AUSTRALIAN HIGHER EDUCATION RESEARCH POLICY ANALYSIS
Universities Cross-Subsidised Research Activities by up to $2.7 billion in 2008

Universities spent a higher proportion of their outlays on research in 2008 than in 2002 with a declining proportion of the total being funded from identifiable external income sources. For 2008 research expenditure represented 36% of all university outlays with 40% of this expenditure ($2.7 billion) cross-subsidised from non-primary research sources, principally the Commonwealth Grant Scheme and Student Fee Income.

All Australian Universities are seeking to increase their research activities with first the aborted Research Quality Framework (RQF) exercise and then the Excellence in Research for Australia (ERA) exercise being important motivating drivers along with concerns about international rankings. The data published biennially by the Australian Bureau of Statistics (ABS), known as HERD (Higher Education Expenditure on Research and Experimental Development), is the recognised measure of the annual total expenditure by Australian Universities on research and experimental development. The latest data available are for 2008, published in May 2010 (1). Universities also report annually their sources of competitive and other research income in four categories, Australian Competitive Grants, Other Public Sector Research Funding, Industry and Other Funding for Research (including international) and Cooperative Research Centre Funding (2,3). Since 2002 universities have received performance-based Research Block Grant Income (RBGI)\(^1\) using formulae that include components of the Total Research Income (TRI) sourced from non-operating grant funding (4). It is therefore possible to analyse the trends in research funding and expenditure in the period 2002 to 2008 on a consistent basis. The relationship between University Research expenditure and University Total Operating Expenses (UTOE) (5,6) has been also examined. The relevant data are presented in Table 1.

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<th>2002</th>
<th>2008</th>
<th>Increase 2002-08</th>
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<tbody>
<tr>
<td>Total Research Expenditure $m (HERD)</td>
<td>3,430</td>
<td>6,717</td>
<td>3,287 (96%)</td>
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<tr>
<td>Uni Operating Expenditure $m (UTOE)</td>
<td>11,119</td>
<td>18,589</td>
<td>7,470 (67%)</td>
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<tr>
<td>HERD as % UTOE</td>
<td>31%</td>
<td>36%</td>
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<tr>
<td>Total Research Income $m (TRI)</td>
<td>1,270</td>
<td>2,810</td>
<td>1,540 (121%)</td>
</tr>
<tr>
<td>Research Block Grant Income $m (RBGI)</td>
<td>901</td>
<td>1,208</td>
<td>307 (34%)</td>
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<tr>
<td>Total external TRI+RBGI $m</td>
<td>2,171</td>
<td>4,018</td>
<td>1,847 (85%)</td>
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<tr>
<td>TRI+RBGI as % HERD</td>
<td>63%</td>
<td>60%</td>
<td></td>
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<td>Difference HERD-TRI-RBGI $m</td>
<td>1,259</td>
<td>2,699</td>
<td>1,440 (114%)</td>
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<td>Difference as % HERD</td>
<td>37%</td>
<td>40%</td>
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\(^1\) The RBGI include Research Infrastructure Block Grant (RIBG), Institutional Grant Scheme (IGS), Australian Postgraduate Awards (APA), Research Training Scheme (RTS), Regional Performance Scheme (RPS) and Commercialisation Training Scheme (CTS) funding.
In this seven year period the percentage increase in R&D expenditure at 96 per cent was greater than the total operating expenditure increase of universities at 67 per cent. This outcome means that universities spent a higher proportion of their outlays on R&D in 2008 (36%) compared with 2002 (31%). These ABS statistics do not align with the conclusion by Professor Lawrence Cram in a submission to the Base Funding Review (7), recently reported in the Australian Newspaper (8), that expenditure on research output in Australian Universities accounted for 65 per cent of all spending in 2009. He undertook an econometric study and attributed all university expenditure to either education or research outputs. This is an unconventional extreme way of categorising university expenditure. He also notes that the HERD figures provided by universities are likely to be underestimates because academic staff spend on average more than the default 30 per cent of their time attributed to research by most universities. Some teaching and research (T&R) academics do spend more than 30 per cent of their time on research; however, any global figure does need to be moderated by the fact that not all T&R staff are research active. The staff hours Sustainable Research Excellence survey currently in progress should provide more reliable data on this matter. For the purposes of the present analysis, if the HERD figures are an underestimate then the funding gap will be even greater than discussed here.

Externally sourced research income grew very significantly during this seven-year period by 121 per cent, but the infrastructure and scholarship funding provided by the Commonwealth government to support research, as represented by the block grants income, increased by only 34 per cent. This misalignment between direct and indirect support for research clearly underlines the basis for recommendations from both the Bradley (9) and Cutler (10) reports for substantial increases in government infrastructure support, especially linked to Australian Competitive Grants. The Sustainable Research Excellence in Universities Scheme has been designed to partially address this shortfall, but this initiative alone will not be sufficient.

During the 2002-08 period the proportion of university research activities funded from external direct research-related sources declined from 63 per cent to 60 per cent (Table 1, row 7). The contributions to the 2008 $6.7 billion research expenditure are shown in Figure 1.

![Figure 1. Identified and Unidentified Sources of University Research Expenditure for 2008.](chart.png)
From where do universities source the 40 per cent funding shortfall amounting to $2.7 billion in 2008?

An examination of the University finance reports published by DEEWA (6) would indicate that the most likely sources to cover the shortfall are the Commonwealth Grant Scheme (CGS) income, from which an allocation to universities of $3.7 billion was made for 2008, and other income, principally student fees and charges and investment income that for 2008 was of the order of $5.2 billion. One would have expected that the majority of money from these income streams would be directed towards teaching and general maintenance rather than to supporting identifiable research activities. However, to cover the $2.7 billion gap, if evenly distributed, some 30.3 per cent of these income streams would need to be directed to supporting research activities; that is, $1.1 billion from the CGS funds received and $1.6 billion from student fees and charges and investment income. If all of the funding gap was bridged from the CGS income stream then 73 per cent of this allocation would be required.

How do universities expend this additional $2.7 billion?

The HERD figure includes some $0.7 billion of capital expenditure, $2.6 billion for labour costs and $3.4 billion for other recurrent expenditure including scholarships. It is reasonable to assume that the capital expenditure comes from the $2.7 billion. If the balance of $2.0 billion was expended in proportion to the overall HERD non-capital expenditure then universities contributed an additional $885 million to research labour costs and $1.1 billion to research recurrent costs over the $4.0 billion received directly for research purposes. The $885 million corresponds to approximately 25 per cent of all the T&R academic staff costs for 2008.

The overall conclusion from this study is that the cross-subsidies provided by universities to support research and research training activities are substantial and have increased between 2002 and 2008 with the funding gap being up to $2.7 billion. The shortfall is being sourced mainly from the Commonwealth Grant Scheme, Student Fees and Charges and Investment Income. With the pressure being placed on Universities by the Excellence in Research for Australia (ERA) exercise, without additional Government funding for research, it is probable that substantial cross-subsidies to advance research activities will continue and possibly increase for some time to come.

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References


10. Cutler, T., 2008, Venturous Australia – Building Strength in Innovation, 