

Appendix B
Australian University
Performance Trends

B.1 Data Sources for Performance Trends

The data contained in this Appendix shows trends in the performance of Australian universities. The purpose of highlighting these trends is not to look at individual universities but, rather, trends in the system as a whole. This should enable potential and current students to make assessments about the attributes of universities of interest.

The data that was used to determine these trends was extracted from three sources:

- (i) Australian Department of Education Science and Training (DEST) (Currently the Australian Department of Education, Employment and Workplace Relations) 2006 Statistics.
- (ii) Williams, R. and Van Dyke, N., “Discipline Ratings for Australian Universities” Melbourne Institute of Applied Economic and Social Research, 2006.
- (iii) Williams, R., “Ranking Australian Universities – Controlling for Scope”, Melbourne Institute of Applied Economic and Social Research, 2007.

There are innumerable combinations and sources of data that could have been chosen to look at the performance trends of Australian universities. The above three sources have been chosen for several reasons:

- The 2006 DEST statistics were the latest available government data on Australian universities at the time of examining these trends.

- The Melbourne Institute Discipline Ratings represented one of the most comprehensive reviews of Australian universities across disciplines in 2006 – this review was based on a combination of conventional government (DEST) performance figures as well as surveys.
- The 2007 Melbourne Institute paper on “Controlling for Scope” represented one of the most comprehensive reviews of the specialisation of Australian universities.

B.2 Currency of Data and Trends

Self-evidently, the performance data for each individual university varies from year to year. The question then arises as to how valid the trends presented here are, given that the data used for the analysis originated in 2006. How sensitive are the trends to annual variations in statistics? The answer is that although the performance of individual universities will change from year to year, it is unlikely that the overall trends will do likewise. In the final analysis, an examination of the data shows that there are numerous, overriding issues that influence the performance of Australian universities, and the trends arising from these remain stable while the system retains its current form. Hence, the basic trends remain valid until there are fundamental changes to the composition of universities, or dramatic changes to the size of individual universities.

B.3 Size of Australian Universities

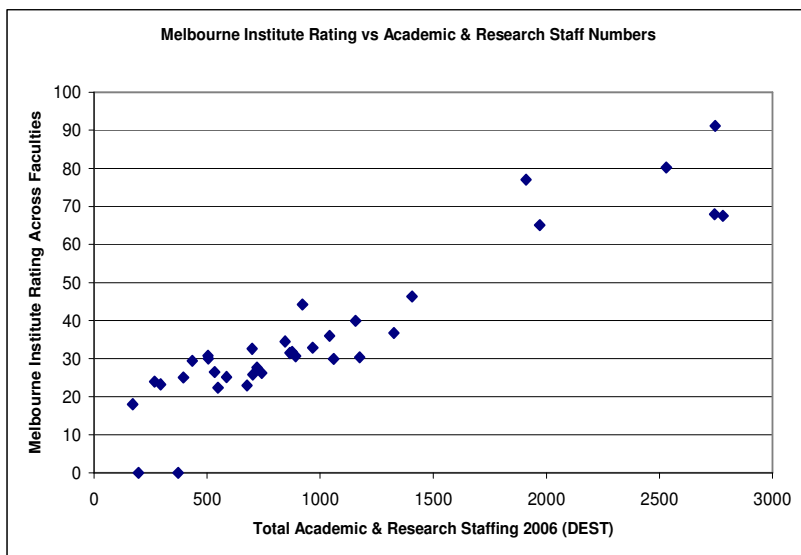
In the statistics presented in this Appendix, the size of universities is defined by the total number of academic staff – that is, those staff involved in:

- Teaching only.
- Teaching and research.
- Research only.

This presents the best indicator of the size of Australian universities in terms of their core activities of learning and research. It also provides an ability to compare Australian universities with international competitors in terms of the size of their core activities.

The size of universities could also have been measured in terms of total student numbers but it was determined that this was not a good indicator because the ratio of staff to students varies from one university to another.

