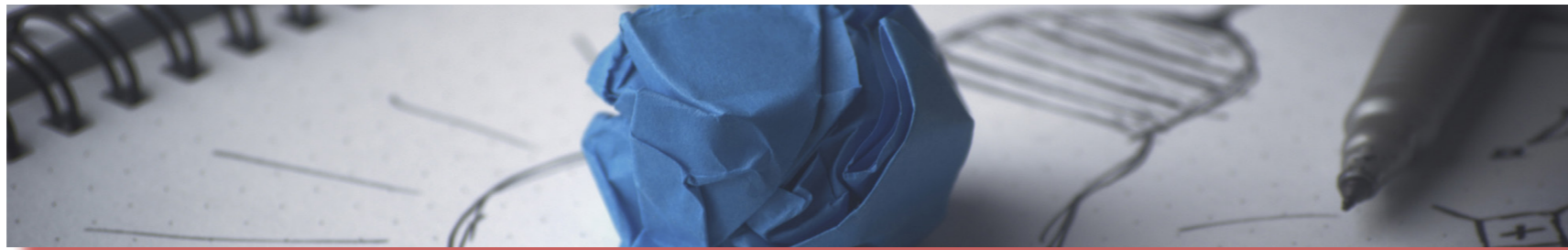


LEAP into... Engineering



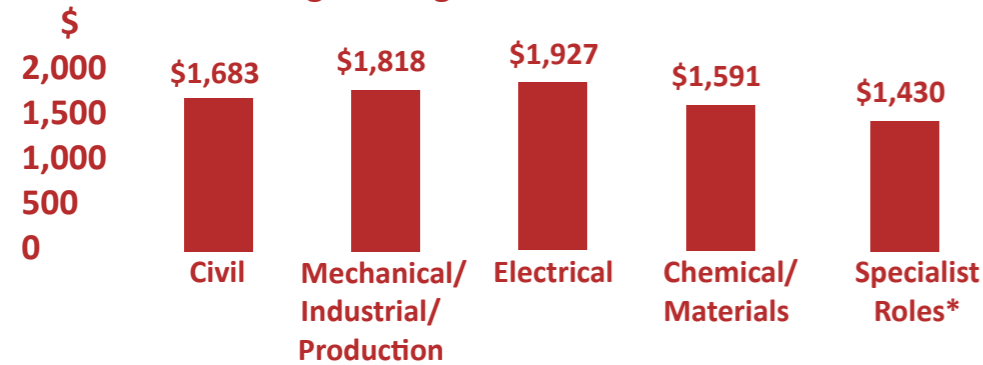
“The engineer has been, and is, a maker of history.”
- James Kip Finch (1960)

“The ideal engineer is a composite. He is not a scientist, he is not a mathematician, he is not a sociologist or a writer; but he may use the knowledge and techniques of any or all of these disciplines in solving engineering problems.” (1955 quote - N. W. Dougherty, B. 1886)

Source 6



Average full time weekly earnings (before tax): Engineering Profession - selected roles



Source: 1

Specialist Roles* include:

Aeronautical Engineer
Agricultural Engineer
Biomedical Engineer
Electronics Engineer
Engineering Technologist
Environmental Engineer
Naval Architect
Other Engineering Specialists



Engineering Profession - Workforce Facts

Sources: 2 & 5

Women make up only 11.8 per cent of the engineering workforce in Australia, but many universities and industry partners are working to improve the gender imbalance. (see Role models - Inspiring women in engineering: at <http://www.wes.org.uk/rolemodels>)

Civil Engineering, the largest occupation (43,000 in Nov. 2015), is expected to grow strongly into November 2020. Civil Engineering Professionals are mainly employed in Professional, Scientific and Technical Services; Construction; and Public Administration and Safety.

Mechanical Engineering is also a large occupation, comprising Industrial, Mechanical and Production Engineers (31,400 in November 2015). Mechanical Engineers are mainly employed in Manufacturing; Professional, Scientific and Technical Services; and Mining.

