ACADEMIC STAFF ALLOCATION PROCEDURES IN INSTITUTIONS IN AUSTRALIA

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Introduction

The largest single element in the recurrent budget of most tertiary institutions in Australia is academic staff salaries. Financial constraints have caused the denial of many competing internal demands for academic staff, and have made it increasingly necessary for each institution to adopt a system that distributes the academic staff between departments on an agreed and equitable basis.

In the U.K. and the U.S.A. the problem of internal allocation of staff resources has received a lot of attention recently, in response to pressures placed on institutions to balance expenditures with income. Some writers have recommended the use of management science techniques which emphasize revenue-cost ratios, to improve institutional productivity.[1] Other administrators have emphasized the use of faculty workload data,[2] and some have recommended the abandonment of the traditional resource allocation based on departments, in favour of an analysis of the whole institution's timetable, on the assumption that the teaching efforts of an institution are directly related to its timetable.[3] In general, the approaches to the allocation of internal resources have differed widely in response to the needs of particular institutions,[4] and the recognition that situations and needs alter in response to many external and internal forces, resulting in an administrative process that, at best, may be only an imperfect adjustment to a changing world.

Although both the Australian Universities Commission[5] and the Commission on Advanced Education[6] have requested tertiary institutions to provide student load statistics, there is little published information available in Australia on methods employed to determine the internal allocation of academic staff.

This study was undertaken to determine the nature of academic staff allocation procedures used in Australian tertiary institutions.

Procedure

A questionnaire designed to gather information about methods employed to determine the allocation of staff within tertiary institutions in Australia was mailed to 18 universities and 59 colleges of advanced education throughout Australia, early in 1976. Excluded from the survey were all institutions concerned primarily with agricultural management training, home economics, music, mining, health and defence training.

Results and Discussion

The high response of 89 per cent of the universities, and 81 per cent of the colleges of advanced education surveyed, suggests that the data in this paper presents a comprehensive description of current practice for the allocation of academic staff to departments within tertiary institutions in Australia.

Table I
Questionnaire Returns, by type of Tertiary Institution

	Questionnaires	
	Sent	Returned
Institution		
University	18	16
C.A.E.	58	47
TOTALS	76	63

Methods of Allocating Academic Staff

It can be seen in Table II, which summarizes the responses to questions on internal academic staff allocation, that about 44 per cent of the responding universities primarily allocated staff to departments on the basis of pre-determined student load:staff ratios.

Student load is often expressed in Weighted Student Units — W.S.U.[7] Moreover, approximately 49 per cent of the responding colleges of advanced education also used a student load:staff ratio as the primary basis of academic staff allocation. In this context, student load is often expressed in Full Time Equivalent Students — F.T.E.S.[8]

However, while 32 per cent of the responding C.A.E.'s reported the use of contact hours per week as a primary basis for academic staff allocation, none of the universities reported the use of this method. The remainder of the university and C.A.E. respondents used other approaches to the problem. These are summarized later in this report.

Table II
Summary of Methods of Academic Staff Allocation in Tertiary Institutions

Institution	SSR[1]	CONTACT HOURS	OTHER[2]
University	7	0	9
C.A.E.	23	15	9
	30	15	18

1. SSR. Student Staff ratio. In universities the ratio is usually to an index of student load known as a weighted student unit (WSU) and in CAEs. It is usually to a full time equivalent student (F.T.E.S.).
2. In several cases the method included a SSR. formula as one of a number of determinants.

The respondents primarily using student load as a criteria also supplied details of the student load:staff ratios operating in their respective institutions. The mean student load:staff ratios by departments at those institutions primarily using this method of staff allocation are shown in Table III.

Table III
Mean Student-Load:Staff Ratios by Departments in Tertiary Institutions which Allocate Academic Staff by this Method

Department	University	C.A.E.
Arts	13.4 (N=5)	12.3 (N=10)
Business	15.1 (N=2)	13.7 (N=8)
Education	12.5 (N=4)	12.1 (N=22)
Engineering	7.8 (N=2)	9.7 (N=3)
Science	9.9 (N=5)	10.3 (N=8)

The wide variation in the student:staff ratios between the five departments sampled prompted further investigation, and a follow-up questionnaire was sent out to those 13 institutions which reported the variations, 11 of which replied. No substantial reason was offered for such wide variations in student load:staff ratios between departments, except that it was "traditional".

