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Assessment of the Relative Funding Position of Australia's Higher Education Institutions

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and Employment Services

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Foreword

I am pleased to release the report on the assessment of the relative funding position of Australian higher education institutions. The relative funding position of institutions will be taken into account in the determination of institutional operating grants over the 1991-93 triennium.

This report marks the culmination of an intensive twelve-month process of development and consultation by the Higher Education Council of the National Board of Employment, Education and Training, and the Department. It represents the fulfilment of an important Government commitment heralded in the White Paper and a significant contribution towards establishing equitable funding arrangements in the new system of higher education.

The model will be applied in 1990 and the relative funding position of institutions (as far as practicable) will be adjusted over the 1991-93 triennium. Around \$30 million in additional funds will be available to support the under-funded institutions. Adjustments to those over-funded will take into account the specific circumstances of each institution but some will have to recognise that they have been operating from a relatively privileged position.

I have asked my Department to discuss proposed adjustments to funding in the forthcoming educational profile discussions. Decisions about funding for the 1991-93 triennium will be announced in November.

Two significant issues arose in the development of the model that will be addressed expeditiously, but outside the context of its application: the additional costs associated with the teaching of disadvantaged students and deficiencies in basic teaching infrastructure in the system.

The higher education system has been through a major restructuring since the Government announced major reforms in the White Paper in 1988. The broad reform strategy recognised the need for:

- structural reform to place the system in a stronger position to play its part in meeting Australia's changing social and economic needs;
- a major expansion in student places to meet both a burgeoning community demand for access to higher education and the clear need for a more highly educated workforce in the years ahead; and
- guaranteed and adequate funding for the system and new sources of funds to back up the funding commitment.

The Government has initiated a major period of expansion following the release of *Higher Education: A Policy Statement* (White Paper) in 1988 and provided an unprecedented assurance of funding for the sector three years in advance. The 1990 Federal Budget reaffirms this commitment. The Government will provide a massive injection of additional resources to create 70,000 new places over the 1988 level by 1993. These new places will be supported by \$900 million in capital funding and substantial additional funds have been provided for research.

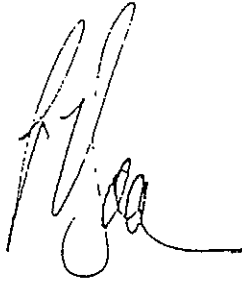
Following the adjustment process arising from the application of the relative funding model, all institutions will be in a more equitable position to compete for resources both from within the system and from outside sources. The next step will be to develop a mechanism to link performance with funding for teaching activities. To this end, a study has been commissioned to define and evaluate a range of performance indicators covering the major functions of higher education. The report will be available before the end of the year and the sector will be consulted prior to decisions about the use of such indicators.

The Government has also been investigating the use and management of capital resources in higher education. In November 1989 a joint working group of the Department, the Higher Education Council, the Australian Vice-Chancellors' Committee and the Association of College Directors and Principals was established to develop an inventory of higher education capital facilities and prepare guidelines on space management and planning. Its completion in the second half of 1991 will provide a more solid basis for the assessment of capital needs across the system.

Institutions have been undergoing major internal change as a consequence of the system reform which will continue for some years to come. The Government has laid the framework, set national priorities, provided the resources and will continue to assist with the process of change. The Higher Education Council has been examining the achievements in higher education since the White Paper and will provide advice shortly on post-White Paper directions. I am looking forward to receiving this advice. The Government will respond with a policy paper early in 1991.

The relative funding model and the process of application outlined in this report provide a mechanism for institutions to be equitably funded within the new system of higher education for an agreed educational profile covering existing teaching and research activities. The model is designed for use at the system-wide level only and does not provide a mechanism for the internal allocation of institutional resources. Higher education institutions must be free to determine the most efficient and effective internal allocation of their resources.

Our common goal is the provision of the highest quality teaching and research to a broad range of the Australian population.

A handwritten signature in black ink, appearing to read 'Peter Baldwin', with a stylized, cursive script.

Peter Baldwin

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Acronyms and Abbreviations

ACDP	Australian Committee of Directors and Principals Limited
ARC	Australian Research Council
AVCC	Australian Vice-Chancellors' Committee
DEET	Department of Employment, Education and Training
FAUSA	Federated Australian University Staff Association
FCA	Federated Council of Academics
HEC	Higher Education Council
HECS	Higher Education Contribution Scheme
NBEET	National Board of Employment, Education and Training
NDEC	National Distance Education Committee
NHMRC	National Health and Medical Research Council

Executive Summary

This paper presents conclusions concerning a relative funding model derived following a lengthy process of research and consultation that has involved peak bodies, institutions and a wide range of interest groups. A draft proposal was released for comment on 4 July 1990.

The Higher Education Council (HEC) of the National Board of Employment, Education and Training and the Department of Employment, Education and Training (DEET) received over 60 responses. Overwhelmingly, there was support for the measures proposed.

Where concerns were raised they fell into two broad categories:

- concerns directly related to the components of the model, its application and associated processes, specifically
 - views about the positioning of some discipline areas in the matrix,
 - concerns about the weights given to some cells in the matrix,
 - special factors not incorporated in the model, including the additional costs of teaching disadvantaged students;
 - the index for distributing the research related quantum, and
 - the proposed 'one-off' application of the model for grant adjustment purposes.
- concerns about the fundamental principles governing the process that led to the development of the model, specifically
 - the use of historical rather than 'ideal' costs as the basis for determining discipline weights in the model, and
 - perceived deficiencies in teaching and research related infrastructure which are not addressed by the model.

The joint HEC/DEET Working Group met to consider the final components of the model in light of the comments received.

The final model retains the essential elements of the draft. It is:

- simple;
- designed for use at the system level only; and
- comprised of separate teaching and research related components.

The teaching component reflects the relative cost of teaching in different discipline cost clusters at different levels. The research related component is designed to identify research funding other than that which is inextricably part of higher degree research training. The research related component is to be distributed initially in proportion to an

index of performance in obtaining Commonwealth competitive research funds, but a more comprehensive index will be developed by a joint HEC/ARC/DEET working party with a view to its application as soon as practicable.

The reference year for the application of the model will be 1990. Application of the model to 1990 grants and target load data, interpreted within the context of a plus or minus three per cent tolerance band, shows there are ten institutions which are overfunded and eleven underfunded.

The relative funding position of each institution will be considered in the context of the 1990 model outcome, relevant institution specific factors and funding decisions already taken in respect of 1991 and 1992. The adjustment package for an institution may comprise grant and/or load adjustments, for implementation in most cases over the 1991-93 triennium, and will be discussed with institutions as part of the 1990 profile negotiations. In view of the fact that institutions have had difficulty in refining their data sets and the limited time available between receipt of profiles data and the publication of this report, the 1990 model outcomes should be regarded as interim and the model will be re-run prior to finalisation of adjustment packages.

Several significant issues that have been raised cannot be addressed through a relative funding model and they remain to be addressed outside this context. The principal issues are: perceived deficiencies in teaching and research infrastructure; additional costs associated with the teaching of educationally disadvantaged students; and institution-specific factors.

The HEC and DEET will establish joint working parties to give additional consideration to appropriate mechanisms to address the first two of these issues; the third will, as noted above, be taken up in the 1991-93 profile discussions.

Part A:
The Context

Introduction

In the Green and White Papers the Government made a commitment to fund institutions on the basis of what they do rather than historical precedent and arbitrary classification. It recognised that significant distortions existed in the base allocation of Commonwealth higher education operating grants and undertook to develop an approach which would provide a more equitable distribution of base funding.

