



# ARC Social, Behavioural and Economic Sciences: An Update

**Professor Phyllis Tharenou  
Executive Director**

**Social, Behavioural and Economic Sciences  
Macquarie University, 19<sup>th</sup> June 2009**

**Presentation available at  
[http://www.arc.gov.au/media/ARC\\_Presentations .htm](http://www.arc.gov.au/media/ARC_Presentations.htm)**

# Major ARC Schemes



- **Discovery Projects** –
    - Excellent fundamental research by individuals and teams
  - **Discovery Indigenous Researchers Development** –
    - Develop research expertise of indigenous Australians
  - **Australian Laureate Fellows** -
    - For outstanding researchers to stay in or return to Oz
  - **Future Fellows** –
    - Rewards best mid-career Australian researchers and outstanding international researchers
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- **Linkage Projects** –
  - Collaborative research between universities and industry/government/community
- **Centres of Excellence** – Large outstanding research teams conducting focussed, sustained investigations on important challenging problems
- **Linkage infrastructure, equipment and facilities (LIEF)** –
  - Collaboration across universities & partner organisations to fund major infrastructure

# Desirables: Minister Carr March 2009



Australian Government

Australian Research Council

- Applications to build on university's research strengths, think strategically, play to strengths
- Collaboration needed between universities and business and public sector research agencies
- Develop PhDs, support research students
- Collaborate across universities, especially international collaboration by researchers
- Collaboration across natural and human sciences

# The Future



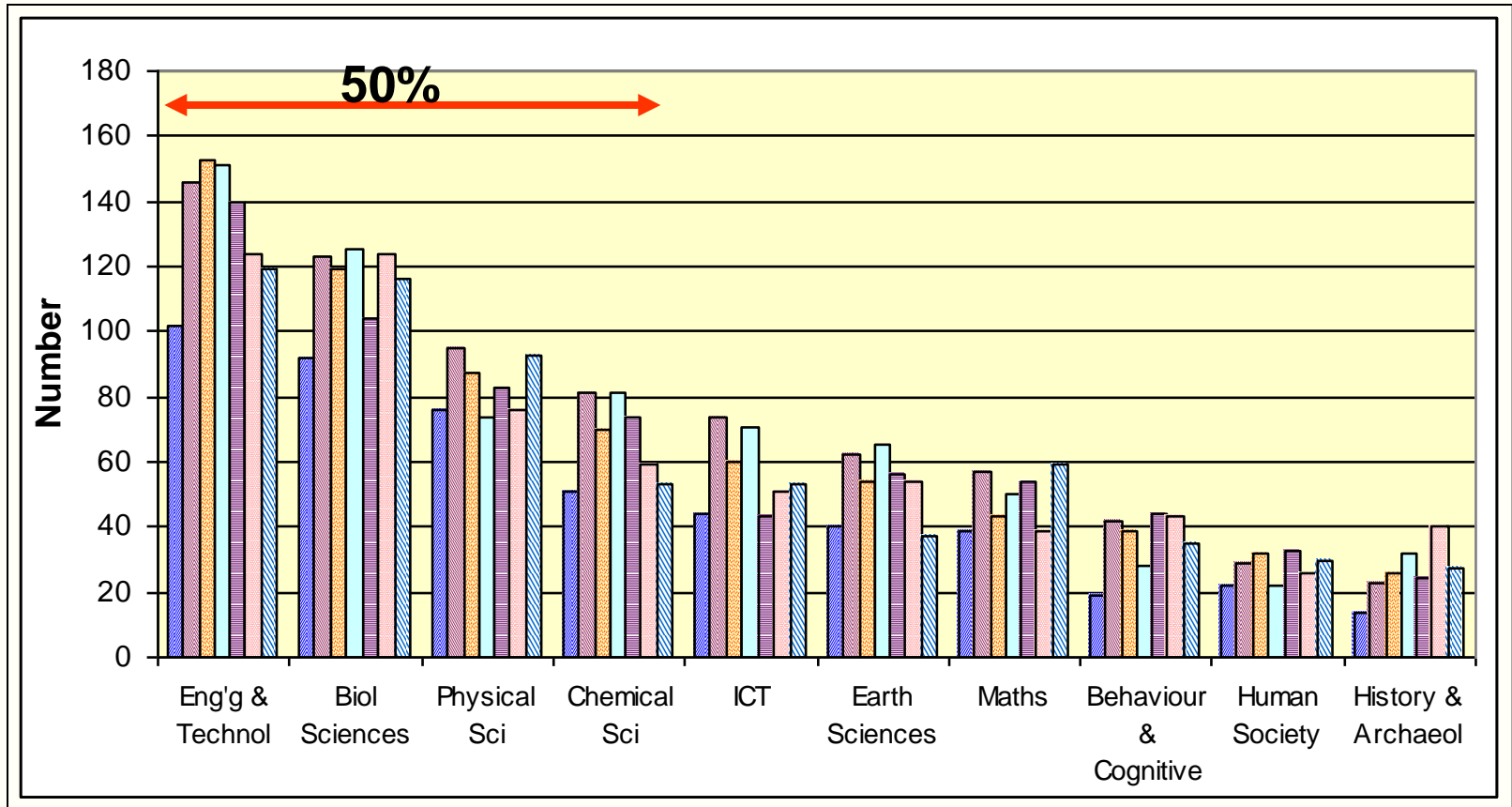
- **ARC consolidating to fewer, larger schemes with maximum flexibility**
  - Will no longer have
    - *ARC Networks scheme*
    - *Social Sciences Collaboration scheme & ARC International Fellowships scheme*
- **Increased focus on outcomes**
  - Reporting of outcomes of prior grant funding
  - Excellence in Research in Australia evaluation
- **Federal budget –**
  - Superscience Fellowships
  - Bionic eye (closing submission date, end July)

