The Australian Academic Profession: a first overview

Hamish Coates*, Leo Goedegebuure **, Jeannet Van Der Lee *** and Lynn Meek****

Introduction

This paper provides a first preliminary analysis of the Australian CAP survey results. The Australian survey closed in early December 2007. Given the time necessary to clean and organise the database, there obviously has been little time to engage in in-depth statistical interrogation of the data. Nonetheless, even a cursory glance at the responses indicates a very rich and interesting data set that will lend itself to on-going analysis over the next months if not years.

To contextualise the outcomes of the survey, this paper begins with a few words on the background to Australian higher education, reminding the reader of some of the profound changes experienced by the sector over the last couple of decades. The next section summarises the methodological approach to sampling adopted by the Australian team. A rigorous sampling methodology has been used which allows for a high degree of confidence in the generalisability of responses (the overall response rate was approximately 25%, slightly below the target rate of 30% but delivering an appropriate effective sample size). An overview of the first key outcomes is the subject of the next

* Principal Research fellow, Australian Council for Education Research, Australia, e-mail: coates@acer.edu.au
** Associate Professor, Centre for Higher Education Management and Policy, University of New England, Australia, e-mail: lgoedege@une.edu.au
*** Research Project Officer, Centre for Higher Education Management and Policy, University of New England, Australia, e-mail: jvander@une.edu.au
**** Director and Professor, LH Martin Institute for Higher Education Leadership and Management, The University of Melbourne, Australia, e-mail: vmeek@unimelb.edu.au
section of the paper. We conclude with a few summary statements and an indication of where the next round of data analysis may take us.

The Australian higher education sector

An exceptional feature of the Australian higher education sector is that the states have legislative control over higher education institutions, whilst financial responsibility rests with the Commonwealth. Historically and constitutionally, all forms of education in Australia have been primarily a matter for the States. But in the years following the Second World War, there has been substantial and increasing Federal intervention in higher education. Successive government decisions have significantly changed the Australian higher education landscape and ensured that the Federal government would dominate planning and funding of this sector.

At the end of 2007, the nation’s higher education sector consisted of 37 public universities, some of which are quite large with enrolments in excess of 45,000 students, two small private universities and a number of small specialist institutions both public and private. In 2005 an Australian branch of a USA university was established in Adelaide (Carnegie-Melon). Up to mid-2006 there were more than 150 non-self-accrediting higher education providers registered by the States and Territories. Only the 37 public universities were considered for inclusion in the Australian CAP survey sample.

In 2007, Australia had nearly one million students enrolled in higher education courses, about one-quarter of whom were overseas students. Up to now, the defining characteristics of an Australian university strongly endorsed the principles of unity of teaching and research and a broad, comprehensive curriculum. But the former Liberal Coalition government actively challenged this principle, and given the degree of emotion this has invoked amongst the academic profession, a few more words should be said about it.

Commencing in 2005 and up to the end of 2007, successive Federal education ministers called for the Commonwealth to assume full legislative as well as financial control of higher education. This has been motivated, in part, by the desire of the Federal government to introduce more fee-for-service private higher education providers. In July 2006, the Minister announced, under the banner of enhancing diversity, that she had achieved agreement with her State and Territory counterparts to “provide greater choice for students to study at a variety of high quality higher education institutions”. As indicated by the Minister, the new set of National Protocols for Higher Education Approval
Processes “will allow … higher education providers to accredit their own courses, bypassing costly and time consuming reaccreditation processes run by State Governments”. Up to now, only universities could accredit their own courses. The agreement also included “specialist institutions having access to a university title” and the reduction of “research and higher degree teaching requirements for new universities in their first five years of establishment” (Bishop, 2006). This decision has the potential of transforming the Australian higher education landscape more than any other decision in the last decade. However, with the change of Federal government in December 2007 it remains to be seen whether the new Labor government will continue along a similar policy line with respect to this issue.

The evolving higher education policy context

Since the early 1990s, the Australian higher education sector has experienced profound change. This change has been driven by, amongst other things, massification – the rapid increase in student numbers that accelerated throughout the 1980s and 1990s. One of the government’s key strategies to cope with the rapid expansion of higher education has been to encourage institutions to diversify their funding base and to adopt market-like behaviour. Australia is possibly the quintessential example of marketisation and internationalisation of higher education, which has had a profound impact on how its universities are governed and managed, and which in turn impacts on employment conditions in a variety of ways. Presently, the government provides only about 40% of the cost of higher education, and says itself that it no longer funds but subsidizes higher education. The other main sources of funding are domestic and international student fees, followed by research grants, consultancies, investments.

