The indirect costs associated with university research funded through Australian Competitive Grants

Final Report

July 2009

Report to the Department of Innovation, Industry, Science and Research
# Contents

Acknowledgements v
Abbreviations vi
Executive summary vii

<table>
<thead>
<tr>
<th>Chapter 1</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background and context to the study</strong></td>
<td>10</td>
</tr>
<tr>
<td>1.1 Background and context</td>
<td>10</td>
</tr>
<tr>
<td>1.2 Direct versus indirect costs</td>
<td>10</td>
</tr>
<tr>
<td>1.3 Terms of Reference</td>
<td>11</td>
</tr>
<tr>
<td>1.4 Governance of the project</td>
<td>12</td>
</tr>
<tr>
<td>1.5 Structure of the report</td>
<td>13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 2</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International practices in funding the indirect costs associated with research</strong></td>
<td>14</td>
</tr>
<tr>
<td>2.1 International overview</td>
<td>14</td>
</tr>
<tr>
<td>2.2 Key features of the US system</td>
<td>15</td>
</tr>
<tr>
<td>2.3 Strengths and weaknesses of the US system</td>
<td>17</td>
</tr>
<tr>
<td>2.4 Key features of the UK system</td>
<td>18</td>
</tr>
<tr>
<td>2.5 Strengths and weaknesses of the UK system</td>
<td>21</td>
</tr>
<tr>
<td>2.6 Summary of findings</td>
<td>22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 3</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project methodology</strong></td>
<td>25</td>
</tr>
<tr>
<td>3.1 Overall project methodology</td>
<td>25</td>
</tr>
<tr>
<td>3.2 Application of the methodology</td>
<td>26</td>
</tr>
<tr>
<td>3.3 Universities participating in the study</td>
<td>27</td>
</tr>
<tr>
<td>3.4 The cost drivers used in this study</td>
<td>27</td>
</tr>
<tr>
<td>3.5 Indirect cost categories used in this study</td>
<td>30</td>
</tr>
<tr>
<td>3.6 Allocation of expenditure data</td>
<td>32</td>
</tr>
<tr>
<td>3.7 Validation of methodology</td>
<td>33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 4</th>
<th>34</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Survey of ACG researcher activity</strong></td>
<td>34</td>
</tr>
<tr>
<td>4.1 The survey of ACG researcher activity</td>
<td>34</td>
</tr>
<tr>
<td>4.2 Survey results</td>
<td>38</td>
</tr>
</tbody>
</table>

| Chapter 5 | 47 |
### Development of cost drivers and indirect cost rates

5.1 Data collection process 47  
5.2 Development of cost drivers 48  
5.3 Allocation of costs 50  
5.4 Indirect cost rates 52  
5.5 Calculation of cost to revenue 53  
5.6 Validation of the results of the use of FTE drivers 54

### Chapter 6

**Key findings and lessons** 56  
6.1 Benefits of transparent approaches to costing 56  
6.2 Core issues associated with indirect costs 56  
6.3 Cost drivers 58  
6.4 Indirect cost categories 60  
6.5 Implementation of transparent costing 61  
6.6 Next steps 62

### Appendix A

**Bibliography** 63

### Appendix B

**Governance of the project** 69  
B.1 Project Steering Committee 69  
B.2 Technical Working Group 70

### Appendix C

**Survey instructions and supporting material** 71  
C.1 Survey of researcher activity – instructions 71  
Questions 74  
C.2 Conversion spreadsheet 74

### Appendix D

**Australian Competitive Grant Register 2009** 76

### Appendix E

**Non-allowable indirect costs** 80  
E.1 Non-allowable costs for ARC grant funding 80  
E.2 NHMRC Budget Guidelines 82
Acknowledgements

The project team wishes to acknowledge the assistance of the staff and management of Australia’s universities in providing data for this project. We also wish to thank the members of the Project Steering Committee and the Technical Working Group (see Appendix A) for their advice and assistance throughout the project.

In particular, we wish to acknowledge the feedback received from Monash University and the Australian National University during the development of the project methodology, the process of allocating costs and the steps taken in validating the data we received for individual universities. We also wish to acknowledge the advice and support received from The University of Sydney, The University of Adelaide, the University of Wollongong, and the University of South Australia throughout this project. Any errors of fact or method are, of course, our own.

We thank each university that participated in this project for their patience and willingness to work closely with us on a range of complex issues. We especially appreciate their assistance in administering the survey of Australian Competitive Grant researchers at a busy time in the academic year.

Our appreciation also goes to the persons who met with Drs Bell and Wellard during their visits to the United Kingdom and Washington DC and provided valuable insights into the UK and US approaches to the funding of indirect research costs.
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAP</td>
<td>Academic Activity Profiling (UK)</td>
</tr>
<tr>
<td>ACG</td>
<td>Australian Competitive Grant</td>
</tr>
<tr>
<td>ANU</td>
<td>Australian National University</td>
</tr>
<tr>
<td>ARC</td>
<td>Australian Research Council</td>
</tr>
<tr>
<td>ERA</td>
<td>The Excellence in Research for Australia initiative</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>F&amp;A</td>
<td>Facilities and Administration (costs) (US)</td>
</tr>
<tr>
<td>fEC</td>
<td>full Economic Costing (UK)</td>
</tr>
<tr>
<td>FP7</td>
<td>Framework Seven Program (EU)</td>
</tr>
<tr>
<td>FTE</td>
<td>Full Time Equivalent</td>
</tr>
<tr>
<td>HESA</td>
<td>Higher Education Statistical Agency</td>
</tr>
<tr>
<td>HHS</td>
<td>Department of Health and Human Services (US)</td>
</tr>
<tr>
<td>NHMRC</td>
<td>National Health and Medical Research Council</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Cooperation and Development</td>
</tr>
<tr>
<td>OMB</td>
<td>Office of Management and Budget (US)</td>
</tr>
<tr>
<td>ONR</td>
<td>Office of Naval Research (US)</td>
</tr>
<tr>
<td>PGR</td>
<td>Post Graduate Research</td>
</tr>
<tr>
<td>PSC</td>
<td>Project Steering Committee</td>
</tr>
<tr>
<td>QAV</td>
<td>(TRAC) Quality Assurance and Validation (UK)</td>
</tr>
<tr>
<td>RIBG</td>
<td>Research Infrastructure Block Grant</td>
</tr>
<tr>
<td>RMIT</td>
<td>Royal Melbourne Institute of Technology University</td>
</tr>
<tr>
<td>SRE</td>
<td>Sustainable Research Excellence in Universities Program</td>
</tr>
<tr>
<td>TRAC</td>
<td>Transparent Approach to Costing (UK)</td>
</tr>
<tr>
<td>TWG</td>
<td>Technical Working Group</td>
</tr>
</tbody>
</table>
Executive summary

The purpose of this project has been to examine the ‘indirect’ costs associated with university research from Australian Competitive Grant (ACG) funding. This project builds on preliminary work undertaken by the Allen Consulting Group in 2008 that indicated a potential gap between the costs of research and the annual funding universities receive for research. The objective of this work is to provide further empirical evidence of the potential size of the funding shortfall, and to identify a methodology for addressing that gap. Such evidence is necessary to inform future government decision making about the sustainability of the current funding arrangements for university research.

This project has not explored all issues associated with the funding of university research. By focusing explicitly on indirect research costs (such as university overheads), this project has not explored the direct costs of research (such as Chief Investigators salaries, and direct project funding), or the direct and indirect costs associated with research training (see section 1.2 for further clarification about definitions of direct and indirect costs). While also important to the future of Australia’s research capacity, such analysis was outside the formal scope of this project.

Overall approach to the project

This project’s approach has been based on the practices of two countries (the UK and the US) with established procedures for addressing indirect research costs. Other countries that are addressing this issue (e.g. the Netherlands, Finland, Ireland and Austria), are only in the early stages of this process and are therefore of limited interest to Australia at this stage of its development.

The identification of Australian indirect costs and the FTE drivers for allocating a proportion of those costs to ACG research has occurred using the UK and US as a starting point. However, there are some significant differences between Australian, UK and US universities, which have been considered in developing an approach relevant to the Australian context. FTE drivers were explicitly chosen for this project because they are reliable and verifiable measures of activity, they are used extensively in other countries, and are cost effective to develop. Other drivers (such as space) were considered too costly and time consuming to develop for this project.

A significant aspect of the project involved the development and administration of a time allocation survey of ACG researchers in 31 universities. Survey results from 22 universities were used to develop estimates of indirect costs associated with ACG-funded research for the year 2008. These estimates were then expressed as a percentage of the total ACG funds received in 2008 to determine an “ACG indirect cost rate” for clusters of universities, and for the sector as a whole.
Finally, the outcomes of this work were tested against the expectations and existing data sets of participating universities. Consultations with participating universities and case studies highlighting alternative methodologies were important steps in validating the outcomes of this work. We recognise that ongoing refinement of the approach adopted here (such as bi-annual staff surveys) is necessary to ensure accurate reporting and funding of costs over the longer term.

**The indirect costs associated with research from Australian Competitive Grants**

Through the application of this project’s methodology $1.104 billion worth of indirect costs have been identified for the Australian university sector for 2008-09. This figure is reduced by $225.7 million, however, with the introduction of 2008-09 Research Infrastructure Block Grant funding. It is potentially further reduced by 10 per cent, if the time allocated to research training is removed from the costings presented here (see section 5.5 of this report for further detail).

For a selection of Australian universities, this equates to a mean ACG indirect cost rate of 99 per cent of ACG grant funding received for that year. For other universities, this equates to a mean indirect cost rate of between 92.6 and 77.4 per cent of funding for 2008-09. This study has not attempted to provide a detailed explanation of the reasons for this variation between rates, however they are consistent with the UK and US which experience considerable institutional variation in costs.

While these rates are potentially higher than those provided to us for the previous project (of between 60-66 per cent), we believe they are largely reflective of the growth in university costs since 2004 when they were constructed. The rates are also reflective of the increased number of institutions (with higher costs) that participated in this project compared to the last one.

They are also a product of the methodology followed in this project. The total level of indirect costs is likely to reduce with the introduction of allocation guidelines and appropriate auditing and verification procedures. Also international experience suggests that few governments pay institutions indirect costs at rates above 50 per cent, even though actual costs may be significantly higher.

**Key lessons from the project**

This project provides evidence from a large cross-section of Australian universities about the size and nature of indirect costs associated with ACG research. It has also offered the university sector the opportunity to consider a simplified one-size-fits-all approach to indirect costs.

The key lessons to emerge from this process include:

- the existence of a strongly held appetite within the sector for a simplified approach to indirect costing which minimises the overall cost of compliance, and is appropriate for all Australian universities and;

- the extensive use of Full Time Equivalent (FTE) drivers as the basis for allocating costs internationally. However, the need to develop cost drivers that are based on good practice principles (such as mandated response rates) will be important in the implementation of a transparent approach to research funding by the government (see Chapter 6 for further detail);
• the importance of developing indirect cost categories that align with current data collection processes, but provide consistent treatment of items such as property, estate and capital costs, in general university as well as major research facilities; and

• the importance of developing more detailed guidance (equivalent to the US and UK manuals), educating university staff and administrators about the benefits of transparent approaches to addressing indirect costs, and assisting universities to upgrade systems to meet the requirements of a new framework (such as the identification of ACG-related FTEs).
Chapter 1

Background and context to the study

1.1 Background and context

The Commonwealth Government funds university research through block grants, competitive grants programs and contract research. The major sources of competitive research grants are the Australian Research Council (ARC) and the National Health and Medical Research Council (NHMRC). The Government publishes annually a list of Australian Competitive Grants (ACG) – see Appendix D. The amount of ACG grant funding received by a university is used to determine the annual Research Infrastructure Block Grant (RIBG) allocation for that university.

Over the past decade, funding from competitive grants has grown considerably and is now the most significant source of research funding for some Australian universities. However, competitive research grants meet only a proportion of the total costs associated with undertaking that research. This is because competitive grants are limited in what they can pay for, and generally do not make a contribution to many of the services and facilities which are used by researchers to undertake their work – that is, funding regimes do not adequately cover the indirect (or overhead) costs associated with research.

Universities have long expressed concerns about the sustainability of these funding arrangements and about the need for funding reform. In response to these concerns the Department of Innovation, Industry, Science and Research commissioned the Allen Consulting Group to undertake preliminary work on the costs associated with university research in 2008. The results of the work indicated a potential gap between the costs of research and funding (both competitive grants and supporting block grants) of between 30 and 40 per cent, which is being met by other university funds. The work also suggested that approximately a $300 million investment in the Research Infrastructure Block Grant (RIBG) would be one way of addressing this shortfall (Allen Consulting Group 2008).

In 2009, the Department re-engaged the Allen Consulting Group to undertake further analytical work on the indirect costs of university research in 2009. This work builds on the 2008 study and on the approaches of other countries, including the US, UK, Canada and Europe, to assist in the identification and assessment of indirect costs (which exclude the costs of the Chief Investigator).

The results of this work are represented in chapters 2–7 of this report.

1.2 Direct versus indirect costs

For the purposes of this project ACG research costs have been divided into:

- **direct costs** which are directly attributable to a research project; and
- **indirect costs** which institutions incur in supporting research, but which cannot be directly attributed to individual research projects.

As such the direct costs associated with ACG research include:
• salaries and on-costs of researchers involved in a research project – which include, for example, the salary costs associated with Chief Investigators;¹
• project related consumables (such as specialised equipment, chemicals, project specific-licenses/subscriptions). Some of these costs may be covered by ACGs and others may not;
• access to university equipment and services directly charged to ACGs (such as high performance computers and mass spectrometers); and
• other costs specific to the project such as travel to present a conference paper on the research.

By contrast, indirect costs associated with ACG research include:
• electricity, water and gas (utilities);
• the use of common library facilities by the researchers;
• research management and accounting costs;
• cleaning and maintenance of buildings in which the research is conducted;
• information technology and computing services, systems, software and infrastructure; and
• any other cost incurred by a university which indirectly supports research.

It is recognised in this report some costs can be classified as direct or indirect costs, and therefore assumptions are necessary to ensure consistent treatment across universities. For example, a cost that can be directly tied or attributed to research activity (such as the salary and on-costs of a ACG funded research technician) is a direct cost. In this circumstance, the direct salary related costs of the technician (usually determined by the level of grant funding) should be extracted from any calculation of indirect costs.²

In other circumstances, research projects may use small amounts of university technical staff time in undertaking particular aspects of a project. In these cases, the salary and on-cost component of technical staff should be classified as indirect costs, and included in a university’s indirect cost rate.

1.3 Terms of Reference

The Allen Consulting Group were required by the Department of Innovation, Industry, Science and Research under the Terms of Reference for the project to:

• identify the scale and nature of the indirect costs associated with university research in Australia and the method by which individual universities are meeting these costs;
• prepare a list of the indirect costs associated with university research;

¹ While every attempt has been made to exclude the costs associated with fellowship holders, for example, in this project, it is recognised that some minor costs may have been included in the final analysis. Ideally, such costs would be excluded from any indirect cost framework that was introduced in Australia.
² It is recognised that while the unfunded direct costs associated with ACG research (such as the unfunded salary costs of Chief Investigators) have not been considered in this project, they may form part of a future framework for calculating indirect costs.
• undertake an extensive literature review on indirect costs categories, accounting practices in international universities and the costs incurred in these countries in determining indirect costs;

• prepare an indicative costing of the composite model (that was outlined in the Allen Consulting Group’s 2008 report) for funding the indirect costs associated with university research; and

• identify the drivers, benefits and obstacles in implementing a funding regime which fully meets the indirect costs associated with university research.

To achieve these outcomes, this study has taken into account (or considered):

• the financial circumstances of the respective institutions, including their location;

• institutional practices with regard to meeting the indirect costs of university research and how these costs are currently being addressed;

• the range of research disciplines;

• all of the direct costs involved in research; and

• the associated indirect costs of administrative and capital overheads.

1.4 Governance of the project

A Project Steering Committee (PSC) oversaw the direction of the project. The PSC ratified the project’s Terms of Reference, provided strategic advice and considered the final conclusions of the work. A list of committee members is presented in Appendix B.

The terms of reference for the PSC were to:

• ratify the Terms of Reference for the project;

• assist the Allen Consulting Group during the course of the project in obtaining data;

• provide oversight of both the project and delivery of the final report;

• provide advice prior to the beginning of the project on:
  – emerging issues and sensitivities;
  – project methodology;
  – data availability;
  – relationships relevant to the project;
  – project deliverables

• receive input from the Technical Working Group (TWG), as required; and

• assist with the drafting of the final report.
A TWG also assisted the Allen Consulting Group team throughout the course of the project. The TWG provided technical assistance in developing the project methodology – in particular, the use of activity based costing, university accounting systems and cost allocation methods – and in evaluating the outcomes of the project. The group also reported to the main Steering Committee on major decisions. A list of working group members is presented in Appendix B.

The terms of reference for the TWG were to:

- convene as required;
- report to the Chair of the PSC;
- provide expert advice to the Allen Consulting Group and the PSC on:
  - the appropriate use of university data;
  - university business models, and accounting and reporting systems;
  - activity and project based costing and attribution methods;
- provide input into the development of a costing spreadsheet for university data and associated questionnaire;
- assist with the development of a definitive list of indirect research costs for the sector and the process for measuring them.

### 1.5 Structure of the report

The remaining chapters of this report are structured along the following lines:

- **Chapter 2** reviews practices in the UK and the US in relation to the indirect costs of research. It draws on these countries to ascertain the key practices or elements of each system that will inform the development and implementation of a funding model appropriate to the Australian context.

- **Chapter 3** discusses the overall methodology used in this project to first identify and second allocate costs to ACG funded research. The chapter also discusses how the participating universities provided data to this project, as well as the steps taken to ensure the confidentiality of each institution’s data.

- **Chapter 4** considers the results of the staff survey that was undertaken for this project. It provides a high level summary of all survey results, as well as a discussion of group-based results.