In particular, the Government made a commitment to undertake an analysis to identify institutions that are significantly over- or under-funded under current arrangements, taking account of discipline mix and other relevant factors; to make phased adjustments to the base funding of institutions where their funding position differs significantly from the norm; and to discuss the adjustment process during the educational profile negotiations.

In August 1988, the Higher Education Council (HEC) of the National Board of Employment, Education and Training (NBEET) established a funding model working party to review the relative funding of institutions in the terms outlined in the White Paper. This working party discussed some basic principles but found that it had insufficient data on which to base appropriate judgments.

In February 1989, the HEC and the Department of Employment, Education and Training (DEET) commissioned three studies into relative teaching costs to assist in preparing a framework within which the allocation of funds across the higher education system could be considered. The results of these studies, made available to interested parties in November 1989, have provided the basis for the relativities matrix which is central to the relative funding model.

In late November 1989, the HEC and DEET held a national seminar to enable higher education institutions and others to put their views on the factors that should be taken into account in developing a funding allocation model and on the parameters that might be included in such a model. The papers delivered and a discussion of the seminar outcomes were published earlier this year.

On 4 July 1990, the draft proposal for a relative funding model, developed by a joint HEC/DEET working group, was forwarded to all institutions within the unified national system of higher education, State authorities, peak bodies and other interested parties. Comments were sought with the aim of finalising the model and developing a statement of the relative funding position of institutions in time for the 1990 profile discussions. The draft proposal includes details of the principles and alternatives considered by the HEC/DEET Working Group in the development of the model. These details are not repeated in this paper.

Responses to the Draft Proposal

Over sixty responses were received to the draft proposal. These included comments from institutions, staff members, and representatives of professional groups. In addition, the Working Group had valuable discussions with peak bodies: the Australian Vice-Chancellors Committee (AVCC); the Australian Committee of Directors and Principals Limited (ACDP); the Federated Australian University Staff Association (FAUSA); the Federated Council of Academics (FCA); and State authorities. These comments have been considered carefully in the development of the final model.

The majority of the respondents to the proposed relative funding model welcomed the proposal as evidence of the Government's commitment to improving the basis of funding for higher education institutions and to the development of an open and objective allocation process. They agreed that the model should be simple in order to discourage its use in internal institutional resource allocation decisions.

Where concerns were raised they fell into two broad categories:

- concerns directly related to the components of the model, its application and associated processes, specifically
 - views about the positioning of some discipline areas in the matrix,
 - concerns about the weights given to some cells in the matrix,
 - special factors not incorporated in the model, including the additional costs of teaching disadvantaged students,
 - the index for distributing the research related quantum, and
 - the proposed 'one-off' application of the model for grant adjustment purposes.
- concerns about the fundamental principles governing the process that led to the development of the model, specifically
 - the use of historical rather than 'ideal' costs as the basis for determining discipline weights in the model, and
 - perceived deficiencies in teaching and research related infrastructure which are not addressed by the model.

These issues are discussed in turn below.

Model Components and Application

Relative Teaching Costs Matrix

Comments on the teaching cost matrix may be divided into those that pertain to its structure and those that relate to the placement or relative weighting given to a specific discipline. A simple matrix received general support.

In respect of the structure of the matrix, a significant number of respondents suggested that the proposed spread of weights from 1 to 5.2 was too great. Institutions with significant load in high cost courses, largely concentrated in pre-1987 'older' universities, were considered to be advantaged by this matrix.

The discipline relativities incorporated into the draft model were derived directly from the application of averages obtained from the teaching cost studies. A re-examination of the cost study data for the higher cost disciplines confirmed that the sample sizes were relatively small and spanned only a limited range of institutions. Moreover, the raw teaching costs for the disciplines in the fifth cluster were highly variable: at the research degree level, for example, the lowest value was \$14,000 while the highest was \$48,000. The separation of research infrastructure costs and research training costs, difficult at the best of times, is particularly so at this level and contributes to uncertainty about the relativities assigned to this cluster.

Respondents also argued that system growth has been predominantly in lower cost categories and levels, which has resulted in the higher cost disciplines largely being protected from the effects of marginal funding and efficiency dividends that have been required over recent years.

For all of the reasons outlined above, it was considered appropriate to reduce the relative weights across all levels of the highest category. The range of costs at each level for this discipline cluster varies considerably: at the undergraduate level from around \$10,000 to around \$33,000 per place; at the other postgraduate level from \$10,000 to \$41,000 per place; and, as indicated previously, from \$14,000 to \$48,000 per place at the research degree level. It must be stressed that the weights assigned in the teaching cost matrix cannot be precise and must reflect some judgment.

Some respondents asserted that the matrix would benefit from the inclusion of an additional level incorporating honours, fourth year and postgraduate diplomas. In this approach, coursework masters degrees and research degrees would be the third and fourth levels respectively. Data to enable this differentiation are not readily available either from the student load data collection or from the teaching cost studies. Moreover the suggestion overlooks the fact that it is acceptable to have a range of variation within a level in the same way as there is "within cluster" variation which is part of the variability of the model. This "within level" variation should provide sufficient flexibility to address those issues as well as those raised in connection with hybrid programs combining research and coursework.

It was considered that the addition of this level to the matrix would add significantly to the complexity of the model without a commensurate increase in accuracy.

Many respondents recommended a change to the weight assigned to a particular discipline in the draft proposal but, with the exception of certain disciplines in the third cluster, supporting evidence was not provided. Included in these general requests for change to the weight for a particular discipline were a number who focussed on the cost of particular courses, rather than the individual disciplines which make up that course and which are the basis of the teaching costs matrix.

In relation to disciplines in the third cluster the relevant data from the cost studies were re-evaluated and it was concluded that the studies did not adequately reflect the diversity of costs which emerged in this category. In the draft proposal this cluster was weighted at 1.45 at the undergraduate level. Upon re-examination of the data it was observed that the costs ranged up to \$19,000 per place. This, coupled with the fact that the cost studies excluded some relatively expensive disciplines assigned to this cluster, such as optometry, led to an increase in the weighting assigned.

The HEC and DEET were not convinced, however, that they had sufficient information on the cost of the teaching of performing arts in specialist institutions, where one to one instruction is often the norm. An investigation of this aspect of teaching costs will be undertaken.

The change to the undergraduate weight assigned to the third cluster necessitated a corresponding change at the "other postgraduate" level where two cost categories were created to replace the single category proposed in the draft paper. Weights were assigned to these newly created categories that took into account the cost studies findings and the need to ensure a continuum of weights across levels.

Several respondents raised as an issue the weighting assigned to industrial experience in the draft proposal and put forward that it be increased from 0.2 to a higher level. Given the different patterns of expenditure for industrial experience across the system, it was difficult to justify a system-wide increase in the scaling factor in the model.

Some respondents confused the way co-operative education programs were dealt with in the draft proposal. For those involving industrial experience, that is, a semester or a full year spent on work experience as part of course requirements, a scaling factor of 0.2 is applied to industrial experience load, because of the lower resource requirements of this load, and weighted according to the discipline cluster. Load generated by industrial experience is counted toward target load but is exempt from the Higher Education Contribution Scheme (HECS). In contrast, for other co-operative education programs, all semesters are counted towards load, students are charged HECS, and given the resource needs of these programs, no scaling factor is applied in the model. Normal discipline weightings are applied.

