

Insights into Engineering Professionals (Australia)

A Manpower Market Insights Paper



May 2009 Australia

What do you do?



Manpower®

Engineers continue to be one of the occupations experiencing extreme talent shortages in Australia. This ongoing shortage means that firms need to develop innovative and effective strategies, to ensure that they can both attract and retain these qualified professionals.

Does Australia Have a Sufficient Amount of Engineers?

Introduction

Engineering Professionals in this report are defined as the following occupations under the Australian New Zealand Standard Classification of Occupations (ANZSCO):

Occupation Group
Engineering Managers
Building and Engineering Professionals
Including: Mine Superintendent Supply and Distribution Manager, Architect, Conservation Architect, Heritage Architect, Landscape Architect, Quantity Surveyor, Geomatic Engineer, Chemical Engineer, Electronic and Computer Engineer, Cadastral Surveyor, Geodetic Surveyor, Hydrographic Surveyor, Photogrammetric Surveyor, Building Surveyor, Civil Engineer, Traffic Engineer, Hydraulics Engineer, Electrical Engineer, Electrical Design Engineer, Electronics Engineer, Mechatronics Engineers, Radio Engineer, Mechanical Engineer, Airconditioning Engineer, Production or Plant Engineer, Mining Engineer, Petroleum Engineer, Mud Engineer, Petrophysical Engineer, Materials Engineer, Civil Engineering Technologist, Mechanical Engineering Technologist, Electrical or Electronics Engineering Technologists, Engineering Technologist nec, Aeronautical Engineering Technologist, Agricultural Engineering Technologist, Biomedical Engineering Technologist, Chemical Engineering Technologist, Industrial Engineering Technologist, Mining Engineering Technologist, Aeronautical Engineer, Aerospace Engineer, Avionics Systems Engineer, Agricultural Engineer, Biomedical Engineer, Bioengineer, Clinical Engineer, Medical Engineer, Chemical Engineer, Industrial Engineer, Naval Architect, Building and Engineering Professionals nec, Armament Engineer (Defence Force), Instrument Engineer (Defence Force), Product Design Engineer

This report is based on research conducted in December 2008. The research shows that there are approximately 227,000 people classified as Engineering Professionals in Australia. In 2008, the 227,000 Engineering Professionals in Australia showed the following general characteristics. They predominantly:

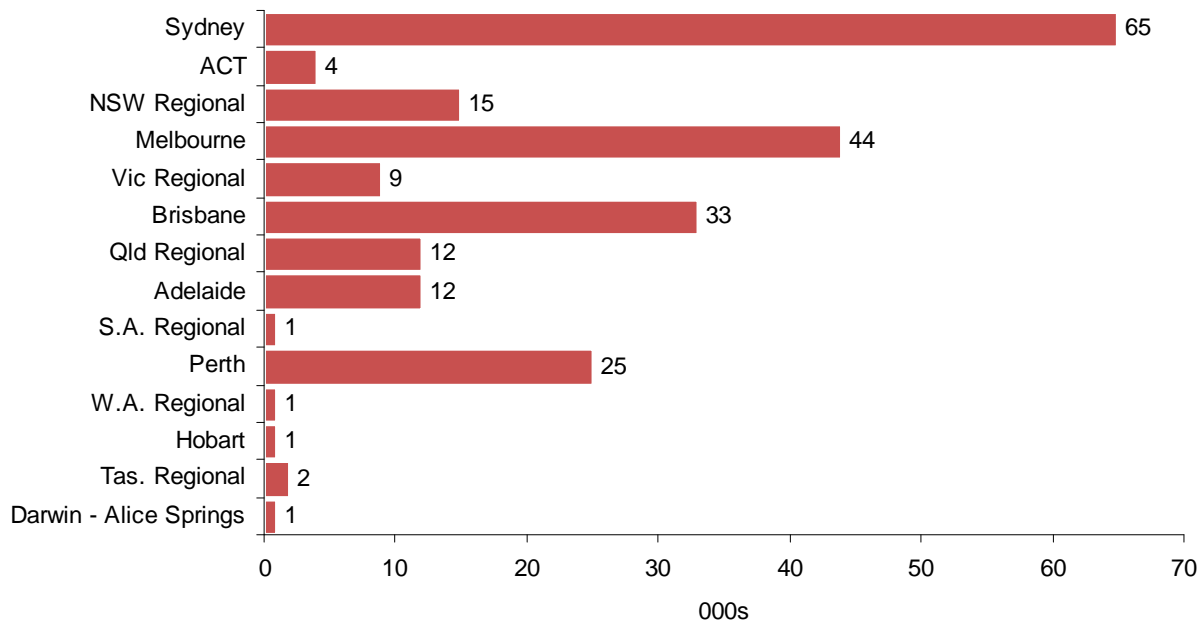
- Reside on the eastern seaboard and in capital cities
- Are men
- Are aged between 30-49, Generation X and Generation Y
- Are born in Australia
- Earn a mean income of \$91K p.a.
- Work full-time
- Work in the private sector
- Work in medium to large enterprises
- Work in the construction industry
- Are generally satisfied with their current job

