



Australian Government

Department of Innovation, Industry, Science and Research

# Harnessing our research talent: insights from the research workforce strategy

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**Research Division**

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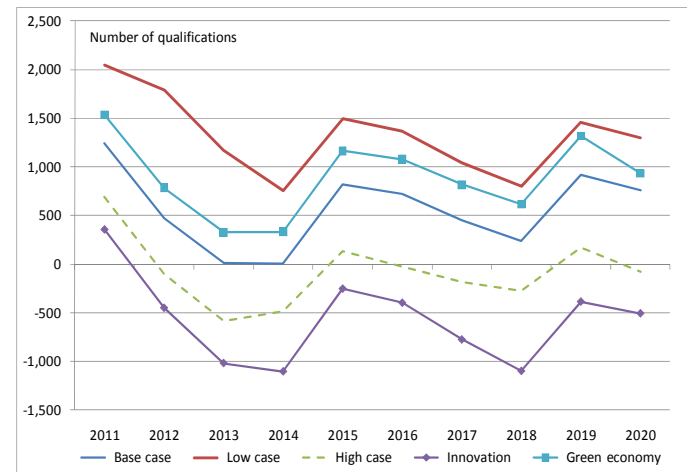
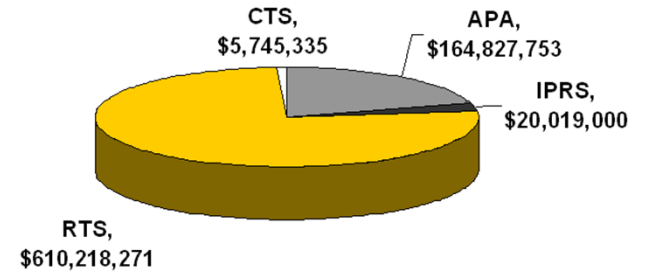


## DIISR Roles

- Funding of Research Training through DIISR block grants
- Evidence-based policy development (RWS)
- Employment of HDR graduates
- Public sector innovation



**\$800,810,359**  
(2010 figures)



**Projected supply less demand for postgraduate research qualifications**  
Source: Access Economics, *Australia's Future Research Workforce: Supply, Demand and Influence Factors*. (2010)



## How HDR Graduates support innovation – an APS perspective

- Deep subject area knowledge – new ideas, understandings, technology and processes
  - Researchers – CSIRO, ANSTO, NMI, AIMS
  
- Skills transferable across the workforce – problem solving, analytic skills
  - Other public service roles – policy development, program delivery
  
- ‘Foresighting’ capacity – the ability to seek out and to recognise innovative solutions



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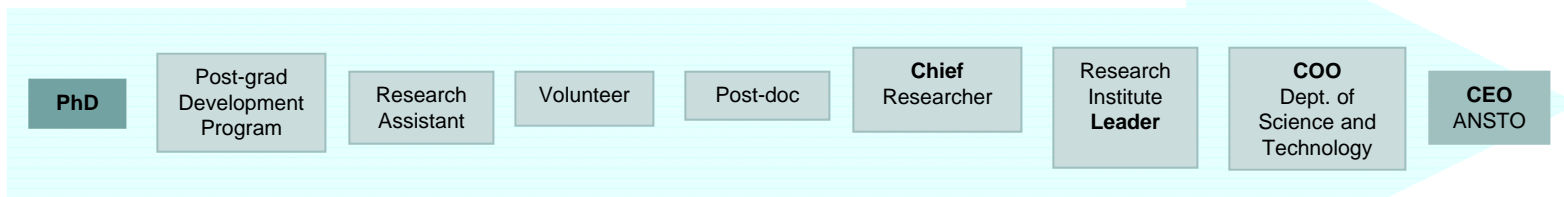
# Sir Roland Wilson Foundation Scholarships

- Strategic relationship with ANU to promote public sector innovation
- Up to three PhD scholarships each year for high-performing APS employees (primarily officers at middle management level) to undertake research in priority public policy interest areas at the ANU
- To produce scholars and future leaders to provide high quality, forward looking and innovative policy research and advice

