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THEMATIC REVIEW OF THE FIRST YEARS OF TERTIARY EDUCATION

COUNTRY NOTE: AUSTRALIA

This Country Note was prepared by a Secretariat-led review team as input to the first stage of the OECD Education Committee's Thematic Review of the First Years of Tertiary Education. The views expressed are those of the review team. They do not commit the OECD or the countries concerned.

A comparative report for the first stage of the thematic review will be published by the OECD in the last quarter of 1997. Inquiries may be directed to OECD Publications.

Introduction

As in many other OECD Member countries, Australian tertiary education has in recent years experienced substantial growth and rapid change. It is well on the way to becoming a mass system, with access and participation at some stage of the life cycle beyond adolescence a common expectation. Whether this takes the form of direct entry following completion of secondary schooling or, as is now so often the case, a return to study after employment or bringing up a family -- or both -- higher education is no longer the preserve of a small minority.

The implications of the trend towards mass or universal participation is one aspect of this report. They include the capacity of the system -- and essentially in Australia that means the publicly-provided universities and the national government -- to address a wide array of social, cultural and economic needs. Throughout the OECD membership, and indeed world-wide, new demands and expectations are compounding the long established role of the universities in educating future professionals and political and industrial elites. It is the raising of the educational level of the typical citizen, employee and community member that is increasingly the focus of concern as numbers increase and the interests, backgrounds and aims broaden and diversify. The university is no longer seen, as a remote place where students acquire or add to academic and professional qualifications: it is a major force in economic development, the advancement of knowledge in all its forms and in the advancement of group, regional and national culture. In this context, three basic questions face the government and the universities alike. How clearly are the new challenges defined and articulated? How well are the educational needs of individuals and the country being met? How effectively are resources being provided and used?

With these questions in mind, in July 1995 a team of OECD reviewers (see Appendix) visited Australia, sponsored and assisted by the Higher Education Division of the Department of Employment, Education and Training (DEET)* under Mr. David Phillips. The Australian authorities prepared a valuable background report for the reviewers and, both then and since, have provided the OECD Secretariat with a substantial amount of data on higher education including a number of excellent studies of system-wide developments and issues.

Dr. Tom Karmel of DEET was an admirable guide throughout the visit to selected institutions, organisations and groups with particular responsibility for or interest in tertiary education. Moreover, he has given his views and those of his colleagues on an earlier draft of this report and clarified a number of matters for us. Nevertheless, responsibility for the views expressed here is that of the OECD review team.

We are most grateful for DEET support and for the courteous reception we received everywhere, as much as we are for the frankness of the views expressed to us. In making this report available, at the request of DEET, we should explain that it forms part of a multi-country study, a thematic review of the first (undergraduate) years of tertiary education in up to a dozen OECD Member countries. As such, the report will be drawn upon by the Secretariat in preparing a comparative analysis of trends and issues.

The origins, purpose and general nature of the thematic review were stated in a paper prepared for the Education Committee by the OECD Secretariat under the title "Thematic Review of Tertiary Education Policies: Guidelines and List of Questions". This document was issued to all participating countries in 1995 and it provides both the rationale on which the review is based and the procedures countries and the Secretariat were to follow.

- * Following the election of a new government, the name is now Department of Employment, Education, Training and Youth Affairs (DEETYA)

"The first years of tertiary education" have been defined, for the purposes of the review, as studies of a post-secondary standard, leading to the award of a first formal qualification, such as diploma, or bachelor's degree. Thus both university and non university institutions are included, as are more informal studies which lead to a recognised qualification or award. A broad definition is needed, in recognition of diverse institutional arrangements in member countries, the growth of part-time, work- or home-based study and the emergence of new kinds of study opportunities in enterprises. Using this broad definition, countries participating in the study were invited to focus on areas of major concern to them.

An Era of Reform

The Australian response and the subsequent review team visit focused on the universities with particular reference to the most substantial single structural reform of recent years, namely the creation of a unified national system through the merger of the previously distinct sectors of universities and colleges of advanced education. The restructuring and policy changes consequent on the replacement of a binary by a unitary system are still continuing, and will do so for many years to come, on the basis of policies laid down in Government Green and White papers in 1987-1988.

