

# SAGE

*Science in Australia Gender Equity*

Nalini Joshi

@monsoon0



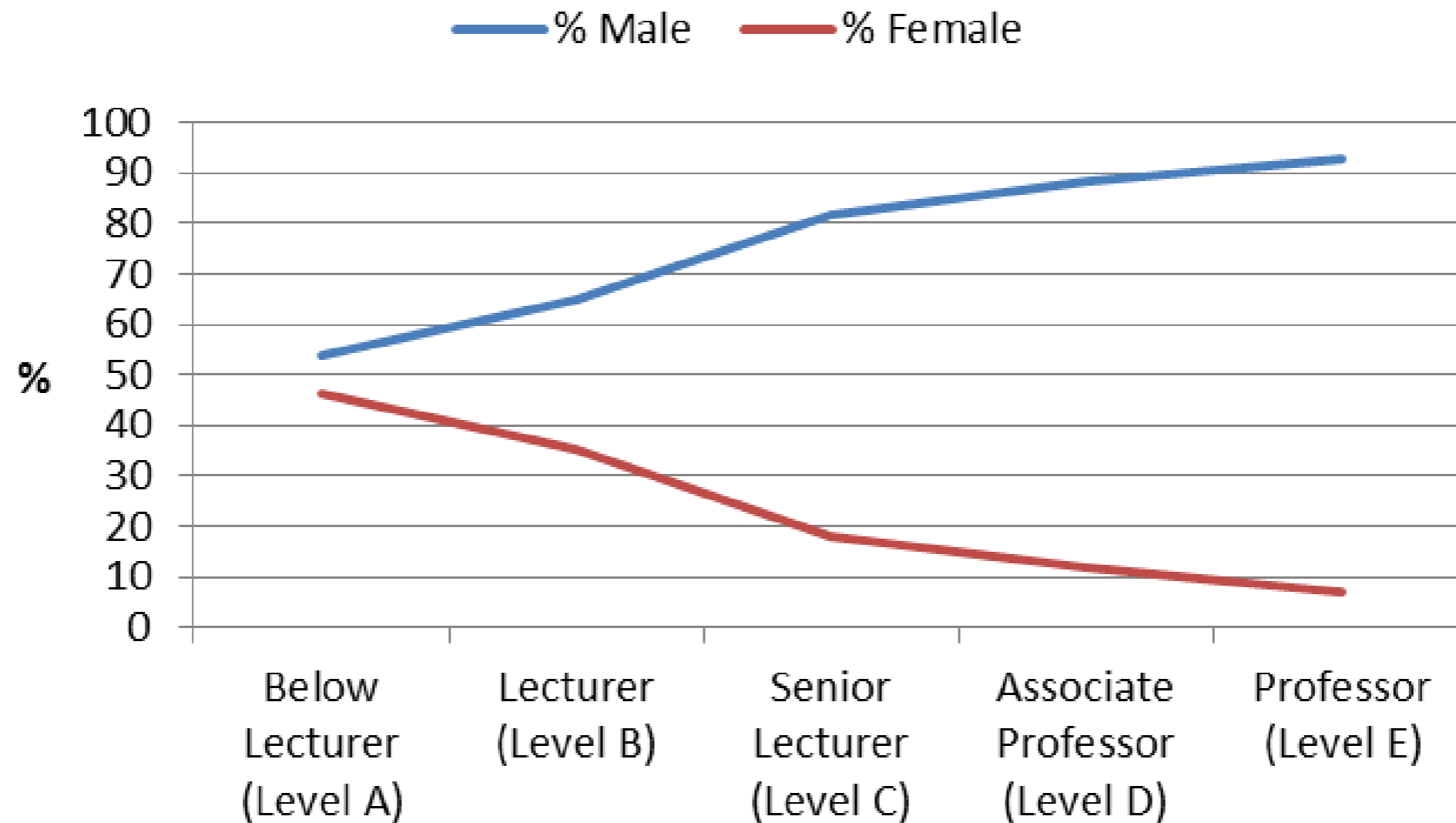
# Outline

- Talented women entering science leave before they get to higher levels.
- Negligible change in Science since the 1990's.
- Most Heads say it is a “societal problem” and relegate strategy to the EEO unit.
- Local factors have a deep impact.