- **Chapter 5** analyses the results of individual universities that have allocated indirect costs on the basis of survey-related Full Time Equivalent (FTE) drivers. This chapter presents the results for all participating universities, as well as an ACG research intensity group basis. It also models the future costs to government of an indirect costing regime. The chapter does this by allocating those universities that were unable to participate in the project, an indirect cost rate that is based on group ratios.

- **Chapter 6** provides a summary of the key findings of the project, and highlights the main lessons learnt through the application of the project’s methodology.
Chapter 2

International practices in funding the indirect costs associated with research

The previous work undertaken by the Allen Consulting Group (2008) provided an extensive overview of international practices in funding indirect research costs. The intention of this Chapter is not to replicate that work, but to build on it where relevant to the present project.

This chapter has also been informed by discussions (in late March and early April 2009) in the UK and US. Meetings conducted with a wide range of stakeholders, including university accounting staff, senior university planning and management staff, the Higher Education Funding and Research Councils, as well as staff from Universities UK and the Russell Group, have been used to assess the strengths and weakness of the UK system. These meetings also included visits to four UK universities and the secretariats of both the UK TRAC and Quality Assurance Validation (QAV) Reviews (see below).

Discussions were also conducted in Washington DC, with the Department of Health and Human Services (HHS), the Office of Naval Research (ONR) and the Council on Governmental Relations. The discussions focused on technical issues and procedures for negotiation of indirect cost agreements with universities.

2.1 International overview

Indirect costs associated with research have been addressed in the US since 1949 and in the UK since the year 2000. As a result, both of these countries have considerable experience in this area and it is logical to examine their experiences.

Like Australia, both the US and UK have experienced growth in research funding from competitive sources relative to other funding such as infrastructure block grants. This has placed financial strains on universities, resulting in under-investment in maintenance of buildings and equipment. This has led to concerns, especially in the UK, about the sustainability of universities.

In Europe, the rules of the European Union (EU) Framework Program 7 (FP7) provide for the reimbursement of some indirect costs. Universities can apply for a flat rate set at 60 per cent of project costs. This has increased interest in addressing these costs in European countries. Countries including the Netherlands, Austria, Sweden and Ireland are all moving to address indirect costs of research, through the adoption of key initiatives and common approaches.

In the Netherlands, universities agreed in January 2007 to develop a system of calculating their costs, which came into operation in January 2008. The primary cost driver used in the Netherlands is academic staff effort (hours per FTE). Secondary cost drivers include:

- time spent by support staff (FTE);
- use of space (square metre charge rates for high, medium and low cost space);
- ICT facilities (e.g. the number of workstations supported by a network);
• administrative support (various measures based on activities);
• use of university library (academic staff FTE);
• student support and facilities (e.g. the number of students accessing support);
• use of dedicated research facilities (per cent of time used by academic research staff and students); and
• weekly time sheets are in general use for all university staff.

In Ireland, the Irish Universities Association and the Higher Education Authority are currently working on a joint project to develop a full cost system. The first phase of the project involved the scoping of the UK’s fEC model to assess the feasibility of applying it across the sector. The outputs of this phase were an agreed conceptual framework for a fEC system for Irish universities, and an implementation plan for the second phase of the project.

The second phase is well advanced, with the establishment of a National Steering Group and the appointment of an fEC manager in each university. The universities have been working together to resolve details of the new system. One of the key elements of the fEC system centres on Academic Activity Profiling (AAP), a process for capturing the proportion of academic time spent across the range of university activities. A common methodology for the collection of AAP was agreed for the purposes of a pilot study covering the period January to April 2009 (Irish Universities Association 2008). Ireland is arguably at a similar stage to Australia in the development of an approach to addressing indirect costs.

Information on developments in other European countries can be found in a report of the European University Association (2008), and in our previous work (Allen Consulting Group 2008), which also covers Canada.

2.2 Key features of the US system

The US approach to indirect costs is set out in the Office of Management and Budget (OMB) Circular A-21. This circular establishes the principles for determining costs applicable to grants, contracts and other agreements with educational institutions. “The principles are designed to provide that the Federal Government bear its fair share of total costs” (emphasis added) (OMB 2009). Allowable indirect costs (referred to as Facilities and Administration (F&A) costs) are defined in some detail. Congress has imposed a cap on the Administration component of F&A costs (limiting them to 26 per cent of total F&A costs). Other caps have been legislated for some grant programs.

In the US, direct costs must be “allowable, allocatable and reasonable”. Direct costs generally include a contribution to the salaries of Chief Investigators (CIs), because most universities only pay their academics for a proportion of the calendar year (typically nine months). Further, in the US, federal and state governments do not generally provide funding for academic salaries – these are paid from tuition fees.

3 The results of this study have not been publicly released.
The extent to which Federal agencies meet indirect research costs is determined through a system of Federally Negotiated Indirect Cost Rate Agreements that operate on a three-to-four year cycle. The Office of Naval Research (ONR) and the Department of Health and Human Services (HHS) hold the primary responsibility for negotiating these agreements which result in fixed F&A rates for individual universities (usually for a four year period).

In the US, indirect costs are defined as those incurred for common or joint objectives and therefore not readily identified with any individual grant or research contract. They include depreciation and use allowances for facilities, operational and maintenance costs, administration costs at both departmental and other levels (mainly salaries and on-costs) and library expenses. Some activities are specifically excluded (e.g. lobbying and entertainment).

Depreciation and use allowances are used to compensate institutions for the use of their buildings and equipment. These are calculated from acquisition cost, not including the cost of land and excluding any federal government contribution. Rules define inventory documentation, the determination of useful life and the inclusion of fixtures and fittings. The straight line depreciation must be used. A 6.66 per cent use allowance applies to equipment that is attached to the building but not permanently fixed to it (e.g. laboratory benches).

The allocation of space to research, teaching, and other activities, through a space survey, is a component in the determination of indirect cost rates. The HHS Manual devotes twelve pages to defining how space surveys should be conducted, how space is allocated (particularly shared space), and sets out procedures for verification of this allocation during a site visit by Division of Cost Allocation staff. Alternative approaches, based on the wages and salaries, or FTEs, of staff and students occupying the space is also defined.

The responsibility of documenting and justifying indirect costs rests with the university. While a detailed guidance manual is provided to universities in order to prepare their case, they often use external consultants to help prepare their case for negotiation (US DHSS 2006).

Universities are given some guidance on cost drivers. Commonly used cost drivers are based on the proportion of academic staff effort devoted to research (expressed in FTEs), the proportion of building space used for research, surveys of users of facilities such as libraries to determine whether their use relates to research or teaching, and “footfall” (counts of people passing a designated point).

Once the university has completed the case, documentation is submitted to ONR or HHS (as appropriate) for consideration and analysis. Face-to-face meetings then take place between university management and the funding bodies. These negotiations can take up to a week to complete, before a final rate is set that applies to all federally funded research grant applications.
Agreements can provide a separate indirect cost rate for activities that take place off-campus. In some circumstances, high cost faculties (e.g. medical research schools) receive a higher rate than might be set for the rest of the university. Simplified arrangements are available for smaller universities with federal grants less than a threshold figure. Indirect cost rates are expressed as a percentage of grant funding that is allocated to universities. Most universities are subject to annual audits of their grant expenditure (see OMB Circular A-133). This results in additional compliance costs. Breaches of the rules can result in penalties.

Consultations undertaken for this project suggest that universities are concerned with the growing costs of complying with federal legislation and are therefore seeking to lift the cap on administration costs. Universities argue that since this cap was legislated, Congress has passed legislation in areas such as animal welfare, ethics and biosecurity, which has increased their administration costs.

It has not been possible to obtain reliable US data on the costs incurred in the preparation of indirect cost documentation or in compliance with audit and other requirements. The cost of preparing the case for cost negotiations depends on such matters as the extent to which universities maintain up-to-date information on the allocation of space in buildings. It is understood that the preparation of a case for cost negotiations can take up to six months and involve several hundred thousand dollars in consultant fees, in addition to university staff time.

2.3  Strengths and weaknesses of the US system

The US approach is now well established. Problems were identified in the 1990s but these have been addressed. Methodologies for allocating costs are now well established and accepted by universities. Specialist consultants are available to help universities establish a robust case. The indirect cost negotiation processes are now well known to university staff and management.

US agencies are satisfied that cost drivers based on staff time keeping surveys, allocation of space in buildings and other measures are satisfactory ways of allocating various indirect costs. While the allocation of space appears to be a point of contention in some indirect cost rate negotiations, there appears to be little criticism of these proxies or their application. The four-year interval between negotiations can result in a loss of continuity of expertise in university management teams. These infrequent revisions reduce the transaction costs to some extent, but make it hard for university staff to maintain relevant and up-to-date expertise. On the other hand, indirect cost rates in the US appear to change only slowly over time, to ensure that universities do not face any undue hardship as a result of the four-yearly rate setting process.

Except for some particularly high cost faculties, such as the Harvard Medical School, the US system does not set different indirect cost rates for the various disciplines, even though these are generally considered to vary significantly. Instead, it is the responsibility of the universities to ensure an appropriate flow on of support to faculties with different cost structures.

The US system is large, so having two main negotiating agencies does not appear to be an issue. Coordination between HHS and ONR ensures that negotiated outcomes are similar. There is very little evidence of universities seeking to switch between these two agencies.
The cap on the administrative component of F&A costs was justified on the grounds that inefficient university management should not be rewarded. However US experience shows that, once in place, such measures are not easily amended even when there are arguments for doing so. The Council on Governmental Relations makes the point that the administration costs are an overhead on all university activities, not just competitive grants. The Council’s view is:

“In practice, more overhead costs are distributed to instruction and other functions than are distributed to research. As a result, universities have a powerful incentive to control these costs, because most of them are borne by the universities, not by federal sponsors.”

Council on Governmental Relations (undated)

The US practice of requiring each funding agency to pay indirect costs on its grants ensures that these costs are met by the relevant funding agency. However, attaching indirect costs in this way can be taken to imply that the funds ‘belong’ to the grant recipient, when they are not intended to cover project costs. The RIBG approach, under which funds to meet indirect costs are handled separately from grant funds, helps to avoid this problem.

In the context of this project, the major concern about the US approach is its costs in terms of university management and faculty time, consultants, as well as costs incurred by the two negotiating agencies and granting agency auditors.

2.4 Key features of the UK system

Following the “Transparency Review” in 1989, the UK introduced the Transparent Approach to Costing (TRAC) system to help in both the identification and funding of unfunded activities. Initially, this system focused on the activities associated with the research functions of universities — TRAC(R). However it was soon recognised that this gave an incomplete view of the way in which university resources were being used, and TRAC(T) was introduced to cover the teaching component and provide a holistic view of university costs. In 2005, the UK approach was further broadened with the introduction of a full Economic Costing (fEC) system of funding.

The TRAC and fEC approaches to indirect costs

TRAC is designed to ensure ‘sustainability’ of the UK’s higher education sector, by employing the “principles of activity based costing in a way that is appropriate to the complex activities and culture of a higher education institution”. It does this through a set of processes that ensure institutions understand their full economic costs and invest in university infrastructure (physical, human and intellectual) at a rate that is adequate to maintain future productive capacity and other requirements (TRAC Manual, Overview).

The main objectives of TRAC are to:

• meet the requirement for accountability, particularly for the use of public funds, when the institutional portfolio includes a complex mix of activities;

• provide consistent and robust information about the cost of activities to assist institutional planning and management;

• provide a basis for the pricing of activities, particularly those that are publicly funded; and
• provide at both the institutional and the national level an appropriate and comprehensive cost model for future investment in the university sector (TRAC Manual).

Annual TRAC reports of individual institutions are provided in January of each year. These reports represent a retrospective attribution and reporting of costs based on audited financial statements of the previous financial year. Institutions report the costs of Teaching (split into publicly-funded and non-publicly-funded), Research (similarly split), and ‘Other’, which includes consulting and other activities that cannot be readily classified as research or teaching.

The annual TRAC process provides management information for universities, including results by department, and costs per student. It also provides the data that is used to calculate the indirect cost rate of each university. In the UK, indirect costs are included in the calculation of charge-out rates for academic staff. These are then used when costing research and other projects on an fEC basis.

Box 2.1
COST CATEGORIES FOR UK RESEARCH

In the UK, research costs can be categorised as:

- **Directly Incurred** costs are those costs that would not have been incurred if a research project or activity had not taken place (e.g. research assistants, travel and subsistence, other consumables, and support time).

- **Directly Allocated** costs are those that cannot be attributed to an individual project, but may arise from a number of projects (e.g. investigator's time, laboratory technicians, and major facilities).

- **Apportioned** or indirect costs are those shared costs which are necessary to support the research function of a university (e.g. academic support time, non-staff costs in central services, estate costs relating to central services).

Source: TRAC Manual 2009

In the UK, apportioned costs are expressed as a £ per full time equivalent (FTE) academic/research staff rate, with separate rates for laboratory and non-laboratory-based disciplines.

Under TRAC FEC, universities calculate the full economic costs of each research project, on a consistent and comprehensive basis. These costs provide the basis for determining grant funding by the UK Research Councils. They are also used to influence the price for research funded by other Government Departments and external sponsors.

The UK definition of research is relevant to determining what is included in indirect costs (see Box 2.2).
Indirect costs are allocated to teaching and research using proxies (referred to as cost drivers). The most common cost driver is academic staff effort on research as a percentage of total time available. For this purpose, TRAC assumes that there are 1065 hours in an academic staff year (e.g. there are 220 standard working days in a year and 7.5 hours in a working day). To obtain this information, universities undertake time allocation surveys. There has been some flexibility in how these surveys are undertaken, and this could change following recent reviews (Research Councils UK 2009). The surveys seek data on time spent on:

- Teaching – which includes reporting time spent on publicly and non-publicly funded teaching;
- Research – which includes reporting time spent on Institution, Research Council, other government, industry, EU funded research;
- Other – which includes time spent on clinical services, and consultancy services; and
- Support – which includes time spent on activities that support the teaching, research and other functions of universities.

The allocation of space in buildings to research and teaching is another cost driver. As in the US, this requires surveys and records of use and allocation of shared space between teaching, research and other functions. Measuring and attributing space can involve significant time and cost.

TRAC’s compliance costs are difficult to estimate, and the information is not publicly available. When TRAC was being introduced, universities were able to obtain financial assistance from the government to meet the costs of implementation. The TRAC Manual suggests that ongoing costs for universities are in the range £100,000 – £300,000. However universities dispute these estimates. Most major university departments appear to need a TRAC officer, and university central administrations also need additional staff.
The view of UK Government authorities, shared by a number of university administrators, is that the benefits of TRAC significantly outweigh the costs of administering the system. The introduction of TRAC has resulted in significant additional research funding for universities in the UK – one estimate puts additional funding at £1 billion per annum (Research Councils UK 2009; Research Councils UK and Universities UK 2009).

Catch-up funding has been provided to address maintenance backlogs. This funding was initially provided through the Science Research Investment Fund and now through a new capital Investment Fund.

However the UK Research Councils are currently paying only 80 per cent of fEC on new grants. The 2007-08 UK data for recovery of full economic costs of research is reported in Table 2.1. The Review notes that, when Capital Investment Fund assistance to Research Council-funded projects is taken into account, universities in the UK are receiving around 90 per cent fEC.

<table>
<thead>
<tr>
<th>Source of funds</th>
<th>Percentage of fEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Councils</td>
<td>70.6</td>
</tr>
<tr>
<td>Other UK Government agencies</td>
<td>75.0</td>
</tr>
<tr>
<td>EU</td>
<td>57.8</td>
</tr>
<tr>
<td>UK Charities</td>
<td>60.4</td>
</tr>
<tr>
<td>Industry</td>
<td>74.9</td>
</tr>
</tbody>
</table>

Source: TRAC Review.

2.5 Strengths and weaknesses of the UK system

The recent TRAC and Quality Assurance and Validation (QAV) Reviews (2009) show that, while much progress has been made towards addressing the indirect costs of research in the UK, some issues remain. The TRAC manual is complex and not easy to follow. It has evolved as issues have arisen over the costing of technicians and major shared research facilities.

Unlike the US system, TRAC provides a basis for annual updates of indirect costs. There is no element of negotiation in the calculation of these costs in the UK, although there appears to be some scrutiny of outliers.

TRAC Peer Review Groups compare TRAC practices and procedures and exchange views about good practice. These Peer Groups are based on the proportion of total income derived from research. Group A is the Russell Group plus two specialist medical schools, and Group B comprises other Higher Education Institutions with research income exceeding 22 per cent of total income. For Group C the income range is 8-22 per cent, and for Group D 5-8 per cent. Consultations reveal that knowledge sharing among similar institutions has assisted in the adoption of best practice approaches which build on the minimum requirements of the TRAC Manual.
TRAC definitions and reporting requirements that are different to those used by the Higher Education Statistical Agency (HESA) have made university compliance more difficult than it needs to be.

The recent Review of TRAC has reached conclusions and made recommendations that provide some insights into the aspects that require further development. The Review’s overarching conclusion is that almost all measures of Higher Education Institutions’ sustainability have significantly improved during the current decade. fEC is seen as the major source of this improvement.

Other conclusions of the Review include strengthening governance of sustainability throughout the sector, improving the methodology used for collection of TRAC statistics and publishing annual averages for TRAC Peer Groups. Some problem areas including supervision of postgraduate students, how technician time is accounted for, and depreciation of equipment, need to be addressed.

The Review also recommends that top-up funding provided in relation to grants from charities should be increased. About half of the UK’s universities are accounting separately for the operating costs of central major facilities. How these costs are best taken into account appears to be a continuing source of debate. These are areas that will also be problematic for Australia.

Surprisingly, the TRAC Review states that, while the TRAC system is useful in monitoring and recording costs, it does not contain any obvious efficiency drivers. This is not consistent with views expressed to the Allen Consulting Group in discussions with some UK universities. The Review suggests that publishing indirect and estate costs of institutions would encourage “comparative competition”.

2.6 Summary of findings

There is a growing trend among Organisation for Economic Cooperation and Development (OECD) countries to address the indirect costs of research. This appears to be largely driven by the increasing share of competitively-funded research as a component of university research funding. Both the US and the UK have developed systems to address indirect research costs. These systems differ in a number of ways. However many of the basic principles, and the cost drivers are common to both approaches. Both the US and UK models have elements that can be usefully applied in Australia.