Although neither large-scale institutional amalgamation nor the disappearance of a number of institutions formed part of the declared objectives of the Minister of Employment, Education and Training, the Hon. John Dawkins, (hence "the Dawkins reforms") they were among the immediate consequences of the establishment of a unified national system. Acceptable institutional profiles, and funding, came to depend on conditions made possible through mergers and despite some losses, for example in terms of institutional diversity and the direct and indirect costs of protracted merger negotiations, overall there have been substantial system-wide benefits: more uniformly applicable policy directives or initiatives, a single and more equitable mode of funding by government, improved communications, easier monitoring and -- more controversially perhaps -- efficiency gains in many institutions resulting from an enhanced scale of operations. Although the era of large-scale amalgamations and institutional upgrading has passed, its effects have a very direct impact on many of the topics considered in this report.

Great effort has been required to restructure amalgamated institutions and significant problems for institutional leadership and management have arisen. There has also been an increase in workload for institutional administrations on top of the increasing pressures resulting from declining staff-student ratios (a longer term trend). There are now new challenges to address as the number and diversity of students increase. Certainly, there is a new momentum in Australian universities and a greater concentration on national priorities, including a growing concern about the need for improved teaching and efficiency standards within the institutions, a point to which we shall return several times in this report.

In the process of reform, a number of very large, multi-campus institutions have emerged, adjustments have taken place in staff roles and relationships, new funding formula have been adopted, a centralised competitive research grants system available to all staff has been introduced, institutional management and decision-making issues have been highlighted, and much greater attention than hitherto has been given to issues of quality, accountability and efficiency. Perhaps the most directly felt change for students has been the introduction of a system of deferred payment for study whereby, after leaving or completing their degree programmes and on attainment of a defined level of taxable income, they repay to the government a sum equivalent to 23 per cent of an estimated average cost of each year of their undergraduate studies. These and other changes, combined with one of the fastest growth rates of student enrolments among OECD countries, have given higher education a new form and style marked by a robust

national policy environment, a spirit of entrepreneurial adaptability in the institutions, and the emergence of new challenges for national policy makers and institutions alike.

Notwithstanding a number of concerns, which are taken up below, the reviewers were impressed by the high degree of consensus achieved during a period of rapid and potentially disruptive change and expansion and by the confidence and the spirit of determination in the institutions to meet the new demands. Commonwealth funding policies and the careful attention given to personnel matters, which could quite easily have caused major industrial dispute, have no doubt contributed. Changes have been appropriately supported by targeted funding -- in particular the financial incentives associated with institutional quality improvement -- and human costs have been kept to a minimum. There have been, nevertheless, some acute problems of adjustment, and it would be surprising if there were not differences of opinion about the direction of reforms, their value and impact. Indeed, beneath the consensus there is still a concern, most marked in the academic community and in the national scholarly academies, about the possible loss of a style of life ("collegial") and its displacement by modern business-related practices ("managerial"), and students are not fully reconciled to a regime which requires a greater financial contribution by them and their families. Moreover, there is evidence of student dissatisfaction with what and how they are taught. In some areas there is employer criticism of relations between graduate capabilities and employment needs and there have been some increases in graduate unemployment. Such concerns and issues have their counterparts in many countries and require continued attention. But, from an international comparative perspective, the far-reaching changes of recent years in Australia have been remarkably successful in achieving their main objectives, with a minimum of damaging upheaval or destructive dissent. It will be important to sustain this generally positive institutional climate as further adjustments are made, particularly the efforts now being made to achieve greater cost efficiencies for the system as a whole.