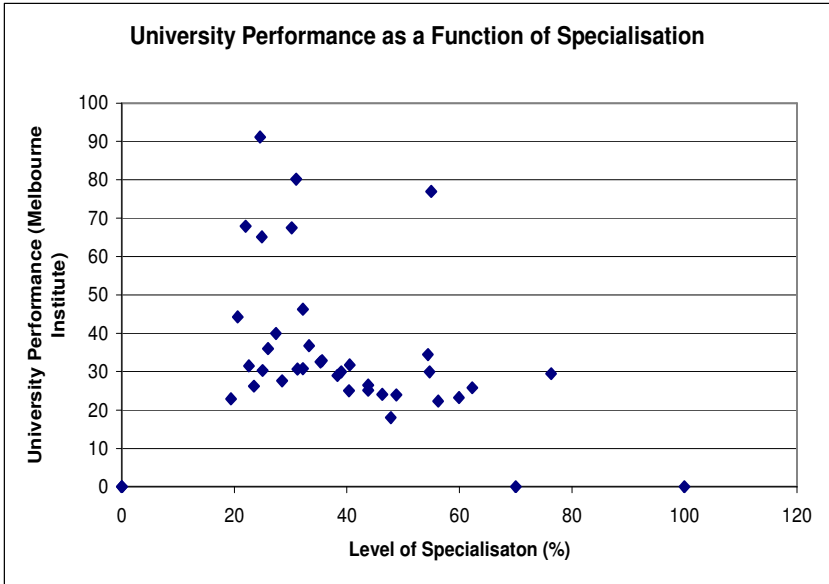
B.4 Performance of Australian Universities as a Function of Size



Trend:

In examining the overall performance of Australian universities, averaging across the disciplines in which each claims to be active, it becomes apparent that, in general, the larger the overall number of academic/research staff in a university, the better that university performs in terms of learning, research and international standing. It is also apparent that the key differentiator between early establishment universities and post-1987 universities is neither prestige nor history but, primarily, the fact that early establishment universities are Australia's largest universities in terms of core staffing.

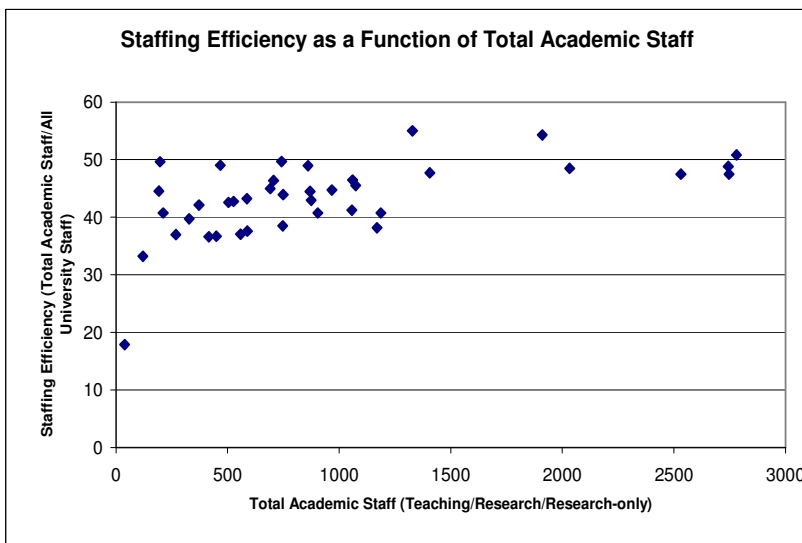
B.5 University Performance as a Function of Specialisation



Trend:

One would assume that the more specialised a university is, the better it would perform in its chosen disciplines. However, the above graph shows that this is not the case. This is because specialised universities in Australia tend to be smaller universities which have difficulty in achieving critical mass even in their chosen areas.