Neither the US nor the UK has adopted activity-based costing in its purest form. However the principles of activity-based costing are being applied and the evidence suggests that this leads to more rational allocation of space and a more balanced approach to government funding of universities.

Transparent costing in universities needs to be designed from the outset to meet the management needs of the universities, as well as providing data for the determination of indirect research costs. Establishing costing systems solely for the purpose of paying indirect costs on competitive research grants is not likely to provide accurate, useful data to inform sustainable university management. The UK experience shows that it is also likely to result in over-estimating of research effort.
Academic staff time allocation surveys are the major means of allocating costs between different categories of university activity. The UK is being forced into full timekeeping for staff on EU FP7 projects. Some Netherlands’ universities already have full timekeeping. The recent TRAC and QAV Reviews show that some time allocation surveys in the UK do not meet good practice standards. To some extent, this is a function of the climate prevailing when TRAC was introduced. Australia should learn from the UK experience and mandate good practice standards in time allocation surveys.

The key to acceptance of frameworks in the UK, Canada, the US and elsewhere has been the provision of significant additional funding to cover indirect costs. This is the *quid pro quo* for what have been difficult and costly efforts to measure indirect costs. The announcement in the 2009 Budget of the new Sustainable Research Excellence in Universities (SRE) program with an allocation of $512 million over the next four years, should ensure acceptance of requirements to track indirect costs in Australia. In the UK, universities have also been provided with some financial assistance to adapt their accounting systems for TRAC. Similar assistance could be provided in Australia.

In any system that uses proxies to allocate costs, there will be a trade off between precision and the costs of keeping track of expenditure. The more precise the tracking, the greater the compliance costs. There is some merit in starting with an indirect cost regime that is as simple as possible.

In both the UK and the US, national authorities and university administrators have found communication with staff to be an important factor in building a greater understanding of indirect research costs. In the UK, universities often have a TRAC “champion” and a committee that provides advice on issues arising from TRAC. Explaining the benefits of tracking indirect costs to university staff has been an important factor in achieving acceptance and compliance.

The UK experience suggests that the government should establish a small expert advisory committee to provide advice on arrangements for handling indirect research costs and on achieving consistency across the higher education sector. This is likely to ensure ownership by the higher education sector and acceptance of future adjustments that may need to be made. In addition, arrangements for meeting indirect costs should be reviewed every four years. This is desirable to ensure that any unintended consequences of the framework are addressed.

The TRAC manual and OMB Circular A-21 are lengthy, complex and have been the subject of several rounds of significant amendments. Australia needs carefully drafted guidelines from the start of any new indirect cost funding arrangements to ensure consistency in what costs are included, and in the calculation of these costs.

Australia needs to avoid the problems associated with having definitions and reporting requirements that are different to those of other government agencies. This can be achieved in part by requiring supporting data for indirect cost calculations to be reported as part of the Higher Education research data data collection.
Some areas of indirect costs are still under discussion in the UK. One of the more significant areas is the cost of capital and how this should be taken into account. The TRAC Review indicates that further work on this is required. Including interest or lease payments on buildings in which research is conducted, without also taking the cost of capital into account, could distort decision making on how university buildings are financed.

In the US, buildings directly funded by the federal government cannot be included in determination of depreciation costs. However in Australia, adopting this approach could treat universities unfairly, especially when it could be argued that the Australian Government make some contribution to most university buildings. Given the complexity of these issues, the best solution for the moment may be to leave the resolution of some difficult indirect cost issues to a later date.
Chapter 3

Project methodology

This chapter provides an overview of the methodology used in this project to firstly develop an Australian specific list of allowable indirect costs and to secondly discuss the basis for allocating indirect costs associated with ACGs. The chapter also outlines the main processes for assessing the future costs to government of implementing an indirect cost framework.

3.1 Overall project methodology

Our approach to this project has been to start with a review of the accounting practices of the two countries (the UK and the US) that have established procedures for addressing the indirect costs of research. As noted in the previous Chapter, other countries that are addressing this issue (e.g. the Netherlands, Finland, Ireland and Austria), are only in the early stages of this process and are therefore of limited interest to Australia at this stage of its development.

The identification of those university costs that should be taken into account in determining the indirect costs of university research in Australia has occurred using the UK and US lists as a starting point. However, there are some significant differences between Australian, UK and US universities, which have been considered in preparing an Australian list.

Cost drivers used in this project have been based on internationally accepted methodologies. Cost drivers based on overall academic staff effort on ACGs as a fraction of total academic staff effort, measured in Full Time Equivalent (FTE) units, are the primary methods for allocating costs. However, additional cost drivers have also been used to determine indirect costs.

A time allocation survey of academic staff involved in ACG-funded research in 31 universities has been used to obtain FTE data for the cost driver referred to above. Participating universities have used survey results to develop estimates of indirect costs associated with their ACG-funded research for the year 2008. One result is that indirect costs can be expressed as a percentage of the total ACG funds received by the participating universities in 2008. These percentages are referred to as “indirect cost rates” throughout the report.

Levels of ACG funding provide a measure of research intensity for individual universities. Using this information and the indirect cost rates for universities participating in the staff survey, all Australian universities have been classified into one of four indirect cost rate groups. For those universities that did not participate in the survey, they have received a mean indirect cost rate for the relevant group. This has enabled the calculation of what the total cost to revenue for calendar year 2008 would have been, had the universities received full payment for their indirect costs based on this approach.

Finally we have developed a composite model for funding indirect costs of university research and have discussed the benefits and obstacles to implementing a funding regime that can fully address indirect costs of university research.
3.2 Application of the methodology

The methodology used in this project has been informed by the international experience outlined in Chapter 2. Figure 3.1 outlines how the main aspects of the data collection process are used to understand the indirect costs of university research.

The key steps in the process include:

1. The administration of a survey of ACG research activity, which asks university staff to nominate the percentage of their time spent on research, teaching or other activities. The survey results enable the proportion of indirect costs associated with each activity to be assessed.

2. The conduct of further analysis, through case studies, interviews with university administrators and the use of institutional financial statements, to calculate the total indirect costs expended on all university activities.

3. A comparison between the revenues received for research and the indirect costs associated with an institution’s research activity.

A comparison of the data collected through steps 1 to 3 with the research funding received from Government sources, is then used to quantify the future cost to revenue of an indirect cost regime.
3.3 Universities participating in the study

This study draws empirical survey data of ACG researcher activity from 31 universities, which equates to 84 per cent of Australia’s public universities and approximately 75 per cent of the entire Australian university sector. These universities represent a broad cross-spectrum of institutional diversity (single and multi-campus universities), geographic spread (all states and territories), and research intensity (from research intensive to research active). In addition, a full range of disciplinary diversity and specialisation is represented — the sciences, engineering, medicine, technology, the arts, humanities, and social sciences.

The method of categorising and de-identifying universities can be found in section 4.1 of this report.

Survey population

This project has surveyed only a proportion of the total academic population that are currently ‘grant active’ on ACG funded research. The survey population was chosen because of its direct linkages with the indirect costs associated with ACG-funded research activity. This targeted approach also ensured a satisfactory response rate from current ACG grant holders across a wide range of disciplines in participating institutions.

While the survey results are important for this particular project, they are not indicative of total academic activity devoted to teaching in Australia. This is primarily because the survey population chosen for this report is, by its very nature, biased towards ACG-funded research activities rather than teaching. Moreover, the survey captured percentages of the effort rather than actual hours. The percentage effort on teaching is not indicative of the actual hours involved because the staff surveyed are likely to have worked long hours during the weeks of the survey.

While a survey of all academic staff activity and actual hours of effort would have yielded different results, it would also have constituted a significant impost on institutions and the Australian academic sector. Larger institutions and particularly the Group of Eight universities were unwilling to participate in such a survey.

3.4 The cost drivers used in this study

In order to attribute an appropriate share of indirect costs to ACG-funded research projects, it is necessary to find some basis for allocating costs between the three major functions of universities (research, teaching and other). There are two common approaches used in the UK and US. The first is based on the relative amounts of time that academic researchers spend on each of these activities. The second is based on the actual use of space in buildings. Other approaches use factors that take the actual salaries of individual staff members or the median salary of their classification into account. These are all acceptable methods that will need to be considered for implementation in the Australian context.

Full Time Equivalent drivers

Records of time spent on teaching, research and other university activities inform the method for allocating indirect costs on the basis of academic activity. This is often done for periods of three weeks each year, where academics are asked to keep an accurate diary of activities.
The percentages of this time period involved in research are expressed as fractions of FTEs and summed across the university. This sum is then expressed as a fraction of all academic staff FTEs. Thus staff at one university may spend, on average, 52 per cent of their time teaching, 38 percent on research and 10 per cent on other university activities. The percentage of time spent on research is then applied to indirect costs (such as cleaning, maintenance, and electricity) to give cost contributions for each of these services. In this example, the 38 per cent might comprise 28 per cent on ACG-funded research and 10 per cent on other research. This project is focusing on a subset of indirect costs – those associated with ACG-funded research.

**Survey of ACG researcher activity**

A survey of ACG research activity provided a basis for developing an FTE driver that could be used to allocate certain costs to agreed cost categories/pools. A survey of activity was chosen on the basis of international experience and the need to develop an instrument for collecting data on a robust, reliable and comparable basis. The survey used for this study was designed on the basis of:

- simplicity – to ensure minimum interruption to survey respondents and a maximum response rate;
- full activity – lessons from the UK experience suggest it is important to capture 100 per cent of a researchers activity before allocating indirect costs. Evidence to suggest that failure to account for all activity will result in a bias towards research; and
- practicality/proven track record – the survey used in this study was modelled on two UK surveys, then road tested with three Australian universities to ensure its relevance to local conditions.

Respondents were asked to allocate their time over a two-week period (an undergraduate teaching week and a non-teaching week), as well as estimate their main activities for the calendar year 2008. Respondents were asked to allocate their time on the basis of six categories, which included:

- **teaching (including associated administration)** – e.g. preparing and presenting lectures/tutorials, grading undergraduate and postgraduate coursework assessments, and preparing course materials;
- **research (including associated administration) pertaining to Australian Competitive Grants** – this covers all research activity (such as fieldwork, documentary analysis and drafting) directly associated with Australian Competitive Grants;
- **research (including associated administration) pertaining to other funding sources** – this covers all other research activity (e.g. research funded by industry grants or directly through the university);
- **research training of postgraduate students** – this includes the marking of assessments of postgraduate dissertations;
- **other activities** – this includes consulting, media work, volunteering and charity work, professional development and committee work); and
• leave – including sick leave, personal leave, annual leave and public holidays.

The Allen Consulting Group, through the relevant research, finance or planning office of each participating university, administered surveys via a distribution list. The survey was distributed to Chief Investigators (CI) by email in the first instance, with detailed instructions for CIs to pass the survey onto their broader project teams. This approach was adopted in response to advice from universities that it was difficult for some institutions to identify all researchers associated with ACGs within the timeframes of the project.

Survey respondents were given clear survey guidelines and encouraged to seek assistance in responding where necessary. Some universities (such as the University of South Australia) even posted the survey instructions and other relevant project information on their internal websites to assist staff in completing the survey.

To encourage strong response rates, the Allen Consulting Group provided universities with standardised words, and reminder emails for distribution to ACG active researchers. The assistance of each university administration was an important aspect in achieving a higher than anticipated average response rate across the 31 participating universities.

**Use and verification of survey results**

The results of the survey were used to develop two FTE drivers. The first FTE driver involved the development of a simple ACG FTE ratio, based on the percentage split between Teaching, Research, and Other activities. This driver was applied to areas of university expenditure that were not solely dedicated to conducting research activity.

The second FTE driver involved the development of a mechanism that more accurately reflected the level of resources that research intensive (especially, research specific) faculties, units and institutes often utilise. For this driver, the ACG FTE ratio was based on the percentage split between Research ACG and Research Other. This was considered by the TWG to be an acceptable adjustment that would avoid under allocation of costs by using the survey data.

In order to ensure that the survey results accurately reflected the organisational and research profile of each institution, the Allen Consulting Group conducted consultations with each university. During these consultations the results of the surveys were discussed in detail and areas where adjustments to the survey results were identified. For example, issues relating to sample size, errant responses, and misallocation of time were highlighted, and the survey results were compared (where available) with other internal university time allocation data.

A discussion about the development of these drivers arising from the survey results is presented in Chapter 4.
Other cost drivers

The way that space in university buildings is used may be more appropriate for attributing some indirect costs such as cleaning and maintenance. There are several reasons why this project has not sought to directly analyse the use of space. Some Australian universities do not have data that would permit the quantitative attribution of space to teaching and research, and obtaining such data would have been costly and time consuming. Only a relatively small proportion of indirect costs would be better allocated through space use. US and UK experience has shown that using FTE fractions (as discussed above) generally produces similar outcomes. This is not to preclude the possibility that, in the future, space could be used as a basis for allocating some costs.

3.5 Indirect cost categories used in this study

The three main cost categories/pools can be defined as:

- **General overheads.** This category includes those costs which can not be easily attributed to the teaching, research and other activities of universities without considerable complexity or unjustifiable assumptions.

- **Teaching specific overheads.** This category covers administrative functions within universities that are dedicated to the support of teaching. Examples of these include undergraduate teaching learning and support centres, and administrative units that manage the enrolment of non-research higher degree students.

- **Research specific overheads.** This category covers the research only functions within universities that are dedicated to the support of research. Examples include costs relating to the research office and research ethics committees.

Category 1: non-academic salaries and on-costs

This category relates to non-academic staff resources that provide corporate services such as payroll, research management and in-house financial, legal, marketing, communication and statistical services. They include:

- non-academic salaries – base salaries;
- contributions to Superannuation and pension schemes;
- non-academic payroll tax;
- non-academic Workers’ Compensation; non-academic long service leave expenses; non-academic annual leave expenses; and
- other non-academic employee benefits.

Category 2: costs of maintaining physical university infrastructure

This category relates to the cost of managing the buildings and equipment used by university researchers. It includes costs such as:

- repairs to buildings, laboratories and research facilities (both scheduled and unscheduled);
• repairs and maintenance to equipment and systems (such as ICT), that exclude salary costs captured in the discussion above (both scheduled and unscheduled);
• security costs;
• cleaning costs;
• health and safety costs; and
• utility costs (such as electricity water and gas), unless gifted by government or paid directly by grants.

**Category 3: depreciation on buildings and equipment**

This category relates to the cost of maintaining the capital stock of universities that is utilised for research purposes. It includes costs such as:

• depreciation on university buildings;
• depreciation on university equipment above material thresholds;
• the costs associated with capital and capital upgrades for university buildings and equipment; and
• other depreciation and amortisation costs.

**Category 4: finance, borrowing and insurance costs**

This category includes any financial expenditure that has occurred within a university that has arisen as a result of research. These costs are usually associated with borrowing to finance the building, refurbishment or purchase of buildings or major research equipment. It includes such items as:

• borrowings on university buildings and equipment;
• leasing and legal costs associated with external research facilities;
• external auditing expenses; and
• all insurances (relating to personnel, as well as buildings and equipment).

**Category 5: other costs indirectly associated with research**

This category includes a range of consumables and non-salary related costs that are used by university administration staff to support the research effort of an institution. It includes such costs as:

• consumables and office supplies;
• health and safety expenses;
• advertising, marketing and promotional costs associated with university research;
• legal fees (including patent attorney fees);
• compliance costs (especially in regards to animal houses, and biotechnology);
• consultants engaged to assist in sorting out indirect cost claims; and
• publication costs (not captured elsewhere, but including copy editing and proof reading costs).

3.6 Allocation of expenditure data

The basic assumption used in this project is that the share of indirect costs attributable to ACGs is based on the proportion of time that ACG researchers spent on research. This is a reasonable proxy for understanding the level of university resources and services (especially overheads) used by ACG researchers in 2008.

Where researcher time spent on grant research is not considered a reliable method for allocating indirect costs, individual universities were given the opportunity to use other methods (such as space) to allocate costs.

Principles of allocation

The drivers (as outlined above) were then applied to 2008 expenditure on the basis of an agreed set of indirect cost categories. These cost categories were based on a set of general principles that have underpinned the US and UK systems (see Chapter 2). These principals include:

• Reasonableness – the cost should have a clear identifiable link with ACG-funded research. Its inclusion in an indirect cost should be readily able to be defended.

• Materiality – the cost is sufficiently large to warrant inclusion as a cost. Attempting to track the cost of very small items is not likely to be efficient.

• Simplicity – less precise methods of determining the contribution of an indirect cost to ACGs may be acceptable when the alternatives are complex and costly to implement.

• Equity of treatment – methods of attributing indirect costs should be equitable between different universities. This means that the allocation of all costs should be transparent and open to public scrutiny.

• Consistency – practices used in estimating indirect costs should be consistent with university cost accounting practices. Comparable transactions should be treated alike.

• No double-dipping – government should not “pay twice” in relation to ACGs and related indirect costs.

Indirect costs requiring special consideration

Some costs can include both direct and indirect elements, or require complex calculations in order to accurately attribute them to research from ACGs. There are three main areas that need special consideration:

• major university research facilities – including animal houses;

• major national research facilities; and

• property and estate costs – especially laboratory space.
**Key exclusions**

Areas of commercial activity that are either fully funded or cost recovered have been excluded from the framework. These items do not generally generate indirect costs for a university, and are not considered to be part of the infrastructure that supports university research. They include:

- halls of residence and student accommodation/villages;
- student catering services;
- book shops and publishing houses;
- cafes; and
- gymnasiums.

### 3.7 Validation of methodology

The methodology used in this project has been validated in a number of ways:

- overall levels of staff effort in universities have been compared with case study results for the Australian National University (ANU);
- the indirect costs of ACG-funded research at several universities with activity based costing have been compared with estimates based on FTE cost drivers;
- the indirect cost rates for universities with similar research intensities have been compared and discussed; and
- the staff survey results and their application to university accounts have been the subject of a reality check in discussions between the project team and responsible staff of the participating universities.