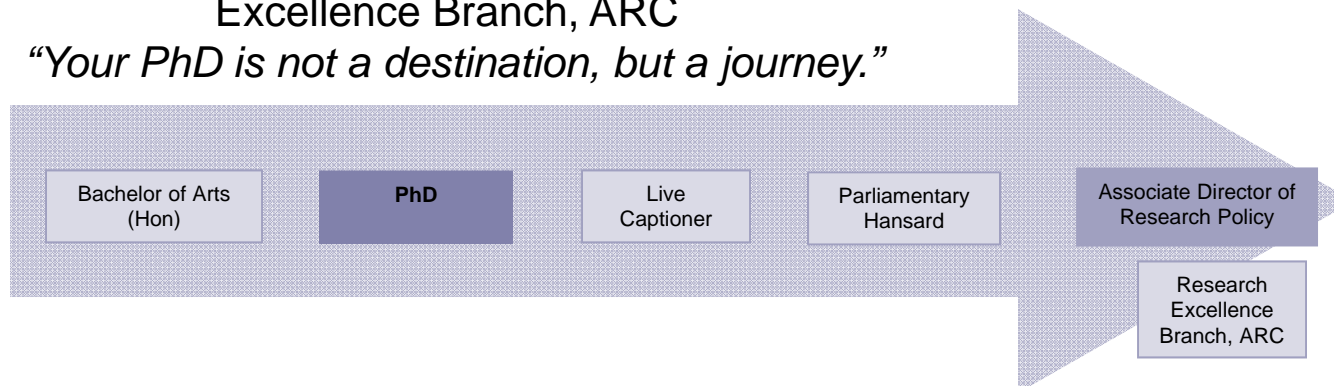


## Public sector careers – two profiles

**Dr Adi Paterson** Chief Executive Officer, ANSTO  
*“The PhD is not a victory - it is a pair of shoes.”*



**Dr Emmi Mikedakis**, Associate Director, Research Excellence Branch, ARC  
*“Your PhD is not a destination, but a journey.”*