# Consider 2001

2001



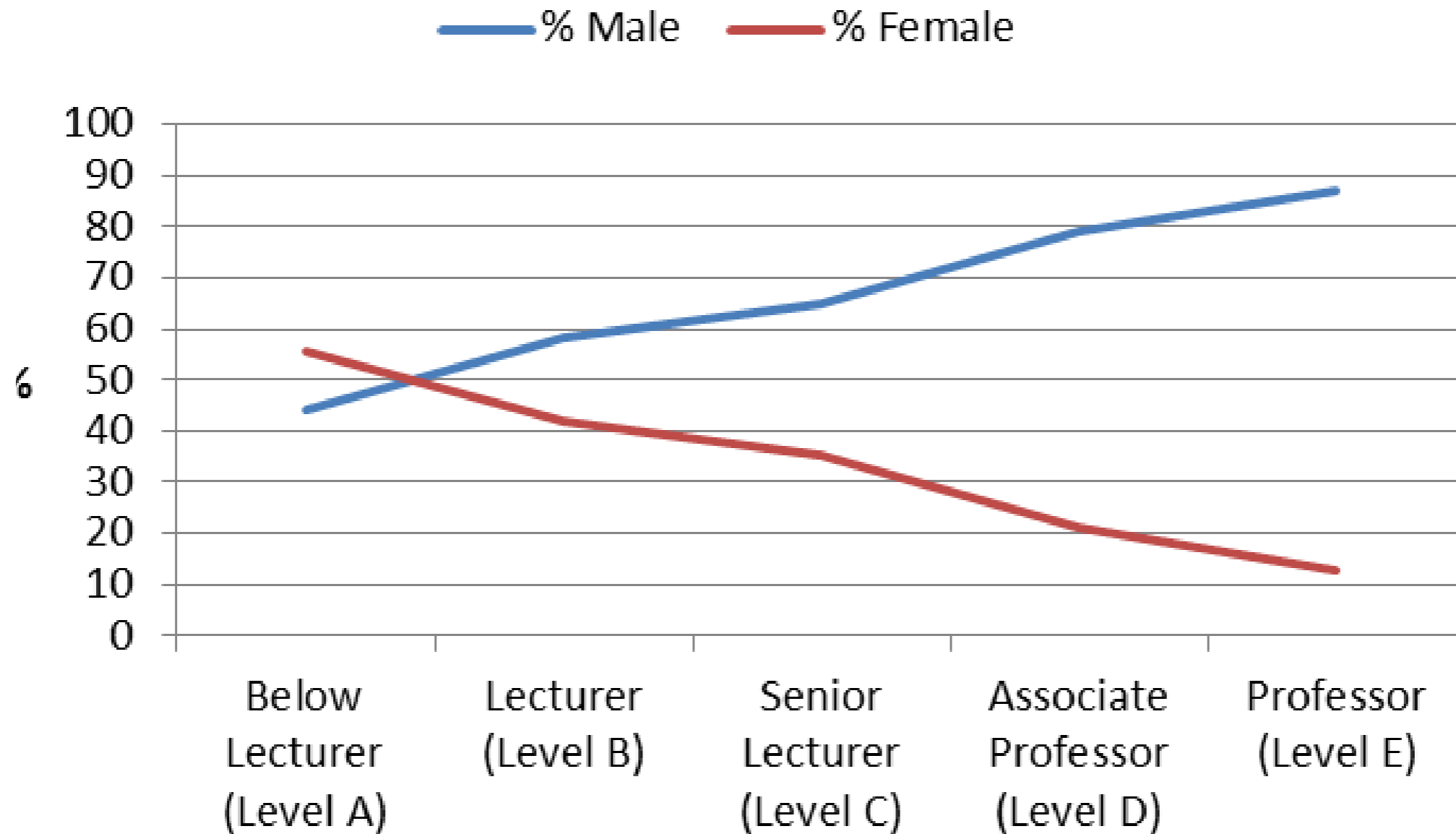
*Natural and physical sciences*

Source: Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE) Higher Education Statistics Data Cube

