

... plan, organise, direct, control and coordinate the engineering and technical operations of organisations.

### **Indicative Skill Level**

Most occupations in this unit group have a level of skill commensurate with a Bachelor degree or higher qualification. At least five years of relevant experience may substitute for the formal qualification. In some instances relevant experience and/or on-the-job training may be required in addition to the formal qualification (ANZSCO Skill Level 1).

### **Skilled Occupation Criteria**

#### ***Long-lead time***

Engineering Managers meet the criteria for long lead time, as entry to this occupation requires a substantial training commitment.

- ▶ Employment as an Engineering Manager generally requires the completion of a university qualification of at least four years study (full-time equivalent), such as a Bachelor of Engineering.

#### ***High use***

Engineering Managers meet one aspect of the criteria for high use, showing that the skills which people have acquired through education and training are being deployed for the uses intended.

- ▶ Of the new graduates employed as Engineering Managers, 87% were found to have studied in a related field such as engineering or business and management (*Australian Graduate Survey, 2009*).

#### ***High risk***

Engineering Managers also meet the criteria for high risk/high disruption. This indicates that the occupation is important for the effective operation of an enterprise and/or the broader economy.

- ▶ Engineering Managers are important to meet government policy priorities at both the Commonwealth and state level. These include sustainability projects such as the Green Building Fund and the Advanced Electricity Storage Technologies program as well as meeting targets in the production and export of minerals.
- ▶ Engineering Managers may be required to register with the Board of Professional Engineers prior to employment in some states and territories.

## Occupation trends

### **ANZSCO: 1332**

### **Engineering Managers**

<b>Employment level</b>	19,200 Almost all workers are employed full-time (95.9%).
<b>6 digit employment (2006 Census)</b>	133211 Engineering Manager 12,873
<b>Employment growth</b>	Over the five years to August 2010, employment increased by 86.5% (compared with growth of 12.1% for all occupations). Employment is expected to increase by 17.6% over the next five years (compared with projected growth of 9.5% for all occupations).
<b>Unemployment rate</b>	Below average (around 1.3%) compared with all occupations.
<b>Educational profile</b>	Around 46.9% have a Bachelor degree or higher qualification.
<b>Vacancies</b>	The Internet Vacancy Index (IVI) fell by 60.7% over the 12 months to September 2010 to 67.8 (March 2006=100). Vacancies for all occupations increased by 19.4%.
<b>Gender</b>	Around 7.3% of workers are female (compared with 45.4% for all occupations).
<b>Labour turnover</b>	Around 9.7% of workers leave this occupation in a year compared with 13.1% for all occupations.
<b>Age profile</b>	The median age is 41 years and 45.0% are aged 45 years and over (compared with 38.5% for all occupations).
<b>Earnings</b>	Median full-time weekly earnings (before tax) are high (\$2057).
<b>Graduate outcomes</b>	Not available
<b>Skill shortages</b>	National shortages of Engineering Managers were identified through DEEWR research in 2007, 2008 and 2010.

### **Labour market**

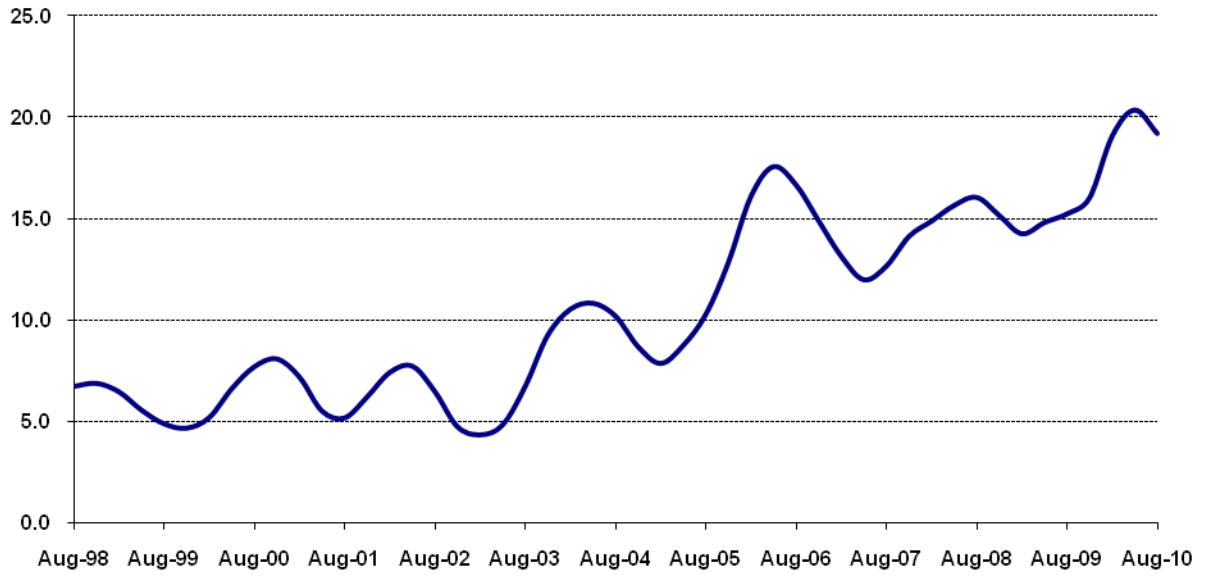
After an easing in demand for Engineering Managers in 2009, research undertaken in early 2010 shows the labour market has tightened and shortages have re-emerged. This research found the proportion of vacancies filled decreased from 67% in 2009 to 53% and the average number of suitable applicants per vacancy fell from 3.9 to 1.1 over the same period.

In 2010, all surveyed employers were seeking applicants who held professional engineering qualifications, although the educational profile for this occupation suggests some engineering managers come from a trade or technician background with more than one quarter holding Advanced Diploma/Diploma or Certificate III/IV qualifications. In 2010 advertised vacancies attracted a significantly smaller number of applicants than in 2009. The majority were considered by employers to be unsuitable, due mainly to a lack of management experience or specialist expertise.

### **Summary**

Employment growth has been strong over the past five years and strong growth is expected to continue. Although vacancy levels remain low compared with those recorded prior to the global recession, shortages are once again evident. This employment growth profile suggests there will continue to be significant demand for Engineering Managers for new positions and also for replacement of existing workers due to the high proportion of workers aged 45 years and over.

Engineering Managers  
Employed Persons ('000s) Aug 1998 to Aug 2010



Internet Vacancy Index (IVI) - 3 Monthly Average - Nov 2006 - Sept 2010  
Engineering Managers (March 2006 = 100)