The Research Related Component

The size of the research related component of the model was not raised as a significant issue by the respondents to the proposal.

However, two issues were raised in relation to the distribution of the component and have been addressed in the final model:

- the use of a Commonwealth competitive research grants index to measure direct research activity rather than a more comprehensive or composite index giving the appropriate weightings to other forms of research activity; and
- the need to revisit the system-wide allocation of the research quantum on a regular basis.

A sizeable group of the respondents argued that the use of the Commonwealth competitive research grants index would severely disadvantage those institutions which are successful in obtaining grants from non-Commonwealth sources, such as industry. They argued that this would result in an inaccurate assessment of the research activities in the system and distort the ability of the model to yield equitable outcomes.

It is accepted that a composite index would be a more appropriate mechanism on the grounds that it would provide a more accurate reflection of the research needs of institutions. As argued by the ARC:

- While it is appropriate to expect institutions to charge the full direct and indirect costs wherever possible, there is a certain minimum level of infrastructure required before such research can be undertaken and which cannot be reasonably attributed to individual research contracts.
- There are academic and other benefits to institutions in conducting such research which are consistent with the purposes for which Commonwealth funding is supplied, justifying some Commonwealth infrastructural support.
- There is a wide range of research funding sources, eg State Governments and semi-Government agencies, which offer research grants as opposed to contract research projects. If institutions take up such grants there will be some call on research infrastructure not covered by the grants.

This issue was addressed during the development of the draft proposal but, because of the difficulties in obtaining reliable data, setting definitions and determining appropriate weightings, a two stage approach to the development of an acceptable composite index was proposed.

The majority of the respondents argued for the distribution of the research related quantum to be recalculated on a regular basis. This argument is accepted, on the grounds that the need for the provision of indirect funding for research activities will vary in part according to institutional success in attracting direct research funds. The proposed application of the model on a one-off basis for research activities would disadvantage those institutions which improve their performance in gaining direct research funds.

The development of a more comprehensive index will be undertaken by a joint HEC/ARC/DEET working group during 1991 with a view to reviewing the distribution of the research related component of the model as soon as practicable. The working group should also consider the relationship between the allocation of the research related component in the operating grants and the future allocation of the infrastructure funds currently available under Mechanisms A and B of the Research Infrastructure Program, in order to achieve consistency in the way the totality of funds available for developing research infrastructure is distributed.

Finally, some respondents argued that the application of a performance index of any type based on direct research income would disadvantage those institutions which concentrate their research effort in relatively low direct cost areas such as the humanities.

This argument does not take adequate account of two factors. First, the research quantum in the model is intended to ensure, as far as possible, that institutional operating grants include an amount of indirect funding, which together with the direct research infrastructure funding provided by bodies such as the ARC, is appropriate to support each institution's directly funded research activity, especially that activity which is funded by grants which do not cover the full infrastructure costs of the research. Averaged across all of an institution's activities, the need for such indirect funding support can be expressed as a proportion of the amount of direct funding received. Institutions with a greater concentration of high direct cost research tend to have greater needs for indirect research funding.

Research Support

Second, it should be recognised that lower direct cost research areas do feature significantly in the total pool of direct research funds. For example, approximately 15 per cent of ARC research grant funds in 1989 were awarded to researchers in the humanities and social sciences. ARC research grants are awarded in all disciplines with the exception of clinical medicine and dentistry.

Specific Institutional Factors

Some respondents argued that specific factors such as remoteness, size, regional character, and the extent of leasing costs should be costed and built into the model. The exclusion of special factors from the model does not mean that they are unimportant or will not be recognised; rather, the number, diversity and differential impact of special factors identified make it impossible to devise appropriate and comprehensive formulas as part of the model. These factors will be taken into account when assessing an institution's relative funding position and the nature of the adjustment package required. In some cases short-term measures only will be necessary.

Disadvantaged Students

The issue of whether the model should include a component designed to reflect the additional costs associated with the teaching of disadvantaged students was debated at length during the development of the draft proposal. It was also raised by a large number of respondents.

Whilst the Government has provided additional funding to support a range of equity projects and initiatives, it is recognised that institutions do provide varying levels of funds from within existing operating grants to support disadvantaged students. The extent of institutional support varies according to their profile, catchment, capacity and priority placed on equity issues. Given the inadequacy of existing data to distinguish, on an institutional basis, the number and nature of disadvantaged student enrolments and the associated expenditure, it has not been possible at present to develop an index to distribute funds in the model.

The Government, via the educational profiles process, is attempting to ensure that all institutions develop coherent equity plans and devote an appropriate proportion of their operating resources for this purpose. This issue will be taken up again with institutions in the profile negotiations for the 1991-93 triennium. The existing equity program will, in the future, be linked to the development of plans on a systematic basis and as an integral part of an institution's overall mission, that is, funds will be provided to support institutional equity plans rather than on a submission basis for specific one-off or uncoordinated initiatives.

The HEC and DEET are committed to pursuing this issue further through the implementation of the Government's national equity objectives in higher education as outlined in *A Fair Chance for All: Higher Education That's Within Everyone's Reach* (1990). Since it has not been possible to deal with these issues as part of the model, account will be taken of these costs in determining institutional adjustment packages as part of the 1991-93 funding cycle. A joint HEC/DEET working party will be formed to assist this process and to devise an appropriate mechanism to cater for expenditure associated with meeting the needs of the disadvantaged in time for the next funding cycle.

Application of the Model

The majority of respondents argued that the relative funding model should be used in an on-going way to monitor the equitable allocation of future system-wide resources. The HEC and the DEET believe that such a proposal has doubtful validity. Following the adjustment process arising from the application of the model to assess existing allocations, future funding mechanisms for teaching and research activities will mean that institutions continue to be funded appropriately for their profile. Regular application of the model would inhibit institutional autonomy in the internal allocation of resources. It is critical that the system-wide model not be used in this way. Rather, it is a mechanism to move institutions to within an acceptable band of funding variations and thereby enhance their capacity to compete on equal terms in the new system.

Among those commenting on the tolerance band the general view was that the size of the tolerance band should be smaller rather than larger. Some recognised that a smaller tolerance band would require more funds than available and, in this context, suggested that the adjustment process either be extended over a longer period or funds be withdrawn from overfunded institutions. These views will be taken into account in the determination of adjustments following the application of the model. It should also be stressed that an institution's position relative to the tolerance band is a guide only, rather

than an absolute judgement on the need for funding adjustments; the relative position of all institutions, including those within the tolerance band will be examined, and proposed adjustment packages discussed as part of the 1990 profile discussions.

Principles Governing Model Development

Purpose of the Model

There was an apparent expectation that the model would compensate for the aggregation of perceived past funding inequities across the binary divide. This misunderstanding should not have occurred since it has been made clear from the start of this process, in the White Paper, and again at the relative funding seminar and in discussions with ACDP and institutions, that the model would not have this function.

Nevertheless, respondents from the former advanced education sector criticised the proposed model because they believed that it preserved the funding differential between the former advanced education sector and the pre-1987 universities. That is demonstrably not the case in relation to the teaching component of the model which allocates 94 per cent of the total adjusted grant. The research issues are more complex.