via the Office of Chief Scientist

# Now?

2012

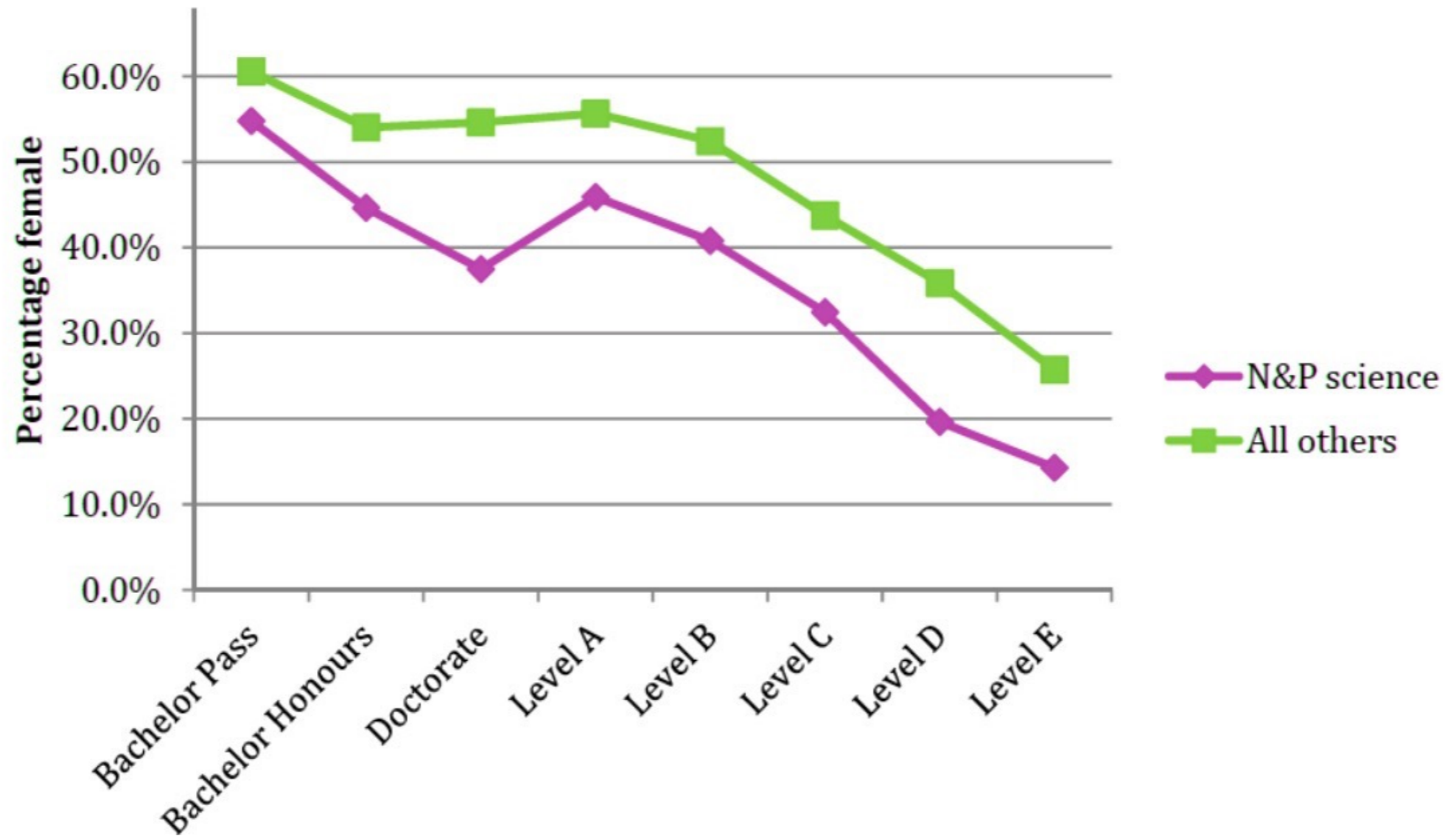


*Natural and physical sciences*

Source: Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE) Higher Education Statistics Data Cube

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# Attrition



*DIIRSTE data, 2011 courtesy of Sharon Bell*

## FORWORD

**You started your career as a mining engineer, working first in outback Western Australia in the 1980s. How did you manage family life?** I worked in Kambalda, Kalgoorlie and Mount Magnet. I took my kids to Mount Magnet when they were five and two. My husband lived in Perth and would fly in when all the workers were flying home for the weekend – a “reverse fly-in fly-out”. I have never heard of anyone else doing it.