Engineering Professional Demographic Profile*

In Australia there are approximately 227,000 Engineering Professionals, which include occupations such as Civil Engineers, Mining Engineers and Electrical Engineers etc.

Geographic Distribution

The geographic skew is to the eight capital cities along with regional areas. 82% of Engineering Professionals reside in capital cities and a total of 12% are residing in NSW and Qld regional areas.



Gender, Age and Generations

- 87% of Engineering Professionals are men and 13% are women.
- 56% of Engineering Professionals are aged 30-49, Generation X and Generation Y. The median age of an Engineering Professional is 41 years old.

Education

Engineering Professionals in Australia have predominantly finished university studies. 84% have a degree and 16% have a diploma.

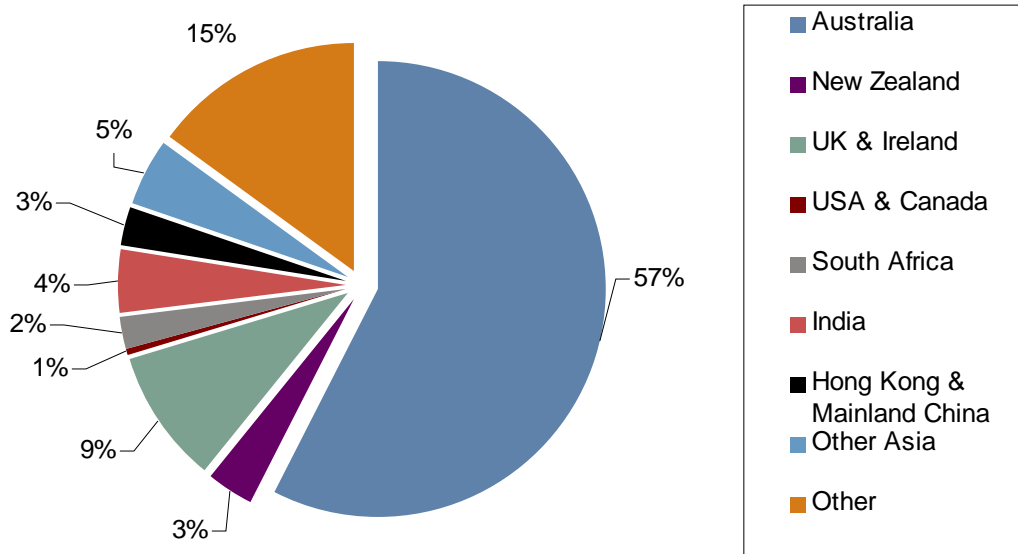
Mobility & Access

- On average Engineering Professionals travel 19kms to work.
- Engineering Professionals rely upon public transport. In the last 3 months, 60% of have travelled by train and 14% have travelled by buses.