It is important to understand that the relative funding model is not a mechanism to address the perceived inequities arising from the differing historical ability of institutions to accumulate basic infrastructure for teaching and research activities. Rather the model is designed so that institutions in the new system of higher education are funded equitably from year to year for an agreed educational profile covering existing teaching and research related activities. Such a model cannot take account of an institution's inability to accumulate infrastructure. Age and other factors which contribute towards an accumulation of infrastructure, including past funding decisions and private sources of income, cannot be dealt with through the model. Any perceived problems must continue to be addressed by different mechanisms.

Access to research funding and infrastructure for the former advanced education sector needs to be addressed through funding mechanisms, both direct and indirect, outside the relative funding model. In terms of indirect funding of research, the funding provided for growth since 1988 for the former advanced education institutions has been at rates above their previous average funding rates. This funding margin is available for institutions to use according to their own internal priorities, including research purposes. In terms of direct Commonwealth funding, the Government has announced the provision of \$175 million over the five years 1989-90 to 1993-94 specifically for the maintenance, enhancement and development of research infrastructure in higher education institutions. Of the \$107.5 million available from this source over the 1990-92 triennium, approximately 40 per cent will be applied solely for institutions or parts of institutions from the former advanced education sector, and a further 15 per cent will be applied for research infrastructure proposals which benefit two or more higher education institutions.

Other direct mechanisms also exist to address the issue:

- The Australian Research Council (ARC) provides a 35 per cent infrastructure loading on research grants won by researchers from former advanced education institutions. In 1990 \$0.75 million was provided in this form of assistance.
- All institutions are able to compete for Special Research Centres and Key Centres of Teaching and Research which provide dedicated funds for research. In 1990, approximately \$2.2 million out of the \$6.3 million for Key Centres will be provided to former advanced education institutions.

A substantial source of this extra funding has been the 'clawback' from pre-1987 universities reaching \$65 million per annum from 1991.

In overall terms, the total pool of direct research funding through the ARC, for which all institutions may compete, will amount to almost \$1 billion over the five years 1990-94.

All of the direct sources of research support enable institutions to derive some extra capacity that can be applied to support their research infrastructure and research activities generally.

It is recognised that inequities exist in the provision of adequate teaching infrastructure (that is, library book stocks, academic support staff, teaching related equipment) that have not been addressed to date. These inequities arise partly because of the marginal rates of funding provided for the growth in the early and mid eighties.

As most of this growth was in the former advanced education sector, institutions from this sector are more likely to have been unable to build a substantial teaching infrastructure.

A joint HEC/DEET working party will be established to develop a strategy for assisting institutions facing particular difficulties in providing teaching infrastructure.

Historical Costs Basis

A frequent argument in responses to the draft proposal was that the model should be based upon an assessment of ideal inputs rather than historically-based real costs. However, the model is designed to be a relative funding model for determining the relative funding position of institutions within existing resource levels. It was never intended to base a model upon ideal costs.

A second and closely related argument is that the use of historical costs entrenches past system and institutional decisions about the allocation of resources. The use of such costs also assumes that the aggregation of historical funding decisions can adequately explain current expenditure patterns. It is considered that the historical cost data provide the most reliable indicator of real costs that is presently available.

Several respondents also argued that the proposed model was limited because the use of historical cost data does not enable shifts in the relativities between disciplines over time to be taken into account. Given that this relative funding model has been designed for a one-off system-wide application rather than application at the institutional level the issue

of changing relativities between disciplines should be addressed by institutions in their internal allocation of funds. It is the intention of the HEC to monitor changes in discipline relativities at the conclusion of the adjustment period.

Part B:
The Relative Funding Model

The Components of the Model

The final recommendations of the HEC and DEET on the relative funding model are outlined below. The model is to be used as the basis for assessment of the relative funding position of higher education institutions with a view to making appropriate funding adjustments over the 1991-93 triennium and beyond if necessary.

The model:

- is simple and hence based upon broad aggregate historical cost data designed for use at the system-wide level only. Institutions should determine the appropriate internal allocation of resources in the context of their specific educational profile, mixture of teaching styles, course content and research management plan.
- comprises a teaching related component designed to reflect the relative costs of teaching in different discipline cost clusters at different levels, and a research related component to support research activities and associated research infrastructure.
- does not take account of institution specific factors, the costs associated with the teaching of disadvantaged students and inequities arising from the differing ability of institutions to accumulate teaching and research infrastructure.

The Teaching Related Component

The teaching related component represents the total operating grant less the amount determined as the research related quantum. A relative teaching costs matrix has been derived to allocate this component according to the student load in five discipline clusters at the undergraduate level, three clusters at the other postgraduate level and two clusters at the higher degree research level.

The derivation of this matrix was explained in detail in the draft proposal. It has been modified as outlined in Part A of this paper in response to comments on the proposed matrix. The matrix is shown in Table 3.1. The disciplines included within each cluster at each level are depicted in Table 3.2.

The values in each cell of the matrix are to one decimal place only, to avoid suggesting an overly high degree of precision. It should be noted that each cell value represents a weighted average and in some cells conceals considerable diversity in the component values within clusters and levels. A scaling factor of 0.2 is applied to the weighted student load associated with industrial experience.

Table 3.1 Relative Teaching Costs Matrix
(Base: Cluster 1 Undergraduate = 1.0)

Cluster	Discipline Weights		
	Undergraduate	Other Postgraduate	Research Degree
1	1.0	1.4	2.0
2	1.3		
3	1.6	1.8	
4	2.2	3.0	4.7
5	2.7		

Table 3.2 Relative Teaching Costs Matrix: Clustering of Disciplines

Cluster	Undergraduate	Other Postgraduate	Higher Degree Research
1	Accounting Admin/Economics Law Other Humanities	Accounting Admin/Economics Law Other Humanities Education	Accounting Admin/Economics Computing Education Law
2	Behavioural Science Education Maths/Stats Other Social Stud.	Maths/Stats Other Social Stud.	Maths/Stats Nursing Other Built Env Other Health Other Humanities Other Languages Other Social Stud Visual/Perf. Arts
3	Computing Nursing Other Built Env. Other Health Other Languages Visual/Perf. Arts	Computing Nursing Other Built Env. Other Health Other Languages Visual/Perf. Arts	
4	Engineering Science Surveying	Agriculture Behavioural Sci. Dentistry Engineering	Agriculture Behavioural Sci. Dentistry Engineering
5	Agriculture Dentistry Medicine Vet. Science	Medicine Science Surveying Vet. Science	Medicine Science Surveying Vet. Science

Note: The discipline groupings above are based on the discipline classification used in the collection of statistics by DEET. The discipline codes which relate to each discipline above are given in Appendix A.

The Research Related Component

The research related component of the model refers to the quantum of the operating grant used to support research activities other than those inextricably linked to higher degree research training, the costs of which are recognised in the allocation of the teaching component of the model. Hence, the research related component of the model notionally covers the costs associated with research funded:

- internally;
- from the ARC and other Commonwealth competitive granting bodies; and
- in part from industry and other non-Commonwealth sources (in recognition that there will be elements of infrastructure not provided even on a full cost recovery basis).

The approach to estimating the size of the research-related component of the operating grant is outlined in the draft proposal. It was estimated at around \$150 million, or approximately 6 per cent of the operating grant in 1988. For the purposes of the relative funding model this relativity between the research related quantum and the total operating grant will be maintained in subsequent years.

In 1990 the model distributes this quantum to institutions according to an index of Commonwealth competitive research grants. This index reflects an institution's relative performance in obtaining these grants and provides the best indicator currently available of relative need in relation to the allocation of the research component of the model. The calculation of this index and its application to institutions for 1990 is detailed at Appendix B.

