

# GENDER EQUALITY AND STEM







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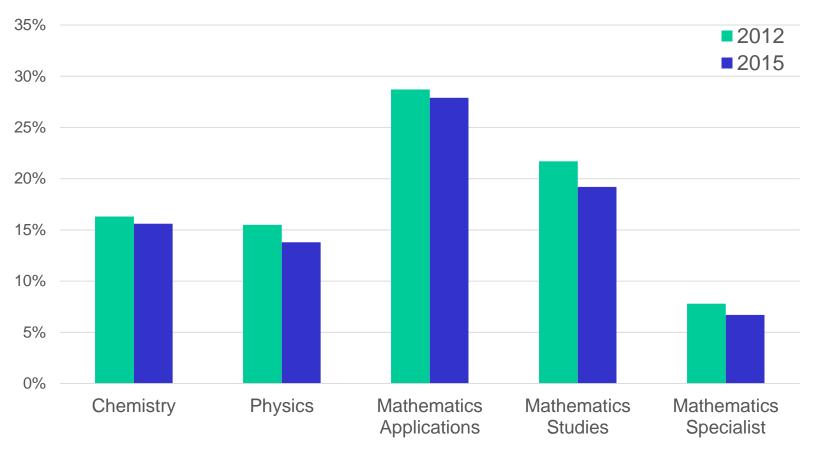
- STEM education pipeline
- Female representation in the oil and gas industry
- Why does gender equality matter?
- Strategies







# SOUTH AUSTRALIAN STEM SUBJECT COMPLETIONS (STAGE 2 SACE)



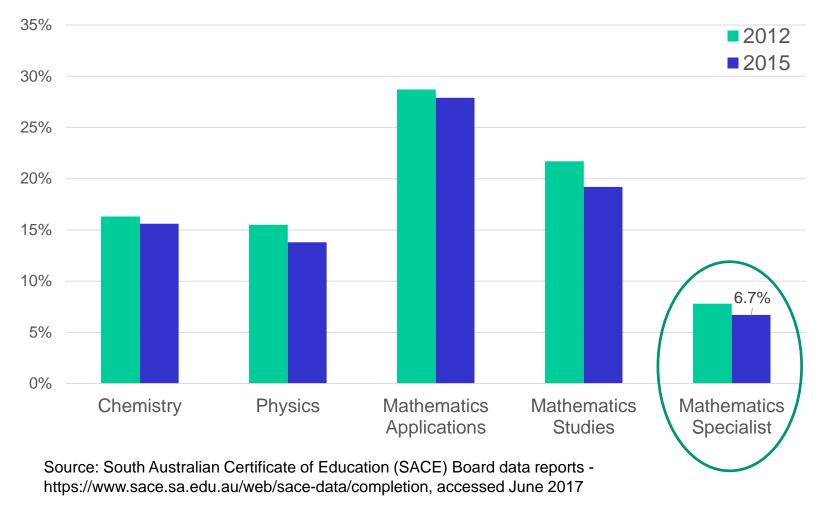
Source: South Australian Certificate of Education (SACE) Board data reports - https://www.sace.sa.edu.au/web/sace-data/completion, accessed June 2017







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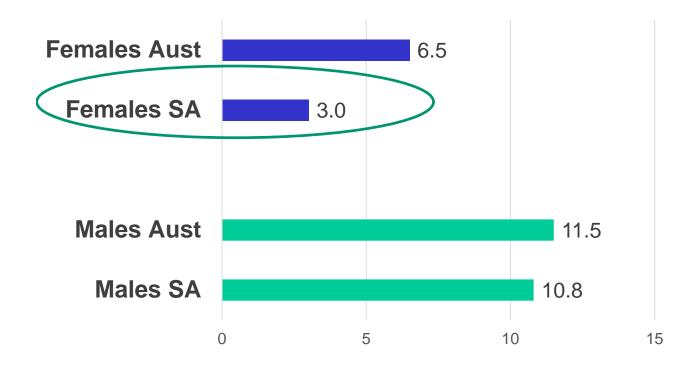








