Women in Science

ANU Gender Institute

Professor Sharon Bell

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FASTS Federation of Australian Scientific and Technological Societies

WOMEN IN SCIENCE IN AUSTRALIA:
MAXIMISING PRODUCTIVITY, DIVERSITY AND INNOVATION

Report prepared for FASTS
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Women In Research: WHAT HAS THE DATA BEEN TELLING US?

- 1974/83 Why So Few? Women Academics in Australian Universities
- 1990 A Fair Chance for All
- 1994 Australian Colloquium of Senior Women Executives in Higher Education (UAEW)
- 1995 Women in Science Engineering and Technology
- 1996 Waiting in the Wings: A Study of Early Career Academic Researchers in Australia
- 1999 AVCC Action Plan for Women Employed in Australian Universities, 1999 to 2003
- 1999 A Study on the Status of Women Faculty in Science at MIT
- 1999 The Athena Project, The Royal Society, London
- 2002/3 Royal Society Athena Awards
- 2003/4 ASSET Survey (repeated 2006, 2010, 2016)
- 2005 Women in Research AVCC National Colloquium of Senior Women Executives
- 2006 Second AVCC Action Plan for Women Employed in Australian Universities, 1999 to 2003
- 2007 Beyond bias and barriers: Fulfilling the potential of women in academic science and engineering (US National Academies)
- 2007 Athena SWAN (UK Resource Centre for Women in SET and Equality Challenge Unit (ECU)
- 2009 FASTS Women in Science in Australia: Maximising Productivity, Diversity and Innovation
- 2010 Gender differences at critical transitions in the careers of science, engineering, and mathematics faculty (US National Academy of Science)
- 2014 SAGE: Science in Australia Gender Equity initiative

A Fair Chance for All (1990)

Rather than merely accepting a population parity participation rate as appropriate, set out the following framework to address gender equity in higher education (1990:27):

The Objectives:

To improve the balance of participation of women in higher education with particular emphasis on:

- non-traditional courses, including **engineering, business studies, economics and science**
- research higher degrees.

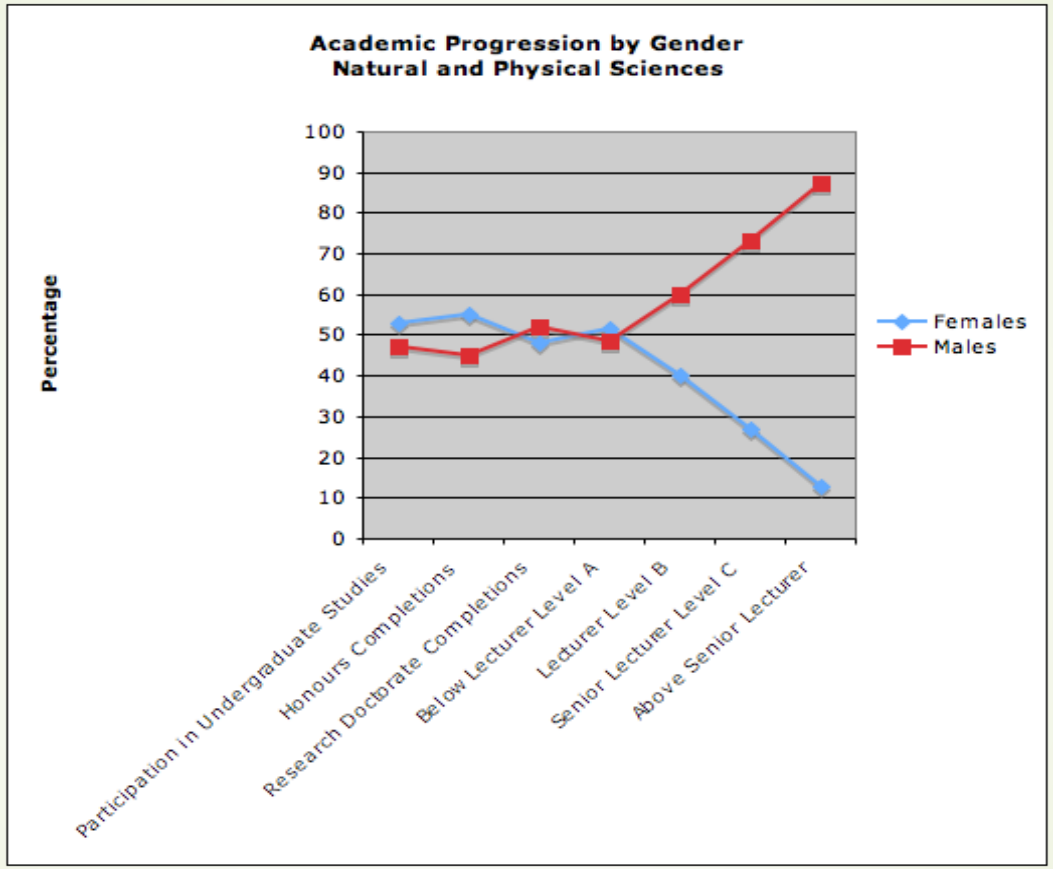
The Targets:

To increase the proportion of women in non-traditional courses other than engineering from the current level to at least 40 per cent by 1995.