As outlined earlier, a more comprehensive composite index will be developed by a joint ARC/HEC/DEET working group during 1991 with a view to reviewing the distribution of the research component of the model as soon as practicable.

Application of the Model

The model has been applied to 1990 planned student load data for institutions within the national system of higher education. The 1990 adjusted operating grant has been distributed in accordance with the model and allocations for individual institutions then compared with the adjusted 1990 actual operating grants. The teaching component of the model was based on 1990 actual load data provided by institutions in their educational profiles for the 1991-93 triennium, with a pro-rata adjustment made to undergraduate load to derive 1990 target load by discipline, given that target load is the basis for the provision of Commonwealth funding. Only undergraduate load was adjusted on the assumption that under/over enrolments were more likely to occur at that level.

Given the variety of circumstances which could influence an institution's position and the limits of accuracy in the model itself, a tolerance band of approximately plus or minus three per cent is included as a guide only to the adjustments required.

The results are shown in Figure 4.1 and Table 4.1 for the new institutional structures as they will be from 1 January 1991 according to the latest advice available. The components of these restructured institutions are listed at Appendix C.

Application of the model to 1990 planned load indicates that fifteen institutions have been provided grants in excess of that calculated by the model while nineteen institutions have been provided grants below that calculated by the model. Twenty-one institutions are outside the recommended tolerance band, ten above and eleven below. If apparent under-funding was to be redressed in full to the lower limit of the tolerance band, without load adjustments, a total of \$26 million would be required.

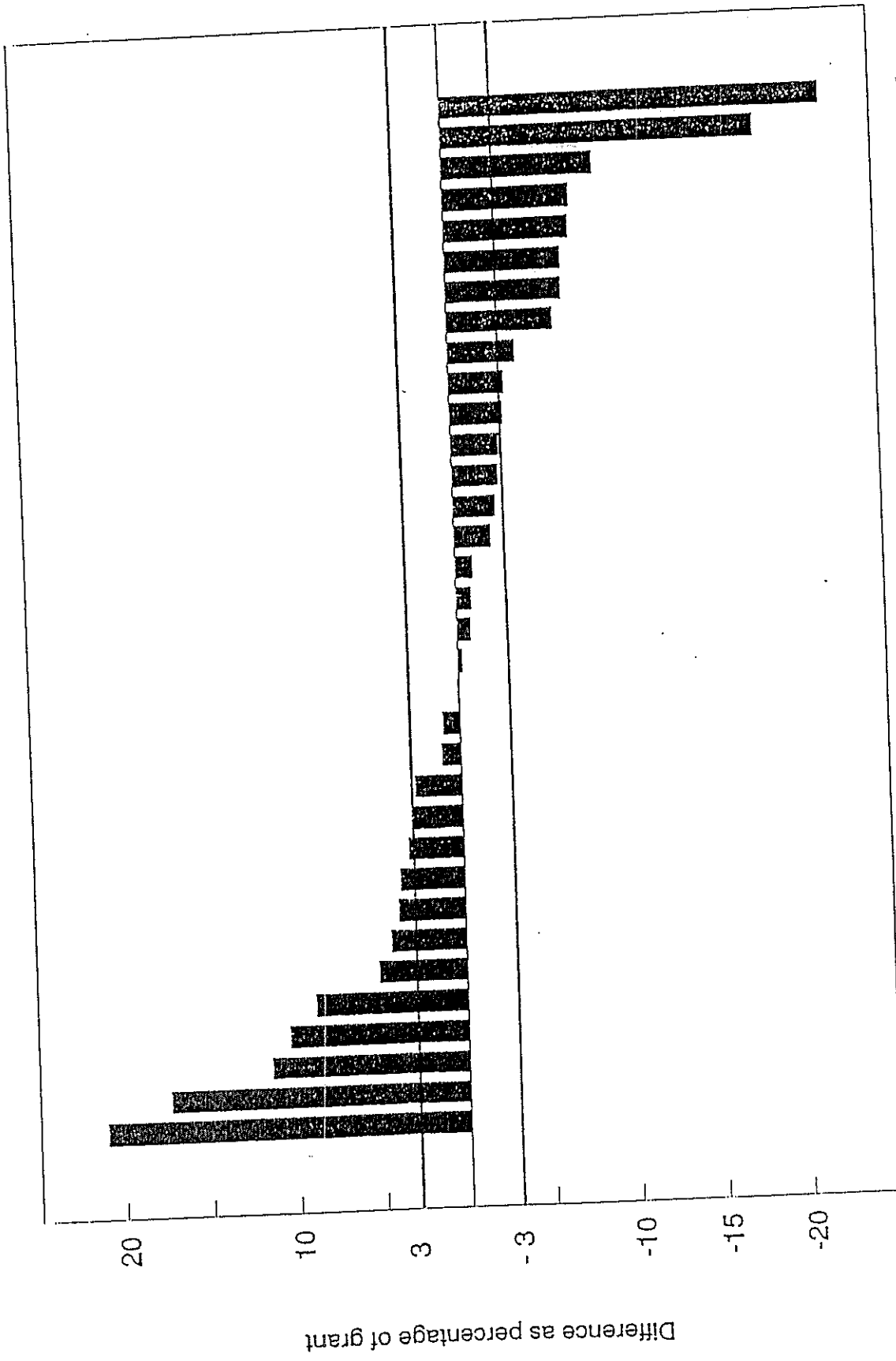


Figure 4.1 Percentage Difference between 1990 Adjusted Grants and Relative Funding Model Allocations by Institution

Table 4.1 Percentage Difference between 1990 Adjusted Grants and Relative Funding Model Allocations by Institution

	1990	1990	Model	Difference
	Weighted Planned Load ⁽²⁾	Adjusted Grants ⁽³⁾ \$'000	Allocation ⁽⁴⁾ \$'000	between Grant & Model Alloc.
		G	M	(G-M)/G
		(Dec 1989 Prices)		percent
Restructured Institutions ⁽¹⁾				
NT University	2,617	16,878	13,335	20.99
Aust National University ⁽⁵⁾	8,273	56,893	47,032	17.33
University of Tasmania ⁽⁶⁾	11,237	69,229	61,282	11.48
Murdoch University	6,403	38,857	34,806	10.42
Deakin University	8,541	48,683	44,374	8.85
University of Wollongong	9,326	52,853	50,125	5.16
Uni of Western Sydney	12,436	66,238	63,329	4.39
University of Adelaide ⁽⁷⁾	16,453	101,992	97,989	3.92
Uni of New South Wales	29,772	176,588	169,917	3.78
James Cook University	6,526	37,967	36,730	3.26
Monash University	32,414	182,239	176,864	2.95
Vic Uni of Technology	22,156	117,306	114,062	2.76
Uni of Technology Sydney	16,772	86,744	85,776	1.12
Charles Sturt University	10,250	52,695	52,167	1.00
University of Newcastle	13,568	73,609	73,567	0.06
University of Sydney	38,278	214,168	214,642	-0.22
University of Queensland	30,452	167,887	169,228	-0.80
Griffith University	11,403	59,826	60,348	-0.87
La Trobe University	34,268	177,531	179,322	-1.01
University of New England	15,118	80,463	82,233	-2.20
Macquarie University	13,659	72,483	74,286	-2.49
University of Melbourne ⁽⁸⁾	35,702	197,768	203,073	-2.68
Ballarat Uni College	3,839	18,972	19,489	-2.72
University of Canberra	6,945	34,586	35,657	-3.10
Uni of Western Australia	15,422	87,547	90,365	-3.22
Uni of South Australia ⁽⁷⁾	18,088	89,348	92,855	-3.93
Flinnders University ⁽⁷⁾	10,508	57,201	60,740	-6.19
WA Coll of Advanced Edn	11,198	53,228	56,804	-6.72
Aust Catholic University	5,383	25,581	27,306	-6.75
Victoria College	9,066	42,884	45,986	-7.23
Qld Uni of Technology	19,900	95,034	102,037	-7.37
Curtin Uni of Technology	16,445	78,484	85,387	-8.80
Uni Coll of Central Qld	5,098	21,882	25,860	-18.18
Uni Coll of Southern Qld	7,249	30,152	36,817	-22.10
System-wide Totals:	514,765	2,783,794	2,783,794	

For footnotes see Appendix D.

