

<b>Civil Engineer, Structural Engineer, Transport Engineer</b>	<b>Western Australia</b>
ANZSCO Codes: 2332-11, 2332-14, 2332-15	March 2009
<b>Labour market rating:</b>	Recruitment Difficulty
<b>Comment:</b> Employers report difficulty attracting experienced engineers in highly specialised roles.	

### Occupational demand

ABS census data show the number of civil engineers in WA has increased by 39 per cent between 2001 and 2006 with civil engineers mainly working in Engineering Design and Engineering Consultancy Services and Water Supply. More recent ABS Labour Force Survey data show that in the year to November 2008 the level of employment of this occupation has been steady. A deep water port at Oakajee in the mid west is expected to go ahead in the near future, creating the need for infrastructure spending on roads, schools, and medical and community facilities and increasing the need for civil, transport and structural engineers in late 2009 and 2010.

### Occupational supply

A four-year Bachelor of Engineering degree majoring in Civil Engineering is available at both Curtin University and the University of Western Australia (UWA) with structural and transport engineering available as specialisations. Recent combined Curtin and UWA domestic graduate numbers of Civil Engineers have been 2007 (63), 2006 (64) and 2005 (64). Some students undertake double degrees, often in engineering and commerce, allowing them to obtain employment in alternative fields. University information indicates many students within graduate programs are employed up to nine months before they complete their degrees. The net gain in overseas migration of civil engineers to WA was recorded as 405 persons in 2007-08 which was more than the net gain of 327 in 2006-07.

### Employer and industry comments/current labour market

A DEEWR survey of employers who had recently advertised for civil, structural and transport engineers was conducted for this report, with vacancy fill rates of 29 per cent, 14 per cent and 20 per cent respectively. Advertisements for each of the occupations attracted between 7 and 9 applicants per vacancy, but employers found only one to two applicants per vacancy to be suitable, mainly because many applicants lacked the specialised skills required for the projects being undertaken. Several employers indicated they were not willing to employ recent graduates and wanted people with a few years on-site experience, adding that they were willing to wait till they found someone possessing all the skills they required. They said there are many specialisations within the discipline, adding that a four year engineering degree was really only the starting point and it was experience followed by further study that qualified a person to work on specialist engineering projects.

The labour market for civil engineers has changed significantly from last year, with employers who were reporting that skill shortages were affecting their profitability now finding little difficulty recruiting other than in highly specialised areas. Employers reported receiving many applicants for any position advertised, with several indicating they receive applications from overseas but are unwilling to go through the processes required by immigration to consider these as viable candidates.

Several employers and recruitment agencies reported that there is a good supply of recent graduates and highly qualified people with over 15 years experience but a lack of people with five to ten years experience. This trend is reflected in the university enrolments of the last few years. Employers commented that almost all infrastructure development is being reviewed but they need to be ready for when the go ahead is given. Companies working in the development of infrastructure for the oil, gas and iron ore industry reported they were finding it difficult to fill certain specialised positions but overall they had limited recruitment difficulties.

### Labour market outlook

Recruitment difficulties of civil engineers are expected to continue in the medium term, reflecting the specialist needs of the industry. Infrastructure projects may further increase levels of demand.