In most OECD countries, while private expenditure on higher education has risen more rapidly than public expenditure, public expenditure has expanded as well. Australia appears to be the exception (OECD, 2006). Funding of Australian higher education increased during the period 1996-2005 (1996 being the year the present Liberal Coalition government gained power) with respect to all sources of revenue. However, direct public funding from the Federal Government declined, as is illustrated in Figure 1. HECS in Figure 1 refers to the Higher Education Contribution Scheme – tuition fees for Australian students collected through the tax system – introduced in 1990.
In the late 1980s, the then Labor government, which initiated the reforms, explicitly stated that it was not prepared to fund growth entirely from the public purse and the current Liberal government has gone even further in demanding that an increasing proportion of the financing of higher education comes from sources other than the public purse. In Australia, as elsewhere, the last two decades have seen the development of a quite different approach to higher education steering from what prevailed previously, characterized by:

- reductions in public expenditure;
- increased emphasis on efficiency of resource utilisation;
- increased emphasis on performance measurement, particularly in terms of outcomes;
- increased emphasis on demonstrable contribution to the economy of the nation; and
- the strengthening of institutional management and of the policy and planning role of individual institutions.
There has been considerable pressure placed on Australian academic staff to be more competitive, productive and accountable, while simultaneously being more entrepreneurial and innovative. While many if not most have risen to the challenge, their status in society has declined. As Melleuish (2004) comments, “What’s happened over the last 20 years or so is that comparatively academic salaries have dropped, people no longer listen to academics or have as much respect for them perhaps as they once had in the past”.

Competitive market steering of higher education supposedly requires strong corporate style management at the institutional level. And in Australia, as elsewhere, in recent years there has been a substantial shift towards a more managerial approach to running universities, deliberately encouraged by government policy. The push to diversify the funding base and the emphasis placed on raising revenue from competitive private sources has been one of the primary factors making university management so difficult and complex (Gallagher, 2000).

Within the changed policy context, many responsibilities have been devolved to individual universities. But, at the same time, institutions are held more directly accountable for the effective and efficient use of the funding and other freedoms they enjoy. Moreover, institutions are now placed in a much more highly competitive environment, and considerable pressure has been placed on universities to strengthen management, to become more entrepreneurial and corporate-like. The large universities with more than 40,000 students and annual budgets that run to billions of dollars, rival in size and complexity many private corporations. Institutions must respond quickly and decisively in order to take advantage of market opportunities. There can be little doubt that the sheer size and complexity of Australian higher education demands strong and expert administration at the institutional level. Nonetheless, changes in the governance and management of Australian higher education directly concern the re-norming of the academic profession and possibly a fundamental transformation of the idea of knowledge and of the university itself (Meek, 2003).

We tend to make these observations as relatively detached critical higher education policy analysts. But to what degree do they actually reflect the perceptions of Australian academics? The need to answer that question was one of the fundamental reasons for our involvement in the CAP project.
Sample design

Sampling plays a critical role in ensuring the validity of survey processes and outcomes. The sampling process outlined below conforms to the international and cross-institutional sampling strategy that has been designed for the CAP project. This implies that inferences of population characteristics derived from the survey can be accompanied with accurate and defensible estimates of precision.

Population definition

The generalisability of results and hence the scope of the study is set through definition of the population. Desired, excluded and target populations are defined. The desired population is that about which generalisations are made. The excluded population represents individuals who are not included in the study. The target population is the difference between the desired and excluded populations, and is the list from which the sample has been drawn.

Desired population

According to the international sampling specifications, the CAP population is “composed of professionals in higher education institutes that offer a baccalaureate degree or higher (Type A of the OECD classification) and professional researchers in public research institutes”. The term ‘professionals’ here is interpreted as ‘academic staff’.

As in most countries, in Australia the term ‘academic staff’ covers a wide range of different roles. An incomplete list includes: Residential Tutor, Assistant Lecturer, Lecturer, Senior Lecturer, Associate Professor, Professor, Clinical Supervisor, Research Assistant, Research Fellow, Senior Research Fellow, Honorary Fellow, Sessional Lecturer, Sessional Tutor, Marker, Examiner, Supervisor, Reader, Principal Research Fellow, Professorial Fellow, Postdoctoral Fellow, Head, Chair, Dean, Director, Deputy Vice-Chancellor, Provost, Pro-Vice-Chancellor, Vice-Chancellor and Chancellor. Most, but not all, of these roles are included in the desired population for this survey.

Excluded population

Public research institutes were not included in the Australian CAP study. Professional staff working at such institutions were therefore not included in the study, and the results can not be generalised to them. The same is true for those higher education institutions not defined as ‘Table A’ providers in the Australian
context, such as private and overseas providers.

While all Australian universities were invited to take part in the Australian CAP survey, participation was voluntary and certain institutions elected not to be involved. In theory, such institutional non-response has the potential to introduce bias into the sample. In practice, however, the number of institutions that elected to take part in the Australian CAP survey has been sufficiently high to ensure the validity and relevance of the survey results.

The Australian CAP survey excludes specific academic roles. Broadly, these include adjunct, casual/sessional and honorary roles. Examples from the above list of roles include Honorary Fellow, Sessional Lecturer, Sessional Tutor, Marker and Examiner. Note that individuals should only be excluded if one of these roles is their substantive role. Thus, a full time Lecturer who also holds an Honorary Fellowship in another department is not excluded from the population.

Central senior university executive staff are also excluded from the Australian CAP survey target population. These include staff working in positions such as Assistant Pro-Vice-Chancellor, Pro-Vice-Chancellor, Deputy Vice-Chancellor, Vice-Chancellor and Chancellor.

Target population and sampling frame

In total, 22 institutions agreed to participate in the Australian CAP survey which is more than half of Australia’s 37 public universities. This large number of participating institutions provides an initial indication that the study includes a representative selection of Australian institutions.