The model was also applied to 1988 and 1989 data (see Appendix D) in order to examine the outcomes over the three year period. Shifts in the relative funding position of institutions are evident over this period but can be explained by the differential funding provided for growth in 1989 and 1990 and the special assistance provided in the form of additional funds and load adjustments to assist with the impact of over-enrolments in 1988. In addition, as outlined in the draft proposal, it was also important to test the model outcomes on 1988 structures, to enable any intersectoral shifts (under the previous binary system) to be identified and for various tests of fit to be applied.

It must be stressed that it is not appropriate to make comparisons of the model outcomes over the three years because of the load adjustments and special factors referred to above. The 1990 target load data is the most appropriate reference set upon which to base adjustments. In view of the fact that institutions have had difficulty in refining their data sets and the limited time available between receipt of profiles data and the publication of this report, the 1990 model outcomes should be regarded as interim and the model will be re-run prior to finalisation of adjustment packages.

Following the adjustment process, future allocations of growth will mean that institutions continue to be funded appropriately for their teaching profile. If an institution wishes to shift the base teaching mix then it must either do so within existing resources or negotiate revised funding arrangements with the Commonwealth. The Commonwealth would agree to the latter only in unusual circumstances. The HEC proposes undertaking a monitoring role to ascertain whether appropriate relativities are maintained in institutional allocations.

For the research component, as indicated previously, the model allocations must be revisited when a more appropriate index is available. It will also be necessary to review the allocation of this component because of its relationship to research performance.

The Adjustment Process

The relative funding position of each institution will be considered in the context of:

- the model outcomes; as indicated earlier an institution's relative funding position relative to the tolerance band will not be taken as an absolute indicator and each institution will be examined on a case by case basis;
- relevant specific institutional factors including size, location, functioning as a regional institution, number and nature of different campuses and significant leasing costs; and
- existing allocations for 1991 and 1992, as previously announced for the 1990-92 triennium.

The relative funding analysis being undertaken in 1990 will include application of the model to planned data for each year of the 1991-93 triennium to verify the appropriateness of the adjustment package. It should be stressed, however, that institutional decisions to shift resources internally will not be taken into account in this process.

As announced by the Minister at the relative funding seminar, the adjustment packages will be implemented over the 1991-93 triennium, and beyond if necessary, and include a range of grant and load measures as well as the ability to apply differential rates of funding for the 1993 growth.

A sum of around \$30 million in additional funds is available over the 1991-93 triennium to adjust the grants of the underfunded institutions. Target load reductions without a commensurate reduction in funds may also be given. Over funded institutions may take additional load with no increase in funds and/or a reduction in funding with no commensurate reduction in load. The capital implications of any additional load will be discussed with institutions. Adjustments to student load targets will be considered carefully with a view to the desirable patterns of growth in higher education places.

The overall impact of these adjustments must not have the effect of reducing the system-wide average rate of funding. In other words additional student load taken by overfunded institutions will need to be offset by an equivalent reduction in load at underfunded institutions and/or by some combination of funding rates for new growth beyond 1992.

Proposed adjustment packages will be discussed with institutions in the 1990 educational profiles process and announced along with funding decisions for the 1991-93 triennium at the end of November 1990.

Composition of Discipline Groupings

The relative teaching costs matrix of necessity has used abbreviated descriptions of each discipline group within the clusters. The following indicates which discipline codes (from the DEET Classification of Higher Education Discipline Groups) are included in each broad discipline grouping.

Accounting

09.02 Accounting

Administration/Economics

09.01 Economics

09.03 Commerce, Sales, Services

09.04 Management, Administration

09.05 Secretarial Studies

09.99 Other Administration, Business, Economics, Law

Law

09.06 Law, Justice, Legal Studies

Other Humanities

01.01 English

01.02 History

01.03 Philosophy

01.04 Ethnic/Area Studies

01.06 Communication Studies

01.07 Religious Studies

01.99 Other Humanities

Behavioural Science

02.01 Behavioural Sciences

Education

03.01 Education Studies

03.02 Teaching Practice

Mathematics/Statistics

05.01 Mathematics, Statistics

05.99 Other Mathematics, Computing

Other Social Studies

- 02.02 Geography
- 02.03 Library/Archival Studies
- 02.04 Welfare, Counselling
- 02.05 Sport, Recreation
- 02.06 Political Science, Government
- 02.07 Sociology
- 02.99 Other Social Studies

Computing

- 05.02 Computer-based Information Science
- 05.03 Computer Science

Nursing

- 08.03 Nursing

Other Built Environment

- 10.01 Architecture
- 10.02 Environment/Product Design
- 10.03 Building, Construction
- 10.99 Other Built Environment

Other Health

- 08.01 Medical Technology
- 08.02 Therapies, Therapeutic Technology
- 08.04 Nutrition, Dietetics
- 08.05 Environmental Health
- 08.08 Optometry, Optical Technology
- 08.09 Community/Family/Personal Health Care
- 08.99 Other Health Sciences

Other Languages

- 01.05 Languages other than English

Visual/Performing Arts

- 06.01 Art
- 06.02 Graphic Arts/ Fashion Design
- 06.03 Craft, Ornaments
- 06.04 Performing Arts
- 06.05 Music
- 06.99 Other Visual/Performing Arts

Engineering

- 07.01 Chemical
- 07.02 Civil Structural
- 07.03 Electrical, Electronic, Computer, Communications
- 07.04 Mechanical, Automotive, Aeronautical
- 07.05 Mining
- 07.06 Industrial, Processing
- 07.89 General Engineering
- 07.99 Other Engineering, Processing

Science

- 04.01 Biological Sciences
- 04.02 Earth Sciences
- 04.03 Physical/Materials Sciences
- 04.04 Pharmacology
- 04.05 Chemical Sciences
- 04.99 Other Sciences

Surveying

- 10.04 Surveying

Agriculture

- 11.01 Agriculture
- 11.02 Animal Husbandry
- 11.03 Forestry, Parks, Wildlife
- 11.99 Other Agriculture, Renewable Resources

Dentistry

- 08.07 Dentistry, Dental Services

Medicine

- 08.06 Medicine, Medical Science

Veterinary Science

- 11.04 Veterinary Science

Calculation of the Commonwealth Competitive Research Grants Index

The Commonwealth Competitive Research Grants Index was produced to allocate additional research infrastructure funds which were announced by the Government in its Statement *Research for Australia: Higher Education's Contribution*. After consultation with the Higher Education Council, the Australian Research Council (ARC) decided to allocate a proportion of these funds (Research Infrastructure Block Grants) on the basis of the amount of funding institutions received from Commonwealth competitive research granting schemes ('Mechanism A').