# 2008-2010 ARC Policy Changes



- **International collaboration**
  - *Discovery Projects* eg new support
- **New ways of building research capacity – 2008 for 2009**
  - *Future Fellows* – fills the midcareer gap
  - *Australian Laureate Fellows*
- **Enhancing research of Indigenous scholars (*DIRD*)**
  - *Discovery Indigenous Researchers Development* scheme
    - *New Australian Research Fellows – Indigenous*
    - *AIATSIS* added as an eligible organization
- **Centres of Excellence - new round in 2010/11**
- **Evaluation changes:**
  - *ERA trial submissions: PCE July, HCA August*

# Major Research Fields – International Collaboration 2002-2008: ARC Funded Projects



Psychology, Applied Economics, Archaeology, Prehistory, Philosophy



# Selection Criteria



Criteria	Discovery	Linkage	Future	DIRD
• Researcher Track Record	40%	20%	50%	40% & cpcty
<hr/>				
• Project Significance & Innovation	30%	25%	-	40%
• Project Quality	-	-	10%	
• Project Approach	20%	20%	-	
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• National Benefit	10%	10%	-	in above
• National Research Priority	-	-	10%	-
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• Industry Partner Commitment	-	25%	-	-
• Collaboration	-	-	15%	-
<hr/>				
• Strategy	-	-	15%	-
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Quality of research env./mentor	-	-	-	20%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Success Rate about.....</b>	<b>20%</b>	<b>35-50%</b>	<b>-%</b>	<b>40%</b>

# Changes to *Discovery Scheme* 2009→2010



Australian Government

Australian Research Council

## ■ New 'International Collaboration Awards'

- 1 month minimum to 6 months maximum
- For Oz CIs/Fellows & Overseas PIs to work together on a project
- Covers travel and subsistence up to \$40,000 – prorata
- 16% of 09 proposals requested ICA (half requested 1): SBE was 19% of those; HCA was 7.5%