This validation has also been used to inform the estimation of future costs in this chapter.
Chapter 4

Survey of ACG researcher activity

This chapter outlines the processes for administering the survey of ACG researcher activity and the results arising from the survey. The results of individual universities are presented on a de-identified basis, using a combination of averages and ranges within groupings of research intensity, to assess results. Aggregated results are also presented for the 31 universities that participated in the survey.

4.1 The survey of ACG researcher activity

This chapter only considers the survey results of a sub-population of academic researchers that are by definition ACG research intensive. As such the activities presented here are not representative of the broader academic population in Australia. Refer to 3.2 for further detail about the selection of this project’s survey population.

Within this context, the following section outlines the instrument and processes used to administer the survey of ACG researcher activity.

Survey instrument

This project used a web-based survey instrument to capture data about ACG researcher activity. The survey was developed using SurveyMonkey.com™ – an online survey software and hosting service based in Oregon, the US. This instrument was deemed to be more appropriate than other survey approaches (such as a paper-based or an automated telephone survey) for the purposes of this project because:

- a web-based survey was easily distributed via email to the intended survey population;
- a web-based approach reduced the need for manual handling of survey results, minimising the possibility of errors; and
- the intended target group of the survey – researchers involved in Australian Competitive Grants – is seen as being sufficiently internet-savvy to navigate and complete a web-based survey.

Each participating university distributed the survey on behalf of the Allen Consulting Group. The survey and associated documentation was sent by email to CIs in the first instance, with instructions to pass on the survey to other members of their ACG project teams.

Survey questions

The online survey comprised four pages of questions and drop down boxes. The first two of these prompted respondents to provide:

- a unique identifier (their university employee number or a variation thereof);
- general background information (such as their university, faculty, department, academic discipline, academic level, and employment status); and

- information about their role in ACG project teams (e.g. whether they are a nominated CI or have some other role).

Respondents were also asked to separately estimate the number of days spent preparing ACG applications each year. The preparation of applications is typically a ‘lumpy’ activity (one that is condensed and done at particular times of the year) that was unlikely to be captured during the survey period. The results from these estimates were amortised and allocated to ACG research activity. Greater detail about this adjustment is provided below.

Page three of the survey prompted respondents to estimate the percentage of time they spent on the six specified activities (of Teaching, Research – ACG Research – Other, Research Training, Other, and Leave) for Week 1 and Week 2 of the survey period. Respondents were advised that the total of their responses for each week should equal to 100 per cent. They were asked to allocate time to dominant activities. Where this was difficult to do, they were also asked to use their best judgment when allocating time.

The last page of the survey prompted respondents to estimate the percentage of their time that they spent on the same six activities listed above for the 2009 calendar year-to-date. This question was used to help in determining whether the survey results for the two-week period were representative of a ‘typical’ academic period (see Table 4.6).

Additional documentation

Two key pieces of supporting documentation were also distributed with the survey. The first was instructions on how to complete the survey. This document provided potential respondents with background information about the project, a description of the information required, and contact details for the Allen Consulting Group (Appendix C).

The second piece of documentation was a conversion spreadsheet (see Appendix C) provided to assist in the time keeping process. The conversion spreadsheet allowed ACG researchers to record (at their convenience) the number of hours they spent undertaking the six activities listed above for the survey period. It converted the recorded hours into proportions of time for each category, which then could be entered into page three of the online survey. It is important to note that the spreadsheet was provided to ACG researchers for their personal use and did not form part of the official survey returns.

Survey time periods

International experience has consistently shown there is no indicative period in which to survey academic staff. Such surveys need to be undertaken either on a rolling basis, or adjustments have to be made to capture/exclude activities that are/are not representative of researcher activity.

---

Based on the Fields of Research listed in Australian and New Zealand Standard Research Classification (ANZSRC), 2008.
The Allen Consulting Group originally sought to survey all participating universities over the same two-week period: 25 May – 7 June 2009. However, administrative and other difficulties prevented some universities from running the survey at this time. To accommodate these universities, the survey administered over three distinct two-week periods (see Table 4.1).

Table 4.1
SURVEY PERIODS AND PARTICIPATING UNIVERSITIES

<table>
<thead>
<tr>
<th>Survey Period</th>
<th>Number of Participating Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 May – 7 June 2009</td>
<td>23</td>
</tr>
<tr>
<td>1 – 14 June 2009</td>
<td>3</td>
</tr>
<tr>
<td>8 – 21 June 2009</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Allen Consulting Group

Data management

The Allen Consulting Group ‘cleaned’ the collected survey data in three ways. First, using conditional formatting formulae in Excel, duplicates were identified (based on unique identifiers and IP addresses). In these cases one entry was removed on the basis of:

- the entry that contained the least information in the researcher activity fields;
- or
- the entry that had first been logged on to the system (for similar entries).

Second, for the ACG applications and researcher activity fields, text responses were replaced with equivalent or appropriate numerical responses. For instance:

- ‘nil’ responses were replaced with ‘0’;
- ranges (e.g. ‘20-30’) were replaced with averages (e.g. ‘25’); and
- percentage signs were removed.

Third, responses in the researcher activity fields were ‘smoothed’ by ensuring that the total of the responses for Week 1 and Week 2 and 2009-to-date estimates were equal to 100 per cent. This was achieved by proportioning the responses up or down, as appropriate.

Each university was provided with a spreadsheet containing:

- the individual responses of their participating ACG researchers;
- a summary of the number of respondents by academic level, discipline and faculty; and
De-identification of survey results (and university data)

To maintain the confidentiality of the information provided by participating universities, the Allen Consulting Group de-identified institutional data using a classification of ACG research intensity. This was calculated using data about the total value of ACGs awarded in 2007, and total numbers of academic staff at each university were collated for that year.

The total grant value was then divided by the number of academic FTE to create a measure of ACG research intensity for each Australian university (see Table 4.2).

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of universities per group</th>
<th>Number of universities that participated in the survey</th>
<th>ACG research revenue/ academic FTE (range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>6</td>
<td>4</td>
<td>$49,238 - $53,187</td>
</tr>
<tr>
<td>Group Two</td>
<td>9</td>
<td>8</td>
<td>$19,719 - $39,047</td>
</tr>
<tr>
<td>Group Three</td>
<td>11</td>
<td>9</td>
<td>$10,788 - $16,218</td>
</tr>
<tr>
<td>Group Four</td>
<td>13</td>
<td>10</td>
<td>$1,722 - $8,887</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

Note: Based on DEEWR Higher Education Finance Statistics 2008

As Table 4.2 illustrates, four groupings emerged, based on a measure of ACG research intensity:

- $0 and $10,000 of ACG funding per academic FTE;
- $10,000 and $20,000 of ACG funding per academic FTE;
- $20,000 and $50,000 of ACG funding per academic FTE; and
- $50,000 and above of ACG funding per academic FTE.

The remainder of this report will discuss survey results and the allocation of costs, in aggregated form, via these four groupings.

It is important to note that the Allen Consulting Group only developed this classification framework as a means of deidentifying and presenting university data for this project.
4.2 Survey results

A total of 2,222 responses to the survey of ACG research activity were received from 31 participating universities. Of these responses, 102, or 4.6 per cent, were identified as duplicates and removed (see Section 4.1). Of the remaining 2,120 responses, 161 (or 7.6 per cent) did not include sufficient information in the researcher activity fields to undertake analysis and were subsequently discarded. Accordingly, the total number of valid responses to the survey was 1,959. This represents a response rate of approximately 32 per cent for the sector.

Of the 1,959 valid responses to the survey, 1,527 (or 77.9 per cent) identified themselves as a CI on an ACG project. This suggests that:

- only a relatively small proportion of CIs passed the survey on to the other members of their project teams; and
- the results from the survey are more likely to be representative of the activity of CIs, rather than the activity of all ACG project members.

As Table 4.3 illustrates, Groups One and Two of ACG research intensity accounted for the majority of respondents to the survey. This is not surprising, given that the universities belonging to these groupings are generally the larger institutions in the sector and/or account for the majority of ACGs in terms of total funding.

Table 4.3
VALID RESPONSES BY GROUPINGS OF ACG RESEARCH INTENSITY

<table>
<thead>
<tr>
<th>University</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>776</td>
<td>39.6</td>
</tr>
<tr>
<td>Group Two</td>
<td>636</td>
<td>32.5</td>
</tr>
<tr>
<td>Group Three</td>
<td>371</td>
<td>18.9</td>
</tr>
<tr>
<td>Group Four</td>
<td>142</td>
<td>7.2</td>
</tr>
<tr>
<td>Other / Not Defined</td>
<td>34</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1959</td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey of Australian Competitive Grant Researcher Activity

Medical and Health Sciences, Biological Sciences and Engineering were the academic disciplines most commonly identified by respondents, accounting for just under half of all responses (see Table 4.4). The least commonly identified disciplines were Technology, Studies in Creative Arts and Writing, and Philosophy and Religious Studies. Feedback from some universities suggested that this balance of disciplines was generally reflective of their research portfolios, particularly the emphasis on Medical and Health Sciences, and the different sources of research funding they receive.

---

5 This represents an approximate average, as some universities could only provide an estimate of total number of researchers that received the survey.
### Table 4.4

**VALID RESPONSES BY ACADEMIC DISCIPLINE**

<table>
<thead>
<tr>
<th>Academic Discipline</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies in Creative Arts and Writing</td>
<td>17</td>
<td>0.9</td>
</tr>
<tr>
<td>Philosophy and Religious Studies</td>
<td>23</td>
<td>1.2</td>
</tr>
<tr>
<td>Law and Legal Studies</td>
<td>29</td>
<td>1.5</td>
</tr>
<tr>
<td>Built Environment and Design</td>
<td>32</td>
<td>1.6</td>
</tr>
<tr>
<td>Economics</td>
<td>36</td>
<td>1.8</td>
</tr>
<tr>
<td>Commerce, Management, Tourism and Services</td>
<td>38</td>
<td>1.9</td>
</tr>
<tr>
<td>Language, Communication and Culture</td>
<td>40</td>
<td>2.0</td>
</tr>
<tr>
<td>History and Archaeology</td>
<td>41</td>
<td>2.1</td>
</tr>
<tr>
<td>Education</td>
<td>50</td>
<td>2.6</td>
</tr>
<tr>
<td>Studies in Human Society</td>
<td>81</td>
<td>4.1</td>
</tr>
<tr>
<td>Technology</td>
<td>8</td>
<td>0.4</td>
</tr>
<tr>
<td>Earth Sciences</td>
<td>39</td>
<td>2.0</td>
</tr>
<tr>
<td>Environmental Sciences</td>
<td>49</td>
<td>2.5</td>
</tr>
<tr>
<td>Information and Computing Sciences</td>
<td>65</td>
<td>3.3</td>
</tr>
<tr>
<td>Mathematical Sciences</td>
<td>72</td>
<td>3.7</td>
</tr>
<tr>
<td>Agricultural and Veterinary Sciences</td>
<td>86</td>
<td>4.4</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>88</td>
<td>4.5</td>
</tr>
<tr>
<td>Psychology and Cognitive Sciences</td>
<td>93</td>
<td>4.7</td>
</tr>
<tr>
<td>Chemical Sciences</td>
<td>106</td>
<td>5.4</td>
</tr>
<tr>
<td>Engineering</td>
<td>171</td>
<td>8.7</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>262</td>
<td>13.4</td>
</tr>
<tr>
<td>Medical and Health Sciences</td>
<td>527</td>
<td>26.9</td>
</tr>
<tr>
<td>Not defined</td>
<td>6</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,959</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey of Australian Competitive Grant Researcher Activity

As Table 4.5 illustrates, Professor (Level E) was the academic level most commonly identified by respondents. Research Support was, by comparison, the least common. Data supplied by some participating universities broadly supports these results, by indicating that Professor (Level) was the most common ACG FTE level at several universities. In the absence of detailed profile data around ACG research funding this is an appropriate proxy for validating the survey results.
Table 4.5

VALID RESPONSES BY ACADEMIC LEVEL

<table>
<thead>
<tr>
<th>Academic Level</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not defined</td>
<td>12</td>
<td>0.6%</td>
</tr>
<tr>
<td>Research Support</td>
<td>119</td>
<td>6.1%</td>
</tr>
<tr>
<td>Level A - Postdoctoral Scholar</td>
<td>173</td>
<td>8.8%</td>
</tr>
<tr>
<td>Level B - Lecturer / Fellow</td>
<td>281</td>
<td>14.3%</td>
</tr>
<tr>
<td>Level D - Associate Professor</td>
<td>371</td>
<td>18.9%</td>
</tr>
<tr>
<td>Level C - Senior Lecturer / Fellow</td>
<td>409</td>
<td>20.9%</td>
</tr>
<tr>
<td>Level E - Professor</td>
<td>594</td>
<td>30.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,959</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey of Australian Competitive Grant Researcher Activity

Non-adjusted results

Table 4.6 provides sector-wide averages for Week 1 and Week 2 of the survey and 2009 year-to-date estimates. The results presented here suggest:

- There is some variation in the results between the two-week survey period and the 2009 year-to-date estimates – particularly with regard to ‘Leave’ and ‘Other’.
- The difference in the results for ‘Research – ACG’ and ‘Research – non-ACG’, however, is relatively minor.
- Indeed, the combined average proportion of time recorded for ‘Research – ACG’ and ‘Research – non-ACG’ is the same (57.7 per cent) for both the two-week survey period and the 2009 year-to-date estimates.

Table 4.6

ACG RESEARCHER ACTIVITY, NON-ADJUSTED, BY SURVEY PERIOD

<table>
<thead>
<tr>
<th></th>
<th>Teaching %</th>
<th>Research – ACG %</th>
<th>Research – non-ACG %</th>
<th>Research Training %</th>
<th>Other %</th>
<th>Leave %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>13.8</td>
<td>41.2</td>
<td>16.1</td>
<td>11.5</td>
<td>13.0</td>
<td>4.4</td>
</tr>
<tr>
<td>Week 2</td>
<td>13.0</td>
<td>41.8</td>
<td>16.4</td>
<td>11.4</td>
<td>13.4</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Combined Week 1 and 2</strong></td>
<td><strong>13.4</strong></td>
<td><strong>41.5</strong></td>
<td><strong>16.2</strong></td>
<td><strong>11.5</strong></td>
<td><strong>13.2</strong></td>
<td><strong>4.2</strong></td>
</tr>
<tr>
<td>2009 year-to-date estimates</td>
<td>14.6</td>
<td>42.1</td>
<td>15.7</td>
<td>12.7</td>
<td>11.4</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Source: Survey of Australian Competitive Grant Researcher Activity
Table 4.7 provides breakdowns of averages for the two-week survey period, by grouping of ACG research intensity. While the combined proportion of time spent on ‘Research – ACG’ and ‘Research – non-ACG’ is relatively consistent across the groupings, the balance between the two activities does shift towards ‘Research – ACG’ commensurate with an increase in research intensity. The data may reflect the funding profiles of many less ACG research-intensive institutions which undertake a significant proportion of their research activities through other funding sources.

Table 4.7

ACG RESEARCHER ACTIVITY, NON-ADJUSTED, TWO-WEEK SURVEY PERIOD, BY GROUPINGS OF ACG RESEARCHER INTENSITY

<table>
<thead>
<tr>
<th></th>
<th>Teaching %</th>
<th>Research – ACG %</th>
<th>Research – non-ACG %</th>
<th>Research Training %</th>
<th>Other %</th>
<th>Leave %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>13.3</td>
<td>44.5</td>
<td>13.7</td>
<td>12.0</td>
<td>11.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Group Two</td>
<td>13.1</td>
<td>41.6</td>
<td>15.3</td>
<td>11.1</td>
<td>15.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Group Three</td>
<td>12.7</td>
<td>39.7</td>
<td>19.7</td>
<td>10.5</td>
<td>12.6</td>
<td>4.7</td>
</tr>
<tr>
<td>Group Four</td>
<td>16.6</td>
<td>30.2</td>
<td>24.8</td>
<td>12.3</td>
<td>14.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Total (participating universities)</td>
<td><strong>13.4</strong></td>
<td><strong>41.5</strong></td>
<td><strong>16.2</strong></td>
<td><strong>11.5</strong></td>
<td><strong>13.2</strong></td>
<td><strong>4.2</strong></td>
</tr>
</tbody>
</table>

Source: Survey of Australian Competitive Grant Researcher Activity

Table 4.8 provides breakdowns of averages for the two-week survey period, by academic discipline. Respondents from the disciplines of Technology, Philosophy and Religious Studies and Agricultural and Veterinary Sciences recorded the greatest proportion of time on ‘Research – ACG’ and ‘Research – ACG’ and ‘Research – non-ACG’ combined. However, the relatively low number of responses from these disciplines makes drawing broader conclusions about these results difficult. Respondents from Education, Commerce, Management, Tourism and Services, and Law and Legal Studies, meanwhile, spent the smallest proportion of their time on ‘Research – ACG’.