Although university respondents did not report the use of contact hours, respondents at several C.A.E.'s did, together with details of the number of hours required of each staff member according to rank. A summary of the mean contact hours per week, by rank and department, for C.A.E.'s which used contact hours as the prime basis for academic staff allocation, is found in Table IV. It can be seen that, although there is a wide range of hours between ranks, there is almost complete uniformity within ranks across departments.

Table IV
Mean Staff Contact Hours Per week by Rank, and by Department, in C.A.E.s, which Allocate Academic Staff by this Method

Department	H.O.D. Princ/ Lect.	Sen. Lect.	Lect.	Sen. Tutor	Tutor
Arts (N=13)	6.4	11.2	14.6	16.8	16.8
Business (N=8)	6.5	11.4	14.0	17.3	16.5
Education (N=14)	6.2	11.2	14.4	15.0	14.0
Engineering (N=7)	6.9	11.9	15.2	17.3	17.6
Science (N=8)	6.6	11.8	15.5	17.3	17.6

Respondents at tertiary institutions which did not use either student load:staff ratios or contact hours as the **primary** method for determining academic staff allocation, listed numerous other factors which they took into account when assessing the number of academic staff needed by a department. The following factors were mentioned by **at least one respondent:**

- Higher degree load.
- Research reputation.
- Work for external students.
- Organization of teaching practice.
- Course development load.
- Budget allocation according to W.S.U. formula.
- Course administration.
- Basic academic requirement of a course especially in low enrolment areas.
- Minimum staffing needs of small disciplines.
- Spread of subjects.
- Size of the department.
- Nature of teaching.
- Type of discipline.
- Distribution of students between years.
- Number and proportion of post-graduate students.
- External responsibilities.
- Amount of marking involved in the subject.
- The extent to which subjects are practical or verbal such as Art, Home Economics, Social Sciences, etc. "None of these factors take precedence. The college is still small enough for decisions to be made by agreement and adjust."
- The distribution of staff in the various grades and the proportion of part-time staff to full-time staff.
- The average number of lectures and tutorials given per member of the lecturing staff.
- The breadth of subjects needed to be offered to encompass satisfactorily each of the various disciplines.
- The special problems of small departments where the impact of study leave has particular problems.
- The back-up staff in the form of administrative and technical staff in relation to the academic positions.
- Any other special problems associated with the teaching technology of particular departments which differentiate it from other departments in the institution.

Sabbatical and Study Leave Provisions

Coupled with the allocation of academic staff to departments is the question of the provision of replacements for those who go on sabbatical and study leave. It can be seen from Table V that 19 per cent of the universities reported making a budgetary provision for replacement staff, compared to 45 per cent of the colleges of advanced education.

However, although the statistics show a much higher percentage of the colleges of advanced education than universities making a formal budgetary provision, the experience of the authors led them to believe that most universities have sufficient internal resource allocation flexibility to allow their academic staff to have sabbatical and study leave without imposing heavy loads on the remaining staff.

Table V
Provision of Budgetary Allocation for Employment of Temporary Staff to Replace Staff on Sabbatical or Study Leave, by Type of Institution

Institution	Allocation Made			Allocation not made
	Part-time only	Full-time only	Part & Full-time	
University	0	1	2	13
C.A.E.	6	1	14	26
TOTALS:	6	2	16	39

Conclusion

Although the student load: staff ratio scheme is the one most used in tertiary institutions in Australia as the primary method of allocating academic staff, many C.A.E.'s still rely on the contact hours scheme and its correlation with rank as their primary determinant. The authors find this surprising as the use of the latter scheme, especially in multi-purpose institutions, has the potential to restrict experiment and flexibility in the presentation of subjects, for fear of losing formula-calculated staff contact hours.

As both Commissions are requiring student load statistics, by department, from their respective institutions as an objective measure of resources needs, many more institution administrators should consider using this statistic as a prime, if not sole, determinant of department loads and consequent academic staff allocation.

In addition to the adherence to one of the aforementioned schemes for allocating staff, some institutions reported using a set of criteria which allows a more subjective interpretation, and claims to more suitably meet the varying needs of the respective institutions.