A number of further factors affirm the representativeness of the selection of institutions. Review of the list indicates that the participating institutions reflect a wide range of sizes, histories and missions. They therefore can be considered representative of the 16 institutions that chose not to take part in the study.

With these details in mind, the target population for the Australian CAP survey includes all academic staff within participating institutions who are working in Faculties rather than central administration, and who do not have adjunct, casual or honorary appointments as their substantive position.

Sample Strategy

The Australian CAP survey employed a probabilistic sampling strategy designed to select a sufficient number of academic staff into the study to generate powerful and representative statistical estimates at the national level. The basic approach has taken the form of a systematic random sample across
participating institutions.

Stratification

Stratification often plays an important role in large-scale samples as it improves the efficiency of the sample, helps to ensure the representativeness of the sample, eliminates potential confusion, and blocks the population along lines suggested by research and practice. Strata might be defined at the institution and individual level.

Institutions provide the explicit stratum as separate, independent samples have been drawn for each institution in the Australian CAP survey. A systematic selection method was planned to ensure proportional representation of academics across these strata.

While no explicit individual-level strata were specified, implicit stratification helps to ensure that bias in the sample is minimised. A number of implicit strata within each institution were recognised such as sex, appointment fraction, term of appointment, academic classification/level, work sector and academic function.

Implicit stratification was managed by sorting the sampling frame and using a systematic selection process. Thus, no systematic bias has been introduced into the sampling process as a result of the selection method or default orderings in the target population list.

Level of analysis

Large-scale social surveys occur within various contexts, and the ‘level of analysis’ is the level at which it is desired that generalisations are made. The ‘level of analysis’ should not be confused with the ‘unit of analysis,’ the latter being the object of the analysis, which in the CAP study is academic staff.

There are multiple levels of analysis in the CAP survey. The first level of analysis is the international level and the second is the national level. The national level requires an effective sample size of 800.

Multistage selection

Institutions volunteered to participate in the Australian CAP survey in response to an invitation sent to all Australian ‘Table A’ universities. In broad terms, ‘A’ institutions are defined as public providers by the Australian Government.

Table 1 lists participating institutions by state and territory, and institutional group. Australia has eight states and territories: Western Australia (WA),
Northern Territory (NT), South Australia (SA), Victoria (VIC), New South Wales (NSW), Tasmania (TAS), the Australian Capital Territory (ACT) and Queensland (QLD). Australian higher education has three formal institutional groupings: the Australian Technology Network of Universities (ATN), the Group of Eight (Go8) and Innovative Research Universities (IRU). Not all Australian institutions are covered by these three groups. As a result, a number of additional informal groupings are frequently used. For current purposes, institutions not included in the ATN, Go8 or IRU in Table 1 have been classified as either regional (REG) or New Generation Universities (NGU). The number of institutions in each group and state is shown in brackets beside the label.

Table 1. Institutions participating in the Australian CAP survey

<table>
<thead>
<tr>
<th>State</th>
<th>ATN (5)</th>
<th>Go8 (8)</th>
<th>IRU (6)</th>
<th>REG</th>
<th>NGU</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA (4)</td>
<td>Curtin University of Technology</td>
<td>University of Western Australia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NT (1)</td>
<td>Charles Darwin University</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SA (3)</td>
<td>University of South Australia</td>
<td>Flinders University</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIC (8)</td>
<td>RMIT University</td>
<td>University of Melbourne</td>
<td>University of Ballarat</td>
<td>Victoria University Deakin University</td>
<td></td>
</tr>
<tr>
<td>NSW (10)</td>
<td>University of Sydney</td>
<td>Macquarie University</td>
<td>Charles Sturt University Southern Cross University University of New England University of Wollongong</td>
<td></td>
<td>University of Western Sydney</td>
</tr>
<tr>
<td>TAS (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACT (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>University of Canberra</td>
</tr>
<tr>
<td>QLD (8)</td>
<td>Queensland University of Technology</td>
<td>University of Queensland</td>
<td>University of Southern Queensland University of the Sunshine Coast</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The distribution of institutions in Table 1 provides assurance as to the national representativeness of the participating institutions. The institutions
cover the range of states and groups. The notable exceptions are that there is no institution participating from the state of Tasmania, and that only two of the six IRU universities are involved.

Participating institutions supplied a population list from which the staff sample was drawn. A systematic sampling procedure was used to obtain a probabilistic sample of staff within each institution. A systematic approach was used because it was sufficiently parsimonious to be applied consistently across institutions, and because it ensures proportional representation of academics across the implicit strata.

Sample size

A national effective sample size of 800 was set for the study through the international specifications. This effective sample size has been determined by considering the substantive focus of the survey and the kinds of statistical analyses likely to be performed.

To achieve an effective sample size of 800, it is necessary for the actual sample size to be larger than 800 to account for non-response and the clustered nature of the target population. It is necessary to use complex sampling methods because of the structural characteristics of universities and the higher education system.

It is important to account for the natural clustering which occurs within institutions as a result of disciplinary groupings and organisational structures. Such clustering arises because survey responses can be more homogeneous within institutions than across the Australian academic community as a whole.