Main Features of the System

Although Australia is a political federation of six states and two territories, with all but two of its 38 universities established under state legislation and constitutional authority for education vested in the States and Territories, the Commonwealth government has emerged in recent decades as the principal policy-setting body and source of funding for the higher education sector. For this purpose, it receives advice from the Department of Employment, Education and Training and the National Board of Employment, Education and Training (NBEET), specifically of two of its Councils (Higher Education; Employment and Skills Formation). Whether or not the new government disbands NBEET, the Higher Education Council may be retained in some form or other. The Australian Vice-Chancellors' Committee, unions of staff and students and other bodies also are in a consultative relationship with the government. Within a framework of co-operative federalism, following the ceding of full responsibility for funding higher education to the Commonwealth Government in 1974, working relations especially on matters such as the distribution of additional student places, are maintained with the States and Territories.

Under the new government substantial changes in the advisory structure, notably the National Board, are occurring but they post-date the period covered by this review.

While there is some non-government provision, through two private universities, the Australian system may be characterised as national, public and relatively homogeneous. As such, and given the fundamental importance of knowledge and its applications in the economy and society more generally, the Australian higher education system plays a prominent and increasingly important role in national life. The overall policies of the Commonwealth Government incorporate the university system as a major factor in

social development and economic growth, hence the national significance of the reform agenda launched in 1987- 88 and the continuing efforts since then to strengthen the quality and performance of the system. Professional, business and community groups look to the universities not only to respond to their needs but to share creative and energetic leadership. The universities themselves have a strong sense of responsibility to such groups and of their actual and potential role internationally in the advancement and diffusion of knowledge. Increasingly, this international role is achieving a focus in the Asia-Pacific region in addition to the traditional links mainly with the United Kingdom and North America. With substantial increases in overall resources that have been achieved through the Commonwealth funding policies, the amalgamations, and their own capacity to earn often quite substantial sums through the sale of services, the universities at the time of the review visit seemed to be well placed to rise to the challenges they have been set and are setting for themselves. However, in common with all other systems there are pressures and strains, not least financial, which will require no lessening of the reform initiatives that have been so strong in the past decade or of the measures the institutions are taking to re-position and strengthen themselves. In so far as undergraduate teaching is concerned, it appears that there has been a decline, since 1986, in unit resources for undergraduate teaching. There are reports of students increasingly feeling lost and criticisms of the impersonality of teaching

The universities perform many functions, several of high national importance. Despite the growth of graduate studies, of research and community service functions, their core business remains the education of the undergraduate. The success of this core business is of vital importance to students, their families, the community, the economy and the whole society. Indeed, in a period when the Australian universities have dramatically increased their international role especially in Asia and the Pacific, that core business, of a high quality undergraduate education, is of more than domestic significance. It will contribute to strengthen relations, internationally, and to Australia's influence and interests in the world's most rapidly growing economic region. The challenge to the Australian universities -- well understood by policy makers both nationally and in the institutions themselves -- is, essentially, to transcend local, sectional interests and a certain historically-bound conception of their role as educators in order to become, to see themselves and to be seen as major partners in further developing the nation. Australia, as a nation, is seeking a dynamic equilibrium that is more an achievement of the present and future than a legacy of the past. Its modest sized population of 18 million continues to increase. It seeks to define a new ethos as an Asian-Pacific nation as it approaches the centenary of federation in 2001, and to create a new, multi-cultural Australian culture. It is seeking to change the base of its economy from relatively unprocessed to highly processed commodities and to realise the democratic dreams of equity and increasing social equality.

In some form or other we observed responses to each of these aspirations and tendencies in the institutions and in the meetings we had with representative interest groups and policy makers. Together -- and with some additions -- they constitute a normative context for the explicit direction of policy and practice and provide a set of benchmarks against which to appraise those policies and the extent to which they are being achieved in practice.