*Information in this section was obtained from Roy Morgan Single Source Data, December 2008

Country of Birth

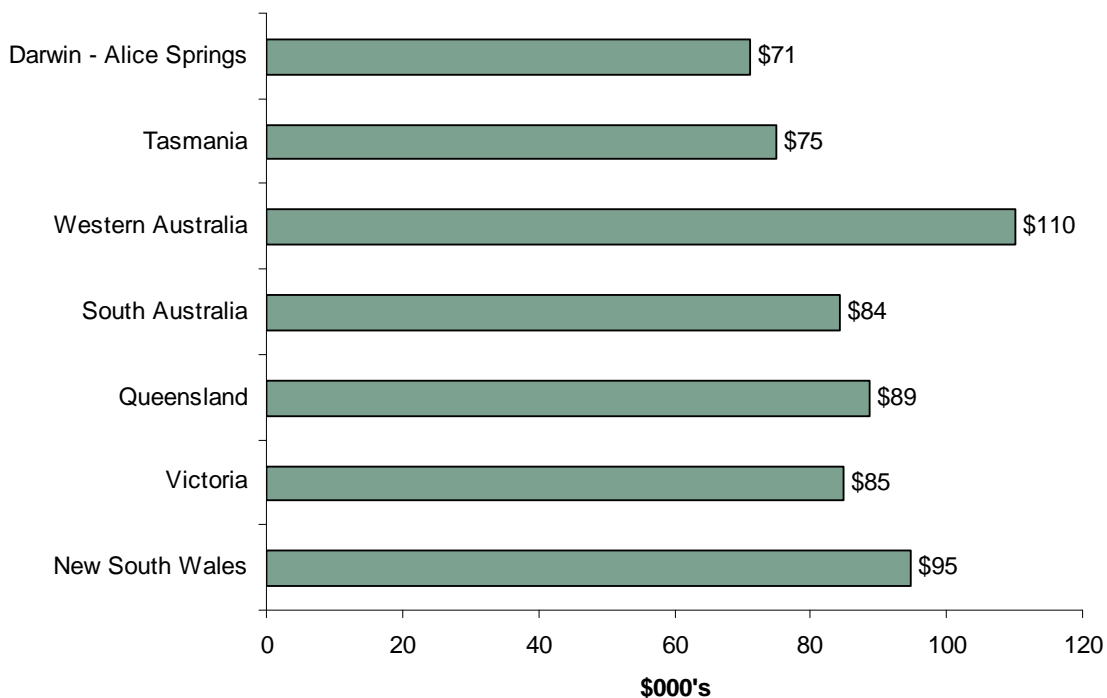
Engineering Professionals come from a range of backgrounds. 57% were born in Australia, 9% were born in UK & Ireland, 4% were born in India, 3% were born in New Zealand and 15% were born in countries such as Germany, France, Middle East and Sri Lanka etc.



Income

The national mean income of Engineering Professionals is \$91K p.a. in 2008.

Engineers living in Western Australia earn the highest mean income (\$110,000). Those residing in Darwin- Alice Springs earn the lowest average income, \$71,000, which is \$20K below the mean.