#### SPECIALIST MATHEMATICS COMPLETION RATES (%), 2015



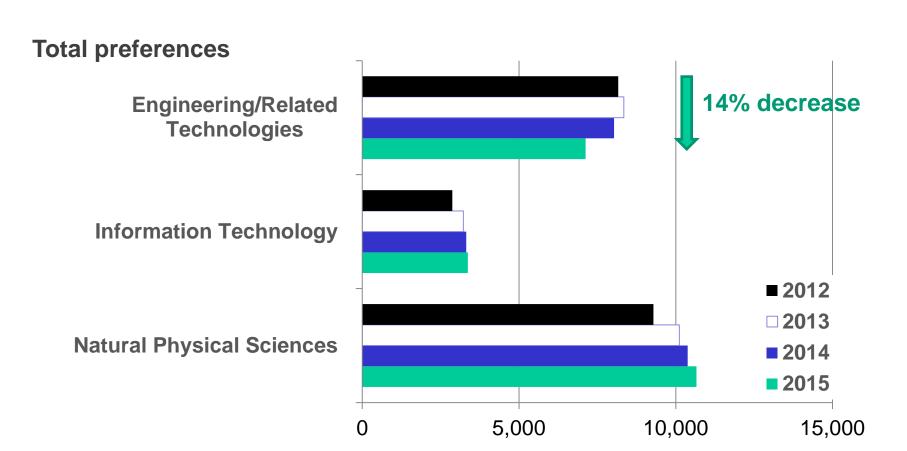
For SA to achieve gender equity in advanced maths would require about 540 extra female student completions per year.







#### **UNIVERSITY APPLICATIONS**



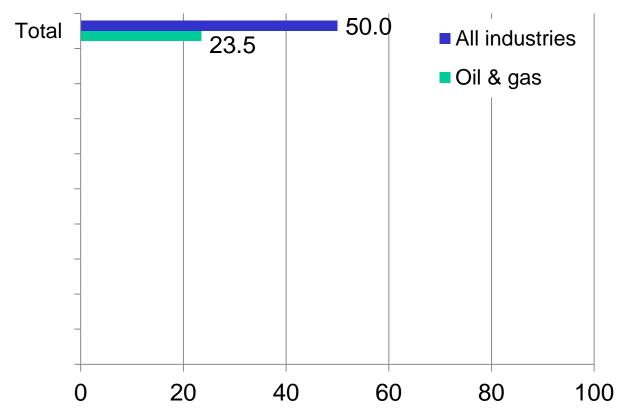
Source: SATAC Statistics, accessed 15/06/2017, <a href="http://ap.satac.edu.au/satac/stat.htm">http://ap.satac.edu.au/satac/stat.htm</a>







#### PROPORTION OF FEMALES EMPLOYED, 2017

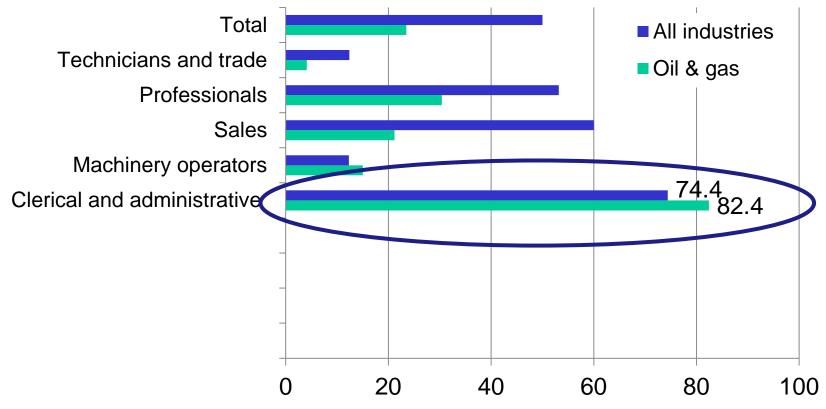








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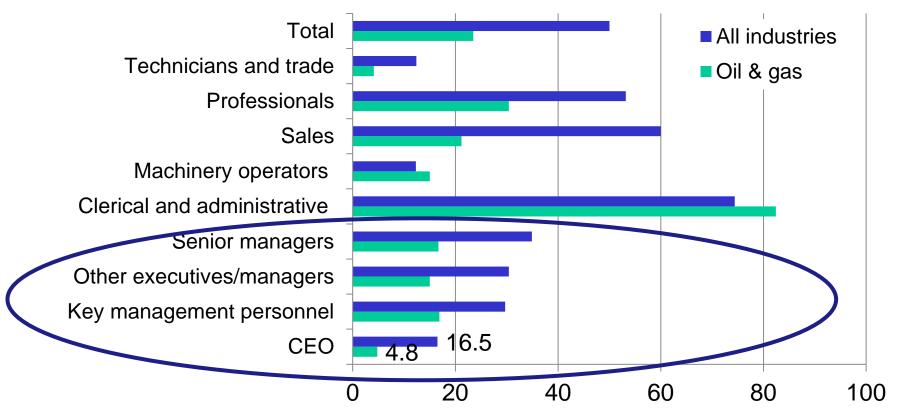