Enrolments, Access, the Changing Profile of Students

Australia has experienced a substantial growth in student enrolments, one of the highest growth rates in recent years of any OECD country. In 1995, 604,177 students were enrolled in universities including 124,125 at postgraduate level (research and course work). In 1983, the figure was 348,577, an increase in 12 years of some 70 per cent. Undergraduate enrolments have increased at a lower rate than this, but at 60 per cent nevertheless indicate a rapid expansion. Of particular significance, in Australia, are

percentages of part-time and distance education students: 28 per cent are enrolled part-time and another 12 percent on distance education programmes. Government policies have strongly emphasised access. It is argued that the growth has resulted more from changes in government and institutional policy (increasing retention to year 12; expansion of higher education) than changes in underlying interests and aspirations of those otherwise qualified for entry. (Australia's contribution to the OECD activity "Individual Demand for Access and Participation", 1995). Although there appears to be some unmet demand, data provided by the Australia Vice Chancellors' Committee indicate a decline in this figure to the point where there is now a reasonable balance between individual demand and the opportunity to enrol. There is, however, a strong cyclical element in demand. Cautious forecasting suggests that there is not likely to be a medium-term problem. Even so, there are state disparities to address.

The provision of places is largely a matter of Commonwealth funding, in accordance with an overall profile agreed between each institution and Commonwealth officials. The demand of individuals, which reflects a variety of concerns not all of them related to the employment market and the needs of the modern economy, have combined over many years to put great pressure on tertiary education. More young people are seeking education beyond high school and many mature-age adults are seeking the access that they did not achieve or aspire to in their youth, or a further consolidation or extension of earlier studies. The trends, although they fluctuate, are unmistakable and they pin-point two major challenges: the provision of an increasing number of places at a price affordable by institutions, by public funding bodies, by employers and by individuals and families; and the need for constant efforts to design and deliver education of high quality and relevance to students and the country.

There are under-represented groups in the community and individuals unable to meet the costs. Equity remains of concern, reflecting a strong feature of Australian culture, summed up in the popular colloquialism "a fair go". In 1990, the Commonwealth Government signalled its recognition of these needs in a discussion paper "A Fair Chance for All: Higher Education That's Within Everyone's Reach". In place for at least a decade has been the requirement that all universities develop equity plans and report yearly on progress. A Commonwealth programme (the Higher Education Equity Program -- HEEP) has provided A\$5 million each year to universities to support these equity programmes. Special attention is directed to immigrants and their children, women in "non-traditional" fields of study, persons with disabilities, students of lower socio-economic origin (i.e. the poor), Aboriginals and Torres Strait Islanders and other disadvantaged groups. One illustration of the success of the general attention being given to equity issues is that some 5 000 people of Aboriginal and Torres Strait Island origins are now enrolled in universities compared with about 850 in 1982. Since 1987 the annual rate of increase of these groups has been around 30 per cent, improving the overall participation rate from about 2 percent in the late 1980's to more than 3.5 percent in the mid 1990's. The big issue, now, is curriculum: how to achieve equity in a situation of much greater student diversity than ever before.

Equity interests are also served in Australia by the long tradition of part-time study which has enabled students in employment to improve their qualifications and in more recent years by the expansion of distance education -- a facility which was first provided by the University of Queensland early this century and is now a major interest of several universities across the country. Following a government policy of the eighties of designating a small number of universities and former colleges as Distance Education Centres, (DEC's), many universities now enable students to obtain a degree through distance education procedures. There are several that have achieved a high degree of specialisation in this mode and one of them, Deakin University, received the accolade 'University of the Year' in 1995. The creation of a new agency, Open Learning Australia, has given further impetus to the already well established distance education movement. Not only are its courses and those of the universities in partnership with it offered via distance education methods including television, but it operates with no formal academic entry

prerequisites and for students successfully completing its courses, acts as a broker to help them become enrolled at regular universities.

Perhaps the most significant contribution to equity, however, is the deferred payment scheme. At first glance, this might seem paradoxical. How does the introduction of a charge on students advance equity? The claim rests on the argument that university graduates are better placed than non-graduates to obtain jobs and to earn a good income, that the individual rate of return on a university degree exceeds that of the social rate of return and that there are better ways to use public funds for education than heavy subsidies to undergraduate programmes. The debate on this issue in Australia occurred in the late eighties but subsided quickly and the scheme of deferred payment, although still criticised by the students' unions and academics, has gained widespread acceptance and is of considerable international interest. The government, by reinvesting the income it received from the deferred payment in further places in higher education, was able to claim that it had achieved several policy objectives: an increase in funded places, equity goals, and a contribution to fiscal responsibility.