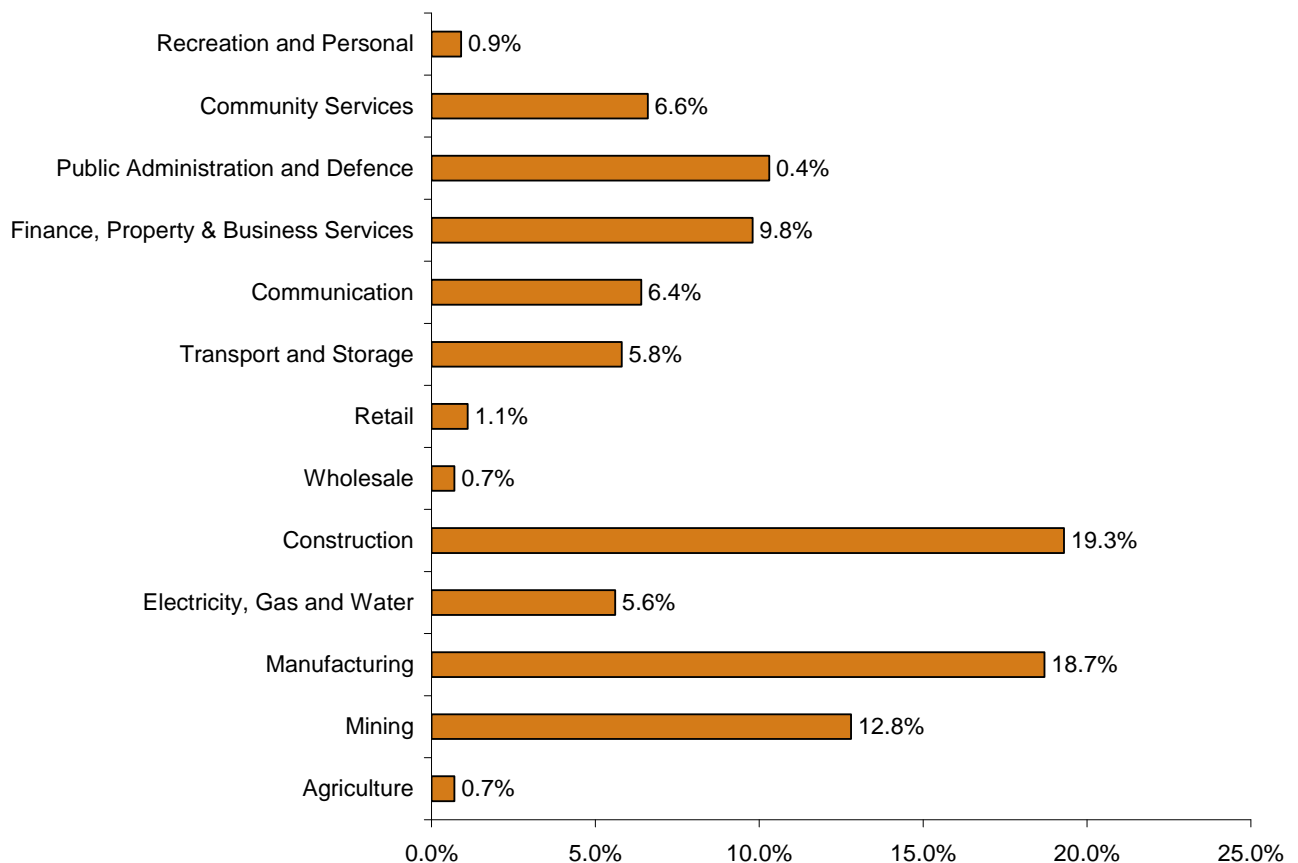
Work Status & Company Size

- 93% of Engineering Professionals work full-time and 6% are part-time workers. 0.9% are looking for full-time work and 0.1% are looking for part-time work.
- Engineering Professionals tend to work in medium to large enterprises, 50-499 employees (37%), and 500-1,000 employees (25%).

Industry & Sector

Engineering Professionals predominantly work in the private sector (76%). 17% work in the public sector and 7% are self-employed.

19% of Engineering Professionals work in the construction industry. Other industries that Engineering Professionals tend to work in include manufacturing, mining and finance, property & business services.