## Interview with Megan Clark, CEO CSIRO

*The Australian Weekend Magazine 05 April 2014*

# Nuances

- 👁️ *Friendly Person*: “Wow, your English is so good. Where are you from?”  
Me: “From here.”  
*Friendly Person*: “No, where are you really from?”
- 👁️ *Professor*: “We’ll skip the proof of the lemma, because it’s obvious. We’ll now use the lemma to prove ...”
- 👁️ What is your **unintended** message ?



# Micro- aggression

Brief and commonplace daily verbal, behavioural, and environmental indignities that are not intended to be discriminatory but have the effect of being discriminatory.

See e.g. FE Su, *MAA Focus* October/November 2015





# Local Examples @*Sydney\_Uni*

- 👁️ The University's previous parking policy for part-time employees.
- 👁️ Recruitment processes.
- 👁️ Events and awards that do not reflect actual distribution of minority groups.

# Global Studies

- *John vs Jennifer: “A stark gender disparity persists within academic science”* from Moss-Racusin, Corinne A., et al. *Science faculty’s subtle gender biases favor male students* PNAS 109.41 (2012) 16474-16479.

# Athena SWAN

- Established 2005: to encourage & recognise excellence in women's employment in STEMM.
- Not a box-ticking exercise: encourages *local reflection* and improvement.
- Members required to sign a charter of 10 principles.
- Members may apply for 1 of 3 awards, bronze, silver and gold: relating to *level of attainment and leadership in gender equity*.

# SAGE

- Joint initiative of AAS and ATSE
- Led by *NJ & Susan Pond*
- Inspired by the UK Athena Swan project