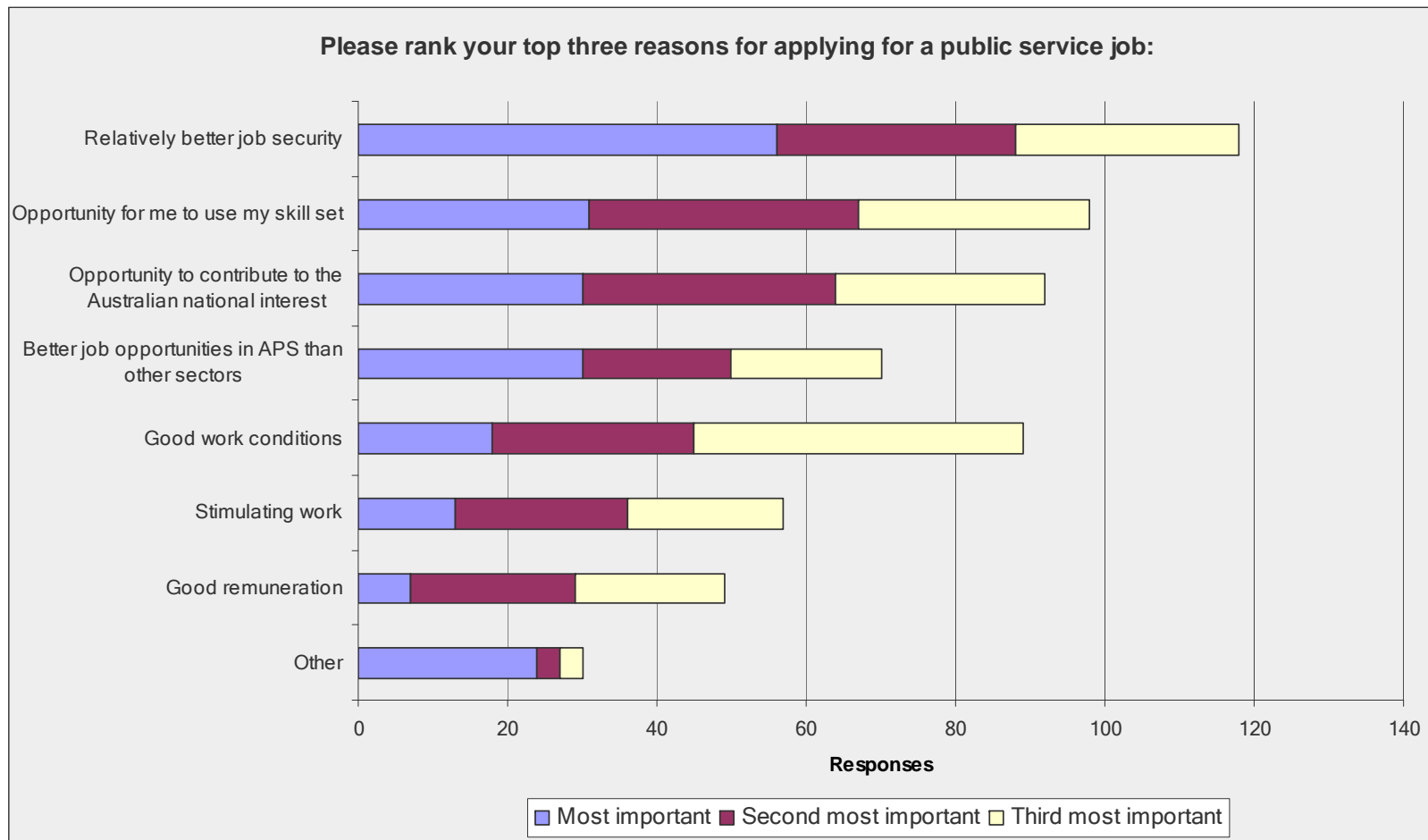


## Survey of HDR qualified public servants

- To understand the motivation and experiences of HDR graduates within the public service
- In order to better utilise this talent pool to boost innovative policy development and program delivery
- About 230 research qualified public servants across four Commonwealth departments. The majority of respondents were not in active research roles

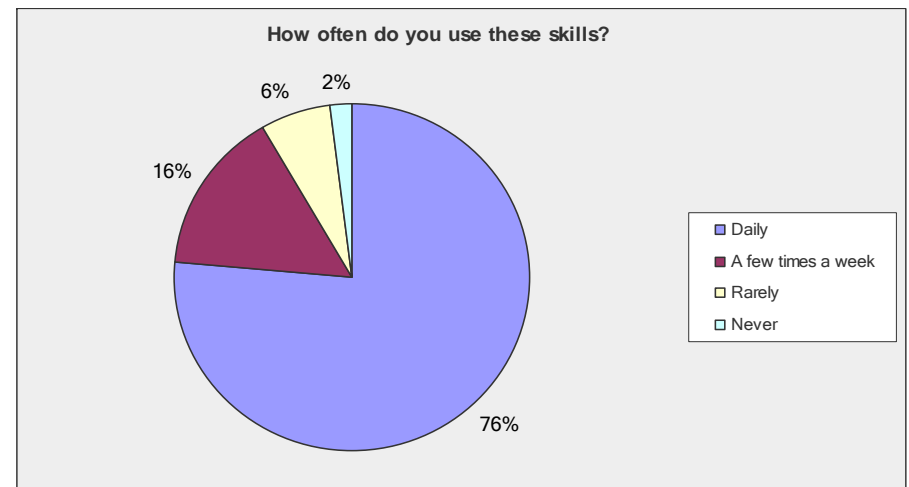
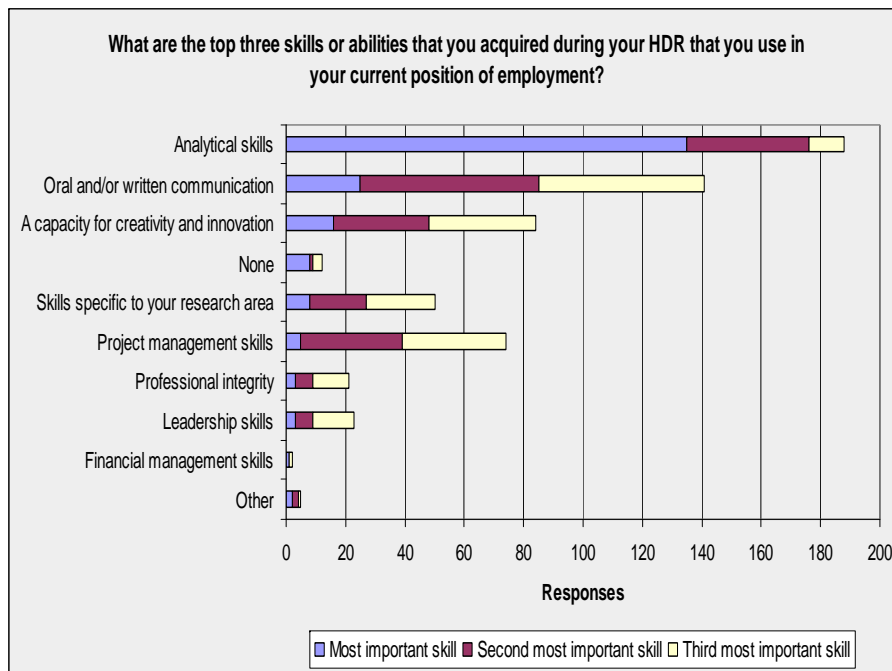