This may be so, but the lack of the use of any formula at all seems questionable, especially as it is recognised that some sort of formula should be the primary basis for decision making, although it should be applied with some flexibility in order to encourage growth and change. One would expect, for instance, that discussions would occur within institutions which centered on the relevance of some of the additional factors listed earlier, especially in situations where a strict adherence to formula-based results would be inappropriate.

In sum, it appears that with the closer scrutiny of expenditure in tertiary education, and the demands for increasing accountability, that progressive refinements to existing objective methods, including the possible use of an internal budgetary allocation according to a student load formula, should be explored.

References

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2. **Doi, J. I. (ed.)**, "Assessing faculty effort", *New Directions in Institutional Research*, 1974, No. 2.
3. **Birch, D. W.** and **Calvert, J. R.**,, "A comparative timetable analysis for undergraduate programmes in a polytechnic and a university", *Higher Education Review*, 1976, 8, 3, 29-39.
4. **Adams, W. H.** "Faculty load", *Improving College and University Teaching*, 1976, 24, 4, 215-226.

5,7. Australian Universities Commission. *Sixth Report.* Canberra. Australian government Publishing Service. 1975. p. 153.

6. Commission on Advanced Education. *Fourth Report on Advanced Education, 1976-1978.* Canberra, Australian government Publishing Service, 1976, p. 49.
8. Commission on Advanced Education. *Annual Questionnaire for Statistics on Advanced Education Form III — student Load by Department — Approved Courses.* 1976. pp. 10-13.

REVIEW

Computers and the Future of Education
Barry W. Smith and Barry Z. De Ferrranti

Centre for Continuing Education, The australian National University, Canberra, A.C.T. 1976.

The report presents the results of an eighteen month investigation into the projected manpower needs for computing professionals in Australia and how this will and should impinge upon the Australian academic scene. This is indeed a very complex problem because to ensure the study's relevance, it must be viewed in the context of current social changes, some of which have encouraged the use of computers and some of which have been accelerated by their use. The authors have met this challenge and have effectively related computers to the contemporary society.

In the past many attempts have been made to anticipate manpower requirements but these endeavours have always been limited by the many constraints that have been placed upon the predictive models. Thus, in retrospect, many studies have been found to be deficient. The authors have to some extent been spared this problem because of the nature of computer usage. The computer industry is only thirty years old but during this period of time, computing has shown remarkable market penetration. Most large business and government organisations now rely upon computers for their operation. Not only is this dependence growing but, in addition, smaller and smaller firms are finding computing necessary and cost-competitive. Thus the authors' prediction of a growing demand for computer professionals able to service this market is realistic. They expect that the bulk of the demand will be for "low technology" graduates suitable for general commercial utilization as opposed to "high technology" graduates of which only a few will be required for computer hardware and software development. It the present demand for staff continues then there will be a significant shortfall in trained personnel. Thus it is reasonable to redirect significant resources to teaching computing as a discipline in its own right as well as incorporating it in other courses where relevant. The authors stress the need to prepare people with "adaptability", so that they can respond to the developing, and hence changing, job market. The authors freely acknowledge that the redirection of resources will be limited by the availability of trained teachers, by computing facilities and by general tertiary funding.

The authors have provided a valuable service by documenting and substantiating a position that many would arrive at intuitively. One aspect of this subject that deserves further study is the role of computers in education itself.

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LETTER TO THE EDITOR

Study Leave in the United Kingdom

From D. E. Martin
Research Officer
Association of University Teachers
United Kingdom
24 October 1978

Sir,

I was surprised to read in Colin Dyer's article on Study Leave (Vestes Vol. 12, 1978 1 and 2) a paragraph implying he had asked AUT for details of U.K. university practice on study leave and had failed to get his question answered. In checking the position in this office I found, on the contrary that Colin Dyer had not asked for Study Leave details at all but had asked for annual leave entitlement only and this information was sent to him.

I should be grateful if you could publish this letter in Vestes or perhaps correct the false impression given in the article in any other way you may prefer.

D. E. Martin

CORRIGENDUM

In the last issue of Vestes, a review appeared of J. P. Powell's publication *Higher Education — A Select Bibliography.* The first line of that review mentions "The Society for Research into Higher Education". This should read instead "The Higher Education Research and Development Society of Australia". Our apologies. Ed.