## ■ Travel for overseas PIs or other research personnel if directly justified against doing the project -

- 1 per annum return economy to and from Oz to work on project

## ■ Always have had:

- PhD stipends for overseas candidates
- Fellows as overseas candidates - APDs, ARFs/QE11s/ APFs
- PIs living overseas (but can now request travel to & from Oz)

## Funding Rules

[http://www.arc.gov.au/ncgp/dp/dp\\_fundingrules.htm](http://www.arc.gov.au/ncgp/dp/dp_fundingrules.htm)

# Discovery: No. Applications & Results



ARC as a whole	2004	2005	2006	2007	2008	2009
No.	3,240	3,441	3,766	4,047	4,121	4,164
No. funded	875	1,053	917	822	878	845
Total Funds	237.9 million	297.5 million	273.6 million	274.7 million	300.8 million	288.4 million
ARC Success Rate	27.0%	30.9%	24.5%	20.4%	21.4%	20.4%
SBE Success Rate	31.0%	23.0%	19.0%	22.0%	22.0%	24.0%

# 2009 Funded Discovery Projects



Australian Government  
 Australian Research Council

Feature	All ARC	SBE	HCA
Av. duration of funded grants	Just over 3 years: 3.27	3.22	3.30
Av. 1 <sup>st</sup> year funds gained	\$116k = 67% of request	\$89k = 66% of request	\$99k = 70% of request
Av. funds gained for total project	\$341k	\$262k	\$293k
ECR-only applications ( $\leq 5$ years since PhD)	Success Rate 15.5% % of income = 10%	20% 13%	12% 13%
Applications that include ECRs	Success Rate = 20%	24%	18%
Average no. of assessments per proposal	5 (2 CoE, 2 Oz Reader, 1 International assessor)	5.08, SD = 0.81	5.09, SD = 0.84
Average no. of CIs	1.96	2.31	1.97

# Discovery Project Fellowships



Australian Government

Australian Research Council

- **Need good-excellent scores on both Project & Fellow**
  - **Aust. Postdoc Fellowships ( $\leq 3$  years since PhD) –**
    - **2009 Success Rate = 17%: SBE = 18.3%**
  - **Aust. Research Fellows/Queen Elizabeth II Fellows -  $\leq 8$  years since PhD, also  $\leq 13$  years if previously had ARF/QEII\***
    - **2009 Success Rate = 15.1%: SBE = 20%**
  - **Aust. Professorial Fellowships -  $\leq 13$  years since PhD**
    - **2009 Success Rate = 14.3%: SBE = 14.3%**
- **\* There is an equivalent fellowship to ARF/QEII in the *DIRD* scheme**

# No. & Success Rate of ECR-Only Proposals ( $\leq 5$ years since PhD)



Discip -line	ECR-Only Proposals Received	ECR-Only Proposals Approved for Funding	Success rate	ECR-Only Proposals: % of Total funding approved for 2009
<b>BSB</b>	93	13	<b>14.0%</b>	<b>6.8%</b>
<b>EE</b>	72	8	<b>11.1%</b>	<b>5.9%</b>
<b>HCA</b>	154	19	<b>12.3%</b>	<b>13.0%</b>
<b>MIC</b>	82	19	<b>23.2%</b>	<b>12.2%</b>
<b>PCG</b>	151	21	<b>13.9%</b>	<b>11.3%</b>
<b>SBE</b>	130	26	<b><u>20.0%</u></b>	<b><u>12.7%</u></b>
<b>All</b>	<b>682</b>	<b>106</b>	<b>15.5%</b>	<b>10.2%</b>