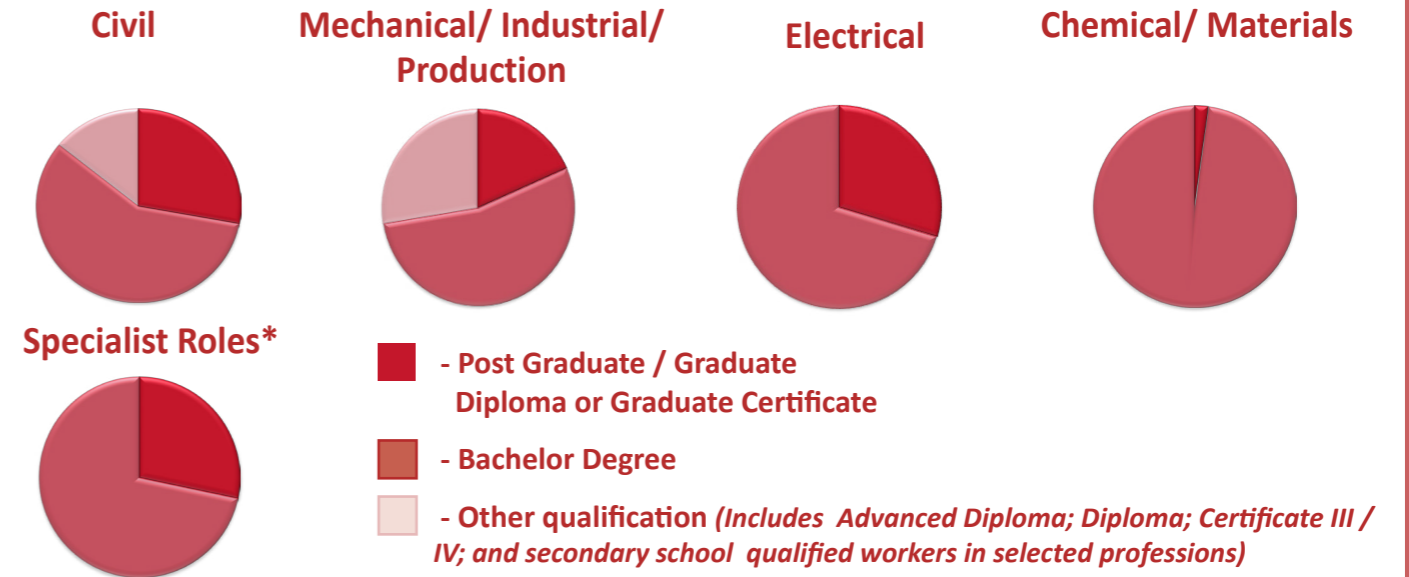
Employment for Electrical Engineers to November 2020 is expected to grow moderately while for Chemical and Materials Engineers, levels are expected to remain relatively steady.

Specialist Roles for Engineering Professionals are expected to grow strongly by November 2020. These Engineering Professionals are mainly employed in Professional, Scientific and Technical Services; Manufacturing; and Public Administration and Safety.

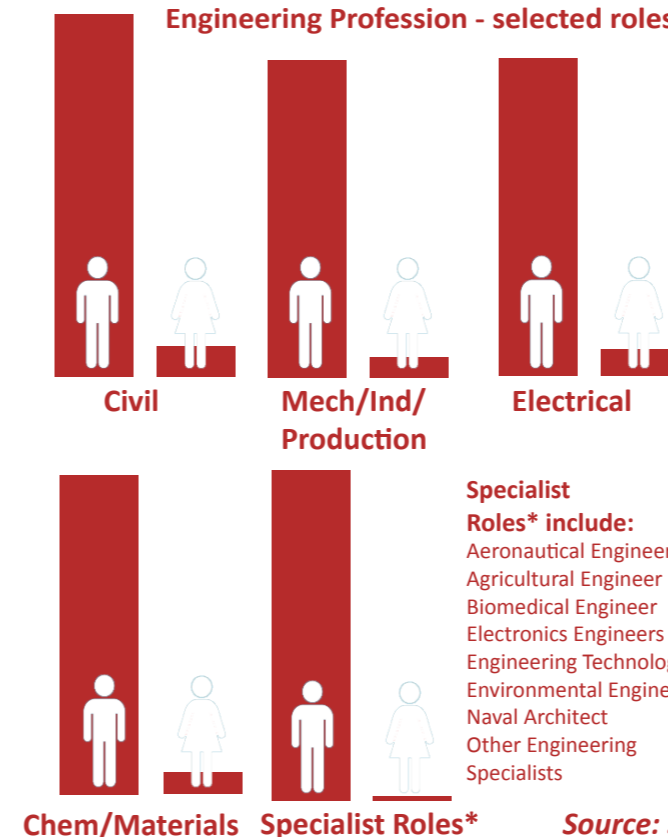


Education level attained/ % of total employment in Australia: Engineering Profession - selected roles

Source: 4



Gender % split: Engineering Profession - selected roles



Specialist Roles* include:
Aeronautical Engineer
Agricultural Engineer
Biomedical Engineer
Electronics Engineers
Engineering Technologist
Environmental Engineer
Naval Architect
Other Engineering Specialists

Source: 3



Employment levels & estimated growth in Australia: Engineering Profession - selected roles

Role	2015	2020 (estimated)
Civil	43,000	47,200
Mechanical/ Industrial/ Production	31,400	29,500
Electrical	20,800	21,900
Chemical/ Materials	7,200	7,200
Specialist Roles*	6,700	7,300

* see bar charts for details

Source: 2



“I don’t know a single roboticist who’s trying to replace people, it’s all about extending what people can do.” - Professor Cynthia Breazeal (B.S. in Electrical and Computer Engineering, S.M. and SC.D in Electrical Engineering and Computer Science from MIT.)