The international sampling specifications propose that a design effect of 2.0 be factored into sample size calculations. This is considered a conservative estimate, and is based on survey work conducted in the United States. The observed clustering effect behind this figure is affirmed by a recent Australian survey of academic leaders (Scott, Coates & Anderson, forthcoming).

A design effect of 2.0 means that twice the sample size is required to achieve the effective sample size, so a national sample size of \( 800 \times 2 = 1,600 \) academics was proposed to satisfy the international sampling specifications.

The sample size also needs to be adjusted to reflect anticipated response rates. Experience in prior studies (Scott, Coates & Anderson, forthcoming) suggests that response rates to surveys tend to hover between 30 and 50%. A conservative response rate of 30% was assumed for the Australian CAP survey. This means that the complex sample size needs to be multiplied by \( 100 / 30 \). A design sample of \( 1,600 \times (100 / 30) = 5,333 \) therefore was identified to meet the
international requirements for this survey. To be conservative, the design sample size has been rounded upwards to 5,500.

To satisfy the requirements of the international survey, the national design sample size of 5,500 was allocated proportionally across the participating institutions, according to the number of academics within each institution.

**Drawing the sample**

**Sampling management**

Preparation of the sample involved collaboration between participating institutions and the Australian Council for Educational Research (ACER), the agency that coordinated the design and development of the Australian CAP sample. Rather than supply institutions with the full specifications, a sampling manual was produced to assist institutions identify relevant academic staff. The manual provided an introduction to the CAP survey and sampling process, an overview of the sampling strategy, and key steps for selecting defined academic staff.

Institutions were asked to provide a full list of academic staff at their institution from which ACER could draw a sample. For this, they were provided with a data specification defined in terms of the national statistics collection. Specific elements included staff e-mail, institution code, sex, work contract, current duties term, current duties classification type and level, work sector, academic function.

ACER worked with institutions to ensure the consistency and integrity of the data provided. All but one of the 22 sampled institutions provided a list of academic staff. Of the remaining 21 institutions, one provided e-mail addresses only, and one did not provide information on work contracts. Once all data were received, a number of recordings were conducted, and out-of-range, duplicate records and individuals in the excluded population were removed. The first column of Table 2 shows that the cleaned population list comprised 20,563 academic staff members from 21 institutions.

**Sample production and verification**

The population list was sorted using the variables obtained for the purposes of stratification (sex, work contract, current duties classification, academic function, and current duties term). A systematic random sample was then selected for each of the 21 remaining institutions. A total sample size of 5,496 was obtained. The number of staff selected within each institution is shown in the final column of Table 2.
As a final check, the sample statistics were compared with the population parameters. This showed that the sample was representative of the population at the participating institutions in terms of sex, work contract, current duties term, current duties classification, and academic function. Table 2 presents comparisons between the distribution of staff in the target population and in the planned sample.

**Secured sample analysis**

**Sample size and consistency**

The online survey was distributed to the 5,496 individuals sampled from the target population list. The initial distribution was made between 18 and 26 September 2007, with follow up distributions sent to non-respondents on 3 October, 29 October and 3 December 2007. The fieldwork was closed mid-December.

Of the 5,496 individuals in the sample, a total of 187 were unable to be reached electronically, either due to their account being closed, or the individual no longer being employed at the institution. Each undelivered e-mail was checked for validity and at times an alternative e-mail address was retrieved and used to contact the individual. It was necessary to resend e-mails to staff at one institution that had initially provided e-mails in an incorrect format.

A total of 153 individuals indicated that they were away from their e-mail during the survey period, and would not return until after the closing date of the survey. While this is a useful figure for working purposes, there is some unreliability in this figure given that not all individuals receive vacation messages and that some individuals may still respond even though out of their offices.

A total of 1,382 individuals logged on to the survey. Only a single version of the instrument was used and the number of responses varied due to item-level non-response. While 1,222 individuals responded to the first section, for instance, only 982 individuals provided comments in the second section of the questionnaire.

After final validation of responses, 1,252 responses were classified as valid in that the individual answered one or more questions. After subtracting undeliverables and out-of-office numbers from the initial sample, this number of responses implies a response rate of 24.2%. This rate is 5.8 percentage points below the planned rate of 30%, but certainly in the range of what would be required for an acceptable response.

More importantly, the complex sample size of 1,252 implies an effective
sample size of 626, given the assumed design effect of 2.0, which is 174 below the planned effective sample size of 800. This has implications for the consistency of the sample. Specifically, it means that confidence bands around point estimates would be plus or minus 3.9 rather than 3.5 standard errors. This is not a large variation in certainty.

Sample distribution and bias

It is important to compare the secured sample against the target population to test the representativeness and hence generalisability of the sample. Close correspondence between the designed and secured distributions of staff on key variables helps provide confidence in statistical estimates.

Table 2 presents figures that allow comparison of the distribution of staff across the target population, planned sample and secured samples. Note that certain percentages do not sum to 100 due to missing data.

In summary, the figures show that:

- the secured sample is distributed proportionately across the 21 institutions despite slight under- and over-representation at a few institutions;
- females tended to respond more than males compared with population distributions, although the number of responses for both sexes is high;
- the secured sample is distributed representatively by work contract;
- compared with population distributions, more staff with limited-term appointments have responded while fewer staff with confirmed tenure have responded;
- the sample is representative in terms of level of duty; and
- the secured sample is well distributed in terms of academic function.