# Success Rates of Proposals with 1 or More Self-Nominated ECRs



Discipline	2005	2006	2007	2008	2009
<b>BSB</b>	28.5%	23.3%	18.4%	17.2%	<b>16.1%</b>
<b>EE</b>	30.2%	20.9%	23.0%	20.0%	<b>21.9%</b>
<b>HCA</b>	22.6%	18.5%	15.3%	15.2%	<b>18.4%</b>
<b>MIC</b>	29.5%	22.5 %	20.9%	19.5%	<b>20.1%</b>
<b>PCG</b>	29.8%	21.3%	19.0%	22.8%	<b>18.7%</b>
<b>SBE</b>	25.0%	20.3%	12.7%	20.6%	<b><u>23.6%</u></b>
<b>All</b>	<b>27.4%</b>	<b>21.0%</b>	<b>17.8%</b>	<b>19.3%</b>	<b>19.9%</b>

# Linkage Projects 2008/09/10: Changes to Funding Rules



Australian Government

Australian Research Council

- Overseas higher education organisations eligible as Partner Organisations - need at least 1 Australian Partner Organisation
  - Could always have overseas organisations as partners
- Citizenship/residency requirements for APA-I (PhD scholarships) removed for 2008
- CIs, PIs, APDIs & research support personnel can have funds for domestic & international travel for the project
- \$ 2m/year Upper limit to each proposal in exceptional cases (*Linkage Projects* normally \$500K total maximum)
- Success Rates Last 8 Rounds:
  - 37%, 36%, 43%, 46%, 48%, 43%, 49%, 46%

## Funding Rules for *Linkage Projects*

- [http://www.arc.gov.au/ncgp/lp/lp\\_fundingrules.htm](http://www.arc.gov.au/ncgp/lp/lp_fundingrules.htm)

# 2009 Funded Linkage Projects



Australian Government

Australian Research Council

Feature	All ARC	SBE	HCA
Av. duration	3.05	3.10	2.95
Av. 1 <sup>st</sup> year funds gained;% request gained	Rd1 \$110k= 71% Rd 2 \$101k= 71%	Rd1 \$95k= 71% Rd 2 \$95k= 64%	Rd 1 \$97k= 74% Rd 2 \$87k=67%
Av. funds gained for total project	Rd 1 \$329k=68% Rd 2 \$300=68%	Rd 1 \$290k=66% Rd 2 \$291k=61%	Rd 1 \$295k=72% Rd 2 \$245=67%
Average no. CIs	2.9, 3.1	>3: 3.63, 3.65	3.06, 2.75
APAI success rate	34%, 39% (No=303)	33%, 40%	26%, 40%
APAI _IT (quota of 50) success rate	91%, 65% (No.=59)(mostly MIC)	0%, 29%	30%, 13%
Aust. Postdoc Fellows Industry	52%, 40% (No.=31)	88%, 47%	100%, 67%
Rural & Regional success rate	46%, 43%	39%, 47%	45%, 45%
Av. no. Collab. Orgs	2.2	2.6	2.9
Average no. CIs	3.84	3.83	3.86

# Linkage Projects 2009 Rounds 1 & 2



Australian Government  
Australian Research Council

## Partner Organization Contribution by Sector

**Rd1 Rd2 05-08**

■ <b>Australian Private company</b>	<b>33%</b>	<b>31%</b>	<b>37%</b>
■ <b>State &amp; Local Government</b>	<b>29%</b>	<b>36%</b>	<b>27%</b>
■ <b>Australian International company</b>	<b>18%</b>	<b>12%</b>	<b>17%</b>
■ <b>Australian Nonprofit organisation</b>	<b>12%</b>	<b>15%</b>	<b>11%</b>
■ <b>Commonwealth Government</b>	<b>5%</b>	<b>3%</b>	<b>6%</b>
■ <b>International Nonprofit</b>	<b>4%</b>	<b>1%</b>	<b>2%</b>
■ <b>International government</b>	<b>1%</b>	<b>2%</b>	<b>2%</b>

## Most Frequent Partner Industry (2009 Rd 2)

- Government Administration & Defence (206); Health & Community Services (198); Education (82);
- Manufacturing (121); Electricity, Gas & Water (50), Mining (44), Construction (36)
- Cultural & Recreational Services (99); Property & Business Services (82);
- Agriculture, Forestry and Fishing (77)

