Women in Research Leadership
Monday 20 June 2011

Master class - Persistent Issues

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Government Investment in Research

2011-12

- Universities: 21%
- Business & Innovation: 24%
- Other Health: 6%
- Other: 11%
- Energy and the Environment: 5%
- Other Science: 4%
- NHMRC: 8%
- CRCs: 2%
- ARC: 9%
- Investigator Driven: 4.5%
• To support excellence in research
• To build Australia’s research capacity
• To provide informed high quality policy advice to government
• To enhance research outcomes through effective evaluation
• To raise the profile of Australia’s research effort and be an effective advocate for its benefits
The ARC

National Competitive Grants Program
$810M in 11-12

Discovery & Fellowships
$502 M

Linkage & Centres
$308 M

Evaluation and Policy

Excellence in Research for Australia

NCGP aims to:

• Support research excellence
• Funding for facilities and equipment that researchers need to be internationally competitive
• Support training and develop skills for future researchers
• Provide incentives for partnerships and collaboration nationally and internationally
Instances of scientists on submitted proposals (all schemes)

Data for Year 2010 does not include all schemes.
Distribution of female scientists by funding scheme (2001-10)

- Linkage - APAl Only 2%
- Centres of Excellence 2%
- Linkage International 3%
- Linkage - Infrastructure 12%
- Linkage - Projects 17%
- Special Research Initiatives 4.4%
- Discovery - Projects 55.6%

Schemes where female scientists participate (2001-2010) - total 100% - not all schemes listed
Success rate of female scientists by funding scheme (2001-10)

Success rate by scheme (2001 - 2010)

- Special Research...
- Linkage Infrastructure
- Super Science Fellowships
- Linkage Projects
- Linkage International
- ARC Research Networks
- Discovery Indigenous
- ARC Future Fellowships
- ARC Centres of Excellence
- Discovery Projects
- Federation Fellowships
- Australian Laureate...
- Linkage - APD CSIRO
- SRI (Thinking Systems)

- Female
- Male

Success rates:
- Discovery Indigenous: 24.2%
- ARC Centres of Excellence: 23.8%
Participation of female scientists by funding scheme (2001-10)
Proportion of male and female applicants and corresponding success rates by career age (DPs, 2001-10)
Career age and success rate of female scientists (DPs, 2001-10)
Career age and success rate of female scientists (DPs, 2001-10)

![Graph showing success rates for female and male scientists across different career age groups.]
Funding split in Sciences by gender (2001-10)

Funding split in Sciences (2001 - 2010)

- Mixed-gender projects: 32%
- Female-only projects: 6%
- Male-only projects: 62%
What about according to discipline?
Percentage of female scientists on funded projects by 2-digit discipline (2001-09)
Funding instances for female scientists by 2-digit discipline (2001-09)

Note - Data is the total instances of funding for female scientists.
HCA female applicants (female) by age - all DP proposals 2001-2009
Gender success rate & proportion in DP05 – DP09 proposals

![Graph showing gender success rate and proportion in DP05 – DP09 proposals](image)
How do we then encourage women scientists to reach for excellence?
Changing language; changing landscape

Encouraging opportunity; not simply providing it

Re-enforcing leadership
Research Opportunity and Performance Evidence (ROPE)

- Changing how we measure excellence
  Track record v. Performance evidence

- Assessors take into account any career interruptions, such as:
  - Childbirth
  - Carer’s responsibility
  - Misadventure
  - Debilitating illness
Encouraging Opportunity

Career interruptions

For ECRs and women researchers

Options to convert & teaching transitions
The ARC aims to:

- Provide opportunities for researchers at every career stage
- Foster a range of different cohorts

Strategic Objectives

- Researchers in industry
- Women
- Indigenous
- Research-only
- Teaching and research
The ARC does not:

- Employ researchers directly
- Aim to provide a complete externally funded career structure
- Funds all the excellent research proposals it receives
# ARC Federation and Laureate Fellows

<table>
<thead>
<tr>
<th>Year</th>
<th>Name 1</th>
<th>Name 2</th>
<th>Name 3</th>
<th>Name 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Bernadette McSherry</td>
<td>Cheryl Praeger</td>
<td></td>
<td></td>
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<tr>
<td>2009</td>
<td>Frances Baum</td>
<td>Tanya Monro</td>
<td>Michelle Simmons</td>
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<tr>
<td>2010</td>
<td>Lesley Head</td>
<td></td>
<td>Jennifer Martin</td>
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<tr>
<td>2011</td>
<td>Hilary Charlesworth</td>
<td>Margaret Jolly</td>
<td>Hanna Kokko</td>
<td>Lorraine Mazerolle</td>
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</tbody>
</table>
Australian Laureate Fellowships

FOCUS:
• International repute
• Sustained leadership & mentoring

OBJECTIVES:
• Attract and retain outstanding research leaders
• Build and strengthen world-class research capability
• Provide excellent research – training environment
• Expand knowledge base
• Forge strong links
• Support research
Key Findings of this US study

1) Women have the ability to succeed in Science & Engineering
2) Women lost out at every career transition
3) Problem is not simply the pipeline
4) Women are likely to face discrimination in all fields
5) Evidence that most people have implicit biases
6) Measures of success in performance-evaluation systems are often arbitrary and frequently place disadvantage women. "Assertiveness," for example, may be viewed as a socially unacceptable trait for women but suitable for men.
Strategies - Mentors and Role Models

• Different purposes and times
  – Research network vs internal advice
  – Need varies, it evolves in your career

• **Good mentors** are absolutely critical to all aspects of academic/scientific life!!
Some top career tips

#1  Don’t Cater
#27 Avoid Feeding Others
#89 Avoid making Notes, Coffee & Copies
# 2  Be Prepared
#34 Don’t believe others know more
#3  Learn to let go
#74 Don’t look back
#51 Don’t do the work of others
What else can we do?

- Universities need to fundamentally encourage women into research, and actively support and mentor them to really succeed in their research disciplines.
- This includes mentoring on preparation of high quality grant proposals.
- The ARC provides opportunities through its schemes for women but more applications need to be received from universities.
The ARC is committed to working with institutions to support careers in flexible and innovative ways in order to maximise opportunities for our talent.

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