Overall, while the distribution of respondents in terms of marker variables in the secured sample varies slightly from that in the population, the variations are slight. As anticipated in the sample design, the secured sample of responses appears to be representative of the target population of academics from the 21 institutions. Given the distribution of these institutions across the Australian higher education sector, it is appropriate to use the survey data to make generalisations at the national level.
An important consequence of the representativeness of the secured sample is that it is self-weighting. This was anticipated from the use of explicit and implicit stratification, and the use of systematic random selection procedures to sample academic staff in the target population. It is confirmed through the figures presented in Table 2. While sampling weights could be applied to adjust for slight disproportionalities in relation to institution, sex and tenure, the corrections would be small and would likely not be balanced by the reduction in analytical parsimony.

### Table 2. Population and sample comparisons

<table>
<thead>
<tr>
<th>Institution</th>
<th>Target population</th>
<th>Planned sample</th>
<th>Secured sample</th>
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</thead>
<tbody>
<tr>
<td>University of Western Australia</td>
<td>1,201 5.8</td>
<td>321 5.8</td>
<td>60 4.8</td>
</tr>
<tr>
<td>University of Southern Queensland</td>
<td>467 2.3</td>
<td>125 2.3</td>
<td>29 2.3</td>
</tr>
<tr>
<td>Curtin University of Technology</td>
<td>1,239 6.0</td>
<td>331 6.0</td>
<td>68 5.4</td>
</tr>
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<td>University of Canberra</td>
<td>355 1.7</td>
<td>95 1.7</td>
<td>29 2.3</td>
</tr>
<tr>
<td>Charles Darwin University</td>
<td>271 1.3</td>
<td>72 1.3</td>
<td>21 1.7</td>
</tr>
<tr>
<td>University of Western Sydney</td>
<td>905 4.4</td>
<td>242 4.4</td>
<td>52 4.2</td>
</tr>
<tr>
<td>Charles Sturt University</td>
<td>639 3.1</td>
<td>171 3.1</td>
<td>63 5.0</td>
</tr>
<tr>
<td>Victoria University</td>
<td>544 2.6</td>
<td>145 2.6</td>
<td>35 2.8</td>
</tr>
<tr>
<td>University of Queensland</td>
<td>2,286 11.1</td>
<td>611 11.1</td>
<td>142 11.3</td>
</tr>
<tr>
<td>University of South Australia</td>
<td>1,050 5.1</td>
<td>281 5.1</td>
<td>88 7.0</td>
</tr>
<tr>
<td>Flinders University</td>
<td>722 3.5</td>
<td>193 3.5</td>
<td>56 4.5</td>
</tr>
<tr>
<td>Deakin University</td>
<td>959 4.7</td>
<td>256 4.7</td>
<td>55 4.4</td>
</tr>
<tr>
<td>RMIT University</td>
<td>1,108 5.4</td>
<td>296 5.4</td>
<td>61 4.9</td>
</tr>
<tr>
<td>The University of Melbourne</td>
<td>3,105 15.1</td>
<td>830 15.1</td>
<td>172 13.7</td>
</tr>
<tr>
<td>Southern Cross University</td>
<td>278 1.4</td>
<td>74 1.3</td>
<td>28 2.2</td>
</tr>
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<td>University of New England</td>
<td>446 2.2</td>
<td>119 2.2</td>
<td>29 2.3</td>
</tr>
<tr>
<td>University of Sydney</td>
<td>2,682 13.0</td>
<td>717 13.0</td>
<td>161 12.9</td>
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<tr>
<td>Queensland University of Technology</td>
<td>1,146 5.6</td>
<td>307 5.6</td>
<td>52 4.2</td>
</tr>
<tr>
<td>University of the Sunshine Coast</td>
<td>152 0.7</td>
<td>41 0.7</td>
<td>14 1.1</td>
</tr>
<tr>
<td>University of Ballarat</td>
<td>241 1.2</td>
<td>64 1.2</td>
<td>20 1.6</td>
</tr>
<tr>
<td>University of Wollongong</td>
<td>767 3.7</td>
<td>205 3.7</td>
<td>17 1.4</td>
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<tr>
<td>Total</td>
<td>20,563 100.0</td>
<td>5,496 100.0</td>
<td>1,252 100.0</td>
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<table>
<thead>
<tr>
<th>Sex</th>
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<tbody>
<tr>
<td>Female</td>
<td>8,700 42.3</td>
<td>2,327 42.8</td>
<td>622 50.5</td>
</tr>
<tr>
<td>Male</td>
<td>11,622 56.5</td>
<td>3,105 57.2</td>
<td>610 49.5</td>
</tr>
<tr>
<td>Total</td>
<td>20,563 100.0</td>
<td>5,432 100.0</td>
<td>1,232 100.0</td>
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<table>
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<tr>
<th>Work contract</th>
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</thead>
<tbody>
<tr>
<td>Full-time work contract</td>
<td>16,044 82.0</td>
<td>4,291 82.1</td>
<td>1,022 84.1</td>
</tr>
<tr>
<td>Fractional full-time work contract</td>
<td>3,511 18.0</td>
<td>936 17.9</td>
<td>193 15.9</td>
</tr>
<tr>
<td>Total</td>
<td>19,555 100.0</td>
<td>5,227 100.0</td>
<td>1,215 100.0</td>
</tr>
</tbody>
</table>
Introducing Colin and Cheryl: the average Australian academics

In this section we present a preliminary overview of the outcomes of the Australian CAP survey. We must emphasize that this indeed is a first run through the data, that a full analysis has not been possible due to the limited time available since the closing of the survey, and that we still are in the process of coding the open questions. We therefore can only present some initial results.