Engineering Professional Attitudes*

About Engineering Professionals

Engineering Professionals:

- Are optimistic about the future (80%)
- Are success-driven (68%) and live a full & busy life (78%)
- Believe job responsibility is important in their role (82%)
- Need security in their job (72%)
- Wouldn't have difficulty coping with a demanding career/job (85%)
- Look for new experiences (50%) and enjoy taking risks (65%)
- Are environmentalists at heart (73%)

Employment Sites Visited

Engineering Professionals have visited employment sites in the four weeks:

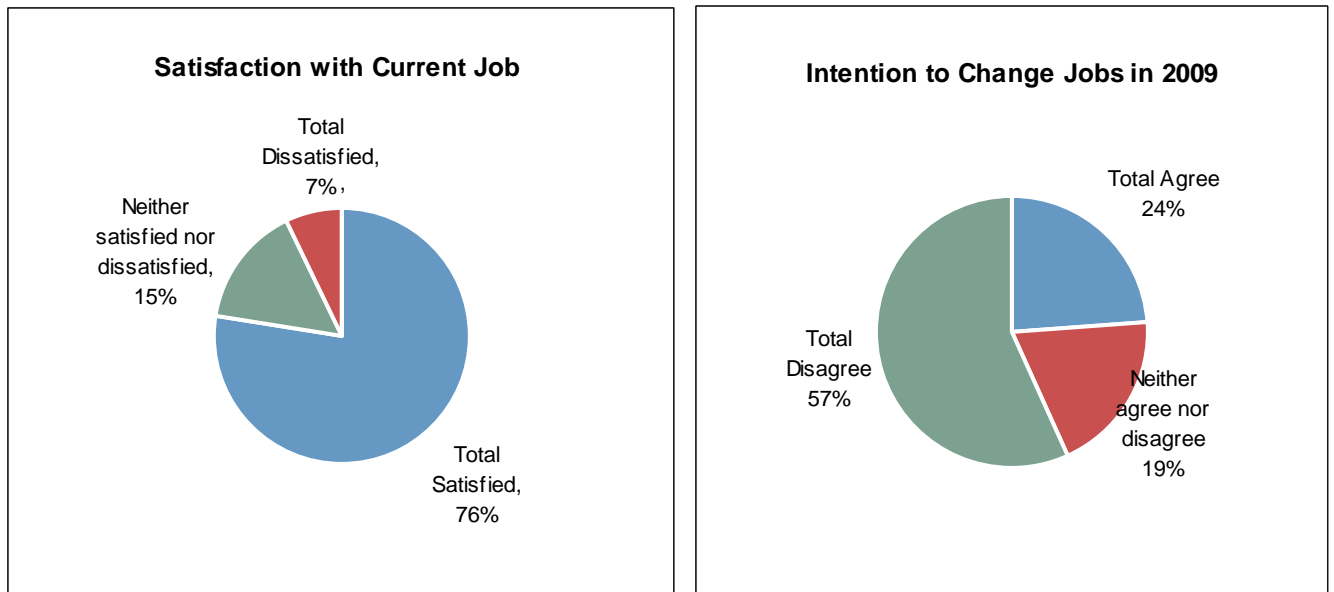
- 18% have visited www.seek.com.au
- 8% have visited www.mycareer.com.au
- 7% have visited www.careerone.com.au
- 0.3% have visited LinkMe
- 1% have visited Yahoo!7 Jobs
- 5% have visited JobSearch.gov.au

**Information in this section was obtained from Roy Morgan Single Source Data, December 2008*

76% of Engineering Professionals are happy with their present job..... but 24% are planning on changing jobs in 2009

Engineering Professional Job Satisfaction*

Overall Job Satisfaction and Intention to Change Jobs



Satisfaction Drivers

Job Recognition

Engineering Professionals in Australia are generally satisfied with the job recognition they receive in their present role (62%). Compared to the rest of the working population, Engineering Professionals are more satisfied with the amount of job recognition that they receive.

Job Opportunities

Over half of Engineering Professionals are happy with the opportunities available to them in their current role (54%).

Current Rate of Pay

Engineering Professionals are generally dissatisfied with their current pay, 63% stating they are happy and 22% believing the pay they receive is fair and 13% believe their current pay is poor.