*Steering Committee*

Sharon Bell

Marguerite Evans

Doug Hilton

Nalini Joshi

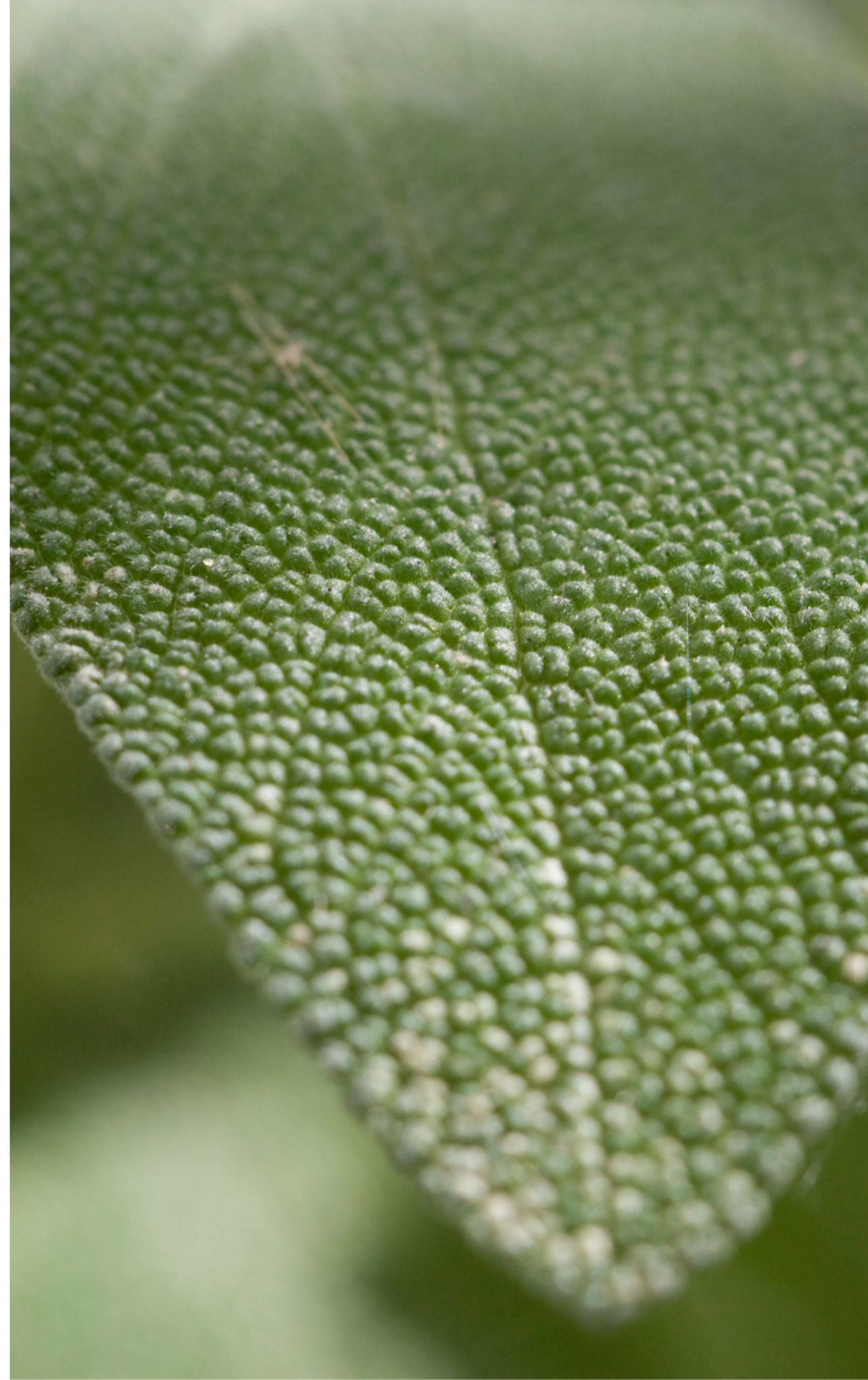
Caroline McMillen

Jenny Martin

Susan Pond

Roslyn Prinsley

Brian Schmidt



# SAGE Pilot

- *Institutions*: 32\* have signed up including the University of Sydney.
- *Pilot*: (i) data collection & analysis (ii) self-assessment (iii) action plan.
- *Timeline*: prepare now, formal application in Jan 2017 → result in June 2019.
- *Outlook*: national Athena-Swan-type framework