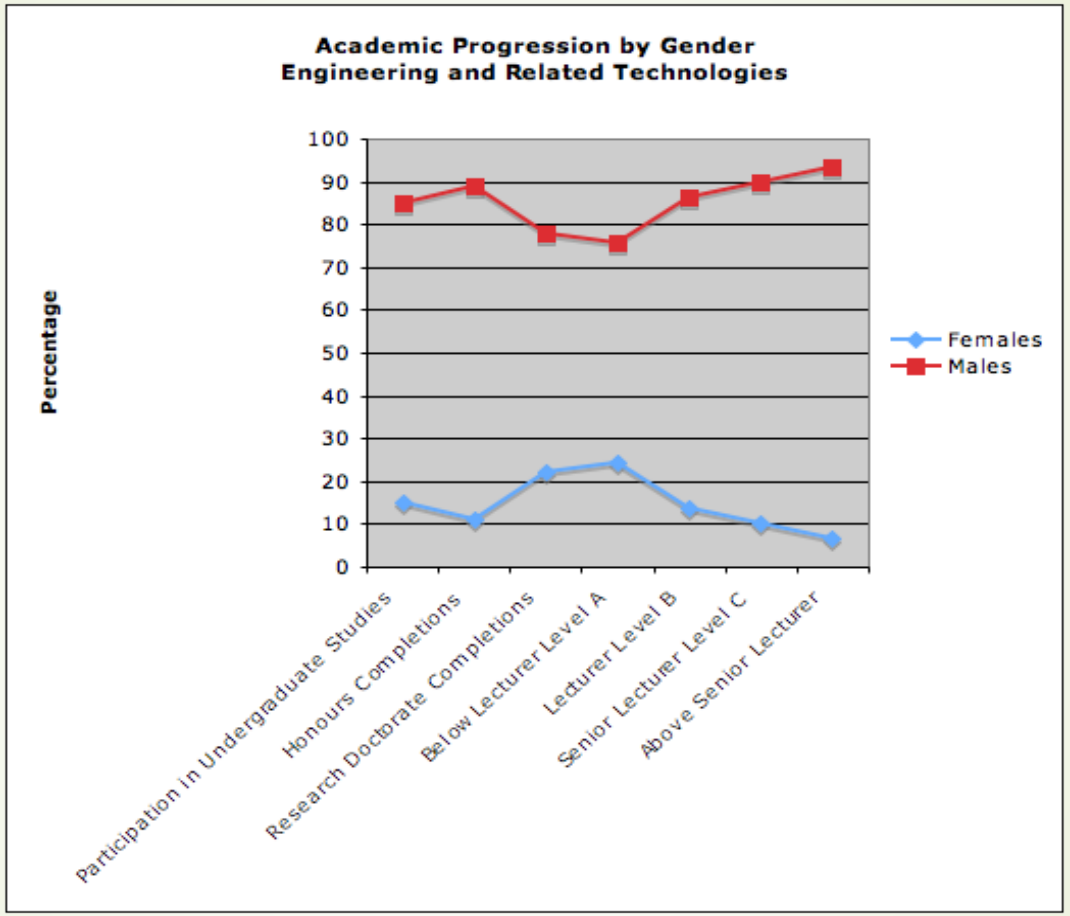
- To increase the proportion of women in engineering courses from 7 per cent to 15 per cent by 1995.
- To increase the number of women in postgraduate study, particularly in research, relative to the proportion of female undergraduates in each field by 1995.

Where are the women?

