other property or boundary related issues create demand for cadastral surveyors. ABS data from 2007 show there were 84 companies engaged in providing surveying services in Tasmania, with 29 per cent of them not employing any staff, and a further 68 per cent employing between one and 19 people. The building and development boom that Tasmania has experienced over the last seven years or so has created additional demand for land surveyors.

Occupational supply

Surveyors are usually required to have completed a four year degree course, and locally the University of Tasmania offers a Bachelor of Surveying and Spatial Sciences over 4 years. This was a new degree in 2007, replacing a four year Bachelor of Geomatics offered previously. Over the last 10 years there has been an average of around 12 Geomatics/Surveying graduates from the University of Tasmania, within a range of nine to 18. Census data indicate that migration from other States or from overseas was minimal.

Employer and industry comments/current labour market

No employers advertised for surveyors in the lead up to this report, and industry sources indicated there were only two or three employers in Tasmania who employed surveyors in any significant numbers. Many Tasmanian graduates leave the State in order to complete the professional development program which is required before they can become a registered land surveyor. The small size of most employers in the State limits opportunities for local graduates to complete the requirements for registration locally. The larger employers indicated that they did not have too many difficulties attracting employees in Hobart, but that it was more difficult in the north and north-west of the State. The east coast was also mentioned as a particularly difficult area in which to attract surveyors. The employers contacted indicated that they had sufficient work to sustain them for at least the next 12 months, and most of them indicated that they had not yet been affected by the economic downturn, although some noted there had been a decline in property development work over the last three to six months.

Labour market outlook

Difficulties recruiting surveyors appear to have eased in Hobart over the last six months or so, but employers indicate they still remain in regional areas outside of Hobart. There is some evidence of a slowing of demand in the property development area, but demand in other areas remains steady.

Surveyor		Northern Territory
ANZSCO Code: 2322-12	February 2009	
Labour market rating	Shortage	
Comment		

Occupational demand

The Australian Bureau of Statistics (ABS) Census data show that there were 52 surveyors employed in the NT in 2006, which is a 21 per cent decrease from 2001. The labour market for surveyors is too small for ABS Labour Force data to provide a meaningful indicator of employment since 2006. Demand for surveyors comes predominately from the civil construction and mining sectors. The value of engineering construction work done in the NT increased throughout 2008 (ABS 8762.0), after declining during 2007, to surpass 2006 levels. Mining industry sales and service income in the NT increased by 12.5 per cent in 2007-08 over the previous year while wages and salaries expenditure increased by 72 per cent (ABS 8155.0). After increasing to a record level in December 2008, expenditure on mineral exploration (excluding petroleum) in the NT dropped substantially in the first quarter this year (ABS 8412.0). Although exploration in the March quarter is seasonally low, the decline is also an indication of reduced activity in the mining sector as a result of the global financial crisis.

Occupational supply

There are no local training courses for surveyors available in the NT and there is a strong reliance on attracting people from interstate for vacancies. Some employers tend to use industry networks to source suitable people. However, many commented on the lack of local supply for the occupation and their reliance on interstate recruitment. Most employers preferred local and interstate applicants over overseas applicants.

Employer and industry comments/current labour market

Half of the employers surveyed managed to fill their surveyor vacancies. Multiple applicants were received for each vacancy, however, a small number (38 per cent) were considered suitable and some vacancies remained vacant for extended periods. Employers tended to advertise via the internet and use recruitment agencies, but only attracted a limited response to vacancies.

Vacancies were due to both increased demand and job turnover. Some vacancies were filled by internal transfer with fly-in-fly-out options. While some contacts said demand had waned as a result of the global financial crisis, others suggested that demand remained strong and they had created new vacancies due to increased workloads or company expansion.

Labour market outlook

The global financial crisis has affected demand for surveyors in the mining and construction industries. However, demand for surveyors in the NT is expected to hold and issues attracting new supply set to remain. The shortage extends to vacancies at the graduate level with a lack of local supply considered a key issue. The occupation is expected to remain in shortage over the coming year.

Surveyor	Australian Capital Territory (ACT)	
ANZSCO Code: 2322-12	January 2009	
Labour market rating	Shortage	
Comment		

Occupational demand

ABS 2006 Census data show there were approximately 100 surveyors employed in the ACT, with about two thirds employed in the Professional, Scientific and Technical Services industry. ABS Labour Force Survey data indicate a decline in employment for this occupation in the year to February 2009.

Demand for surveyors is influenced by levels of residential, non-residential and engineering construction activity. Employer comments suggest demand for surveyors in the ACT is expected to rise with a number of new infrastructure and residential projects scheduled for commencement over the next few years.

ABS Building Approvals data for the ACT indicate a 19 per cent rise in the value of total building (residential and non-residential) approvals in the year to January 2009. ABS Engineering Construction Activity data for the ACT show infrastructure activity in the year to December 2008 has been strong with a rise of five per cent in the value of work done and a considerable rise in the value of work yet to be done for same period.

Occupational supply

Entry into this occupation is through completion of a bachelor degree or higher qualification. Employer comments highlighted the lack of university courses in this discipline in the ACT, which many suggested makes recruiting difficult as many younger potential surveyors are forced to travel interstate and are often recruited by companies in larger states who offer higher remuneration. This issue was also identified when this occupation was last surveyed in the ACT. There was also some suggestion by contacts that changes to the course title from surveying to geomatic engineering, may have been one of many factors contributing to low graduate numbers in recent years.

Supply to this occupation is reliant on interstate migration as Department of Immigration and Citizenship net migration data show supply from overseas migration to the ACT has had minimal impact.

Employer and industry comments/current labour market.

Results of this research should be treated with caution due to the limited number of vacancies on which the results are based. A survey of employers who have recently advertised for this occupation was conducted with a number of employers cold canvassed due to the small number of vacancies being identified. This occupation was assessed nationally in 2008 and ACT data are not available from that research for comparison. ACT results in 2009 show one third of the surveyed vacancies were filled, compared with the national fill rate of slightly more than 40 per cent in 2008. The current research shows employers received almost two applications per vacancy, slightly less than the three applications per vacancy recorded nationally in 2008. Those employers recruiting were seeking to replace existing staff.

Employers commented that the mining boom over recent years contributed to a shortage of surveyors nationally but they suggested the recent downturn in the mining sector might free up supply. There was some evidence to suggest some ACT employers are looking overseas to recruit surveyors. Employers also commented that surveyors in the ACT are an ageing population. ABS 2006 Census data indicate 39 per cent of surveyors in the ACT were aged 45 years or older compared with 36 per cent of all ACT workers.

Labour market outlook

Continued strong demand suggests existing shortages of surveyors in the ACT will persist.