For this purpose an index was developed which took into account the funds received by higher education institutions over a two year period from the granting schemes listed in Table B.1. Data was obtained from each agency on the grants to each institution for the two latest available years.

Although Research Infrastructure Block Grants ('Mechanism A') were distributed only to the pre-1987 universities, the index developed includes both the universities and the former advanced education institutions.

For the 1991 allocation of Research Infrastructure Block Grants, the index will also take into account grants from the Antarctic Science Advisory Committee, the Commonwealth AIDS Research Committee and the Horticultural R&D Corporation.

The index calculated on the above basis as it applies to the institutions of the restructured national system is at Table B.2.

Table B1: Agreed List of Commonwealth Competitive Grants Schemes to be Considered for Distribution of Funds under the ARC Research Infrastructure Program (Mechanism A) 1990

Australia Council
Australian Biological Resources Study
Australian Centre for International Agricultural Research
Australian Institute of Aboriginal Studies
Australian Meat and Livestock Research and Development Corporation
Australian Research Council
Australian Special Rural Research Council
Australian Water Research Advisory Council
Barley Research Council
Chicken Meat Research Council
Cotton Research Council
Criminology Research Council
Dairy Research Council
Dried Fruits Research Council
Fishing Industry Research and Development Council
Grain Legumes Research Council
Grape and Wine Research Council
Health Services Research and Development Grants Advisory Committee
Honey Research Council
Industry Research and Development Board Grants
National Energy Research, Development and Demonstration Council
National Greenhouse Advisory Committee
National Health and Medical Research Council
Oilseeds Research Council
Pig Research Council
Poultry Research Council
Research into Drug Abuse Advisory Committee
Sugar Research Council
Tobacco Research Council
Wheat Research Council
Wool Research and Development Fund (Australian Wool Corporation)
Worksafe Australia (National Occupational Health and Safety Advisory Committee)

Table B.2: Commonwealth Competitive Research Grants Index

	Commonwealth Competitive Research Grants Index
<u>Restructured Institutions</u>	0.099
Charles Sturt University	2.888
Macquarie University	3.204
University of New England	10.919
Uni of New South Wales	2.740
University of Newcastle	11.829
University of Sydney	0.405
Uni of Technology, Sydney	0.142
Uni of Western Sydney	1.628
University of Wollongong	0.010
Ballarat Uni College	0.605
Deakin University	3.174
La Trobe University	7.187
Monash University	12.963
Uni of Melbourne (exc VCAH)	0.000
Victoria College	0.968
Vic Uni of Technology	1.446
Griffith University	2.095
James Cook University	0.632
Qld Uni of Technology	0.001
Uni College of Central Qld	0.027
Uni College of Southern Qld	8.527
University of Queensland	1.139
Curtin Uni of Technology	1.344
Murdoch University	7.012
Uni of Western Australia	0.000
WA College of Advanced Edn	4.299
Flinders University	8.397
University of Adelaide	0.637
Uni of South Australia	2.474
Uni of Tasmania (exc AMC)	0.035
NT University	2.927
ANU Faculties (inc CITA)	0.247
University of Canberra	0.000
Aust Catholic University	100.000
Index Total	

Higher Education Institutions: Components of Institutions Listed in Model Outcome Tables

Institution	Components
New South Wales	Mitchell College of Advanced Education
Charles Sturt University	Riverina-Murray Institute of Higher Education
Macquarie University	Institute of Early Childhood Studies (Sydney CAE)
University of New England	Armidale College of Advanced Education
	Northern Rivers College of Advanced Education
	Orange Agricultural College
University of New South Wales	City Arts Institute (NSW Institute of the Arts)
	St George Institute of Education (Sydney CAE)
University of Newcastle	Hunter Institute of Higher Education
	NSW Conservatorium of Music (Newcastle Branch)
University of Sydney	Cumberland College of Health Sciences
	Sydney Institute of Education (Sydney CAE)
	Institute of Nursing Studies (Sydney CAE)
	NSW Conservatorium of Music (Sydney Branch)
	Sydney College of the Arts (NSW Institute of the Arts)
University of Technology, Sydney	Institute of Technical and Adult Teacher Education (Sydney CAE)
	Kuring-gai College of Advanced Education
University of Western Sydney	Hawkesbury Agricultural College
	Macarthur Institute of Higher Education
	Nepean College of Advanced Education
University of Wollongong	

Victoria

Ballarat University College
Deakin University

La Trobe University

Monash University

University of Melbourne

Victoria College

Victoria University of Technology

Queensland

Griffith University

James Cook University

Queensland University of Technology

University College of Central
Queensland

University College of Southern
Queensland

University of Queensland

Western Australia

Curtin University of Technology

Murdoch University

University of Western Australia

Western Australian College of Advanced
Education

Ballarat College of Advanced Education
Warrnambool Institute of Advanced
Education

Bendigo College of Advanced Education
Phillip Institute of Technology
Swinburne Institute of Technology
Wodonga Institute of Tertiary Education

Chisholm Institute of Technology
Gippsland Institute of Advanced Education

Hawthorn Institute of Education
Victorian College of the Arts

Footscray Institute of Technology
Royal Melbourne Institute of Technology
Western Institute

Gold Coast College of Advanced Education
Brisbane CAE (Mt Gravatt Campus)

Queensland Institute of Technology
Brisbane CAE (other than Mt Gravatt)

Capricornia Institute of Advanced Education

Darling Downs Institute of Advanced
Education

Queensland Agricultural College
Queensland Conservatorium of Music

South Australia
Flinders University
University of Adelaide

University of South Australia

Tasmania

University of Tasmania

Northern Territory

Northern Territory University

Australian Capital Territory

Australian National University

University of Canberra

Other

Australian Catholic University

SACAE (Sturt Campus)

Roseworthy Agricultural College
SACAE (City Campus)

South Australian Institute of Technology
SACAE (other than City and Sturt
Campuses)

Tasmanian State Institute of Technology

Darwin Institute of Technology

Canberra Institute of the Arts

Canberra College of Advanced Education

Catholic College of Education, Sydney
Institute of Catholic Education

McAuley College

Signadou College of Education

Table D.1 Percentage Difference between 1988 Adjusted Grants and Relative Funding Model Allocations by Institution