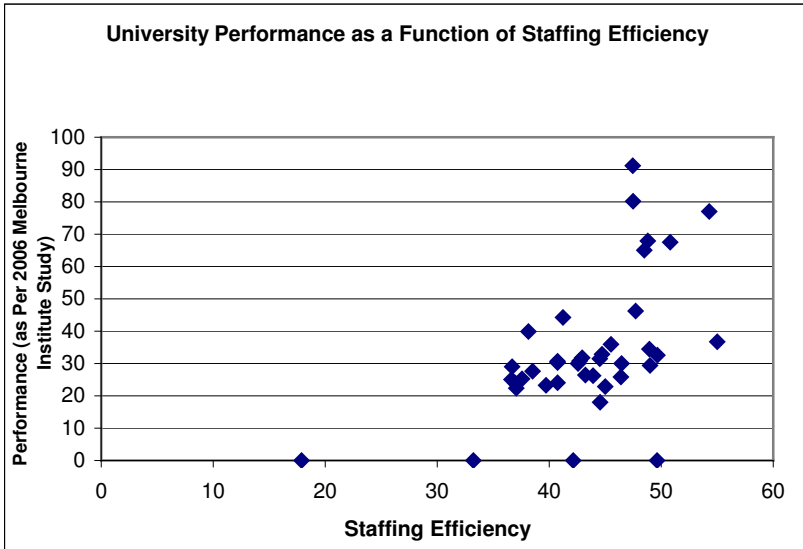
B.6 Staffing Efficiency of Australian Universities



Trend:

Staffing efficiency here is defined as the ratio of core staff (that is, academic and research) to total staff in a university. Not surprisingly, the larger the number of core staff, the more efficient a university becomes – that is, the higher the proportion of total university staff that are involved in learning and research – in other words, the lower the proportional overheads.

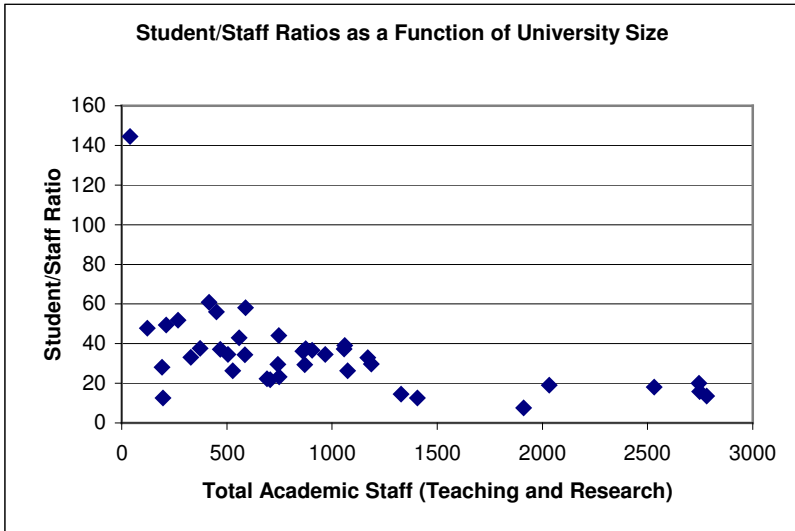
B.7 University Performance as a Function of Staffing Efficiency



Trend:

The general trend here is clear – the greater the staffing efficiency of a university, the better its overall performance in terms of learning and research outcomes. This should not be surprising given that staffing efficiency relates to university size, and university size relates to overall performance.

B.9 Staff-Student Ratios as a Function of University Size



Trend:

In general, the ratio of students to staff decreases as the size of universities increases (in terms of total academic staffing). In other words, the larger the university, the more core expertise that is potentially available to individual students.

B.10 Overall Australian University Trends

The overall trends from the data, in the context of Australian universities, are relatively clear – specifically:

- (i) Overall university performance in learning and research is predicated on university size (in terms of total academic staff numbers) rather than history, prestige or ethos.
- (ii) Larger universities are marginally more efficient in terms of overall staffing than smaller universities, but the individual contribution of academic staff in smaller universities (towards institutional outcomes) tends to be significantly larger.
- (iii) The higher the staffing efficiency of universities the better the performance of universities in terms of learning and research. This stems from two factors – the first being that that larger universities are more efficient (and larger universities are better performers overall), and the second being that better staffing efficiencies can also be attributed to better management which, in turn, leads to better learning and research outcomes.
- (iv) In principle, larger universities have a higher level of core expertise available to students because there are more staff available per student. In practice, whether students benefit from such a ratio would depend upon how many of the core staff actually interact with students – in larger universities, the proportion of

research-only staff is higher. Nevertheless, overall, in larger universities the body of knowledge that resides within the entity (per student) is greater than in smaller universities.