# Linkage Projects 2009

## Round 2



Australian Government

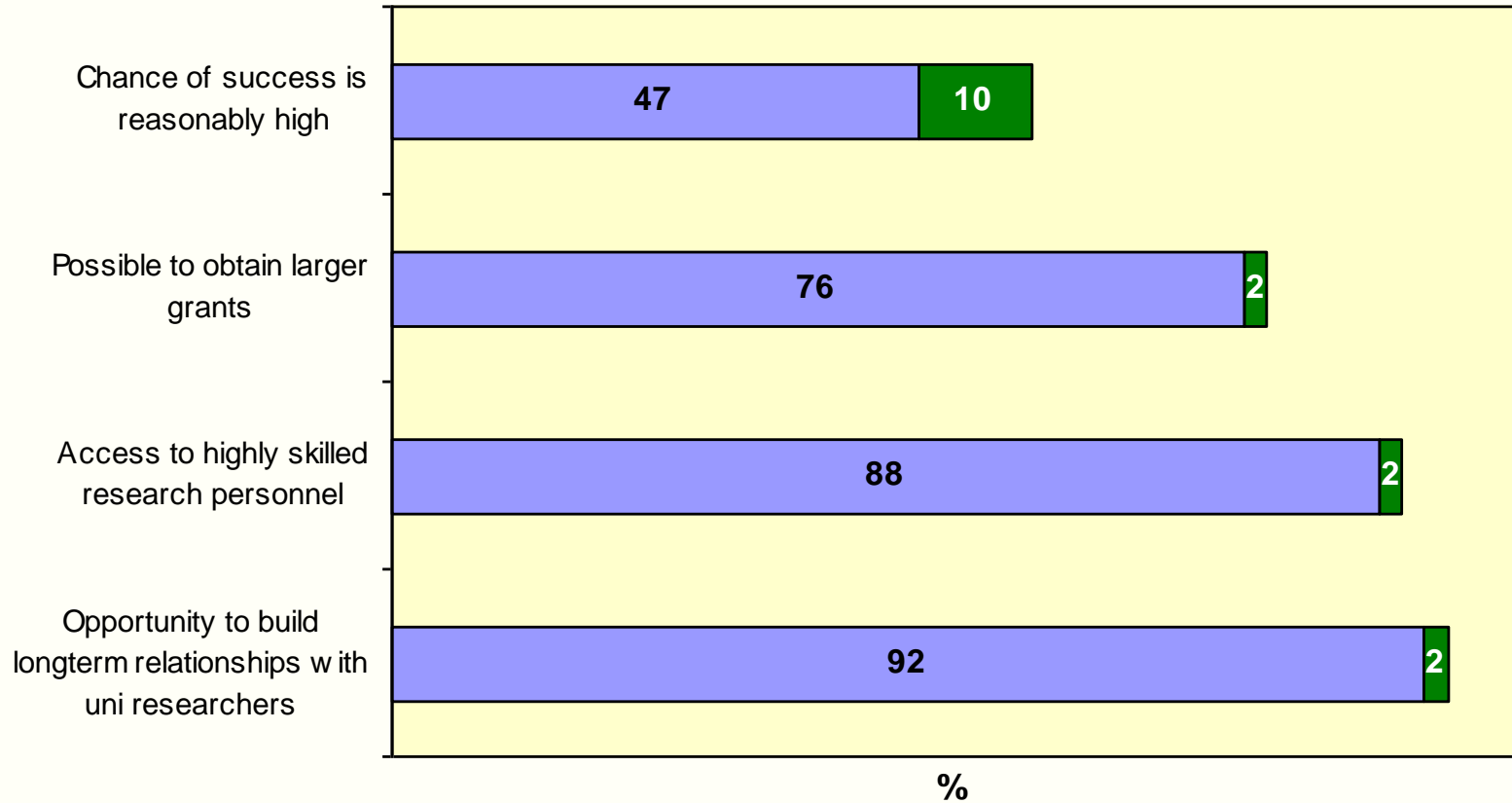
Australian Research Council

## Round 1

Discipline Group	Proposals received	Success rate	Funds over project life (approved) \$ million
BSB	107	43.9%	14.00
EE	104	45.2%	13.02
HCA	58	41.4%	5.89
MIC	53	45.3%	9.80
PCG	31	54.8%	5.51
<b>SBE</b>	<b>169</b>	<b>46.7%</b>	<b>23.06</b>
All	522	45.6%	71.28

Proposals received	Success rate %	Funds over project life (approved) \$ million
85	43.5%	14.42
100	55.0%	17.05
32	56.3%	5.31
45	53.3%	8.26
39	41%	6.92
<b>140</b>	<b>48.6%</b>	<b>19.74</b>
441	49.4%	72.00

# Partner Organisation Views: Why Use *Linkage* Scheme ?



Worthington Di Marzio Research Pty Ltd, 2006

■ Important ■ Not Important

# Future Fellowships



Australian Government  
Australian Research Council

- **\$844m scheme – 2009-2013 – Can apply twice in the period**
- **200, 4-year fellowships over next 5 years = 1000**
- **Mid-career researchers (5-15 years post-PhD)**
- **Australian and international applicants**
- **Salaries up to \$140K (3 levels) + \$50K pa for infrastructure, equipment, travel & relocation costs directly related to the research**
- **Has selection criteria 'Strategic Alignment' & 'Collaboration'.**
  - **List of Research Strengths submitted by Administering Org.**
  - **Candidates must demonstrate capacity to build collaboration across industry and/or research institutions and/or disciplines.**
- ❖ **Research into Indigenous health and wellbeing a priority**