## Why do HDR graduates apply for public service jobs?



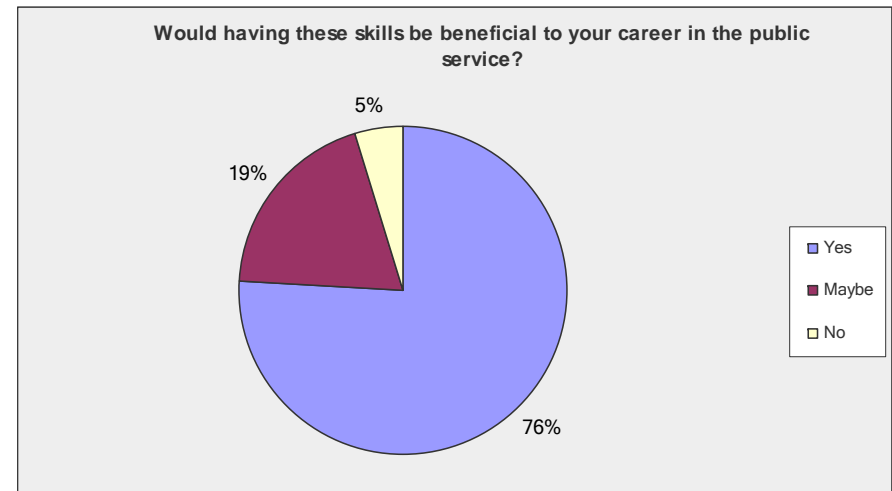
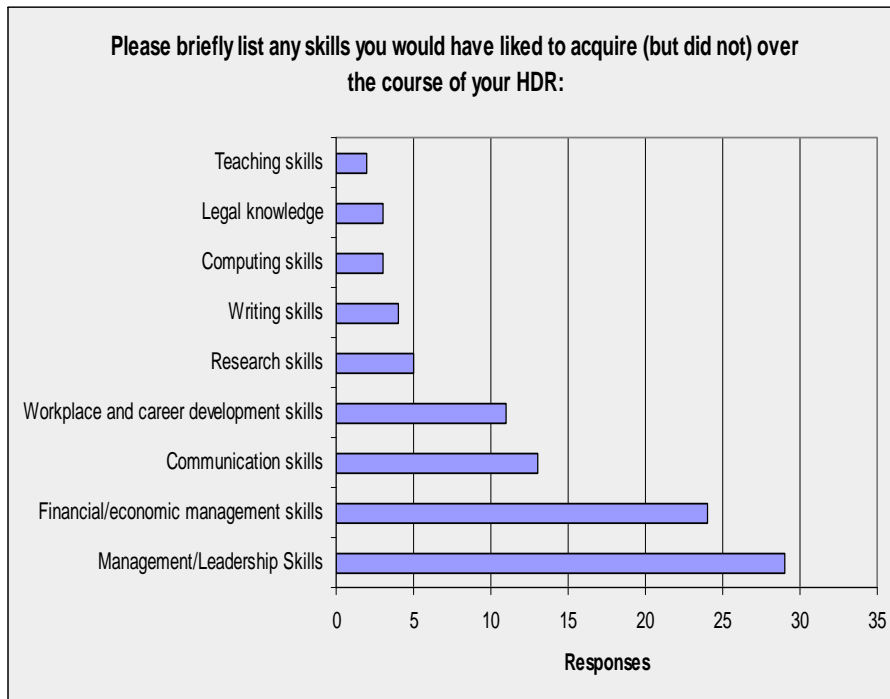