Since the deferred payment scheme has attracted considerable interest, it warrants close attention and we return to it below.

Although Australian tertiary education policy has, over many years, given considerable prominence to equity issues and there are many examples of good institutional practice, e.g.. for students with disabilities and from sectors of the population which have been socially and economically disadvantaged, a number of concerns remain. Lower economic groups are still under-represented in universities -- a chronic problem in practically every country. Access is affected by many considerations which require constant efforts and fresh initiatives. Thus, the vast size of Australia, the geo-cultural distribution of the population and a weak tradition of mobility among students (Aboriginals and Torres Strait Islanders are a notable exception) indicate the need to take the provision to the students rather than expecting the students to move to where provision is most satisfactory.

With the rapid increase that has occurred in overseas student enrolment, new kinds of equity challenges have arisen. These are mostly full-fee paying students, studying alongside subsidised students. Their mother tongue is not usually English and their cultural background generally reflects Asian rather than European values and life-styles. The Australian universities are challenged to develop or modify curricula and teaching methods to meet the needs of the students but it is not evident that many are doing so.

With shifting patterns of demand and need, it will be necessary to continue fine tuning and to keep under review policies which are aimed on the one hand seek of strengthening quality and improving system-wide efficiency and, on the other, equity and social justice.

Diversity in a Unified National System?

How unified is the unified national system? Or, what is the need and scope for diversity in a unified system? The replacement of the previous binary system of colleges of advanced education -- which included institutes of technology and former teachers' colleges and universities -- by a single system of universities was a historic change in the second half of the eighties. The recent reform was preceded by a long period of ambivalence, uncertainty and disfunctionality in relations between the advanced education and university sectors, their roles, funding and operations. To have retained separate sectors would have meant an extremely difficult political and administrative process of checking and

reversing trends and forms of behaviour that had developed over more than two decades. The will to do so did not exist; on the contrary, especially from the advanced education sector, there were strong pressures to move towards a single university system. Although the issue had obvious administrative, financial, management and other operational dimensions, perhaps of overriding importance was the cultural issue of "different and unequal". It had become impossible, in the democratic climate of the country, to sustain two Commonwealth-funded, parallel systems of higher education when in status terms the one could not effectively compete with the other. There is still, of course, the parallel tertiary (and part sub-tertiary) system of Technical and Further Education (TAFE), but in the period under review the issues arising in the advanced education and university sector had scarcely begun to affect TAFE. That is not to say that some of them are not now beginning to emerge in that sector.

As already mentioned, the turbulence of mergers was not - officially - anticipated and policies had to be devised to produce guidelines and criteria for determining university status and operations. That there was not a major crisis for the whole system reflected the analytic, strategic and policy-making capacity that had been built up at the Commonwealth level in the Department of Employment, Education and Training, and in the buffer/advisory bodies throughout that period and since. Ministerial leadership, the skilful use of funds to support mergers, and, by no means least, the wide ranging capabilities of the senior personnel in the institutions and their representative bodies all seem to have contributed to a successful if at times painful transformation.

These highly positive observations are supported by the considerable body of evidence and testimony that we encountered. Two notes of reservation need to be entered, however. First, not all of the amalgamated institutions are functioning as effectively and efficiently as they need to (and one has split apart), and it will be some years before the full effects of the change can be properly assessed. Thus, continued attention is needed to the effects of amalgamation, not least through institutional leadership and management. While there are several unresolved issues of significant detail resulting from the mergers, what is of interest in the review is the broader question of how best to maintain or achieve diversity of provision and of opportunities to learn in a sphere where basic features include the aspiration of all institutions to become "true" or "real" universities.

Internationally, in the late twentieth century the term university connotes a strong research profile, a range of graduate studies and a standard of excellence defined very largely in academic terms. When all institutions receive the honorific "university", the received definition of the term must be considerably broadened in acknowledgement of certain realities, and national policy makers must ensure that the diverse needs of society and the economy, insofar as the universities both old and new have roles to play, are being adequately addressed. This we see as a continuing challenge for Australian higher education policy, alike for government, the major community stakeholders, the students and the staff of the institutions.