As our responses are evenly distributed across males and females, and representative of the target population, we have chosen to present the results not in terms of the ‘average Australian academic’ but rather in the persona of Colin and Cheryl (two popular names in 1960, the average year of birth of our respondents). When they are addressed as a couple, the outcomes pertain to the overall mean score on the item; when addressed separately, the outcomes obviously reflect the male and female positions. Percentages in brackets in the text indicate the mean score. The reader is referred to the questionnaire for the individual questions and their relevant response categories.

Background characteristics

Colin and Cheryl both are married (82%), with their partners having experienced tertiary education (54%). It is noteworthy, though, that quite a
number of their female colleagues are single when compared to the men (22% versus 9%). Neither is married to an academic (78%). Whilst almost half of the Australian male academics would have a full-time working partner (49%) and almost a third a part-time working partner (30%), three-quarters of the female academics have a partner who works full-time (77%). Colin and Cheryl have two children and speak English as their native language. Colin has had no major career breaks (91%), whilst quite a few of Cheryl’s female colleagues have had interruptions in their careers (44%). On average these have been for 4 years (sd 4.524). By and large they are the first academics in their families. Our survey results show that 27% of the respondents have a father with a tertiary education background, with 20% of the mothers having tertiary experience.

Colin and Cheryl received their bachelor degrees from an Australian university (63%) in 1985, although quite a number of their colleagues have first degrees from overseas universities. The majority of these are from British (32%) and US (14%) institutions. Overall, 97% of Australian academics have a bachelor or an equivalent degree. Though this may seem a bit strange – 3% of the academics not having a first degree – this can easily be explained by people having obtained a first degree in Europe where prior to ‘Bologna’ many first degrees would be at the masters level. Colin and Cheryl got their masters’ degrees in 1991 (66%), also from an Australian university, but once again have many colleagues who obtained masters elsewhere (32%), predominantly from the UK (29%) and the US (23%). As to the doctorate, our colleagues (73%) obtained this in 1996 in Australia (71%), with once again those having received their doctorate from overseas institutions (29%) being mainly from UK (37%) and US (22%) universities. It also is worth noting that on average, female Australian academics have obtained their respective degrees two years later than the average academic.

For many in Australian academe (73%) getting a doctorate means writing a thesis/dissertation, without a prescribed set of courses (12%), and fairly independently on the basis of their own topic selection, supported by a doctoral fellowship. In their quest for a doctorate, they have received little training in teaching, have not sat on university committees, but have been involved in research projects with senior colleagues.

Colin has worked 14 years in approximately three higher education institutions, mainly on a full-time basis since his first degree. Cheryl’s career is somewhat shorter, being 11 years. Both currently are employed full-time (85%), though part-time employment is somewhat more common for female Australian academics than for men (19% versus 7%). As to their contracts,
both are permanently employed, either tenured (50%) or on a continuous basis (12%). However, in terms of ranks, Australian male academics are more likely to occupy the higher academic ranks (levels D and E) than female academics as is shown in Figure 2.

![Figure 2. Academic rank by gender](image)

**Job satisfaction**

Overall, Colin and Cheryl would appear to be rather satisfied with their academic life. They score very high (14%) to high (41%) on the direct satisfaction question, whilst only 13% indicate low or very low (7%) job satisfaction. This picture is confirmed by fairly strong disagreement with the statement “If I had to do it over again, I would not become an academic” (mean 3.60, sd 1.296 on a scale of 1-5, with 1=strongly agree), and an almost neutral score on the statement that the current job is a source of considerable personal strain (mean 2.65, sd 1.258).

These survey results are the more remarkable when we take into account the fact that many Australian academics are of the opinion that working conditions in higher education have deteriorated. Almost two-thirds of the respondents believe that this is the case, with a very even distribution between those who think it has deteriorated much and those who think this has deteriorated very much. Only some 9% feel that working conditions have improved since the start of their career.

This deterioration does not appear to be related to the physical facilities
provided by Australian institutions. Classrooms, laboratories, research equipment, office space and computer and telecommunications facilities are not considered poor (scores range from 2.39-2.81, with 1 being excellent and 5 poor) whilst library facilities and services are perceived as good (mean 2.04, sd .982). Colin and Cheryl are more critical when it comes to secretarial support (mean 3.42, sd 1.283), teaching support staff (mean 3.30, sd 1.211), and research support staff (mean 3.42, sd 1.225).

In light of this, it is perhaps not unsurprising that Colin and Cheryl are somewhat cautious in their advice to young persons about to start an academic career. The mean score on the statement “This is a poor time for any young person to begin an academic career in my field” is 2.77 (sd 1.387).