B.11 DEST/Melbourne Institute Data Used for Trend Analysis

University	2006 Total Academic & Research Staff (DEST)	2006 Non Academic Staff (DEST)	Staffing Efficiency (Academic:Total Staff) (%)	2006 Total Students (DEST)	2006 Student/Staff Ratios	2006 Average Melbourne Institute Ranking	Melbourne Institute Specialisation %
Australian Catholic University	372	511	42.13	13967	37.55	N/A	70
Australian Defence Force Academy	197	200	49.49	2483	12.60	N/A	N/A
Central Queensland University	416	720	35.43	25305	60.83	25.04	40.4
Charles Darwin University	192	239	41.56	5396	28.10	18.05	47.8
Charles Sturt University	588	977	37.49	34147	58.07	25.2	43.8
Curtin University of Technology	1057	1506	37.97	39459	37.33	44.26	20.6
Deakin University	905	1316	40.37	33202	36.69	30.68	31.2
Edith Cowan University	559	949	36.61	23989	42.91	22.34	56.2
Griffith University	1187	1727	40.47	35335	29.77	30.31	25
James Cook University	691	845	44.44	15378	22.25	22.9	19.4
Latrobe University	1074	1285	44.78	28317	26.37	35.97	26
Macquarie University	861	898	48.48	31126	36.15	34.5	54.4
Monash University	2744	2879	48.80	54824	19.98	67.91	22
Murdoch University	528	708	41.58	13917	26.36	30.8	32.2
Queensland University of Technology	1170	1897	37.88	38524	32.93	39.93	27.4
RMIT University	1060	1222	46.43	41447	39.10	29.96	39
Southern Cross University	268	457	36.97	13883	51.80	23.95	48.8
Swinburne University of Technology	468	487	47.12	17390	37.16	29.45	76.3

University	2006 Total Academic & Research Staff (DEST)	2006 Non Academic Staff (DEST)	Staffing Efficiency (Academic:Total Staff) (%)	2006 Total Students (DEST)	2006 Student/Staff Ratios	2006 Average Melbourne Institute Ranking	Melbourne Institute Specialisation %
The Australian National University	1910	1608	54.29	14553	7.62	77.01	55
The Flinders University of South Australia	706	816	46.25	15418	21.84	25.83	62.3
The University of Adelaide	1328	1086	54.98	19290	14.53	36.74	33.3
The University of Melbourne	2747	3041	47.46	43389	15.80	91.14	24.6
The University of New England	505	681	42.58	17482	34.62	29.98	54.7
The University of New South Wales	2033	2161	47.70	38776	19.07	65.09	24.9
The University of Newcastle	870	1085	44.39	25570	29.39	31.46	22.6
The University of Notre Dame Australia	39	179	17.89	5636	144.51	N/A	N/A
The University of Queensland	2781	2693	50.80	37518	13.49	67.49	30.2
The University of Sydney	2531	2799	47.49	45848	18.11	80.2	31
The University of Western Australia	1406	1540	47.73	17761	12.63	46.27	32.2
University of Ballarat	211	307	34.68	10430	49.43	24.05	46.3
University of Canberra	328	498	37.20	10858	33.10	23.24	59.9
University of South Australia	967	1195	44.73	33410	34.55	32.84	35.6
University of Southern Queensland	450	777	33.53	25243	56.10	29	38.3
University of Tasmania	749	957	43.64	17471	23.33	26.23	23.5
University of Technology, Sydney	875	1163	42.93	32712	37.39	31.75	40.5
University of the Sunshine Coast	121	243	33.24	5787	47.83	N/A	100
University of Western Sydney	747	1193	37.67	32935	44.09	27.6	28.5
University of Wollongong	742	752	48.17	21875	29.48	32.55	35.3
Victoria University	586	770	40.91	20180	34.44	26.48	43.8