The second issue arising from the establishment of a "unified national system" of universities is of no less importance than achieving diversity of role and provision in a unified system: it is the existence of a state-provided and financed (with additional Commonwealth funds) system of technical and further education. The Australian review, focused as it was on the universities, did not include the TAFE sector, for practical reasons, although institutional visits did include one TAFE sector institution in Canberra and another (Royal Melbourne Institute of Technology) which incorporates a large and long-established TAFE division.

It is impossible to analyse needs and developments in Australian undergraduate education without taking TAFE into account. TAFE falls within the definition of "tertiary" in the wider setting of

this thematic review and, in several countries, the more advanced parts of TAFE constitute part at least of the second or alternate sector of higher education. TAFE is, potentially, a bridge between secondary and university education and to the extent that it is a separate sector, it performs functions comparable in several important respects to those sectors but in quite distinctive ways. As with the universities, TAFE prepares students for vocations although these vocations tend to be trades-based or increasingly those "middle level" occupations in technical areas and service sectors, some of which -- nursing for example -- are now provided for in the universities.

There is no sharp academic line between the upper levels of TAFE institutions and the universities, but one does exist in such crucial matters as constitutional and administrative authority, funding and the elusive but no less crucial impact of different cultural traditions. Increasingly, certain TAFE programmes and courses, especially those for the Associate Diploma and Diploma which follow twelve years of schooling or its equivalent, are of a standard comparable to first or second year university courses. Moreover, there is a growing readiness to embark on credit transfer and "feeder" arrangements, more, we were informed in one major university, in the recognition by universities of TAFE courses than the reverse. Historically, however, although there have at times been common origins for TAFE institutions, colleges of advanced education, institutes of technology, and some of the newer universities, their cultures have tended to diverge, reflecting the European legacy of technical-vocational versus academic-general education and the associated social class distinction between "trade" and "profession/business". Although there have been benefits of this legacy of bifurcated values and institutional disjunctions, its effects and consequence for the modern open economy and democratic society must be questioned. With the passage of time, different structures, certificating and accrediting arrangements, methods of finance, management and decision making procedures and links with industry and the community have emerged in the two sectors, yet there are similar or related needs to address in both sectors and each is subject to pressures from a common pool. There are clearly major benefits to be gained from closer working relations, more sharing of resources, and bridge-building especially in course planning and delivery. There are many institutional initiatives on these matters but some structural impediments remain. TAFE programmes are usually competency-based, strongly industry-driven, modular and under tight state level control.

TAFE is of concern to the Commonwealth government as much as to the States. While the latter control and partly finance the TAFE system, the Commonwealth provides substantial funds e.g. for capital works and special projects and has a fundamental interest in the role of technical and vocational education in the economy and vis-à-vis the universities. With the establishment in 1993-1994 of ANTA, the Australian National Training Agency, as a joint Commonwealth-States venture, there is a fresh opportunity to address issues of roles and relationships, including staffing issues, which have for long been treated as awkward or untimely -- but important nonetheless.

More recently, with Commonwealth Government support, a national credit transfer agency has been established under the auspices of the Australian Vice-Chancellors' Committee, specifically to speed up the process of mutual recognition of qualifications and credit transfers, from one sector to the other. These developments draw attention to some critical concerns: the relative attractiveness to students of the universities (high) and the TAFE institutions (variable), and of studies in the humanities and social sciences (high) and of technical subjects (low to variable); the different funding arrangement for students (universities: deferred payment of tuition; TAFE tuition fees, often relatively modest); the nature of an educational ladder or of continuous pathways including transfer across pathways; working conditions and salaries in the two sectors; industrial relations; the sharing of expensive equipment and facilities; the increased scope for distance education; and the issue of standards and study requirements and who shall determine, monitor and assess them. The Commonwealth has had "arm's length" agencies to address

TAFE issues (ANTA and the Skills Formation Council of the National Board of Employment, Education and Training and the national credit transfer agency), and there are many bodies with a role in research, policy and financing at the State and Territory level. However, we are not convinced that there are the means to ensure that the medium to longer term questions about the basic structural relations between these sectors from a wider post-secondary or tertiary perspective are receiving the close attention that we believe is warranted. We suggest that this question be addressed by government at both Commonwealth and States levels.