\*25 unis+5 MRIs+2 public org; incl 7 Go8

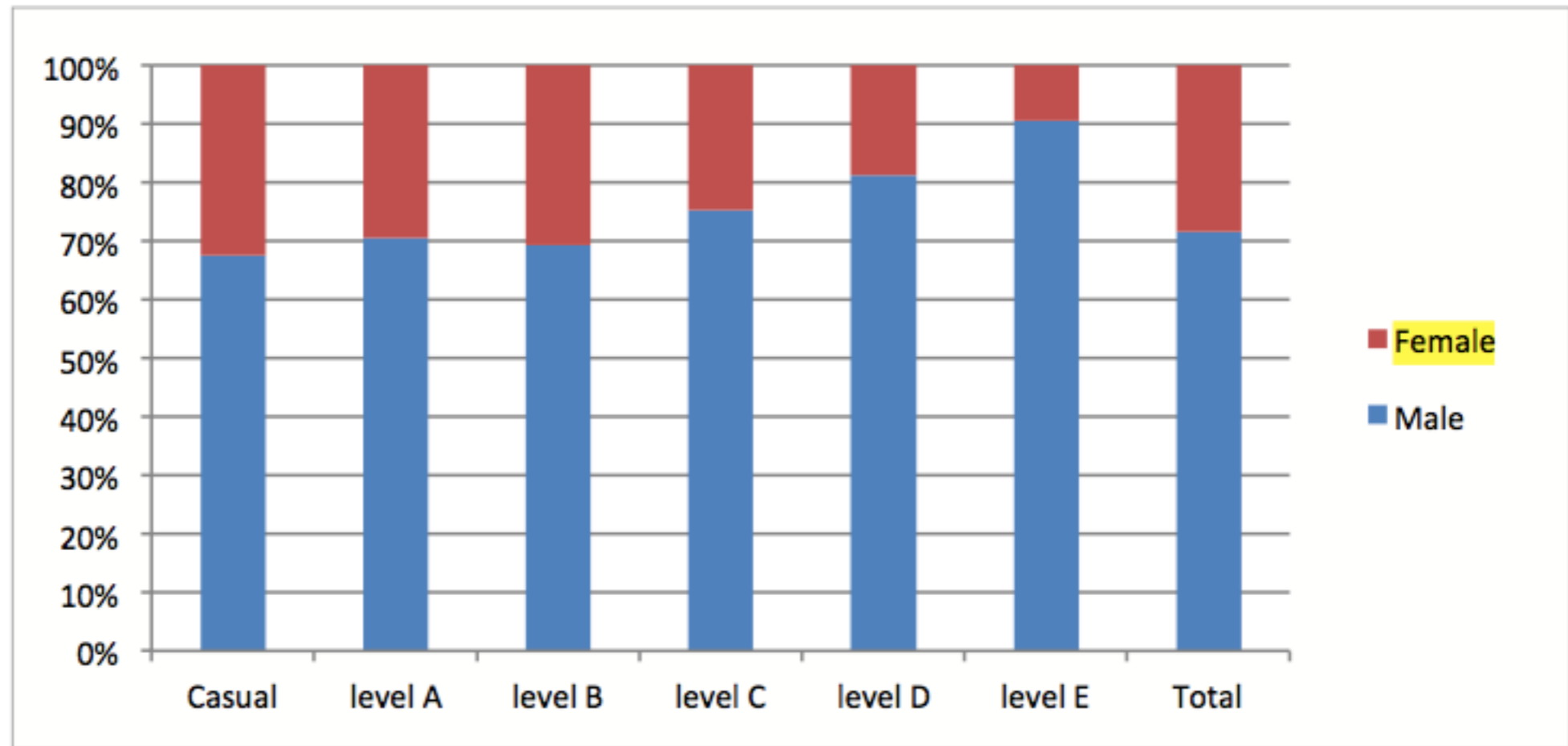
# Welcome to **SAGE**

Reflect and lead  
cultural change



# Mathematics Staff

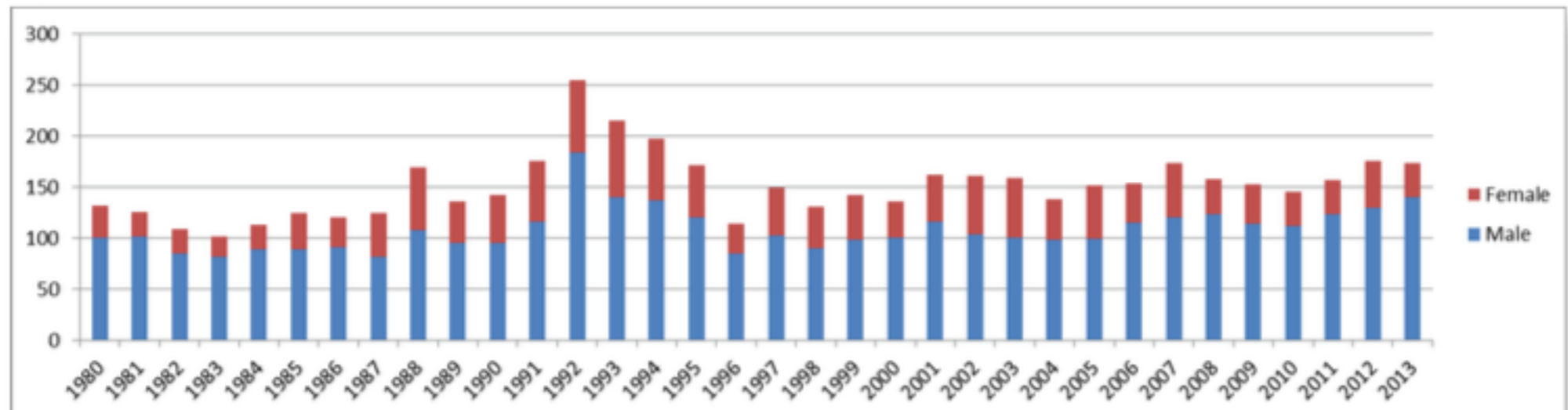
Figure 3.5 Staff in mathematical sciences departments by gender and employment level



Source: AMSI Survey 2014, preliminary results.