On average, respondents from science-related disciplines recorded a greater proportion of their time on ‘Research – ACG’ than respondents from other disciplines. This difference, however, is marginal in the context of time spent on ‘Research – ACG’ and ‘Research – non-ACG’ combined.
Table 4.8

<table>
<thead>
<tr>
<th>Academic Discipline</th>
<th>Teaching %</th>
<th>Research – ACG %</th>
<th>Research – non-ACG %</th>
<th>Research Training %</th>
<th>Other %</th>
<th>Leave %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>15.5</td>
<td>25.6</td>
<td>22.0</td>
<td>13.0</td>
<td>20.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Commerce, Management, Tourism and Services</td>
<td>14.8</td>
<td>27.2</td>
<td>23.8</td>
<td>12.5</td>
<td>18.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Law and Legal Studies</td>
<td>22.4</td>
<td>29.1</td>
<td>17.4</td>
<td>7.4</td>
<td>19.0</td>
<td>4.7</td>
</tr>
<tr>
<td>Language, Communication and Culture</td>
<td>25.7</td>
<td>31.3</td>
<td>12.1</td>
<td>10.5</td>
<td>15.0</td>
<td>5.5</td>
</tr>
<tr>
<td>Built Environment and Design</td>
<td>18.4</td>
<td>32.2</td>
<td>20.8</td>
<td>9.0</td>
<td>17.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Studies in Human Society</td>
<td>14.7</td>
<td>38.1</td>
<td>21.2</td>
<td>8.3</td>
<td>14.4</td>
<td>3.3</td>
</tr>
<tr>
<td>Economics</td>
<td>15.1</td>
<td>38.3</td>
<td>19.3</td>
<td>8.8</td>
<td>14.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Studies in Creative Arts and Writing</td>
<td>14.0</td>
<td>48.7</td>
<td>8.8</td>
<td>6.0</td>
<td>13.3</td>
<td>9.3</td>
</tr>
<tr>
<td>History and Archaeology</td>
<td>15.4</td>
<td>50.1</td>
<td>11.1</td>
<td>6.8</td>
<td>11.7</td>
<td>4.9</td>
</tr>
<tr>
<td>Philosophy and Religious Studies</td>
<td>12.9</td>
<td>54.8</td>
<td>8.2</td>
<td>8.2</td>
<td>15.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Information and Computing Sciences</td>
<td>17.6</td>
<td>29.3</td>
<td>20.1</td>
<td>13.3</td>
<td>14.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Engineering</td>
<td>18.0</td>
<td>31.8</td>
<td>21.2</td>
<td>13.9</td>
<td>11.8</td>
<td>3.3</td>
</tr>
<tr>
<td>Mathematical Sciences</td>
<td>21.5</td>
<td>37.8</td>
<td>14.0</td>
<td>8.7</td>
<td>14.7</td>
<td>3.3</td>
</tr>
<tr>
<td>Psychology and Cognitive Sciences</td>
<td>14.5</td>
<td>39.9</td>
<td>17.4</td>
<td>10.7</td>
<td>11.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Earth Sciences</td>
<td>18.5</td>
<td>41.1</td>
<td>13.6</td>
<td>11.8</td>
<td>12.8</td>
<td>2.2</td>
</tr>
<tr>
<td>Environmental Sciences</td>
<td>11.6</td>
<td>42.0</td>
<td>18.0</td>
<td>12.5</td>
<td>13.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Medical and Health Sciences</td>
<td>9.8</td>
<td>43.2</td>
<td>16.6</td>
<td>11.1</td>
<td>14.3</td>
<td>5.0</td>
</tr>
<tr>
<td>Chemical Sciences</td>
<td>10.4</td>
<td>46.3</td>
<td>15.7</td>
<td>13.3</td>
<td>9.8</td>
<td>4.6</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>10.7</td>
<td>48.1</td>
<td>12.4</td>
<td>13.7</td>
<td>11.2</td>
<td>4.1</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>13.8</td>
<td>50.4</td>
<td>11.1</td>
<td>12.8</td>
<td>9.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Agricultural and Veterinary Sciences</td>
<td>10.3</td>
<td>50.5</td>
<td>13.5</td>
<td>9.4</td>
<td>10.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Technology</td>
<td>14.3</td>
<td>61.8</td>
<td>13.9</td>
<td>8.8</td>
<td>1.3</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: Survey of Australian Competitive Grant Researcher Activity

Table 4.9 provides breakdowns of averages for the two-week survey period, by academic level. Three groupings emerge from the data:

- Postdoctoral Scholars and Research Support staff, who spend approximately two-thirds of their time on ‘Research – ACG’;
- Senior Lecturers/Fellows, Associate Professors and Professors, who spend approximately one third of their time on ‘Research – ACG’; and
- Lecturers/Fellows, who spend half of their time on ‘Research – ACG’.
The relatively low teaching loads for Postdoctoral Scholars and Research Support staff, and the increase in time spent on ‘Other’ as staff progress through the academic levels, are consistent with the expectations of universities participating in this study.

Table 4.9

ACG RESEARCHER ACTIVITY, NON-ADJUSTED, TWO-WEEK SURVEY PERIOD, BY ACADEMIC LEVEL

<table>
<thead>
<tr>
<th></th>
<th>Teaching %</th>
<th>Research – ACG %</th>
<th>Research – non-ACG %</th>
<th>Research Training %</th>
<th>Other %</th>
<th>Leave %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level A - Postdoctoral Scholar</td>
<td>4.6</td>
<td>69.3</td>
<td>11.9</td>
<td>4.3</td>
<td>4.5</td>
<td>5.4</td>
</tr>
<tr>
<td>Level B - Lecturer / Fellow</td>
<td>12.2</td>
<td>50.0</td>
<td>15.1</td>
<td>10.0</td>
<td>8.9</td>
<td>3.9</td>
</tr>
<tr>
<td>Level C - Senior Lecturer / Fellow</td>
<td>17.6</td>
<td>35.2</td>
<td>17.0</td>
<td>13.0</td>
<td>11.9</td>
<td>5.2</td>
</tr>
<tr>
<td>Level D - Associate Professor</td>
<td>18.1</td>
<td>32.6</td>
<td>16.9</td>
<td>14.2</td>
<td>15.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Level E - Professor</td>
<td>12.6</td>
<td>34.7</td>
<td>17.0</td>
<td>13.4</td>
<td>18.7</td>
<td>3.5</td>
</tr>
<tr>
<td>Research Support</td>
<td>4.2</td>
<td>63.4</td>
<td>16.6</td>
<td>2.4</td>
<td>5.6</td>
<td>7.8</td>
</tr>
</tbody>
</table>

Source: Survey of Australian Competitive Grant Researcher Activity

Table 4.10 provides a breakdown of the median number of days respondents indicated that they spent preparing ACG applications per year. Respondents were specifically asked: ‘By your estimation, how many days per year do you spend preparing applications for Australian Competitive Grants?’

Table 4.10

MEDIAN DAYS SPENT PREPARING ACG APPLICATIONS, BY GROUPING

<table>
<thead>
<tr>
<th></th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>25.0</td>
</tr>
<tr>
<td>Group Two</td>
<td>25.0</td>
</tr>
<tr>
<td>Group Three</td>
<td>21.3</td>
</tr>
<tr>
<td>Group Four</td>
<td>22.8</td>
</tr>
<tr>
<td><strong>Total (participating universities)</strong></td>
<td><strong>21.0</strong></td>
</tr>
</tbody>
</table>

Source: Survey of Australian Competitive Grant Researcher Activity

**Adjusted results**

Discussions with universities and feedback from both the PSC and the TWG highlighted the need for some adjustments to the ‘raw’ survey results. The Allen Consulting Group saw these adjustments as necessary to ensure that the survey results were representative of a ‘typical’ ACG researcher’s workload. In particular, to ensure that the survey results:

- reflected all activities relevant to ACG research (including such activities as application preparation that were unlikely to be captured in the two week survey period);
accounted for atypical activities that may have occurred during the survey period (e.g. public holidays and the preparation of ERA returns).

The first adjustment that was made was to remove ‘Leave’ from the survey results. For the purposes of this project, ‘Leave’ is not classified as a component of researcher activity, and was only captured because the two-week survey period covered a public holiday in some States and Territories. On removing ‘Leave’, the results for the other categories are increased proportionally, so the total once again equals 100 per cent.

Table 4.11

<table>
<thead>
<tr>
<th>ACG RESEARCHER ACTIVITY, TWO-WEEK SURVEY PERIOD, LEAVE REMOVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Group Two</td>
</tr>
<tr>
<td>Group Three</td>
</tr>
<tr>
<td>Group Four</td>
</tr>
<tr>
<td>Total (participating universities)</td>
</tr>
</tbody>
</table>

Source: Survey of Australian Competitive Grant Researcher Activity

The second adjustment involved a reallocation of time spent on preparing ‘grant applications’ to ‘Research – ACG’. As activities associated with the preparation of ACG applications typically occur between December and February of each year, it was not likely that the survey would capture the full extent of this effort. The adjustment for this time was made by:

- converting the median number of days ACG researchers spent preparing grant applications per year (21) into a proportion of yearly effort (21/230 = 9.1 per cent);
- this percentage is then subtracted from 100 and the five existing categories (‘Teaching’, ‘Research – ACG’, ‘Research – non-ACG’, ‘Research Training’, and ‘Other’) are proportioned to equal the remaining percentage (i.e. 90.9 per cent); and
- the proportion of time spent preparing Australian Competitive Grant applications (9.1 per cent) is then added to the ‘Research – ACG’ category.

It is possible that this adjustment may ‘double count’ ACG researcher activity devoted to application preparation. This could occur if an ACG researcher was preparing grant applications during the two-week survey period and recorded this activity under ‘Research – ACG’ or ‘Other’, as well as including it in their estimation about the number of days they spend on application preparation each year.

6 The median was used, rather than the mean, to better account for outliers in the dataset.
7 (Five working days per week) x (52 weeks) – (20 days annual leave) – (10 public holidays) = 230.
The Allen Consulting Group considers that the potential for double counting is limited, given that most ACG researchers were unlikely to have been preparing grant applications during the broader survey period (25 May – 21 June 2009). Furthermore, even if the possibility of double counting was accounted for (e.g. by removing two weeks from the proportion of yearly effort that ACG researchers spend preparing grants applications [the first bullet point above]), the impact on the proportion of time added to ‘Research – ACG’ is minimal (roughly 0.4 percentage points).

Table 4.12 outlines the end result of the application preparation for the sector as well as the major groupings of ACG research intensity.

Table 4.12

<table>
<thead>
<tr>
<th></th>
<th>Teaching %</th>
<th>Research – ACG %</th>
<th>Research – non-ACG %</th>
<th>Research Training %</th>
<th>Other %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>12.6</td>
<td>52.1</td>
<td>13.0</td>
<td>11.4</td>
<td>10.9</td>
</tr>
<tr>
<td>Group Two</td>
<td>12.3</td>
<td>48.8</td>
<td>14.3</td>
<td>10.4</td>
<td>14.2</td>
</tr>
<tr>
<td>Group Three</td>
<td>12.2</td>
<td>46.5</td>
<td>19.0</td>
<td>10.1</td>
<td>12.2</td>
</tr>
<tr>
<td>Group Four</td>
<td>15.4</td>
<td>37.1</td>
<td>23.0</td>
<td>11.4</td>
<td>13.1</td>
</tr>
<tr>
<td><strong>Total (participating universities)</strong></td>
<td><strong>12.8</strong></td>
<td><strong>48.1</strong></td>
<td><strong>15.5</strong></td>
<td><strong>11.0</strong></td>
<td><strong>12.6</strong></td>
</tr>
</tbody>
</table>

Source: Survey of Australian Competitive Grant Researcher Activity

The third adjustment included a re-allocation of the proportion of time spent on ‘Research Training’ to teaching and research. Feedback from detailed discussions with individual universities, the TWG and the PSC suggest that a proportion of ‘Research Training’ should be re-allocated to research. Accordingly, a decision was made to re-allocate 80 per cent of ‘Research Training’ to research (split proportionally between ‘Research – ACG’ and ‘Research – non-ACG’) and 20 per cent to ‘Teaching’ (see Table 4.13).

The Allen Consulting Group believes that to reflect ACG researcher activity accurately, a proportion of ‘Research Training’ needs to be re-allocated to ‘Research – ACG’ (as well as ‘Research – non-ACG’ and ‘Teaching’). However, given the funding arrangements surrounding research training in Australia, it may be necessary to quarantine time spent on ‘Research Training’ from other forms of research activity. Not re-allocating ‘Research Training’ to teaching/research would reduce the final proportion of time spent on ‘Research – ACG’ in Table 4.14 by approximately 7 percentage points.

---

8 For example, two weeks is equal to 4.3 per cent of a working year (i.e. 10/230). Reducing the sector proportion of yearly effort spent preparing ACG applications (9.1 per cent) by this percentage would equal 8.7 per cent.
The fourth adjustment was to account for atypical activities that occurred during the survey period. Consultations with participating universities uncovered that a number of ACG researchers were involved in reviewing grant applications of other researchers and in undertaking the returns associated with the Excellence in Research for Australia (ERA) initiative during the survey period. The advice to these researchers at the time was to classify time spent undertaking these activities as ‘Other’. Upon further consideration, there was some concern among universities that this classification decision would result in an under-estimation of effort. To account for this, 25 per cent of the time recorded for ‘Other’ has been re-allocated proportionally to the other categories (see Table 4.14).

The results outlined in Table 4.14 thus represent the final adjusted results from the survey of ACG researcher activity. The proportion of time spent on ‘Research – ACG’ has grown from 41.5 per cent to 56.7 per cent (a 36.6 per cent increase), while the total proportion of time spent on research has increased from 57.7 per cent to 75 per cent.  

The Excellence in Research for Australia (ERA) initiative will assess the research quality within Australia's higher education institutions using a combination of indicators and expert review by committees comprising internationally-recognised experts.
Chapter 5

Development of cost drivers and indirect cost rates

This chapter presents the main empirical evidence to support the development of indirect cost rates for groups of Australian universities.

5.1 Data collection process

To assist with the cost allocation process, and ensure a minimum standard of consistency in data collection, the Allen Consulting Group provided universities with a cost allocation spreadsheet. This spreadsheet had three functions:

- to transform each university’s survey results into a series of cost drivers;
- to allocate costs against the categories outlined in Section 3.5, and to apply a driver against these costs; and
- to develop an indirect cost rate for each university.

The Allen Consulting Group also held discussions with each university, either in person or over the telephone, to assist them in the allocation process. The universities were asked to complete the spreadsheet within 7-14 working days.

Outliers and data management

Of the 31 universities that participated in the survey, 22 (or 71 per cent) provided the Allen Consulting Group with cost allocation data. Of these 22 sets of cost allocation data, six outliers were identified. An outlier was defined as a return that had an indirect cost rate of greater than 150 per cent. This indirect cost rate was chosen as the beginning point of outliers because it is:

- a round number; and
- more than double the Australian benchmark of 60 to 66 per cent and international benchmark for paying indirect costs of 50 per cent identified in the Allen Consulting Group’s previous work, Recognising the Full Cost of University Research.

The Allen Consulting Group sought to include the six outlier returns by adjusting their underlying data. This adjustment relied on two key pieces of data provided by each university:

- their estimate of the number of staff directly associated with an ACG (ACG FTE); and
- the total value of their ACG funding for 2008 (ACG $).

10 The initial intention of the project was to capture approximately 25 per cent of the university sector, or 11 universities. However, after significant consultation with the sector and the assistance of DIISR, the Allen Consulting Group was able to secure the participation of a much higher proportion of the sector.
By dividing $ACG$ by $ACG \, FTE$, a measure of $ACG \, \$ \, \text{per FTE}$ was developed. Interestingly, the six outliers had the lower $ACG \, \$ \, \text{per FTE}$ of the 22 universities; ranging between 35 and 70 per cent of the average $ACG \, \$ \, \text{per FTE}$ of all sets of cost allocation data. This relatively low $ACG \, \$ \, \text{per FTE}$ suggests that the $ACG \, FTE$ provided by the outlier universities was potentially too high, and was thus helping to over-estimate their indirect costs (by increasing, in turn, the value of their primary drivers).

The Allen Consulting Group’s solution was to re-calculate the $ACG \, FTE$ of the six outliers by using the average $ACG \, \$ \, \text{per FTE}$ ($132,753$) of the remaining 16 universities. Specifically, the $ACG \, \$ provided by each outlier was divided by $132,753$ to obtain a new $ACG \, FTE$. This was then used to develop a new primary driver for the six universities, which was in turn re-applied to their cost allocation data, resulting in the development of a new indirect cost rate.

The results provided below include the adjusted data for the six outliers, and the original data of the other 16 universities.

5.2 Development of cost drivers

The cost allocation spreadsheet gave each university the opportunity to transform their survey results into cost drivers – a primary driver and a research-only driver – as well as develop an alternate, third driver, if required. These three drivers are discussed below.

Primary driver

The primary driver was the key FTE driver used in the study to allocate costs. It sought to capture the amount of effort devoted to ACG research as a proportion of total academic effort, and was designed to be applied against whole-of-institution costs.

The primary driver was calculated using the following formula:

\[
\text{Total } ACG \, \text{research effort} / \text{Total academic staff (in FTEs)}
\]

Total ACG research effort was determined by multiplying the fraction of time spent on ACG research (acquired from the survey) by the total number of staff directly associated with ACG research (in FTEs). In this instance, ‘directly associated’ was defined as CIs plus those staff directly paid for by an ACG.

Table 5.1 provides a breakdown of the average values of the primary driver by grouping of ACG research intensity and the combined 22 universities that provided data. The data suggest that the value of the primary driver increases commensurately with ACG research intensity.
The Allen Consulting Group

Table 5.1

<table>
<thead>
<tr>
<th>PRIMARY DRIVER PER GROUP</th>
<th>No. of universities</th>
<th>Mean, %</th>
<th>Range, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>4</td>
<td>25.9</td>
<td>21.6 - 36.4</td>
</tr>
<tr>
<td>Group Two</td>
<td>6</td>
<td>14.8</td>
<td>6.0 - 28.8</td>
</tr>
<tr>
<td>Group Three</td>
<td>6</td>
<td>4.1</td>
<td>2.9 - 5.4</td>
</tr>
<tr>
<td>Group Four</td>
<td>6</td>
<td>2.0</td>
<td>1.1 - 2.7</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>13.0</td>
<td>1.1 - 36.4</td>
</tr>
</tbody>
</table>

Source: Analysis undertaken by the Allen Consulting Group

Research-only driver

The research-only driver was equal to the fraction of time spent on ‘Research – ACG’ relative to the combined fraction of time spent on ‘Research – ACG’ and ‘Research – non-ACG’. The research-only driver was included to better reflect the areas of university activity that are research intensive or research only. The primary intention was to apply this driver against the quarantined costs of major university facilities (such as animal houses) and major national university facilities (e.g. the synchrotron). However, universities were also able to apply the research-only driver against other components, based on their best judgment.

Table 5.2 provides a breakdown of the average values of the research-only driver by grouping of ACG research intensity and the combined 22 universities that provided data. The data suggest that the value of the research-only driver increases in line with ACG research intensity. This finding aligns with the survey results, which found that researchers from universities with a higher ACG research intensity tended to spend a greater proportion of time on ‘Research – ACG’ relative to ‘Research – non-ACG’ (see Chapter 4).