The fact that our colleagues are quite satisfied with their jobs does not mean that they are not considering changing them. Only a quarter of Australian academics have not considered making major changes in their jobs. Most popular, which is a bit surprising given the overall job satisfaction, is to consider working outside the sector (38%), followed by a move to another institution (33%). A quarter of Australian academics has considered leaving the country for an overseas academic position, whilst 15% has considered a management position. Colin would appear to be a bit more inclined to consider a move to management than Cheryl (55% versus 45%), as is his thinking about moving overseas (55% versus 45%).

However, intentions are not the same as action. Only 11% has undertaken concrete action to move out of higher education, 12% to obtain an overseas academic position, 19% to change institutions, whilst 9% has undertaken action to move to a management position in their institution.

**Working in an Australian university**

Colin and Cheryl spend quite a few more hours on their work than they are contractually obliged to do. Irrespective of whether classes are in session or not, on average they spend 50 hours per week on their jobs. When classes are in session, obviously a good deal of time is spent on teaching (18.3 hrs, 36%), though they still find time to do research (14.6 hrs, 29%). Administration throughout the year takes close to 20% of their time. When classes are not in session, research activities increase (23.5 hrs, 47%), although some time still is devoted to teaching (7.7 hrs, 15%). A summary of this is provided in Figure 3.

This pattern of activities appears to reflect Colin and Cheryl’s academic interests quite well, which are geared towards the research side of the spectrum. The majority of Australian academics express a preference for research over
teaching, with only 7% indicating a preference for teaching. Of those preferring research, 40% lean towards or have a strong preference for research (29%). These preferences, however, are not matched by their perceptions on the availability of research funding, which is considered rather poor (mean score 3.50, sd 1.169).

Figure 3. Time spent on activities when classes are in and out of session

**Teaching**

When teaching, Colin and Cheryl spend most of their time on undergraduate programs (mean 59%, sd 32.824), with the remainder divided between masters’ and doctoral programs (means: 27%, 22%). Undergraduate classes on average have some 220 students (sd 259.313), with 37 students in masters’ classes (sd 63.913) and 5 in doctoral programs (sd 10.755).

As to their teaching activities, not surprisingly they engage in lecturing/classroom instruction (67%) as well as individualized instruction (58%), supported through electronic communications with students (66%) and are involved in the development of course materials (63%) and curricula (54%). Face-to-face interaction with students outside of class also takes place on a regular basis (61%). Project and laboratory work occur less frequently (37%, 30%). A quarter of Australian academics is involved with distance education, whilst a clear minority is active in off-shore teaching (14%).

Colin and Cheryl are quite outspoken about informing their students of the
implications of plagiarism and cheating (mean 1.66, sd .930) and about the fact that their grading practices strictly reflect levels of student achievement (mean 1.85, sd .934). As one would expect given the peculiarities of Australian higher education, they agree that the number of international students has increased since they began teaching (mean 2.00, sd 1.167).

As to their approach to teaching, practically oriented knowledge and skills are emphasized (mean 2.03, sd .970), teaching is reinforced by their research (mean 2.04, sd 1.091), values and ethics are discussed (mean 2.07, sd 1.081), and they include an international perspective (mean 2.14, sd 1.049). Nevertheless, Colin and Cheryl complain a bit that they have to spend more time than they like teaching basic skills due to deficiencies of their students (mean 2.39, sd 1.169).

Quality appears to be on the agenda as well, with encouragement to improve instructional skills in response to teaching evaluations (mean 2.37, sd 1.107) and with the availability of adequate training courses to enhance teaching quality (mean 2.59, sd 1.070).

Research

Much of the research being done by Australian academics appears to be on an individual basis (79%), although Colin and Cheryl indicate that they do have collaborators (88%), and also at other Australian institutions (70%) and overseas (61%).

Perhaps somewhat surprisingly given that almost half of our response population (43%) belongs to the so-called Group of Eight institutions, according to Colin and Cheryl their research is much more characterized by an applied/practical orientation than by a basic/theoretical one (respective means of 1.96, sd 1.072 versus 2.62, sd 1.273). Being multi-disciplinary in nature (mean 2.07, sd 1.134), it is both international in scope and orientation (mean 2.23, sd 1.267), socially oriented (mean 2.39, sd 1.349), and not much geared towards the commercialisation of outcomes (mean 3.93, sd 1.304). The latter is supported by the fact that only 14% of Australian academics indicate that they have been involved in technology transfer. Clearly, for a better understanding of these outcomes, some further analysis along the lines of institutional type, disciplinary background and field of study needs to be undertaken.

In terms of outputs over the last three years, Colin and Cheryl mainly write book chapters and/or academic articles (mean 7.80, sd 12.083) and present papers at conferences (mean 6.22, sd 7.342). Research reports (mean 2.92, sd 5.427) and newspaper/magazine articles (mean 2.96, sd 8.746) feature somewhat less, but nevertheless appear in line with the focus of their research discussed
above. Clearly, given the large standard deviations further analysis of these outcomes is needed as well.

In line with the funding and incentive regime in Australia, the majority of publications are peer reviewed (67%), and are co-authored with other Australian colleagues (52%). Not surprisingly in light of the relative lack of availability of high impact academic publication outlets in Australia, a large proportion (45%) is published overseas. Although 61% of our respondents have indicated that they collaborate with international colleagues, this appears not to lead to vast numbers of joint publications: 20% of the publications are co-authored with overseas colleagues.