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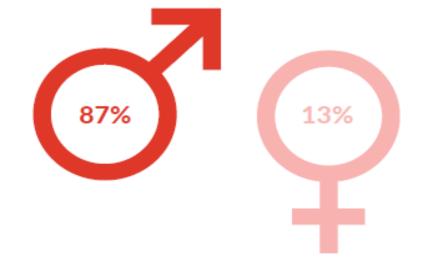








## ENGINEERS EMPLOYED IN AN ENGINEERING ROLE



Source: Engineers Australia, 2017, Engineers make things happen

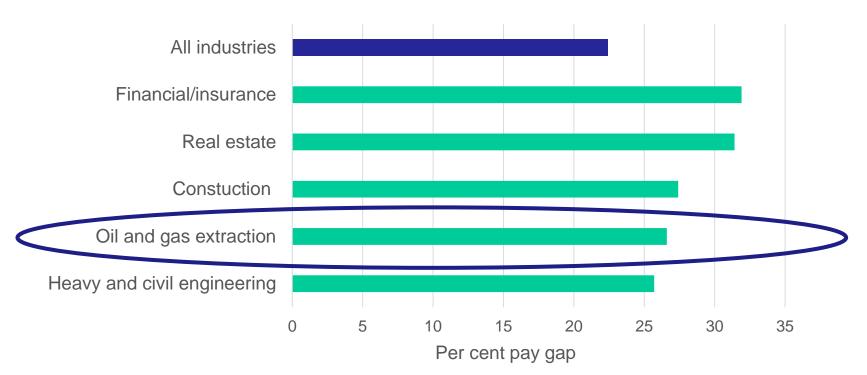






#### GENDER EQUITY PAY GAP, 2017

#### ABS ANZSIC Industry categories



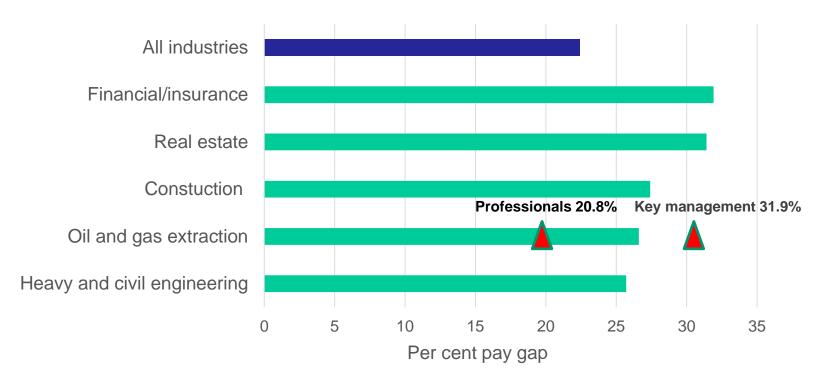






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#### WHY DOES GENDER EQUALITY MATTER?







#### WHY DOES GENDER EQUALITY MATTER?

- □Diverse teams = diverse thinking
- ☐ The talent pool is deeper when we are more inclusive
- □Increases retention and recruitment of skilled talent

Source: WGEA, The business case for gender equality, https://www.wgea.gov.au/sites/default/files/wgea-business-case-for-gender-equality.pdf







#### HOW DO WE ACHIEVE EQUALITY?







#### HOW DO WE ACHIEVE EQUALITY?

Employers with formal policy/strategy in relation to:

	Oil & Gas	All industries
Overall gender equality policy	72.2%	54.2%
Gender pay equity objectives	52.9%	36.3%
Flexible working arrangements	33.3%	23.2%







#### SUCCESSFUL STRATEGIES

□Build a strong case for change
 □Role-model a commitment to diversity
 □Redesign roles, normalise flexible work across all levels and genders
 □Actively sponsor rising women
 □Set a clear diversity aspiration, backed up by accountability

Source: McKinsey & Company, Women in leadership: Lessons from Australian companies leading the way, https://www.wgea.gov.au/fact-sheets-and-research-reports/research-reports







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- □ Actively sponsor rising women
- ☐ Set a clear diversity aspiration, backed up by accountability
- **✓** Have lots of difficult conversations







#### SUMMARY

- ☐ The STEM skills and engineering pipeline has challenges
- ☐ A gender equity strategy is necessary for recruiting and retaining talent
- ☐ Start the conversations!







