

... design, develop, adapt, install, test and maintain electronic components, circuits and systems used for computer systems, communication systems, entertainment, transport and other industrial applications.

Indicative Skill Level

Most occupations in this unit group have a level of skill commensurate with a Bachelor degree or higher 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

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

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

High use

Electronics Engineers meet the criteria for high use, showing that the skills which people have acquired through education and training are being deployed for the uses intended.

- ▶ Based on advice from Universities Australia, university courses in electronic engineering have a strong degree of match with eventual employment in engineering occupations.
- ▶ Of new graduates employed as Electronics Engineers, 78% had studied in a related field, such as engineering and related technologies (*Australian Graduate Survey, 2009*).
- ▶ As professionals, Electronics Engineers are expected to have a level of skill commensurate with a Bachelor degree or higher qualification. Of those employed as Electronics Engineers, 82% were found to possess this level of skill (*ABS Survey of Education and Work, 2010*).¹

High risk

Electronics Engineers 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.

- ▶ Electronics Engineers are required to be registered or licensed in some states and territories, such as Queensland and Tasmania.
- ▶ Electronics Engineers are important to meet government policy priorities at both the Commonwealth and state level, including the implementation of the National Broadband Network (NBN).

¹ Analysis for the Skilled Occupations List (SOL) was conducted using the latest available data, including the 2010 ABS Survey of Education and Work (SEW). Percentages may therefore differ from those cited in the 'Occupation Trends' analysis (over the page), which uses alternative sources in some instances (e.g. the 2008 ABS Survey of Education and Work). Small sample sizes for some occupations may also result in fluctuations in the SEW data between 2008 and 2010. The specific data sources used for the Occupation Trends analysis can be found on the Skills Australia website: <http://www.skillsaustralia.gov.au/SOLsummarysheets.shtml>.

Occupation trends

ANZSCO: 2334

Electronics Engineers

Employment level	7700 A high proportion of workers (86.9%) are employed full-time.
6 digit employment (2006 Census)	233411 Electronics Engineer 3240
Employment growth	Over the five years to August 2010, employment increased by 40.1% (compared with growth of 12.1% for all occupations). Employment is expected to rise by 21.7% over the next five years (compared with projected growth of 9.5% for all occupations).
Unemployment rate	Above average (around 4.6%) compared with all occupations.
Educational profile	Around 69.4% have a Bachelor degree or higher qualification.
Vacancies	The Internet Vacancy Index (IVI) rose markedly (well above the 'all occupations' rate) over the 12 months to September 2010 to 182.7 (March 2006=100). Vacancies for all occupations increased by 19.4%.
Gender	Around 1.8% of workers are female (compared with 45.4% for all occupations).
Labour turnover	Around 5.3% of workers leave this occupation in a year compared with 13.1% for all occupations.
Age profile	The median age is 39.8 years and 44.2% are aged 45 years and over (compared with 38.5% for all occupations).
Earnings	Median full-time weekly earnings (before tax) are high (\$1564).
Graduate outcomes	Graduate Careers Australia data show 91% of Bachelor degree graduates in electronic/computer engineering seeking full-time work were working four months after graduation, 39% of whom were employed as ICT Professionals and 29% as Engineering Professionals.
Skill shortages	Shortages were evident in the early 2000s and in 2007 and 2008.

Labour market

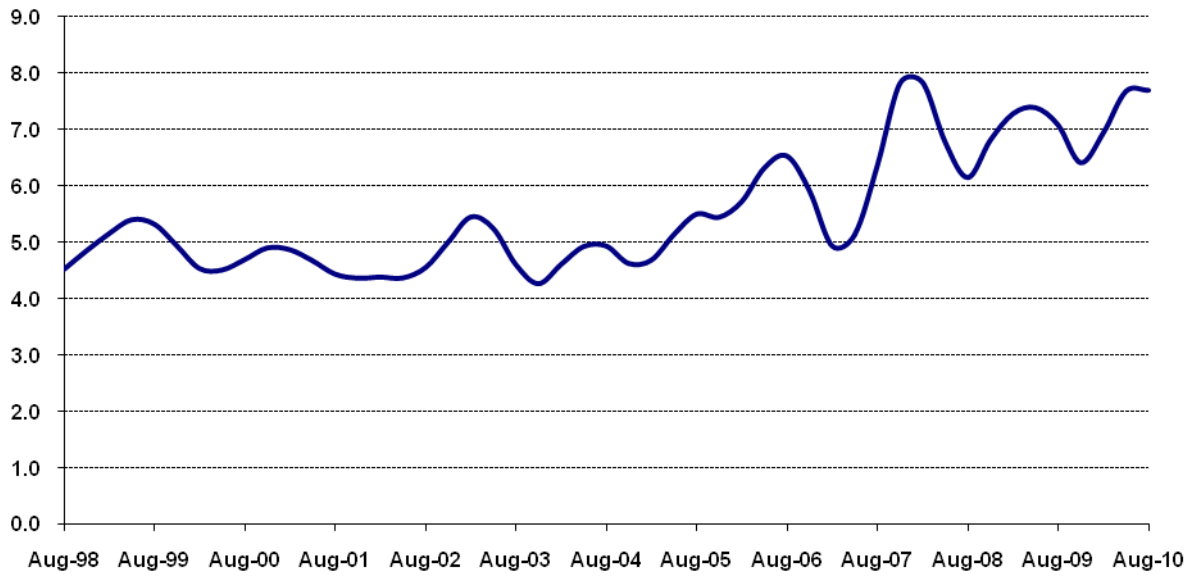
Although shortages were relatively widespread in 2007 and 2008, recent research shows employers were able to recruit electronic engineers with relative ease. In late 2010, surveyed employers filled 70% of vacancies and attracted an average of six suitable applicants per vacancy. Although most employers reported little difficulty filling vacancies, some employers in regional areas and those seeking specific experience had more difficulty attracting candidates who had the required level of skill and experience.

Advertised vacancy levels have risen sharply since late 2009, but unemployment is above average.

Summary

Employment has grown strongly over the past five years, and strong growth is projected to continue over the next five years. Shortages are not evident but the level of advertised vacancies has returned to pre recession levels. The proportion of graduates working full-time is high, but a relatively low proportion is working in related fields and unemployment is above average.

Electronics Engineers
Employed Persons ('000s) Aug 1998 to Aug 2010



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

