

THE 2009 BUDGET



RESEARCH



Kim Carr and Penny Sackett, Chief Scientist





We are a strong export nation
and middling research nation.
But both elements matter and
research is more important to
Australian capacity long-term



Disciplines in Jiao Tong top 100, 2008

	PHYSICAL SCIENCES	ENGINEERING	LIFE SCIENCES	MEDICINE	SOCIAL SCIENCES	TOTAL
United States	59	49	62	61	77	308
United Kingdom	9	7	11	12	11	50
Canada	2	6	5	6	7	26
Germany	7	1	6	6	0	20
Japan	7	7	3	2	0	19
Netherlands	1	3	2	5	4	15
Switzerland	3	2	4	2	0	11
Australia	1	3	4	3	1	10
Israel	4	2	2	2	0	10
China	0	9	0	0	1	10
Sweden	2	3	2	2	0	9
France	5	2	1	1	0	9
Belgium	0	2	3	2	1	8
Italy	2	3	0	1	0	6
Denmark	2	1	1	1	1	6
South Korea	1	3	0	0	0	4
Singapore	1	2	0	0	1	4
others	1	2	1	3	1	8



Australian universities in the top 100 discipline groups Jiao Tong 2008

ANU	Physical Science (38), Life Science (40), Social Science (51-76)
Melbourne	Engineering (51-75), Life Science (76-107), Medicine (52-75)
Queensland	Life Science (76-107), Medicine (52-75)
WA	Life Science (47), Medicine (76-107)
Sydney	Engineering (51-75)
New South Wales	Engineering (76-107)



Australia in the research top 250: the Leiden indicators (2003-2007 output)

university	total publications	total publications in terms of citations per publication normalized for field	citations per publication normalized for field
ANU	151	141	120
Melbourne	58	70	154
Queensland	73	88	159
NSW	107	125	163
Sydney	52	72	175
WA	180	193	187
Monash	138	157	192
Adelaide	230	236	214

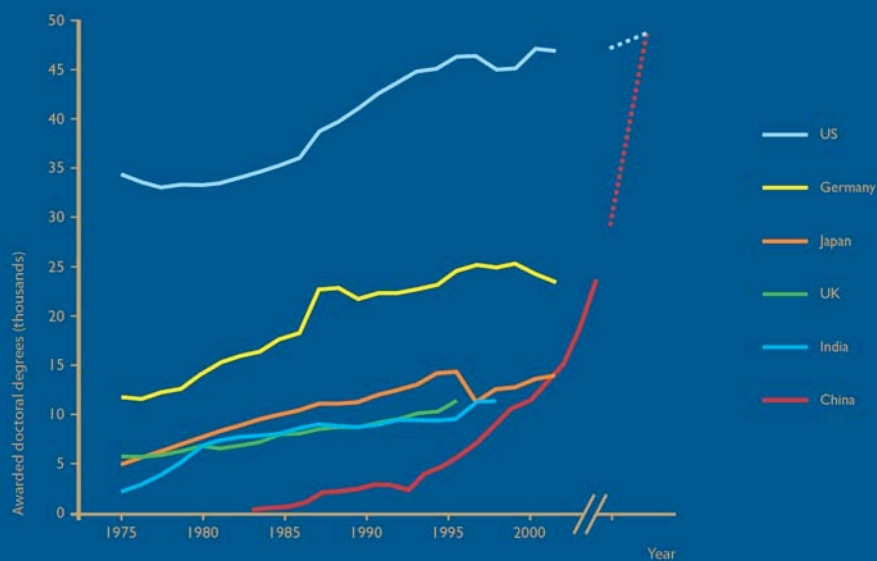


Share of expenditure on Higher Education Research by type of research performed, selected years, Australia (%)

Type of research	1969	1978	1986	1992	1996	2006
Basic	76.7	67.0	63.8	63.6	59.1	49.6
Applied	19.7	27.0	29.7	30.3	34.7	43.3
Experimental development	3.7	6.0	6.5	6.1	6.2	7.1

Source: Australian Bureau of Statistics, Cat. No. 8111

Number of awarded doctoral degrees: US, Germany, Japan, UK, India and China, 1975 to 2005



'Full research funding' will be phased in over six years

- Funding of the indirect costs of government supported research, which are supported through Research Infrastructure Block Grants (RIBGs), will be lifted from 20% in 2009 to 30% in 2011 and over six years will 'approach' 50%. This is costed at \$31 million in 2009-10 rising to \$201 million in 2012-13
- 'In return for extra funding universities will become more accountable and funding will better reflect performance'
- Allen Consulting Group study in train will identify 'scale and nature' of indirect research costs, prepare a definitive list of these costs and develop a draft funding model. Technical Working Group with DVCRs
- The research cost gap at Melbourne is estimated at \$200 million p.a. That money has to come from other sources. The new 'full research funding' will help eventually but will not cover all of this shortfall