[http://www.arc.gov.au/ncgp/futurefel/ft\\_fundingrules.htm](http://www.arc.gov.au/ncgp/futurefel/ft_fundingrules.htm)

# SBE & HCA Future Fellowshi (24% of all applications)



Australian Government

Australian Research Council

RFC D	RFCD Description	Number projects	Proportion
28	Information, computing and communication sciences	1	0.4%
31	Architecture, urban environment and building	5	2.1%
32	Medical and health sciences	3	1.3%
33	Education	13	5.6%
34	Economics	20	8.5%
35	Commerce, management, tourism and services	21	9.0%
36	Policy and political science	15	6.4%
37	Studies in human society	33	14.1%
38	Behavioural and cognitive sciences	26	11.1%
39	Law, justice and law enforcement	24	10.3%
40	Journalism, librarianship and curatorial studies	2	0.9%
41	The arts	7	3.0%
42	Language and culture	18	7.7%
43	History and archaeology	28	12.0%
44	Philosophy and religion	18	7.7%
<b>Total</b>		<b>234</b>	<b>100.0%</b>

# Australian Laureate Fellows



Australian Government  
Australian Research Council

- Allocate \$239 million over 5 years
- Up to 15 to be awarded
- Each worth around \$3 million
- Are the most prestigious fellowships (Professor + \$100K) and the top of the career path
- National and international applicants
- Emphasis on research leadership & mentoring
  - Funds for 2 postdoctoral and 2 postgraduate researchers and project funding (up to \$300K). Will work with & mentor
- Success rate combining SBE and HCA has most often been about 20% in recent times

## Funding Rules

[http://www.arc.gov.au/ncgp/laureate/fl\\_fundingrules.htm](http://www.arc.gov.au/ncgp/laureate/fl_fundingrules.htm)