Table 5.2

<table>
<thead>
<tr>
<th>RESEARCH-ONLY DRIVER PER GROUP</th>
<th>No. of universities</th>
<th>Mean, %</th>
<th>Range, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>4</td>
<td>80.0</td>
<td>75.9 - 85.1</td>
</tr>
<tr>
<td>Group Two</td>
<td>6</td>
<td>77.3</td>
<td>68.2 - 81.6</td>
</tr>
<tr>
<td>Group Three</td>
<td>6</td>
<td>71.1</td>
<td>60.8 - 79.9</td>
</tr>
<tr>
<td>Group Four</td>
<td>6</td>
<td>61.7</td>
<td>20.2 - 87.0</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>75.6</td>
<td>20.2 - 87.0</td>
</tr>
</tbody>
</table>

Source: Analysis undertaken by the Allen Consulting Group
Third driver

The cost allocation spreadsheet gave universities the opportunity to include their own driver. Two universities provided alternative drivers. The first developed a third driver that was based on the primary driver, with different assumptions about the re-allocation of ‘Research Training’ to teaching and research. The second developed a third driver that sought to capture the higher cost of infrastructure provided for research. The value of the third drivers cannot be provided for reasons of confidentiality, but they were both less than 10 per cent.

5.3 Allocation of costs

After developing a series of cost drivers, the cost allocation spreadsheet allowed universities to allocate costs against the five categories outlined in Section 3.5, and apply the drivers against these costs to determine the indirect costs associated with university research. They were also provided with a draft guidance paper to assist in the allocation process. 11

Universities were asked to provide 2008 data for each of the categories/sub-categories outlined in the guidance paper. They were advised that the cost allocation spreadsheet was only a template, and that they were allowed to add sub-categories, if required. The universities were also asked to remove the following from the cost categories items that do not generate indirect costs for universities:

- commercial units (such as halls of residence, student catering services, and bookshops) that are fully cost recoverable; and
- direct costs associated with research grants.

The universities were then asked to choose which driver they wanted to apply against each category/sub-category. Universities were advised, in the first instance, to apply the primary driver against each of the five categories. They were also advised that, if the end result under- or over-estimated their indirect costs, they should consider the possibility of applying the research-only or third driver.

Universities were also given the opportunity to provide separate cost data for major university facilities and major national university facilities, on the proviso that the cost data:

- was fully extracted from the five cost categories (no ‘double-dipping’); and
- was net of revenue (e.g. from grants or fees-for-service).

The research-only driver was generally applied against costs relating to major university facilities and major national university facilities.

Figure 5.1 provides a diagrammatic example of the cost allocation process, including the application of drivers to generate indirect costs.

Table 5.3 provides a breakdown of the indirect cost categories as proportions of total indirect costs by grouping of ACG research intensity and the combined 22 universities that provided data. The data suggest that non-academic salaries and on-costs account for the largest proportion of indirect costs (approximately half), followed by other costs, and maintenance of buildings and equipment. The data also suggest that:

- non-academic salaries and on-costs account for a greater proportion of total indirect costs for universities with a lower ACG research intensity; and
- depreciation of buildings and equipment account for a greater proportion of total indirect costs for universities with a higher ACG research intensity.

No university provided data about major national university facilities.

Table 5.3

<table>
<thead>
<tr>
<th>COST CATEGORIES AS A PROPORTION OF TOTAL INDIRECT COSTS (%)</th>
<th>No. of unis</th>
<th>Non-academic salaries and on-costs</th>
<th>Mainten. &amp; repairs</th>
<th>Deprec. of buildings and equipment</th>
<th>Finance, borrowing &amp; insurance</th>
<th>Other Costs</th>
<th>Major Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>4</td>
<td>48.8</td>
<td>13.5</td>
<td>10.8</td>
<td>2.3</td>
<td>19.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Group Two</td>
<td>6</td>
<td>49.4</td>
<td>16.6</td>
<td>10.7</td>
<td>7.2</td>
<td>9.2</td>
<td>7.0</td>
</tr>
<tr>
<td>Group Three</td>
<td>6</td>
<td>47.5</td>
<td>8.9</td>
<td>10.5</td>
<td>1.8</td>
<td>27.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Group Four</td>
<td>6</td>
<td>51.5</td>
<td>13.9</td>
<td>9.4</td>
<td>7.1</td>
<td>18.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>48.9</td>
<td>13.9</td>
<td>10.8</td>
<td>3.6</td>
<td>17.7</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Source: Analysis undertaken by the Allen Consulting Group
5.4 Indirect cost rates

After totalling their indirect costs derived from the process above, the cost allocation spreadsheet prompted each university to provide the total value of their ACG funding for 2008. Using these two figures, the cost allocation spreadsheet then calculated each university’s indirect cost rate according to the following formula:

\[
\text{Total indirect costs} / \text{Total ACG funding} = \text{Indirect cost rate}^{12}
\]

For example, a university with total indirect costs of $16 million and total ACG funding of $20 million would have an indirect cost rate of 80 per cent.

Table 5.4 provides a breakdown of the average indirect cost rate for each grouping of ACG research intensity and the combined 22 universities. The data suggest that indirect cost rates increase with ACG research intensity. Table 5.4 also highlights the degree of institutional variability regarding indirect cost rates.

Further work, beyond the life of this project, may be necessary to compare the rates of each category to the research and infrastructure profiles of universities within each group.

<table>
<thead>
<tr>
<th>No. of universities</th>
<th>Mean, %</th>
<th>Range, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>4</td>
<td>99.2</td>
</tr>
<tr>
<td>Group Two</td>
<td>6</td>
<td>92.6</td>
</tr>
<tr>
<td>Group Three</td>
<td>6</td>
<td>78.8</td>
</tr>
<tr>
<td>Group Four</td>
<td>6</td>
<td>77.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22</strong></td>
<td><strong>94.9</strong></td>
</tr>
</tbody>
</table>

Source: Analysis undertaken by the Allen Consulting Group

Figure 5.2 provides a diagrammatic summary of the distribution of indirect cost rates by grouping of ACG research intensity. Each box plot illustrates:

• the maximum and minimum value of each grouping (represented by a normal and inverted ‘T’);
• the first and third quartile (the top and bottom of the box); and
• the average (the blue line in the box).

---

12 An alternative means of calculating indirect cost rates is to include all direct costs (essentially everything funded through an ACG plus unfunded direct costs, such as CI salaries) in the denominator (thus Total indirect costs / total direct costs). The study has not utilised this approach primarily because assumptions about direct and funded direct costs would be required to provide an accurate calculation. Such assumptions were beyond the scope of this project.
The box plots suggest that:

- the indirect costs rates for Group One are generally clustered around the mean, with the exception of a significant, maximum outlier;
- the indirect costs rates for Group Two exhibit the least clustering around the mean;
- the indirect costs rates for Group Three are generally below the mean; and
- the indirect costs rates for Group Four are relatively balanced in their distribution.

It is likely that further refinement of indirect cost categories and cost drivers will reduce the observed variation within each grouping of universities.

5.5 Calculation of cost to revenue

The Allen Consulting Group sought to provide DIISR with an estimation of the total indirect costs incurred by the Australian university sector in relation to ACG-funded research for 2008-09. In order to calculate this estimate, the Allen Consulting Group scaled up the indirect cost data collected from 22 universities to develop indirect cost values for the remaining 17 universities that did not provide data to the project. This ‘scaling up’ was achieved by creating a ratio of indirect costs for each grouping of ACG researcher activity. This ratio was equal to:

\[
\text{The total value of indirect costs for each grouping} \\
\text{(as identified by the cost allocation process)}
\]

divided by

\[
\text{The total value of ACG funding received in 2007 for each grouping.}
\]

ACG funding data for 2007 was used because it was the last year for which sector-wide data was publicly available.
For the 17 universities that did provide data, their respective group ratio was applied to their value of ACG funding for 2007.

\[
\text{ACG funding for 2007} \times \text{ratio of indirect costs} = \text{Value of indirect costs for 2008}
\]

The aggregated results of this process are shown in Table 5.5. It is important to note that these figures do not include the cost of CI salaries and do not include research-related block grant funding such as RIBG.

Table 5.5

<table>
<thead>
<tr>
<th>Group</th>
<th>Indirect cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>$670,353,013</td>
</tr>
<tr>
<td>Group Two</td>
<td>$305,985,219</td>
</tr>
<tr>
<td>Group Three</td>
<td>$102,830,710</td>
</tr>
<tr>
<td>Group Four</td>
<td>$24,933,233</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,104,102,175</strong></td>
</tr>
</tbody>
</table>

Source: Allen Consulting Group analysis

With the addition of 2008-09 RIBG funding ($225.7 million) the value of the shortfall is reduced to $878.4 million. Further reductions (of approximately between 8-10 per cent) to this figure would also occur in the event that time associated with research training was extracted from the development of these figures. This potentially equates to a final indirect cost of $742.5 million for 2008-09, and an average indirect cost rate of 85 per cent for the sector in relation to ACGs.

Further downward pressure on the total level of indirect costs is likely to occur with the introduction of allocation guidelines and appropriate auditing and verification procedures. Also international experience suggests that few governments pay indirect costs at rates above 50 per cent, even though actual costs may be significantly higher.

5.6 Validation of the results of the use of FTE drivers

The process of validation included a comparison of results utilising our methodology with that of alternative methodologies, and different data sets. The observations arising from the process of validation are outlined below.

Comparison against universities with activity based costing systems

A Group Two University undertook the staff time allocation survey and also has its own detailed cost data. This has allowed a comparison of the results based on this project’s methodology with the ‘real data’ of a university. This comparison suggested a minor overestimation of costs occurred through the application of our methodology. While it is difficult to verify the size of the over estimate, in the context of this project, the reasons for this variation are:

- key differences between the chart of accounts process used by the Allen Consulting Group to identify and allocate costs, as opposed to a services based approach used by the university;
• the adoption of generalised approach in attributing costs to ACG research by the Allen Consulting Group, as opposed to the approach of segmenting cost pools first and then subsequently allocating it to research (virtually a 2 step approach) used by the university; and

• key differences in the application of a single driver by the Allen Consulting Group to attribute costs, as opposed to the utilisation of multiple drivers by the university.

Informally, the results were also compared to those of another Group Two university, as well as a Group Three university. The main feedback received from each institution was that significant sensitivity existed around ACG FTEs and further refinement of allowable costs is necessary to ensure costs are being accurately captured. However, neither university consulted actually accounts for indirect costs on the basis of category 1 research funding, so the degree of refinement is, at this stage, unknown.

A case study using an alternative methodology

In addition, the Australian National University (ANU) provided the project team with a paper which offered an alternative methodology for assessing the indirect costs for each Australian public university. The case study draws on publicly available data to determine an indirect cost rate for each Australian public university.

The starting point is data corresponding to the ANU’s 2007 Higher Education Research Data Collection return of two categories of staff – teaching and research, and research only.

The paper then takes an allocation of academic staff time reported by McInnes (DETYA 1999) and collapses his eight categories down to research, education and other using two different approaches. It is assumed that university teaching period is 30 weeks per year and there are an additional 15 non-teaching weeks in a university year. By weighting the teaching and research FTEs using the McInnes data, the paper derives an FTE distribution across the three functions: research, teaching and other. The outcome is an estimate that 58 per cent of academic time is spent on research, or 69 per cent if academic administration is allocated across the three functions.

While this last figure aligns with some of the emerging results from this project, the ANU estimate is based on assumptions which the project team has not been able to substantiate.

US and UK rates

The indirect cost rates determined in this project are broadly similar to those in the US and UK, taking into account differences in approaches and allowable costs. While there is no consolidated source of US indirect cost rates, a RAND report (Goldman, et al, 2008) cited F&A rates from 25 per cent ranging up to nearly 90 per cent. It is important to note that these rates cannot be directly compared with the results of this study because of the way they are calculated (expressed as a percentage of Modified Total Direct Costs and with the administration component subject to a 26 per cent cap).
Chapter 6

Key findings and lessons

This chapter provides an overview of the key findings to emerge from both the application of the project’s methodology and the results of the staff survey and allocation process.

6.1 Benefits of transparent approaches to costing

The EUA (2008) and the TRAC Review (2009) have identified the benefits of transparent approaches to costing as:

- a more systematic approach to the analysis of activity and costing relating to research. This provides universities with an enhanced ability to negotiate funding arrangements (with both government and non-government bodies) that are financially sustainable;

- a more efficient use of resources at the institutional level. Transparent costing systems can also allow benchmarking against government and university objectives to occur, even when indirect research costs are only a small proportion of total university costs (such as in the US);

- improved strategic decision-making based on better understanding of investment decisions – especially those decisions which cross-subsidise teaching, research or other activities; and

- more accurate pricing of activities, which lead to higher costs, and thus better recovery of project costs.

6.2 Core issues associated with indirect costs

How indirect costs are expressed

The expression of indirect costs as a percentage of ACG funding, as used in this project, is appropriate for the Australian context. It allows indirect costs to be expressed as the block grant component of the research funding that is paid to central university administrations. This both supports and strengthens the dual funding model currently operating in Australia. It does not encourage ideas of ownership of indirect cost funding by researchers, as the charge out rate approach has fostered in the UK.

Considerable variation in indirect cost rates exist between universities

International experience has shown there is considerable variation in the indirect cost rates of universities. Data received for this project supports this general conclusion.
There are a number of good reasons why indirect cost rates may vary between Australian universities. One explanation could involve the high cost of delivering research in non-metropolitan regions and in some states and territories. Consultations with regional universities for this project reveal that the drivers of this variation are wide-spread, ranging from salaries, to construction, to repairs and maintenance, through to electricity, water, gas and other utilities.

While we are unable to provide robust primary project data to support this explanation, comparative cost data for the Vocational Education and Training sector (the nearest comparable sector to higher education) is insightful. Table 6.1 shows considerable variation in the per hour delivery costs of training between some states and territories – in particular, the high cost of delivering education in the Northern Territory, relative to other states and territories. Importantly for this study, these figures also include a capital component in the cost of delivery.

<table>
<thead>
<tr>
<th>Year</th>
<th>NSW</th>
<th>Vic</th>
<th>Qld</th>
<th>WA</th>
<th>SA</th>
<th>Tas</th>
<th>ACT</th>
<th>NT</th>
<th>Aust</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>19.24</td>
<td>17.79</td>
<td>21.12</td>
<td>21.52</td>
<td>18.68</td>
<td>18.27</td>
<td>19.74</td>
<td>34.89</td>
<td>19.52</td>
</tr>
<tr>
<td>2005</td>
<td>17.05</td>
<td>18.44</td>
<td>19.16</td>
<td>21.10</td>
<td>17.79</td>
<td>19.16</td>
<td>21.32</td>
<td>33.57</td>
<td>18.48</td>
</tr>
<tr>
<td>2006</td>
<td>17.00</td>
<td>18.13</td>
<td>16.80</td>
<td>19.71</td>
<td>18.32</td>
<td>18.48</td>
<td>19.88</td>
<td>28.75</td>
<td>17.82</td>
</tr>
<tr>
<td>2007</td>
<td>16.00</td>
<td>15.81</td>
<td>18.13</td>
<td>18.91</td>
<td>17.09</td>
<td>18.51</td>
<td>19.47</td>
<td>27.43</td>
<td>16.90</td>
</tr>
</tbody>
</table>

Notes: a) Load pass is based on assessable enrolments of modules and units of competency achieved/passed and RPL, it does not include non-assessable enrolments.

Other reasons for this variation could include:

- some research activities require high-cost support – especially those universities with medical facilities or large-scale scientific infrastructure;
- multi-campus (as opposed to single campus) universities;
- the current condition of buildings and research facilities; and
- the intensity of use of space in buildings.

However given the time constraints placed on this project, the degree to which these differences account for variation between university indirect cost rates has not been determined.

Indirect costs are based on ‘minimum requirements’

In the US and the UK, the relevant authorities have adopted approaches that require universities to take responsibility for determining their indirect costs. In both cases, guidance is provided to ensure that minimum requirements are met (Circular A-21 in the US and the TRAC Manual in the UK). However universities are afforded some flexibility in the application of these requirements to the collection and reporting of indirect costs.
Our experience in developing and administering a staff survey for this project suggests that similar approach is appropriate for the Australian context. For example, future staff surveys should be organised by the universities themselves, subject to meeting appropriate response and verification levels, with the support of government. However, it will be important to monitor the outcomes of this approach to ensure that any risks (such as over estimation) are minimised over time.

**Compliance costs**

Indirect cost regimes can be expensive and time consuming to manage if they are too complex and granular in their approach. Consultations with key stakeholders from universities, government and funding agencies in the US and the UK, have highlighted the merits of a simple approach to the development of cost drivers, and the allocation of costs through these drivers to indirect cost pools. The substantial use of consultants to measure space in North America and the expensive audit and compliance arrangements used in the UK to validate survey results, should be avoided in the design of the Australian system.

### 6.3 Cost drivers

The use of FTE-based cost drivers is widespread in the international context for salary and staff costs, but is generally not used to allocate building and equipment related costs. FTE cost drivers are informed by staff time allocation surveys that should be relatively low-cost. Measuring and allocating space is a more expensive process. However if Australian universities want to use space allocation as a cost driver, this should be accepted subject to guidelines on valuations and methods of allocating shared space. The benefit to the universities of using space-related cost drivers is that this encourages the more efficient use of buildings and property – an outcome which may justify the additional effort associated with measurement.

**Staff time allocation surveys**

Some universities believe that cost drivers based on academic staff effort are not appropriate for allocating the time of non-academic staff. We understand that one university has recently undertaken a survey of non-academic staff time but have not sighted the outcome of this work. In the absence of such data we have looked to international experience (see below) for guidance on this matter.