# Mathematics Honours

Figure 3.18 Honours completions in the period 1980–2013 by gender

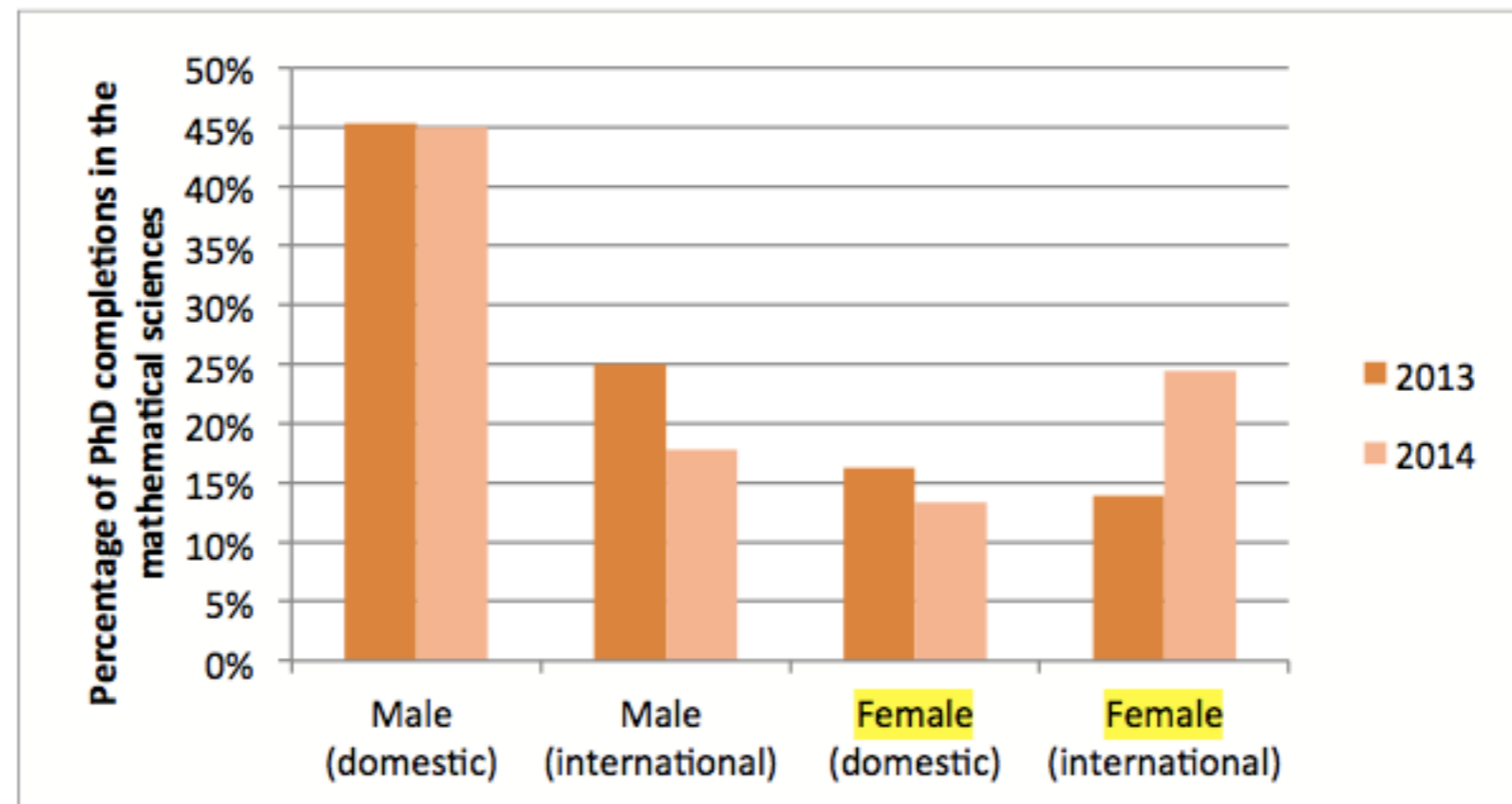


Source: Peter Johnston, Higher Degrees and Honours Bachelor Degrees in mathematics and statistics, data collection provided to AMSI.



# Mathematics PhDs

Figure 3.22 PhD completions in 2013 and 2014\* by gender and domestic/international status



\*Based on projected figures for 2014.

Source: AMSI Member Survey 2014, preliminary results.