

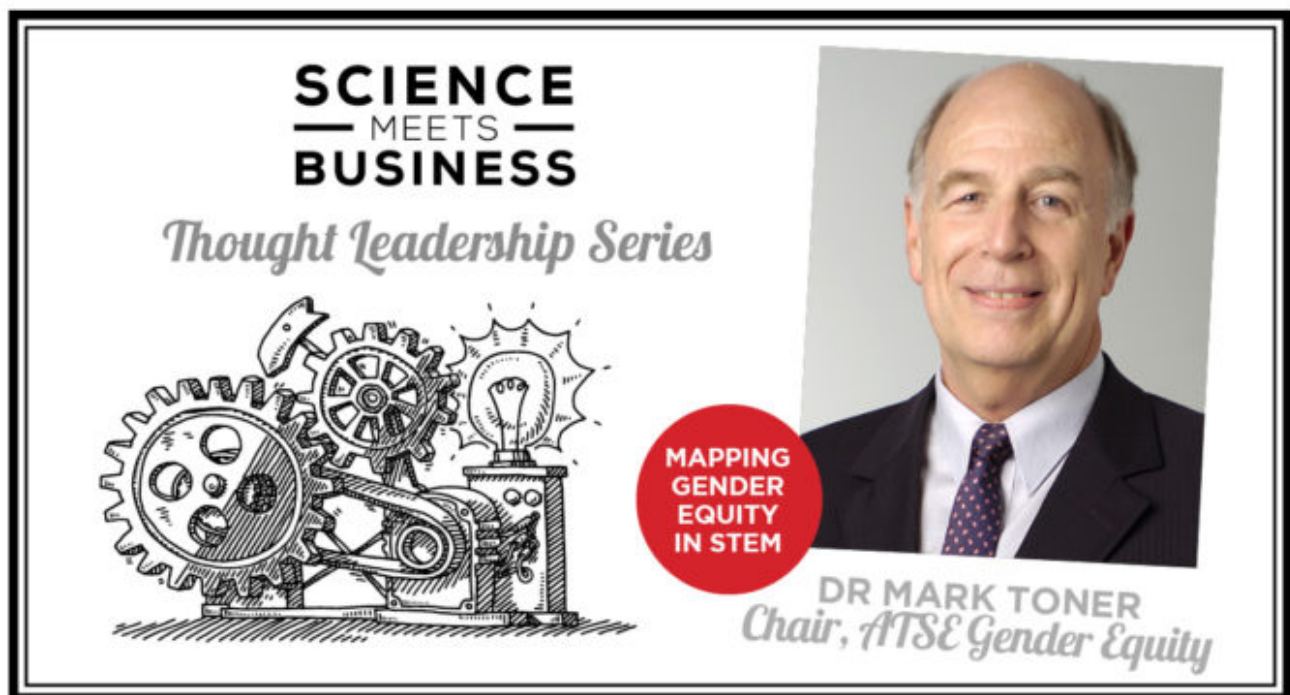


leadership/)

Why do women leave STEM careers?

September 13, 2016

Chair of ATSE's Gender Equity Working Group, Dr Mark Toner, compares the national need for women in STEM with the barriers faced by women on a personal level.



Why is the subject of Women in STEM (science, technology, engineering and mathematics) so important right now? To answer this, it might be useful to analyse the issue on two levels: national and personal.

At the national level

Australia needs far more young people taking up careers in STEM. According to our Prime Minister, 75% of our fastest-growing industries require skills in STEM. But women are greatly underrepresented in this sector. Hence the Australian Government's new Women in STEM and Entrepreneurship grant program, which commits \$8 million to encourage women to choose and develop a STEM career.

There are other national programs now running to increase the numbers of women in STEM. For example:

- the STELR Project (<http://www.stelr.org.au/aboutstelr/>), an initiative of the Australian Academy of Technology and Engineering (<http://www.atse.org.au/atse/about/content/about/index.aspx?hkey=c7aeeb14-5044-4e54-a26d-a72261429746>) (ATSE), is a hands-on, enquiry-based, in-curriculum program designed for Year 9 or Year 10 students on the theme of global warming and renewable energy, reaching 50,000 students each year;
- the Science in Australia Gender Equity (<http://www.sciencegenderequity.org.au/about/what-is-sage/>) (SAGE) program, described by ATSE's Dr Susan Pond in *Gender equity through Athena SWAN* (<http://sciencemeetsbusiness.com.au/gender-equity-athena-swan/>).

Unfortunately, the engineering profession has been slow to promote the excitement and opportunities for men and women who choose engineering careers. Engineers typically focus on solving problems and improving everyone's quality of life, rather than promoting their own profession. The catchy video clip *Your World. Made by Engineers*. (<http://www.madebyme.org.au/>) sponsored by eight universities and Engineers Australia should be shown to all school students, careers counsellors, teachers and parents.

At the personal level

Women are just as ambitious and competent as men in STEM. Their under-representation in the sector has a number of causes. One obvious one is that too few girls choose science and maths subjects at school, thereby preventing them from later choosing a career in STEM. But the sector also suffers from too many women leaving STEM careers early. Research on this subject shows that women leave for a multiplicity of reasons:

- hostility in the workplace;
- isolation associated with being the only woman in a team;
- difference in work styles between men and women;
- inflexible and long working hours;
- lack of career advancement;
- lack of self-confidence.

A current topic in the gender space is unconscious bias. This is a less obvious reason for too few women in STEM and women leaving STEM careers. There is no doubt that women in academia and business suffer from people with both unintentional (unconscious) and deliberate (conscious) gender bias, and the common misunderstanding that unconscious bias training eliminates this bias is unfortunate. The reality is that such training is useful, but is only the first step to managers and staff members making less biased decisions about their people.

Read more about *why we need to come to terms with unconscious bias* [here](http://sciencemeetsbusiness.com.au/wp-content/uploads/2016/09/We-need-to-come-to-terms-with-unconscious-bias.pdf)

(<http://sciencemeetsbusiness.com.au/wp-content/uploads/2016/09/We-need-to-come-to-terms-with-unconscious-bias.pdf>).

Dr Mark Toner

Chair of ATSE's Gender Equality Working Group and Consultant at Gender Matters

(<http://www.gendermatters.com.au>)

Read next: Gemaker's Dr Julie Wheway (<http://sciencemeetsbusiness.com.au/unconscious-bias/>) explains why you're biased but don't know it (and how to fix it).

People and careers: Meet women who've paved brilliant careers in STEM here

(<https://careerswithstem.com/postgradfutures/profiles/>), find further success stories here

(<http://sciencemeetsbusiness.com.au/category/profiles/>) and explore your own career options at [postgradfutures.com](https://careerswithstem.com/postgradfutures/) (<https://careerswithstem.com/postgradfutures/>).

Spread the word: Help Australian women achieve successful careers in STEM! Share this piece on women leaving STEM careers using the social media buttons below.

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