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## New study shows depth of engineering skills shortage

A new report launched by Engineers Australia has highlighted the serious nature of Australia's engineering skills shortages.

The report shows that the increases in the number of Australian trained engineers graduating each year are still not enough to solve Australia's engineering skills shortages.

"This has a range of workforce flow-on effects and has led to delays across a number of engineering and infrastructure projects", said Stephen Durkin, CEO of Engineers Australia.

"Analysis of migration statistics in this latest Statistical Overview reveals that more than 50 percent of the engineering labour force is overseas born. We have seen marked increases in the use of 457 visas for engineering occupations, with latest data showing numbers have tripled since 2003-04.

"Relying on temporary skilled migration to fill engineering workforce gaps is not a sustainable policy approach. Engineers Australia would like to see government and industry moving towards long-term solutions for tackling the skills shortage. Investment in engineering education remains a priority area.

To overcome the skills shortage, Australia needs long-term growth in the number of secondary students studying mathematics and science to boost entry into tertiary engineering education.

"Engineers Australia will continue to work to develop practical solutions to the engineering skills shortage and the 2012 Statistical Overview is a valuable tool for achieving this," Durkin said.

Engineering offers a diverse and rewarding career and this report shows the critical importance of education and training in building Australia's engineering workforce capacity.

The report was launched to coincide with Australian Engineering Week, which ends on Sunday 12 August 2012.

The latest Statistical Overview is available at: [www.engineersaustralia.org.au/about-us/statistics](http://www.engineersaustralia.org.au/about-us/statistics)

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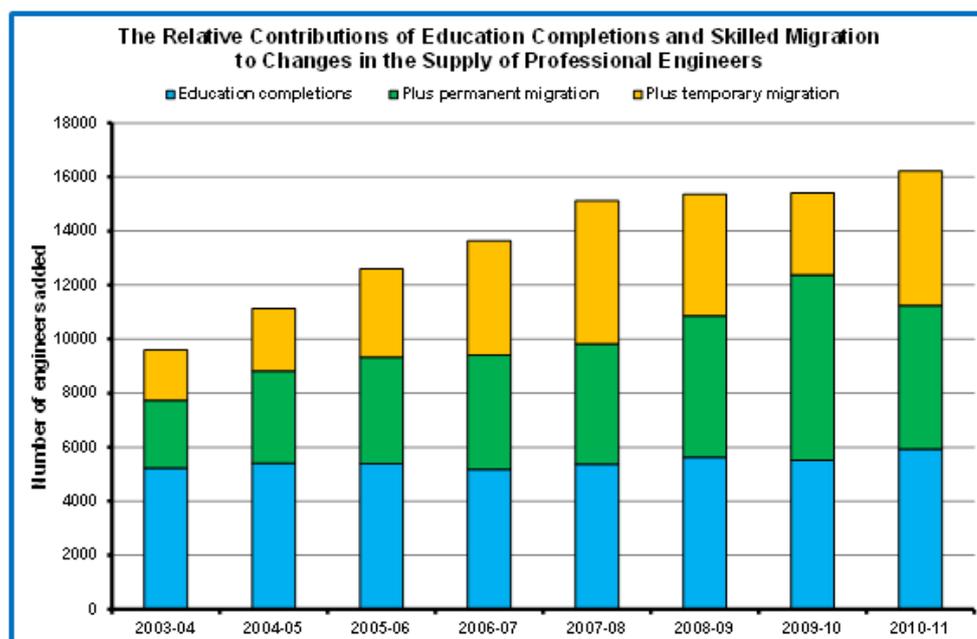
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## 2012 Statistical Overview – Key Developments

- The number of secondary students studying advanced and basic mathematics has increased, while the number studying intermediate mathematics has decreased over the past 6 years. The engineering profession relies heavily on mathematics and science education and it is vital that it is reinforced at all levels of schooling.
- Applications and offers for tertiary engineering courses increased across 2010-11. While this is promising and a trend that Engineers Australia would like to see continue, more attention must be paid to lowering attrition rates and supporting students through to completion of their qualifications.

- Engineering degree completions have remained stable in the past decade [see chart]. An upward trend in this area would be a long-term measure for meeting the demand for engineering skills.



- Despite a slight rise in the number of professional engineering degree

completions in recent years, both permanent and temporary migration continues to be a central factor in meeting Australia's engineering skills demand [see chart above].

- Overseas-born engineers represented 51.3 percent of the engineering labour force in 2011, a significant increase from the 2006 census figure of 46 percent.
- Employer-sponsored temporary migration (457) visas for engineering positions rose from 2,260 in 2003-04 to 6,940 in 2010-11.
- The proportion of degree-qualified female engineers sits at just 12.7 percent, with female engineers representing just 10.5 percent of the engineering labour force.