	1988 Weighted Planned Load ⁽²⁾	1988 Adjusted Grants ⁽³⁾ \$'000 G (Dec 1989 Prices)	Model Allocation ⁽⁴⁾ \$'000 M	Difference between Grant & Model Alloc (G-M)/G percent
Restructured Institutions ⁽¹⁾				
Aust National University ⁽⁵⁾	7,775	56,560	44,555	21.23
Murdoch University	5,283	35,041	29,237	16.56
NT University	1,707	10,227	8,803	13.93
University of Tasmania ⁽⁶⁾	10,356	65,578	57,052	13.00
Deakin University	7,708	45,131	40,471	10.32
University of Adelaide ⁽⁷⁾	15,480	98,845	92,854	6.06
James Cook University	5,593	33,636	32,037	4.75
University of Canberra	6,422	34,680	33,307	3.96
Macquarie University	12,088	68,955	66,594	3.42
Vic Uni of Technology	19,709	105,778	102,552	3.05
Uni of New South Wales	29,492	172,717	168,715	2.32
University of New England	13,136	73,093	72,475	0.85
Ballarat Uni College	3,380	17,419	17,335	0.48
Monash University	31,458	172,535	172,778	-0.14
Uni of Technology Sydney	15,371	79,254	79,417	-0.21
University of Queensland	28,351	158,404	159,014	-0.38
Charles Sturt University	9,658	49,415	49,648	-0.47
University of Sydney	36,397	204,294	205,563	-0.62
La Trobe University	32,255	168,690	170,391	-1.01
Uni of Western Australia	14,509	83,668	85,646	-2.36
University of Melbourne ⁽⁸⁾	34,719	192,843	198,361	-2.86
Curtin Uni of Technology	14,663	74,815	76,968	-2.88
Uni of South Australia ⁽⁷⁾	16,414	82,695	85,135	-2.95
Griffith University	9,439	49,159	50,698	-3.13
University of Newcastle	12,354	65,353	67,717	-3.62
University of Wollongong	8,946	46,446	48,462	-4.34
Uni of Western Sydney	9,859	48,398	50,747	-4.85
Victoria College	8,585	41,456	43,990	-6.11
Flinders University ⁽⁷⁾	9,542	52,454	55,819	-6.41
WA Coll of Advanced Edn	10,307	49,294	52,816	-7.14
Aust Catholic University	5,091	24,322	26,087	-7.26
Qld Uni of Techn0logy	18,211	86,883	94,334	-8.58
Uni Coll of Central Qld	3,962	18,009	20,303	-12.74
Uni Coll of Southern Qld	6,302	26,169	32,334	-23.56
System-wide Totals:	474,522	2,592,213	2,592,213	

Table D.2: Percentage Difference between 1989 Adjusted Grants and Relative Funding Model Allocations by Institution

	1989	1989	Model	Difference
	Weighted Planned Load ⁽²⁾	Adjusted Grants ⁽³⁾ \$'000 G (Dec 1989 Prices)	Allocation ⁽⁴⁾ \$'000 M	between Grant & Model Alloc (G-M)/G percent
Restructured Institutions ⁽¹⁾				
NT University	2,269	15,015	11,767	21.63
Aust National University ⁽⁵⁾	8,127	57,310	46,886	18.19
Murdoch University	5,709	36,933	31,731	14.09
University of Tasmania ⁽⁶⁾	10,846	68,249	60,146	11.87
Deakin University	8,117	47,962	42,902	10.55
University of Adelaide ⁽⁷⁾	15,979	101,834	96,668	5.07
James Cook University	6,075	36,507	34,891	4.43
Uni of Western Sydney	10,693	57,651	55,401	3.90
University of New England	13,582	77,892	75,498	3.07
University of Wollongong	9,056	50,916	49,479	2.82
Uni of New South Wales	30,150	178,908	174,048	2.72
Charles Sturt University	9,777	51,669	50,607	2.06
Monash University	32,022	180,535	177,382	1.75
Uni of Technology Sydney	15,992	84,612	83,187	1.68
Vic Uni of Technology	21,204	111,947	111,025	0.82
University of Sydney	37,232	212,623	212,124	0.23
University of Queensland	29,305	164,930	165,634	-0.43
University of Canberra	6,783	35,225	35,413	-0.53
La Trobe University	33,216	175,529	176,734	-0.69
Macquarie University	12,959	71,152	71,751	-0.84
Ballarat Uni College	3,651	18,549	18,849	-1.62
University of Melbourne ⁽⁸⁾	35,474	199,315	204,527	-2.61
University of Newcastle	13,181	70,404	72,645	-3.18
Griffith University	10,423	54,442	56,222	-3.27
Uni of Western Australia	15,120	86,802	89,887	-3.55
Flinders University ⁽⁷⁾	9,985	56,172	58,798	-4.68
Uni of South Australia ⁽⁷⁾	17,657	88,043	92,169	-4.69
Aust Catholic University	5,175	24,950	26,695	-7.00
Victoria College	8,869	42,707	45,751	-7.13
WA Coll of Advanced Edn	10,776	51,891	55,592	-7.13
Curtin Uni of Technology	15,937	78,086	84,145	-7.76
Qld Uni of Techn0logy	19,155	90,034	99,890	-10.95
Uni Coll of Central Qld	4,542	20,644	23,434	-13.51
Uni Coll of Southern Qld	6,873	27,942	35,500	-27.05
System-wide Totals:	495,912	2,727,381	2,727,381	

Footnotes (to be read in conjunction with Table 4.1, text, and Appendix D1 and D2)

1. Components of restructured institutions are set out in Appendix C.
2. Sum of the products of weights in the relative teaching costs matrix and the target student loads in the corresponding load matrix. The 1990 target load has been derived from the 1990 profiles data by subtracting the difference between actual and target load pro rata across all undergraduate disciplines.
3. Operating grants in December 1989 prices assuming clawback at the full 1991 level. A standard superannuation adjustment was developed for 1988 grants data and applied in subsequent years. The adjustment provides for an amount equal to 14 per cent of superannuable salaries to be included for superannuation expenses. Funding for the 3 per cent superannuation productivity benefit has also been included in these adjusted grants.
4. Sum of funds allocated by the relative funding model via the relative teaching costs matrix and student load (teaching funds) and the Commonwealth competitive research grants index (research related funds).
5. Excludes the Institute of Advanced Studies because funding is not provided on the basis of student load. Future funding for the Institute is the subject of a review to be completed by October 1990. The operating grant and load data for the Australian National University (ANU) Faculties have been calculated in consultation with the ANU.
6. Excludes the Australian Maritime College (AMC) because funding will be separately identified in legislation for a five year period in view of the AMC's unique national role in providing education for the maritime industry.
7. Three campuses of the SACAE are to merge with SAIT to form the University of South Australia, the City campus will merge with the University of Adelaide and the Sturt campus will merge with Flinders University. The distribution of the load and grants is as advised by the South Australian Office of Tertiary Education at the time of publication.
8. Although the University of Melbourne and the Victorian College of Agriculture and Horticulture (VCAH) are expected to merge, VCAH has not been included given the mixture of Commonwealth and State funding.

Adjusted Operating Grants

As stated in the draft proposal, the model is applied to notional operating grants: that is, to the total of operating grants with adjustments made for the final impact of superannuation and the "clawback" of operating grants from the pre 1987 universities for competitive allocation through the ARC.

Operating grants comprise the former general recurrent, special research, equipment and minor works grants, funding for second tier and HECS assistance, and exclude: grants for equity, Aboriginal participation and teaching hospitals; special assistance for students; and special research assistance. For comparability of data, superannuation paid as part of the base operating grant in 1990 has been excluded.

A standardised superannuation adjustment was developed in respect of 1988, based on standardising superannuation expenditure at 14 per cent of eligible salaries, consistent with the cost of the Superannuation Scheme for Australian Universities (SSAU), the national higher education superannuation scheme. Those institutions with costs greater than 14 per cent were given a negative adjustment to their operating grant for model purposes, and those below 14 per cent a positive adjustment. In addition, in order to develop a valid base figure for comparisons across institutions, the 3 per cent productivity benefit paid in 1988 was excluded as it was not consistently applied.

The notional superannuation adjustment package developed in respect of 1988 has also been applied to operating grants for 1989 and 1990. Two further superannuation related amounts were then added, to take into account factors relevant to 1989 and 1990 relativities: the 3 per cent productivity benefit, given that it now applies to all institutions; and the superannuation assistance associated with the pipeline of new intakes funded prior to 1989 (funding for growth from 1989 includes the superannuation component).