As we have seen in terms of teaching and warning about plagiarism, Colin and Cheryl are also very outspoken in the sense of their research complying with ethical guidelines (mean 1.27, sd .608). They strongly adhere to the principle that research results should be freely available to other researchers and the community (mean 1.58, sd .825) and are quite neutral as to the influence of external sponsors or clients on their research (mean 2.75, sd 1.381). Somewhat surprisingly, given the previous responses on commercialisation and technology transfer, they indicate that their institutions emphasize commercially-oriented research. Most probably, though some further analysis is needed, this can be explained by the addition in the questionnaire of “or applied research” since we have seen earlier that the applied nature of Australian research is a quite striking feature. By and large Colin and Cheryl do not feel that restrictions on the publication of results from either public or privately-funded research have increased during their careers (means of 3.55 and 3.43 respectively), though they are of the opinion that high expectation to increase research productivity (mean 2.05, sd 1.073) and to a slightly lesser extent expectation of useful results (mean 2.37, sd 1.191) are a threat to the quality of research. They do not support the notion that research funding should be concentrated (targeted) on the most productive researchers (mean 3.24, sd 1.212), but are quite clear about the fact that pressures to raise external research funding have increased since they began their careers (mean 1.58, sd .915).

The latter is an interesting observation if related to the sources of funding and the percentage of respondents that indicate that they have received funding from these sources. The major funders for Australian academic research appear to be the research councils (49%, sd 37.681), with 41% of our respondents receiving grants from them. Institutional funding follows this (44%, sd 41.101), though clearly many more academics benefit from this (61%). Government agencies appear as the third source of funding being responsible for 32% of the
funding for 34% of Australian academics. Industry, foundations and international organizations play a significantly smaller role (20%, 17%, 10% respectively) though there is still quite a substantial group benefiting from them (26%, 24%, 20%). It should be noted that 3% of respondents reported that a proportion of their research is ‘self-funded’.

Management

When it comes to influence, Colin and Cheryl as individual faculty members perceive that they have quite a bit of influence over the establishment of international linkages – in fact they are the key players here (42%), though institutional managers are seen to be influential in this area as well (32%). Also in terms of setting internal research priorities, they believe that they have a good bit of influence (23%), but not as much as institutional managers (35%).

The overall picture that the survey shows when it comes to influence at the institutional level is one of shared powers between institutional/unit managers and Faculty committees, with the exception of setting budgetary priorities, which very largely is seen to be in the hands of the managers at the institutional (56%) and Faculty (21%) level. Interestingly, the influence of government or external stakeholders on internal management is considered to be marginal, with the possible exception of research evaluation. Whether the latter is the result of the proposed introduction by the former Howard government of the Research Quality Framework that has now been abandoned by the new Rudd government probably will remain an untested hypothesis.

Students also are seen as marginal players, with the exception of evaluating teaching. Teaching evaluation, in fact, is the one aspect of institutional management that has the most ‘spread influence’ over all actors.

For Colin and Cheryl, this means that they feel they have a fair bit of influence over what goes on at the departmental level, a little at the school level, but not very much at the institutional level. Most illustrative in this respect are the scores on the ‘not at all influential’ category: 22% at the department level, 48% at the school level, and 67% at the institutional level.

Despite our observation about shared powers, for Colin and Cheryl one of the defining characteristics of their institution is a top-down management style (mean 1.93, sd 1.084) with cumbersome administrative processes (mean 1.87, sd 1.051), and a strong performance orientation (mean 2.16, sd 1.035). Collegiality is not very apparent with respect to decision-making processes (mean 3.55, sd 1.090), and communication between management and academics is not considered to be very good (mean 3.50, sd 1.165), a characterisation that
often is associated with managerialism.

When it comes to these managers, our respondents are quite reserved in their judgements. With the exception of their view that their university should play an active role in the local community (mean 1.86, sd .835), they are more or less neutral on the statements provided to them. Clearly, some further analysis is needed to make sense out of the data on institutional management.

**Conclusion**

We started our paper by summarizing the major changes that Australian higher education has experienced over the recently past decades. For many observers within and outside the system, these changes have been profound and sometimes quite dramatic. The results of the national survey amongst Australian academics does support these views. There has been much change, conditions are perceived to have deteriorated, there is much pressure to perform, and there is a perception of managerialism within the sector. Yet, the survey results also show that this is but one side of the coin of Australian academe. The other side is one of job satisfaction, of relative autonomy, of international collaboration, and of involvement.

The apparent fact that Australian academe is multi-faceted comes as such as no surprise. But it is clear that our preliminary analysis has only skimmed the surface. A second analysis along the variables used for explicit and implicit stratification no doubt will shed further light on the complexities of the sector. This will answer some of the more obvious questions, such as does rank influence perceptions, is tenure related to job satisfaction, is the nature of research related to the type of institution, does the discipline play a role?

It will take a good deal of time and analysis to fully reap the wealth of information contained in the Australian CAP data. But once done, we are convinced that it will seriously enhance our understanding of the sector. An essential component to this also will be to benchmark our data to the overall international data set. For it is only through such an international comparative analysis that we truly can understand the uniqueness as well as the commonalities of Australian academe.

**References**