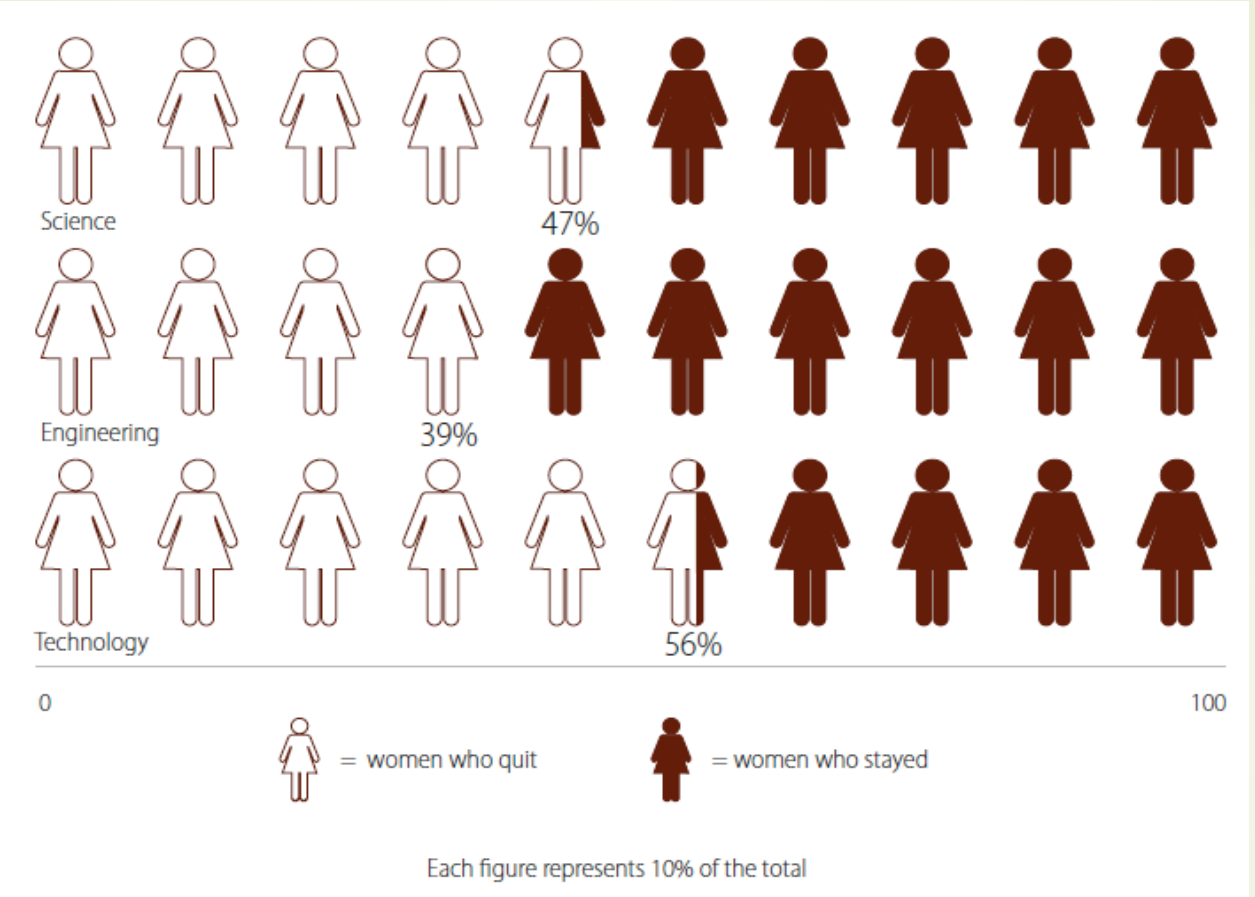
- Participating in significant numbers in under-graduate programs and increasingly in post-graduate programs
- But **clustered in traditional disciplinary groupings** with some notable 'break-throughs': medical science, vet science, environmental sciences
- Declining numbers in mathematical sciences, physics and astronomy
- Steady state in natural and physical sciences* overall
- Constitute the largest numbers of research assistants
- Concentrated at the bottom of the research hierarchy, even in government instrumentalities such as CSIRO
- Poorly represented in 'elite' science: national competitive programs (ARC & NH&MRC), centres of excellence, Academies



Academic Progression by Gender; Natural and Physical Sciences
Source: DEEWR/DEST 2007



Academic Progression by Gender; Engineering and Related Technologies Source: DEEWR/DEST 2007



Female Quit Rates Across SET
Source: Hewlett, S. A., Luce, C. B., Servon, L. J., Sherbin, L., Shiller, P., Sosnovich, E., and Sumberg, K. (2008) *The Athena Factor: Reversing the Brain Drain in Science, Engineering, and Technology.* Harvard Business School Publishing Corporation.

Nobel Laureates 2017

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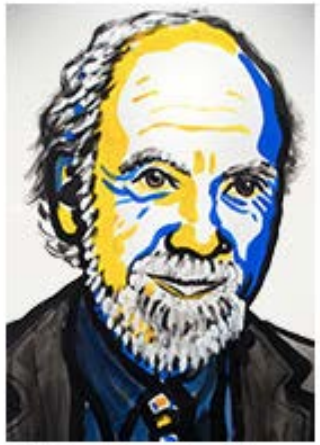

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