# Discovery Indigenous Researchers Development



Australian Government  
Australian Research Council

- **Applicants**
  - Australian Aboriginal or Torres Strait Islander descent
  - Need not have a PhD
  - Have not been CI on ARC grant or an ARC fellow except for ARF-I
- **Most applications are from *SBE and HCA***
- **Changes in 2009 for 2010**
  - Australian Institute for Aboriginal and Torres Strait Islander Studies (AIATSIS) can apply as an administering organisation (all ARC schemes)
  - **New Fellowship introduced:**
    - *Australian Research Fellows – Indigenous:* for 2 or 3 years
    - More senior, Not developmental
- **May be funded 1 to 3 years from \$10,000/year to \$200,000 or \$400,000 if includes an Australian Research Fellow-Indigenous**

# DIRD Fellowships & Projects



Australian Government

Australian Research Council

## 1. Indigenous Researcher Fellowship (IRF) for:

- Researchers at postdoctoral level ( $\leq 3$  years since PhD) to undertake significant research, who have no prior ARC Fellowship or Chief Investigator role (other than DIRD)
- Awards for 1 or 2 years at 100% or 50% salary

## 2. **New!!** Australian Research Fellowships–Indigenous (ARF-I):

- Established researchers or postdoctoral researchers who have  $\leq 8$  years professional experience since PhD
- Can be CIs or ARC Fellowship holders but not ARF/QElls or APFs in *Discovery* scheme
- Awards for 2 or 3 years at 100% salary

## 3. Other applications are for CIs:

- Who need not hold a PhD - must have a completed postgraduate research degree or equivalent -
- To do projects only or for currently enrolled postgrad research degree students (need supervisor on proposal)

# Currently Ongoing Projects in *DIRD*



Australian Government

Australian Research Council

- 45% in Social, Behavioural & Economic Sciences
- 35% in Humanities & Creative Arts
- 15% in Biological Sciences & Biotechnology
- 5% in Mathematics, Information & Communication

## Project Areas – Indigenous

- Indigenous health,
- Indigenous history,
- Indigenous education,
- Indigenous social issues (eg conflict/violence)

## Success Rate

- **2006 62.5%, 2007 71.4%, 2008 39%, 2009 34.6%**

# ARC Centres of Excellence



Australian Government

Australian Research Council

- ❑ ***2003 Cohort runs out in December 2010***
- ❑ ***Review of ARC Centres of Excellence – 2005 cohort***
  - **Eleven Centres reviewed in 2008 and extended**
- ❑ ***New Groundwater Centre in operation (May 2008)***
- ❑ ***Centres consultation paper***
  - **Soon to be released**
- ❑ ***New ARC Centres of Excellence round for funding commencing July 2010 for 7 years***
  - **Applications expected to open 3<sup>rd</sup> or 4<sup>th</sup> quarter 2009.**
  - **Assessment and selection processes to take place into early 2010 – will be extra competitive.**
  - **In the past, success rate has been <10%.**

# SBE Success Rates for Major RFCD Codes for All Schemes for Submit Years 2004 to 2008



Australian Government  
Australian Research Council

<b>RFCD</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>32 Medical and Health Sciences</b>	<b>43%</b>	<b>24%</b>	<b>32%</b>	<b>38%</b>	<b>32%</b>
<b>33 Education</b>	<b>28%</b>	<b>26%</b>	<b>24%</b>	<b>25%</b>	<b>30%</b>
<b>34 Economics</b>	<b>44%</b>	<b>39%</b>	<b>33%</b>	<b>34%</b>	<b>32%</b>
<b>35 Commerce, Mgt, Tourism &amp; Services</b>	<b>35%</b>	<b>23%</b>	<b>24%</b>	<b>23%</b>	<b>17%</b>
<b>36 Policy &amp; Political Science</b>	<b>31%</b>	<b>30%</b>	<b>21%</b>	<b>19%</b>	<b>25%</b>
<b>37 Studies in Human Society</b>	<b>32%</b>	<b>28%</b>	<b>26%</b>	<b>26%</b>	<b>18%</b>
<b>38 Behavioural &amp; Cognitive Sciences</b>	<b>38%</b>	<b>30%</b>	<b>26%</b>	<b>29%</b>	<b>29%</b>