# Utilisation of HDR skills in the APS - 1



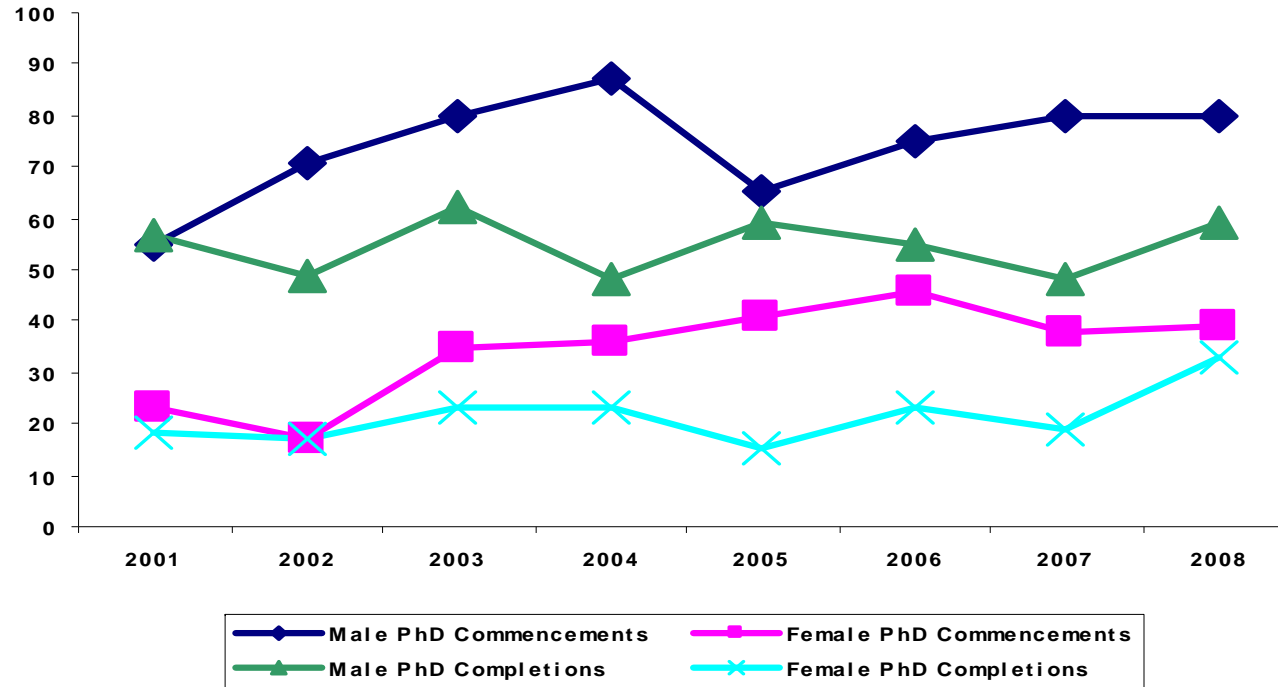


## Utilisation of HDR skills in the APS - 2





# Mathematical Sciences – PhD commencements and completions





## Mathematical sciences case study – issues identified

- Pipeline issues into the future may threaten domestic supply
- A need for greater industry engagement in PhD training
- The tendency of mathematicians and statisticians to disperse across discipline areas (lack of critical mass and visibility)
- Reported declines in mathematics and statistics departments
- Is there a role for doctoral training centres (for example the UK Centres for Doctoral Training)?



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