The budget and research: larger items

- Super Science initiative, \$209 million in 2009-10. Includes infrastructure grants in space and astronomy, marine and climate, and life science / bio-technology. Also 100 new Super Science Fellowships (rises to 8 million in 2012-13) 'to keep our best young minds on the job in Australia'. Melbourne will share a \$20 million project in urban resource management with partner universities
- Funding for eight selected research infrastructure projects (bid-based) as part of the Education Investment Fund round, including the Centre for Neural Engineering at Melbourne at \$18 million. The EIF Round 2 in research is worth \$160 million in 2009-10
- Commonwealth Commercialisation Institute supporting research commercialisation and early stage company development by SMEs. \$21 million in 2009-10 rising to \$78 million in 2012-13
- No new ARC money. Rumoured cut to the ARC budget just prior to budget was rumoured to have been headed off by ARC. No cuts to rumour-making



The budget and research 3

- Part of Institutional Grants Scheme money, a research performance-based parcel of funds allocated to each institution and the only form of research-specific top up money in the system (c/f UK RAE allocations) will be directed into Joint Research Engagement program designed to support collaborative activities with industry and end users
- Funding for Collaborative Research Networks ('hubs and spokes'): \$10 million in 2010-11, \$21 million in 2012-13
- Excellence in Research (ERA): \$14 million in 2009-10
- Funding for upgrading of AARNet



QUALITY AND STANDARDS



Denise Bradley and Julia Gillard



Bradley's Tertiary Education Quality and Standards Agency (TEQSA)

- Accreditation of new tertiary providers, reaccreditation on a ten year cycle
- Regulation of definition of a university and requirements for sufficient research activity including research in HDR fields [research in three broad fields and all narrow fields where HDR are offered, over time research in all broad fields where coursework degrees are offered]
- Quality assurance arrangements on a five year cycle including evaluation of performance, and of standards and processes for QA of learning outcomes
- 'Carry out quality audits of all providers focused on the institution's academic standards and the processes for setting, monitoring and maintaining them'
- Register and audit providers offering international education under ESOS
- Provide advice to government as required and as TEQSA sees fit



'An increased focus on quality'

- Tertiary Education Quality and Standards Agency (TEQSA) 'will enhance the overall quality' of the higher education system by accrediting providers, evaluating the performance of institutions and programs, encourage best practice, increase national consistency
- Built on 'the strong foundation established by AUQA'
- TEQSA will establish 'objective and comparative benchmarks of quality and performance', and 'collect richer data and monitor performance in areas such as areas student selection, retention and exit standards, and graduate employment'
- 'Will help drive greater interconnection and partnership between the VET and higher education sectors'
- \$10 million in 2009-2010 rising to \$20 million in 2012-13
- TEQSA composition? Leadership? Headquarters? Data gathering capacity?



We're here to help

- 'The Government will ensure that the new arrangements are developed in close consultation with the sector. Disciplinary communities will "own" and take responsibilities for implementing academic standards (working with professional bodies and other stakeholders where appropriate) within the academic traditions of collegiality, peer review, pre-eminence of disciplines and, importantly, academic autonomy'
- 'In 2010 the Government will work with the higher education sector to develop a robust set of performance indicators. The indicators will include measures of success for equity groups as well as measures of the quality of teaching and learning'



TEQSA tasks include

- As part of the development of a new quality assurance framework :
 - 'a set of indicators and instruments to directly assess and compare learning outcomes'
 - 'a set of formal statements of academic standards by discipline along with processes for applying those standards'
- Further progress of Review of the Australian Qualifications Framework
- Possible role in federal/state development of national regulatory arrangements for VET



THE HIGHER EDUCATION BUDGET AS A WHOLE



Kevin Rudd, Julia Gillard, Wayne Swann, Lindsay Tanner



The budget is a feast of deferred gratification

- The Bradley higher education sector with less than half Bradley funding
- Indexation and full cost research funding kick in only slowly
- Budget funding amounts to just 37% of Bradley in 2012-3 once the offsets are taken into account
- No increase in teaching funding rates (Bradley's 10% increase was not funded) means institutions must maintain large international programs to subsidize domestic students, and growth is severely under-funded
- International enrolments will grow in the short term (unless visa numbers are restricted) and then level off as incentives change
- Compacts keep diversity potentials alive but uniform system settings narrow the range of possibilities
- There's not much that helps the research intensive universities to augment their global research role (full cost research funding is standard international practice), e.g. Bradley's proposal for international PhD scholarships was deferred



Half a helping is better than none at all

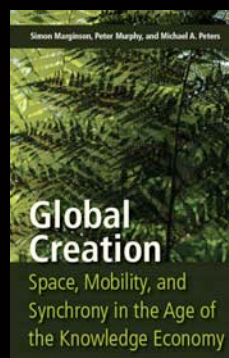
- Surprisingly little progress on VET/Higher Education boundary issues, such as HECS for VET diploma programs which was deferred to forthcoming Tertiary Education Ministerial Council
- Opportunities for institutions in growth of local students [BUT low funding rate], funding for equity programs, collaborative research network funding, structural adjustment funding, regional funding
- There will be more future funding for infrastructure projects from the EIF [in the government's dealing with universities this is the rabbit in the hat, the carrot on a string] but the EF has only \$2.4 billion left ...
- Review of teaching costs is opportunity to boost funding rate but this does not report until 2011
- In the interim, because funding rate is below real cost most growth of local student numbers will be in regionals, some other post-1987s, the private sector, and VET HEd programs



Thank you, and don't forget to have a look at our books on globalization and creativity

http://www.cshe.unimelb.edu.au/people/staff_pages/Marginson/Marginson.html

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