# All Currently Funded SBE Projects



Australian Government  
Australian Research Council

<b>RFCD</b>	<b>RFCD Description</b>	<b>No. of projects</b>	<b>Proportion</b>
<b>32</b>	<b>Medical and health sciences</b>	<b>152</b>	<b>16%</b>
<b>33</b>	<b>Education</b>	<b>125</b>	<b>13%</b>
<b>34</b>	<b>Economics</b>	<b>119</b>	<b>12%</b>
<b>35</b>	<b>Commerce, management, tourism &amp; services</b>	<b>108</b>	<b>11%</b>
<b>36</b>	<b>Policy and political science</b>	<b>69</b>	<b>7%</b>
<b>37</b>	<b>Studies in human society</b>	<b>121</b>	<b>13%</b>
<b>38</b>	<b>Behavioural and cognitive sciences</b>	<b>227</b>	<b>24%</b>
<b>Other</b>		<b>42</b>	<b>4%</b>
<b>Total</b>		<b>963</b>	<b>100%</b>

# Success rates for HCA projects for submit years 2004 to 2008



Australian Government

Australian Research Council

RFCD	RFCD Description	2004	2005	2006	2007	2008
31	Architecture, urban environment and building	22%	37%	26%	18%	23%
37	Studies in human society	37%	30%	24%	30%	21%
39	Law, justice and law enforcement	35%	35%	29%	28%	32%
40	Journalism, librarianship & curatorial studies	32%	23%	26%	31%	29%
41	The arts	25%	19%	23%	17%	19%
42	Language and culture	32%	21%	17%	22%	16%
43	History and archaeology	44%	28%	31%	26%	26%
44	Philosophy and religion	29%	29%	29%	16%	22%



# Currently funded HCA projects across all schemes



Australian Government  
Australian Research Council

RFCD	RFCD Description	Number projects	Proportion
31	Architecture, urban environment and building	28	4%
37	Studies in human society	72	11%
39	Law, justice and law enforcement	106	16%
40	Journalism, librarianship and curatorial studies	42	6%
41	The arts	64	10%
42	Language and culture	96	15%
43	History and archaeology	164	25%
44	Philosophy and religion	68	10%
Other		12	2%
<b>Total</b>		<b>652</b>	<b>100%</b>



# Writing a Rejoinder



Australian Government

Australian Research Council

## 1. Deal Directly with the Criticisms

- Derive the themes/common points from assessors' comments
- Anything negative, neutral, lukewarm, or middling is a criticism
- Structure the rejoinder by major theme giving assessor numbers
- Directly address each theme and say how you will solve it
- Offer practical solutions – how you will do that
- Give objective evidence or citations to back up what you say or add evidence to solve a problem or overcome a deficiency
- If you already did that issue in the proposal, give exactly where
- Ignore a minor criticism given by one assessor if no space

## 2. Update Your Progress on the Topic Since Submission

- Results of pilot studies; development of measures
- New publications (journal articles) since submission including conference proceedings especially if on topic

**Remember: People who wrote the comments do not read the rejoinder**

# Conclusion: Opportunities



- **Linkage Project** scheme - highest success rates
  - Partners are State & Local Governments, Australian & International Private companies
- **Career opportunities for researchers-Fellowships:**
  - *DIRD, Discovery, Linkage* - PhD scholarships
  - *DIRD Fellows* – early (postdocs) and mid career
  - *Discovery Project Fellows* – early, mid, and later career
  - *Linkage Project Fellows* – early and mid career
  - *Future Fellows* – mid career
  - *Australian Laureate Fellows* – mid and later career
- Early career researchers – sole or with other CIs in *Discovery Projects* scheme
- Indigenous researchers and indigenous research
- International collaboration – *DP & LP Projects, Future Fellows*
- For top groups, new *Centres* round