Job Security

Engineering Professionals are generally satisfied with the security (66%) they have in their current role.

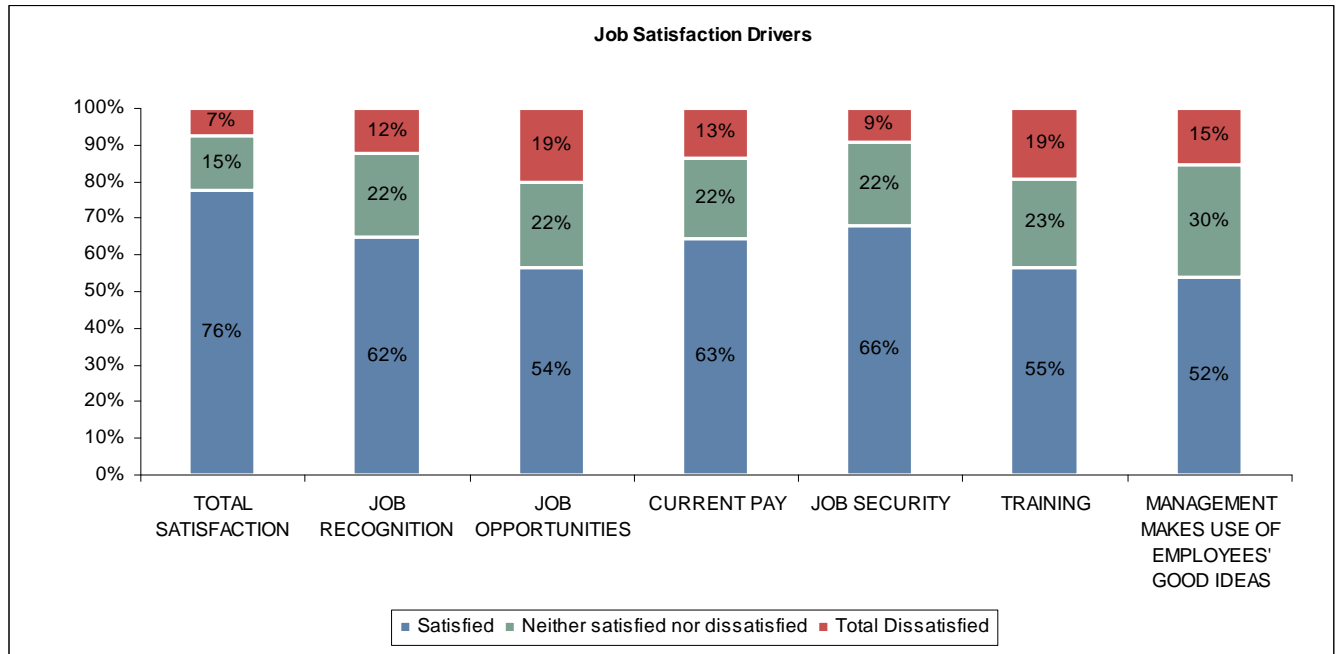
**Information in this section was obtained from Roy Morgan Single Source Data, December 2008*

Training

55% of Engineering Professionals are satisfied with the training they presently receive and 18% are unhappy with their training.

Management's Use of Employee's Ideas

Engineering Professionals are satisfied with management's use of their good ideas (51%) which is equal to the total working population (51%).



Conclusion

With competition for talent becoming more intense, employers will need to look beyond money and develop alternative attraction and retention strategies to ensure they can secure adequately qualified professionals.

Engineering professionals, in particular, are in high demand. Although increasingly salary is a factor to attracting these candidates to a workplace, it is important to provide on-the-job training, clear potential career paths and make use of employees' good ideas to retain employees.

For strategies on how to attract and retain engineers, please contact your Manpower Professional consultant.

About Manpower Inc.

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Research Sources

Demographic profiles and job satisfaction information is sourced from Roy Morgan Single Source Australia Data December 2008.

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