Good practice in staff time allocation involves conducting surveys on a rolling/scattered basis (i.e. different staff are asked to complete the survey for different weeks through the year). Good practice also requires surveying staff in three scattered weeks of effort (e.g. a teaching week, a week in a semester break, an exam week, etc) across one calendar year. This can provide better estimates of a broader range of academic activities than can be captured through one-off surveys such as the one undertaken for this project. In the UK, staff surveys are often conducted on a three-week rolling/scattered basis to ensure that they are representative of the whole academic year. In addition, workshops and face-to-face interviews are undertaken with a selection of surveyed staff to ensure activity data is captured accurately.
Other good practices include the development of staff surveys specifically aimed at non-academic staff, and the development of weighting factors which reflect the teaching and research intensity of institutions. They also include requirements (such as those in the UK) to achieve a 75 per cent response rate from staff undertaking surveys.

For Australia to have a workable system of addressing the indirect costs of ACG-funded research it will be essential for all staff to understand what is involved and to accept the importance of accurate time allocation surveys.

**Distinguishing between research ACG and research Other**

This project has confirmed that Australian academic staff undertake a complex range of research-related activities from a broad range of funding sources (such as ACGs, other Commonwealth, State and Territory government funding, and private consultancies). In many instances the activity of researchers is jointly or co-funded, which makes allocation of time to ACGs difficult. This project has also highlighted that some academics (especially those attached to multiple grants across multiple institutions) are simply unaware of where research funding originated. For these reasons, it will be crucial to introduce strict guidelines for allocating time to ACG related research if an indirect cost model is introduced. It will also be necessary to educate all researchers about the importance of correctly recording time dedicated to ACG funded research.

**Recording time spent on postgraduate supervision**

The allocation of costs associated with postgraduate research training is particularly complex and subject to considerable variation within and between universities. Results for the recent TRAC Review suggest that many universities struggle to account accurately for the academic time associated with research training. For this reason, it is important to provide strict guidelines as to how this time should be recorded, especially with respect to dominant activities such as thesis examination.

One simple approach is to allocate supervision time 50:50 to teaching and research, however, many universities consulted for this project believe that this underestimates the level of research associated with research training. For this reason, it is recommended that research training is allocated on a ratio of 80:20 between teaching and research.

While research training was not an aspect of this project’s terms of reference, considerable consultation with the university sector highlighted considerable complexity currently exists within funding arrangements of research training. Over time any move to adopt transparent approaches to costing research, will require further consideration of the costs associated with training to ensure funding arrangements – such as the Research Training Scheme – are sustainable and support policy objectives.
Consistent definitions and treatment of ACG FTEs

This project has highlighted considerable variation in the way ACG FTEs are captured and recorded in university accounting and human resource systems. While most universities could identify CIs and project leaders through their systems, the identification of other researchers directly associated with ACGs is a difficult task. Some of this information can be ascertained through a combination of the original grant proposals, the employment contracts of individual staff and through reconciliation with project-based expenditure codes. However, this can be a time consuming task for universities to undertake and it is still subject to some interpretation at the university level.

Consultations with individual universities also revealed some difficulties in identifying those FTEs that were contributing to the university’s ACG research effort but were neither on the university payroll (such as an Emeritus Professor) nor paid out of an ACG grant. Importantly this also included FTEs that were co-investigators and not the primary grant holders. As such, some of these FTEs were not captured in the project.

Variation in the number of FTEs associated with ACGs can have considerable effects on the development of FTE drivers, and their use to determine indirect cost rates. An over estimate of FTEs can drive up a university’s overall indirect cost rate considerably. Conversely, an underestimate of total ACG FTEs will generate a lower than desired indirect cost rate.

The development of clear guidelines for universities to record data will be a necessary element of any future indirect funding arrangement.

6.4 Indirect cost categories

Institutional variation in the treatment of accounting costs

There is considerable variation in the treatment of costs between universities, which has implications for the development of indirect cost categories. These variations are driven by different university accounting standards laid down by each state and territory Auditors-General, and Treasury departments, and by historical practice within universities.

For example, there is considerable difference in the way assets are treated across each institution that makes it difficult to achieve consistency in the calculation of indirect cost components. In some instances, material thresholds for assets can be $2,000 for individual items, while in others it can range from $5,000-$10,000. In some universities, library collections are valued periodically and depreciated, while in others the concept that knowledge can lose value over time is rejected and the practice is not followed. The exclusion of these costs is something we support in the context of this project.

The consequence of these differences is that depreciation costs associated with university research can vary dramatically between institutions. While some of these differences may not be material, others could lead to significant inconsistencies in the calculation of indirect costs. For this reason, an expert advisory group on the treatment of indirect costs is proposed.
In addition, it would be appropriate to use 2010 as a year for universities to improve their accounting systems so that they can better track the indirect cost components. As in the UK, it would be appropriate for the Government to provide universities with some financial assistance to achieve this result.

**Other indirect costs associated with ACG research**

In this study, universities were asked to identify other costs associated with ACG research. Feedback from universities suggests that this list is potentially large (equating to approximately 15 per cent of total indirect costs) and will require further consultation with the sector in order to be finalised. A list of the larger costs in this category include:

- consumables and office supplies;
- consultancies;
- advertising, marketing and promotional costs;
- ICT associated costs (including software); and
- library associated costs which exclude building and salary and on-costs.

### 6.5 Implementation of transparent costing

**Property and estate costs**

The implementation of any indirect costing framework will require detailed consideration of property and estate costs. There are two elements to property or estate costs. One element comprises property-based operating costs such as cleaning and maintenance. These are included in indirect costs. The second is the cost of, and return on, capital. The way this is handled in the US and UK funding models is complex. One of the reasons for the difficulties in including capital costs is that sometimes resources specifically earmarked for capital improvement are provided through other funding arrangements.

Taking property costs into account requires building valuations and/or (nominal) rental values. Valuations of heritage buildings may not reflect their value as a place to undertake research. In Australia, practices in relation to the valuation of buildings vary between states and territories. Further, rental values of university buildings are difficult to validate. Many university buildings have no counterparts outside the university, making comparisons with market rental rates difficult. Neither the US nor the UK approach looks particularly suited to the Australian context.

**Major research facilities**

Some universities host major research facilities (such as those used for optical and radio astronomy and for micro and nano-fabrication) which are shared by users from a number of faculties and sometimes by users from outside the university. The use of these facilities is commonly charged at marginal cost by universities. In some cases, researchers with ACGs pay a contribution to use these facilities on an hourly or daily rate basis through grant funds. In other cases, access to these facilities is cross-subsidised from other university funding. In all instances, these facilities generate significant indirect costs for a university, which are often not met by grant funding.
In order to determine the indirect cost rates for these facilities, all charges, contributions and direct grant funding need to be subtracted from total costs. However, this project has highlighted that, for many Australian universities, the revenues and expenditures of these facilities are not quarantined in university accounts. This means that broad assumptions are necessary in order to determine levels of indirect cost.

Good practice in the UK and US suggests that universities should operate these facilities as independent cost centres (especially for salary-related costs) and track any ACG-sourced funding that contributes to their operation, as a means of demonstrating indirect costs. It also suggests that the balance between precision and the cost of compliance (especially verification) is particularly important when considering indirect costs associated with these facilities.

Some additional work will be necessary to highlight both the allowable costs of these facilities and the appropriate drivers for each facility. In particular, any framework for calculating indirect costs will need to include the non-academic staff employed to operate the facility.

6.6 Next steps

This project has been an important next step in considering key issues that are relevant to the potential introduction of a costing regime for the Australian university sector. It has highlighted the difficulties in developing a one-size-fits-all methodology for identifying and then allocating indirect costs. It has also highlighted the next steps that are necessary to implement a costing regime for the entire sector. These include:

- developing more detailed guidance (equivalent to the US and UK manuals) for:
  - the selection and refinement of cost drivers – especially in relation to FTE and space related drivers;
  - the definition of indirect cost categories – in particular, further refinement of the ‘other indirect cost’ category; and
  - the treatment of major national research facilities and the costs relating to capital;
- educating university staff and administrators about the rationale, process and outcomes of any approach adopted in Australia to address indirect costs;
- assisting the universities to upgrade their accounting systems – both in terms of funding and technical support;
- defining reporting arrangements (timetable and details); and
- devising cost effective audit and validation arrangements to complement the implementation of an indirect cost regime.
Appendix A

Bibliography


INDIRECT COSTS OF UNIVERSITY RESEARCH FUNDED THROUGH AUSTRALIAN COMPETITIVE GRANTS

Buwalda, J 2003, ‘Principles for full-cost funding of university research’ and covering letter, 21 February 2003 – see Go8, 2008, Appendix G.


NHMRC (National Health and Medical Research Council) 2009, NHMRC Program Grants Funding Policy for funding commencing in 2011, accessed on 5 July 2009 at www.nhmrc.gov.au


OMB 2009, ‘Facilities and Administration Costs’, Circular A-21, OMB.


Winefield, T et. al 2008, ‘Update on National University Stress Study’,

Appendix B

Governance of the project

B.1 Project Steering Committee

The project was overseen by a PSC, which was chaired by Jessie Borthwick, Head of Research Division, the Department of Innovation, Industry, Science and Research. Table B.1 details the membership of the PSC.

Table B.1

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms Jessie Borthwick (Chair)</td>
<td>Department of Innovation, Industry, Science and Research</td>
</tr>
<tr>
<td>Ms Vicki Thomson</td>
<td>Australian Technology Network of Universities</td>
</tr>
<tr>
<td>Professor Ross Milbourne</td>
<td>Australian Technology Network of Universities (UTS)</td>
</tr>
<tr>
<td>Mr Grant Anderson</td>
<td>Department of Finance and Deregulation</td>
</tr>
<tr>
<td>Mr Paul McNamara</td>
<td>Department of Finance and Deregulation</td>
</tr>
<tr>
<td>Ms Kerrie Murphy</td>
<td>Department of Prime Minister and Cabinet</td>
</tr>
<tr>
<td>Ms Rachel Otago</td>
<td>Department of Prime Minister and Cabinet</td>
</tr>
<tr>
<td>Dr Anne Byrne</td>
<td>Department of Innovation, Industry, Science and Research</td>
</tr>
<tr>
<td>Dr Joanne Bright</td>
<td>Department of Innovation, Industry, Science and Research</td>
</tr>
<tr>
<td>Dr John Wellard</td>
<td>Department of Innovation, industry, Science and Research</td>
</tr>
<tr>
<td>Ms Penny Sirault</td>
<td>Department of Treasury</td>
</tr>
<tr>
<td>Mirren Allica</td>
<td>Department of Treasury</td>
</tr>
<tr>
<td>Mr Mike Gallagher</td>
<td>Group of Eight</td>
</tr>
<tr>
<td>Ms Lenore Cooper</td>
<td>Innovative Research Universities Australia</td>
</tr>
<tr>
<td>Professor Chris Cocklin</td>
<td>Innovative Research Universities Australia</td>
</tr>
<tr>
<td>Dr Carolyn Alport</td>
<td>National Tertiary Education Union</td>
</tr>
<tr>
<td>Professor Jim Piper</td>
<td>Non-aligned universities (Macquarie)</td>
</tr>
<tr>
<td>Professor Linda Rosenman</td>
<td>Non-aligned universities (VU)</td>
</tr>
<tr>
<td>Dr Glenn Withers</td>
<td>Universities Australia</td>
</tr>
<tr>
<td>Ms Keely Dreghorn</td>
<td>Universities Australia</td>
</tr>
<tr>
<td>Dr James Moody</td>
<td>CSIRO</td>
</tr>
<tr>
<td>Professor Lawrence Cram</td>
<td>ANU</td>
</tr>
<tr>
<td>Mr Paul Kniest</td>
<td>National Tertiary Education Union</td>
</tr>
<tr>
<td>Dr John Bell</td>
<td>The Allen Consulting Group</td>
</tr>
<tr>
<td>Dr Alex Gash</td>
<td>The Allen Consulting Group</td>
</tr>
<tr>
<td>Dr Cameron Crouch</td>
<td>The Allen Consulting Group</td>
</tr>
</tbody>
</table>

Note: The PSC was also assisted by input from Mr Paul Mills, Ms Helen McDevitt, Mr Kieren Angel and Mr Paul Harris, who attended some committee meetings.
B.2 Technical Working Group

The TWG assisted the PSC throughout the project. TWG was chaired by Dr Anne Byrne, General Manager, Research Funding and Policy Branch, the Department of Innovation, Industry, Science and Research.

Table B.2
MEMBERSHIP OF THE TECHNICAL WORKING GROUP

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Anne Byrne (Chair)</td>
<td>Department of Innovation, Industry, Science and Research</td>
</tr>
<tr>
<td>Dr John Wellard</td>
<td>Formerly Department of Innovation, Industry, Science and Research</td>
</tr>
<tr>
<td>Professor Arun Sharma</td>
<td>Queensland University of Technology</td>
</tr>
<tr>
<td>Ms Danella Stoltz</td>
<td>James Cook University</td>
</tr>
<tr>
<td>Mr Gareth Simpson</td>
<td>Department of Finance and Deregulation</td>
</tr>
<tr>
<td>Professor Peter Rathjen</td>
<td>University of Melbourne</td>
</tr>
<tr>
<td>Mr Peter Shipp</td>
<td>The Australian National University</td>
</tr>
<tr>
<td>Mr Reynold Dias</td>
<td>Monash University</td>
</tr>
<tr>
<td>Mr Robert Webster</td>
<td>Royal Melbourne Institute of Technology</td>
</tr>
<tr>
<td>Mr Shane McGregor</td>
<td>The University of Adelaide</td>
</tr>
<tr>
<td>Mr Bob Kotic (represented by Mr Paul Slater)</td>
<td>The University of Sydney</td>
</tr>
<tr>
<td>Mr Damien Israel</td>
<td>The University of Wollongong</td>
</tr>
<tr>
<td>Dr Joanne Bright</td>
<td>Department of Innovation, Industry, Science and Research</td>
</tr>
<tr>
<td>Mr Paul Beard</td>
<td>The University of South Australia</td>
</tr>
<tr>
<td>Dr Alex Gash</td>
<td>The Allen Consulting Group</td>
</tr>
<tr>
<td>Dr Cameron Crouch</td>
<td>The Allen Consulting Group</td>
</tr>
<tr>
<td>Dr John Bell</td>
<td>The Allen Consulting Group</td>
</tr>
<tr>
<td>Mr Grant Anderson</td>
<td>Department of Finance and Deregulation</td>
</tr>
</tbody>
</table>

Note: The TWG was also assisted by input from Mr Matthew Wright, who attended some committee meetings.
Appendix C

Survey instructions and supporting material

The information contained in this appendix is a copy of the instruction document that was provided to individual researchers that were invited to undertake the survey of ACG researcher activity.

C.1 Survey of researcher activity – instructions

Australia has a dual system for funding research through universities. The system is comprised of competitively awarded research grants (such as the Australian Research Council and National Health and Medical Research Council) to cover the direct project costs of individual researchers, and formula driven block grants (such as the Research Infrastructure Block Grant, or RIBG) to cover the institutional costs associated with research.

Universities have long expressed concern that funding derived from competitive research grants does not sufficiently cover the costs of undertaking such research. In particular, there is evidence to suggest that current funding regimes do not adequately cover the indirect (overhead) costs associated with competitive grant research. A preliminary analysis (please click on the link) undertaken by the Allen Consulting Group found that the actual indirect costs might vary between 50 and 60 per cent of the total direct costs. In contrast, researchers are currently receiving approximately 20 per cent of the total direct costs via the RIBG scheme.

The need to address this shortfall was recently raised by the Minister for Innovation, Industry, Science and Research in a speech (please click on the link) to the Australian Financial Review Higher Education Conference, where he stated that it is the Government’s ‘ambition to progressively address the gap in funding for the indirect costs of research, subject to the capacity of future budgets’.

Before considering increased allocations of funding for indirect costs, the Australian Government would like to establish a body of evidence that is robust, representative and comparable. To assist the Government, the Department of Innovation, Industry, Science and Research has commissioned the Allen Consulting Group to undertake analytical work on the indirect costs of research. As part of this study, university staff involved in research which is supported by grants on the Australian Competitive Grants Register (ACGR) (click on the link to see if your grant is on the register) are asked to undertake a simple online survey which will allow for the determination of the proportion of researcher time dedicated to a range of activities – namely teaching, research and other.

By determining the proportion of time dedicated to a particular activity (like research), the proportion of indirect costs (such as university overheads) associated with that activity can be determined at an institutional and sector-wide basis. The outcomes of such analysis will provide the Government with a more accurate view of the actual indirect costs of research and how the actual costs compare with the funding currently provided to universities in support of these costs.
This type of analysis has been carried out by leading OECD countries as they have established or are currently in the process of moving to establish, mechanisms to meet the full the costs of research, particularly in relation to covering the indirect costs.

The results of the survey will be strictly confidential. While you are asked to provide your employee number, this is only to help ensure the integrity of the survey. All data will be de-identified before analysis is undertaken. Your de-identified individual response will not be distributed beyond the Allen Consulting Group and your university.

The schema in Figure C.1 provides a diagrammatic outline of how the survey will help us understand the indirect costs of university research. The key steps in the process include:

4. The administration of a survey, which asks university staff to nominate the percentage of their time spent on research, teaching or other activities. The survey will enable the proportion of indirect costs associated with each activity to be assessed.

5. The conduct of further analysis, through case studies, interviews with university administrators and the use of institutional financial statements, to calculate the total indirect costs expended on all university activities.

6. A comparison between the revenues received for research and the indirect costs associated with an institution’s research activity.

7. A comparison of the data collected through steps 1 to 3 with the research funding received from Government sources. This enables an accurate quantification of potential funding gaps for the entire sector.
**Who should complete the survey?**

Anyone directly involved in **Australian Competitive Grant** research. This includes Chief Investigators, associated researchers, postdoctoral fellows and any technical support staff funded by the grant. Chief Investigators are encouraged to distribute this survey amongst members of their competitive grant project teams.