#### RESOURCES

Workplace Gender Equality Agency (WGEA)

South Australian Government Office for Women

Science in Gender Equity (SAGE)











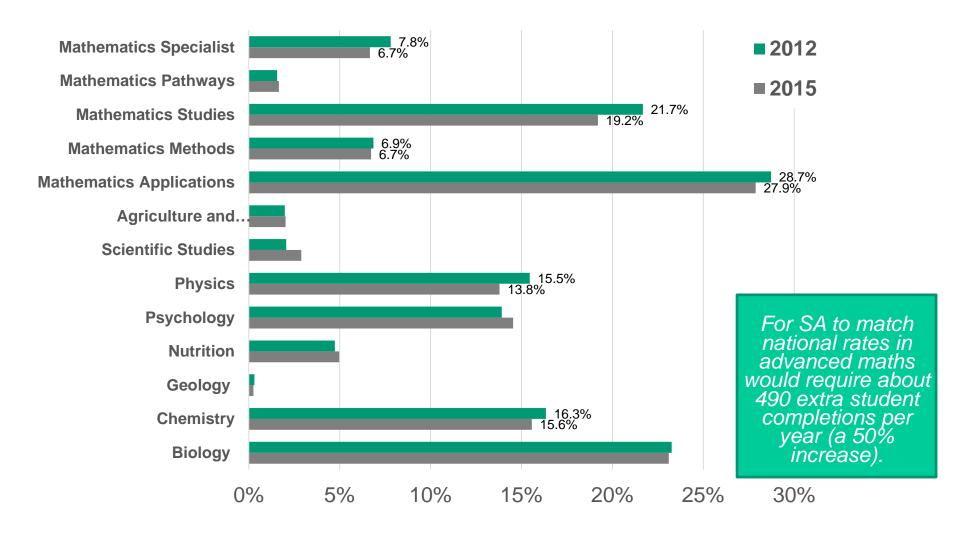








#### South Australian Certificate of Education (SACE) Science and Mathematics completion rates by year









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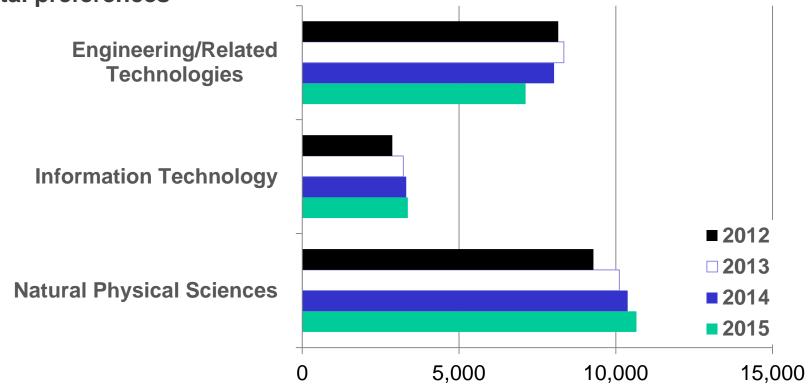






## UNIVERSITY APPLICATION PREFERENCES BY BROAD FIELD OF EDUCATION





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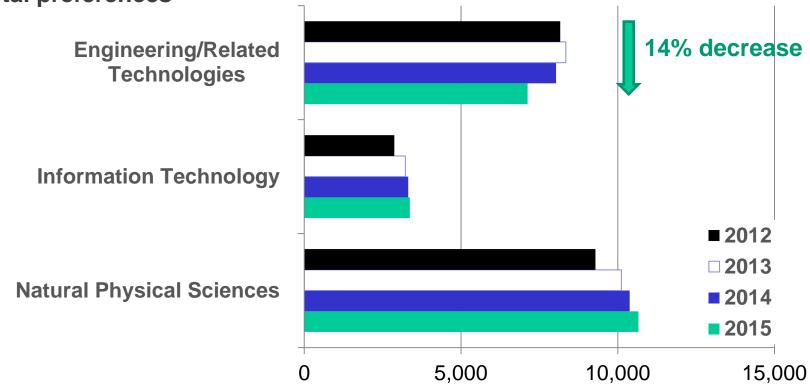






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# The engineering pipeline



#### Engineers Make Things Happen

The need for an engineering pipeline strategy









# The engineering pipeline

2006

Between 2006 and 2011 census,

2011

of the increase in the supply of engineers was from skilled migration.



#### Engineers Make Things Happen

The need for an engineering pipeline strategy