**What activities does the survey cover?**

The six activities included in the survey are:

- **teaching (including associated administration)** – e.g. preparing and presenting lectures/tutorials, grading undergraduate and postgraduate coursework assessments, and preparing course materials

- **research (including associated administration) pertaining to Australian Competitive Grants** – this covers all research activity (such as fieldwork, documentary analysis and drafting) directly associated with **Australian Competitive Grants**

- **research (including associated administration) pertaining to other funding sources** – this covers all other research activity (e.g. research funded by industry grants or directly through the university)

- **research training of postgraduate students** – this includes the marking of assessments of postgraduate dissertations
other activities – including services, such as consulting, media work, volunteering and charity work, professional development and committee work)

• leave – including sick leave, personal leave, annual leave and public holidays.

Some activities may not neatly fit in the six categories listed above. In these instances, you are asked to use your best judgment in accounting for your time.

What time period does the survey cover?
The two-week period from dd/mm/yy to dd/mm/yy. You are also asked to provide an estimation of the time they spent on research, teaching and other activities in the calendar year 2008. I would appreciate if you could return their completed surveys by dd/mm/yy.

How should I complete the survey?
The survey prompts you to indicate what percentage of your weekly effort can be apportioned to the activities listed above. To assist you with this process, a spreadsheet has been developed (please find attached). This will allow you to record your hours against each activity on a daily basis. The spreadsheet will automatically calculate the relevant percentages of weekly effort for each category. These percentages can then be transferred to the online survey at the end of the survey period. It is important to note that the spreadsheet is for personal use only, and will not be seen by either the consultants or your university.

The online survey should only be completed once at the end of the two-week period. Completing the online survey should take no longer than 5-10 minutes. The survey can be accessed using the following link.

Questions
If you have any questions regarding this survey, please do not hesitate to contact the Allen Consulting Group via email.

C.2 Conversion spreadsheet
The following instructions were given to assist researchers in completing the spreadsheet:

• This spreadsheet is provided as a tool to convert the time researchers spend on various activities per day into a percentage of their weekly effort.

• Please save this spreadsheet on to your desktop.

• For each day of the two-week period, researchers should enter (in the blue cells only) the number of hours that they spent on each activity.

• At the end of the two-week period, please transfer the percentages for Week 1 and Week 2 (the red cells) to the online survey.

A sample of the tables is provided below.
### Table C.1

**SAMPLE CONVERSION SPREADSHEET PROVIDED TO ACG RESEARCHERS FOR PERSONAL USE**

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>WEEK ONE</th>
<th>% OF WEEKLY EFFORT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DAILY HOURS</strong></td>
<td>Monday</td>
<td>Tuesday</td>
</tr>
<tr>
<td><strong>Teaching</strong> (including associated administration)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Research</strong> (including associated administration) pertaining to Australian Competitive Grants.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Research</strong> (including associated administration) pertaining to other funding sources</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Research training of postgraduate students</strong> (all funding sources)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Other</strong> (including services, such as consulting, media, volunteering and charity work, professional development, time spent on committees)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Leave</strong> (sick, annual, public holiday, personal - a standard day of leave generally equals eight hours).</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**WEEK TWO**

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>WEEK ONE</th>
<th>% OF WEEKLY EFFORT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DAILY HOURS</strong></td>
<td>Monday</td>
<td>Tuesday</td>
</tr>
<tr>
<td><strong>Teaching</strong> (including associated administration)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Research</strong> (including associated administration) pertaining to Australian Competitive Grants.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Research</strong> (including associated administration) pertaining to other funding sources</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Research training of postgraduate students</strong> (all funding sources)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Other</strong> (including services, such as consulting, media, volunteering and charity work, professional development, time spent on committees)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Leave</strong> (sick, annual, public holiday, personal - a standard day of leave generally equals eight hours).</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: The Allen Consulting Group
Appendix D

Australian Competitive Grant Register 2009

COMMONWEALTH SCHEMES

Agriculture, Fisheries and Forestry
Australian Egg Corporation Limited — Basic and Applied Research Open Call NEW
— Egg Quality Program NEW
Australian Pork Limited — Research and Development Open Tenders NEW
Australian Wool Innovation Limited — Research and Development Open Call NEW
Cotton Research and Development Corporation — Open Call Research and Development Projects NEW

Dairy Australia
— Manufacturing Research Grants NEW
— Research and Development Grants NEW

Department of Agriculture, Fisheries and Forestry
— Australian Centre of Excellence for Risk Analysis
— Climate Change Research Program Research Projects NEW

Fisheries Research and Development Corporation
— Annual Open Call Round NEW
— Tactical Research Fund NEW

Forest and Wood Products Australia Ltd
— Denis Cullity Research Fellow NEW
— Research and Development Research Grants NEW

Grains Research and Development Corporation
— Grains Industry In-service Training Awards NEW
— Grains Industry Senior Fellowships NEW
— Grains Industry Visiting Fellowships NEW

R&D Open Tender
New Products
— New Farm Products and Services NEW

Practices
— Agronomy, Soils and Environment NEW
— Crop Protection NEW
— Validation and Integration NEW

Varieties
— Gene Discovery NEW
— Germplasm Enhancement NEW
— Pulse, Oilseed and Summer Coarse Grains NEW
— Wheat and Barley Breeding NEW

Grape and Wine Research and Development Corporation — R&D Projects NEW

Horticulture Australia Limited
— R&D General Call
— R&D Industry Call NEW

Land and Water Australia
— Defeating the Weed Menace NEW
— Environmental Water Allocation Open Call NEW
— Innovation Call NEW
— National Program for Sustainable Irrigation NEW

Native Vegetation and Biodiversity Research and Development Program
— Open Call NEW

Social and Institutional Research Program
— Water Planning Processes: Lessons, Gaps and Adoption Call NEW

Meat and Livestock Australia
— Human Nutrition Research Program NEW
MLA Livestock Production Research and Development Program
  — Strategic and Applied Research Funding NEW

Rural Industries Research and Development Corporation — Research Priorities
Program NEW

Sugar Research and Development Corporation — Research Projects NEW

Attorney General
Criminology Research Council — Criminology Research Fund

Broadband, Communications and the Digital Economy
Department of Broadband, Communications and the Digital Economy —
Telecommunications Research Grants

Defence
Department of Defence — Army History Research Grants Scheme
Education, Employment and Workplace Relations
National Centre for Vocational Education Research
  — Adult Literacy Research Program
  — Longitudinal Surveys of Australian Youth (LSAY) Research Innovation and Expansion
  Fund Analysis Grants Program NEW
  — National Vocational Education and Training Research and Evaluation Program
      (NVETRE)

Environment, Water, Heritage and the Arts
Australian Antarctic Division
  — Australian Antarctic Science Grants
  — Australian Marine Mammal Centre (AMMC) Grant Scheme

Australian Biological Resources Study — National Taxonomy Research Grants Program

Department of the Environment, Water, Heritage and the Arts
  — Commonwealth Environment Research Facilities (CERF)
  — Marine and Tropical Sciences Research Facility (MTSRF)

Great Barrier Reef Marine Park Authority — Science for Management Awards

Families, Housing, Community Services and Indigenous Affairs
Department of Families, Housing, Community Services and Indigenous Affairs —
Social Policy Research Services Agreements

Foreign Affairs and Trade
AusAID — Australian Development Research Awards

Australian Centre for International Agricultural Research (ACIAR) — R&D
Programs

Health and Ageing
Cancer Australia
  — New National Co-operative Oncology Groups
  — Priority-driven Collaborative Cancer Research Scheme
Support for Cancer Clinical Trials
      — Existing National Cooperative Oncology Groups

Department of Health and Ageing
  — Anti-Doping Research Program
  — Australian Centre for Hepatitis and HIV Virology Research
  — National Drug Law Enforcement Research Fund (NDLERF)

National Health and Medical Research Council
  — A Healthy Start to Life for Aboriginal & Torres Strait Islander Children
  — Ageing Well, Ageing Productively
  — Australia Fellowship Scheme NEW
  — Australian Health Ministers’ Advisory Council Priority Driven Research Program
  — Australian-European Union Health Research Collaboration
  — Capacity Building Grants for Population Health and Health Services NEW
  — Capacity Building in Population Health Research
  — Career Development Awards
  — Centres for Clinical Research Excellence
  — Dementia Research Grants
  — Development Grants
  — Electromagnetic Energy Research
  — General Practice Clinical Research Program
  — Health Services Research Program
  — International Collaborative Indigenous Health Research Partnerships
— National Asbestos Centre
— NICS Fellowships
— Oral Health
— Palliative Care Research Grants
— Postdoctoral Fellowships for Palliative Care Research
— Postdoctoral Training Fellowships
— Practitioner Fellowships Scheme
— Preventative Healthcare and Strengthening Australia's Social and Economic Fabric
Primary Healthcare Research, Evaluation and Development (PHCRE) Strategy
— Research Fellowships
— Program Grants
— Project Grants
— Research Fellowships Scheme
— Special Program Grants in Type 1 Diabetes
Urgent Research
— Pandemic Influenza

Infrastructure, Transport, Regional Development and Local Government
Department of Infrastructure, Transport, Regional Development and Local Government — Road Safety Research Grants Program

Innovation, Industry, Science and Research
Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) — Research Grants
Australian Research Council
— ARC Centres of Excellence
Discovery
— Federation Fellowships
— Indigenous Researchers' Development
— Projects
Linkage
— International
— Projects
— Special Research Centres
Special Research Initiatives
— Thinking Systems

Commonwealth Scientific & Industrial Research Organisation (CSIRO)
Flagship Collaborative Research Program
— Clusters

Prime Minister and Cabinet
Department of the Prime Minister and Cabinet — Research Support for Counter Terrorism Program

NON-COMMONWEALTH SCHEMES

Alcohol Education and Rehabilitation Foundation Ltd — Research Grants
ANZ Trustees
— Judith Jane Mason & Harold Stannett Williams Memorial Foundation
— The JO & JR Wicking Trust

Arthritis Australia
Research Grants Program
— Grants in Aid/Project Grants NEW

Australian Coal Research Ltd — Australian Coal Association Research Program

Australian Housing and Urban Research Institute — Research Funding Scheme

Australian Institute of Nuclear Science and Engineering Ltd
— AINSE Awards
— AINSE Research Fellows NEW

Australian Primary Health Care Research Institute (APHCRI)
— Stream 3
— Stream 5
— Stream 6
— Stream 13: Drivers of Successful Primary Health Care
**Australian Rotary Health** — Mental Health Research Grants
**Australian Stem Cell Centre** — Australian Stem Cell Centre Grants Scheme
**Brain Foundation** — Annual Research Awards
**Dairy Innovation Australia Limited**
Dairy Health and Nutrition Consortium
— Substantiation Stream
**Diabetes Australia Research Trust** — Awards and Research Grants
**Geoffrey Gardiner Dairy Foundation** — Innovation
**Juvenile Diabetes Research Foundation**
— Islet Transplantation Program in Australia
— Research Grants
**Kidney Health Australia** — Medical Research Program
**Leukaemia Foundation** — National Research Program
**Motor Neurone Disease Research Institute of Australia**
— Grants in Aid
— Postdoctoral Fellowships
**Multiple Sclerosis Research Australia**
— MSRA Investigator Project Grants
— MSRA Postdoctoral Fellowships
**National Breast Cancer Foundation**
— National Collaborative Breast Cancer Research Grant Program (Phase 2)
— Novel Concept Awards
— Pilot Study Grants
— Project Grant (formerly known as Kathleen Cunningham Research Grants)
**National Heart Foundation of Australia**
— Fellowships (Biomedical, Clinical, Public Health, Overseas, Career Development)
— Grants In Aid (Biomedical, Clinical and Public Health)
**Pfizer Australia Pty Ltd**
— Cancer Research Grants
— Cardiovascular and Lipid Research Grants
— Neuroscience Research Grants
— Research Fellowship
**Sea World Research & Rescue Foundation Inc** — Research Projects
**Sylvia and Charles Viertel Charitable Foundation** — Medical Program
**The Australian and New Zealand College of Anaesthetists** — ANZCA Research Grants
**The Australian and Pacific Science Foundation** — Research Project Grants
**The Australian Cystic Fibrosis Research Trust** — Annual Grants for Cystic Fibrosis Research
**The Australian and New Zealand College of Ophthalmologists (RANZCO) Eye Foundation** — National Collaborative Projects
**Workers Compensation Dust Diseases Board of NSW** — Research Grants Scheme
Appendix E

Non-allowable indirect costs

This appendix provides a summary of the non-allowable indirect costs specified in the 2009/10 funding guidelines for the major granting bodies in Australia.

E.1 Non-allowable costs for ARC grant funding

This section provides the items that are restricted under the ARC’s and NHMRC’s main granting programs.

ARC Discovery Grants (commencing in 2010)

Discovery Projects has restrictions on the following budget items:

• Capital works and general infrastructure costs are not funded by the ARC, in whole or in part, under Discovery Projects.

• The Commonwealth will not provide support, in whole or in part, to meet the salaries of CIs or PIs under Discovery Projects. If a Proposal requests salary funding for a CI or PI, the Proposal will not be recommended or approved for funding.

• Discovery Projects funding is not usually provided to fund teaching and/or teaching relief. Commonwealth funds may be used for teaching relief only if specifically approved for that purpose. The ARC may fund justified teaching relief for up to 6 months in each consecutive year. If approved, the funding contribution will be in accordance with Appendix D subsection D1.3, and will be a Special Condition.

• Funds are not provided for travel or related expenses for researchers when on a Special Studies Program.

• Funds are not provided to pay the fees of international students or the Higher Education Contribution Scheme (HECS) and Higher Education Loan Programme (HELP) liabilities for students.

• The Administering Organisation must agree to provide the following basic facilities (where relevant to the Proposal), which will not be funded under Discovery Projects:
  – accommodation (e.g. laboratory and office, suitably equipped and furnished in standard ways);
  – access to film or music editing facilities;
  – access to a basic library collection;
  – standard reference materials or funds for abstracting services;
  – provision of computers, including laptops (excluding access to high-performance computers or other specialised applications that are justified against the project) and basic computing facilities such as printers, word processing and other standard software; and
– use of photocopiers, telephones, mail, fax, email and internet services.

• Publication costs, including printing and page costs, will not be funded under Discovery Projects.

• Costs not directly related to a project will not be funded, for example, costs of a personal nature (ARC 2008).

**ARC Linkage Projects (commencing 2009)**

Linkage Projects has restrictions on the following budget items:

• Capital works and general infrastructure costs are not funded by the ARC, in whole or in part, under Linkage Projects. In addition, they must not be included in the required matching contributions made by Partner Organisations. This does not, however, preclude Partner Organisations from contributing to capital works and general infrastructure costs if the contribution is over and above the required matching contribution.

• The Commonwealth will not provide support, in whole or in part, to meet the salaries of CIs or PIs under Linkage Projects apart from the possibility of support for salary-related costs associated with a LIF (Section 4.7). If a Proposal requests salary funding for a CI or PI, the Proposal will not be recommended or approved for funding.

• Linkage Projects funding may be provided to fund the relief of a CI from teaching or other duties in order to maximise the opportunity for the CI to interact with the Partner Organisation(s) if it is specifically approved for that purpose. The ARC may fund justified relief for CIs for a maximum period of up to half of the life of the project. If approved, the funding will be in accordance with Appendix D (Section D2) and will be a Special Condition.

• Funds are not provided for travel or related expenses for researchers when on a Special Studies Program.

• Funds are not provided to pay the fees of international students or the Higher Education Contribution Scheme (HECS) and Higher Education Loan Programme (HELP) liabilities for students.

• Research support for PIs. Funds are not provided for PIs, apart from:
  – short-term project support for investigators visiting from overseas;
  – domestic and international travel associated with a project; and
  – salary funding for approved LIF Fellows.

• The Administering Organisation must agree to provide the following basic facilities (where relevant to the Proposal), which will not be funded under Linkage Projects:
  – accommodation (e.g. laboratory and office, suitably equipped and furnished in standard ways);
  – access to film or music editing facilities;
  – access to a basic library collection;
- standard reference materials or funds for abstracting services;
- provision of computers, including laptops (excluding access to high-performance computers or other specialised applications that are justified against the project) and basic computing facilities such as printers, word processing and other standard software; and
- use of photocopiers, telephones, mail, fax, email and internet services.

- Publication costs, including printing and page costs, will not be funded under Linkage Projects; and
- Costs not directly related to a project will not be funded, for example, costs of a personal nature (ARC 2009).

E.2 NHMRC Budget Guidelines

The following text is an extract from the NHMRC’s Program Grants guidelines for funding commencing in 2011....

The budget will be provided as a one-line budget with CIs free to determine the use of the funds, provided that expenditure is consistent with the Program proposal, and that funds are not used for purposes excluded in the Deed of Agreement covering the funding. See: http://www.nhmrc.gov.au/funding/funded/manage/policy/deeds.htm#a1

Budget construction will be based on the team rather than the research.

Each CI will be allocated a budget quantum corresponding to the score allocated to them by the PGRP for their Research Achievements. That is, those CIs with established Research Achievements at the highest level, especially in recent years, will attract more NHMRC funding (higher quantum) than CIs whose Research Achievements are not as enduring or strong in recent years.

Program Grant budgets will generally equate to the sum of the quantum for all CIs on the application, although the final budget offered to successful applicants will be subject to approval by the Minister.

Successful CIs who devote 80-100% of their NHMRC research time to the Program may receive a full quantum. CIs that devote less of their NHMRC research time to the Program will attract a proportionally smaller allocation. For instance, CIs who devote only 50% of their NHMRC research time to the Program may be allocated half a quantum.

The quanta are intended to allow the team to support a range of senior and junior postdoctoral researchers, research and technical assistants and higher degree candidates, as well as providing for direct research costs and minor items of equipment for use in facilities in Australia. The budget for the Program will not provide support for CI salaries unless special circumstances exist. It would need to be clearly demonstrated that a CI had no alternative source of salary support, and that salary costs were not being inappropriately shifted from another budget. In such instances, a clear outline of the circumstances and salary being sought must be submitted to the PGRP who may recommend an appropriate increase in the Program’s budget.

Individuals whose salary is supported through the NHMRC’s People Support schemes (eg. Australia Fellow, Research Fellow, Practitioner Fellow and Career Development Awards) may be included as CIs.

All staff funded by the grant must be employed through an NHMRC Administering Institution (NHMRC 2009).