We don't underestimate the complexity of the situation in a federal country where legislative responsibility for all education "below" university, rests primarily with the States and Territories. However, over several decades, the Commonwealth has successfully forged a powerful role in education including in the school sector; the need is no less in TAFE especially, in terms of this review, in the expanding interfaces with the university sector. Because of its vocational importance and the new direction of "value-added" being taken by Australian industry, the need is now pressing for the TAFE sector. We do not believe that the issue -- of particular concern in this review of university-TAFE relations -- can be left to the States of bodies controlled by the States: the Commonwealth also has a key role.

Within the Institutions

Over and above meetings with peak bodies of employers, staff unions, and the university vice chancellors, and with policy makers, mainly in DEET but also in other ministries and with the Minister for Education, Employment and Training, the reviewers spent most of their time in the universities. We greatly valued our numerous meetings with students, teaching and administrative staff, and the senior officers. Our interest was two-fold: the responsiveness of institutional personnel to the national policy agenda, and the steps being taken in the institutions themselves to exploit the limits of their autonomy in creative and entrepreneurial ways. We were not, of course, in any position to judge the quality of teaching and learning in the multiplicity of disciplines and fields of study found in the large, multipurpose universities that are now typical. But we were most interested in procedures in place or in preparation explicitly aimed at giving greater recognition to good teaching and fostering the innovations needed to cope with larger and more diverse student bodies.

Most universities in place are instituting systematic evaluation procedures for teaching and have a unit or units dedicated to professional development of staff and to assisting in meeting their needs in teaching methods and materials. There is some evidence that the quality of teaching and learning in undergraduate studies has been affected by the decline in unit resources and, as mentioned previously, by the higher priority given by many academic staff to research over teaching. Teaching, however, mainly as a result of the DEET programme of annual quality reviews, has received much more prominence than hitherto in institutional policies.

This is entirely appropriate since the reform process and the changing requirements of society and the economy more generally constitute a significant set of challenges to institutions to rethink their role as educators of undergraduates. In an age of mass participation, institutions need to take positive measures to ensure that this education is responsive to needs both individual and social, and to provide it in a stimulating, effective, efficient way. It is no longer sufficient, if ever it was, to leave these questions to the variable attention of individuals and departments. Although it is not the purpose of universities only to respond to socio-economic agendas or the needs students have to secure gainful employment -- and the

extent to which they should emphasise these considerations is a matter of sharp debate in Australia -- these are among their functions. They require institution-wide policies and strategies.

Responses to Policy

Within the comprehensive framework of Commonwealth policy for university education, elements of the response that are of most interest for the purpose of our review are: the general quality of what is taught to undergraduate students, how it is taught and how well they learn it; the relevance of undergraduate studies to the roles of students as workers and citizens of the nation and the world; social justice and equity; manageable costs; and the working environment for the whole academic community.

Quality Concerns

As mentioned above, the reviewers' interest in the quality of curriculum and teaching and, as a consequence, in the conditions for learning, necessarily focuses on procedural matters. These include: the efforts institutions are making to redefine curriculum, teaching and learning objectives both for individual subjects and for overall programmes of study; steps being taken to support and where necessary improve teaching and assessment; and the attention being paid to how, where and when students study.

To some, these may seem rather intrusive concerns. Is it the business of government to raise such considerations? Is it not an undue interference by outsiders -- even departmental heads let alone vice-chancellors or external reviewers -- in the intimate relationship between teacher and taught?

There was a time in the British universities -- on which the first Australian ones were modelled -- when students "read" for a degree. Whether they were actually taught or taught well was incidental. There was certainly an expectation that the student learnt and was to be assessed in that learning; but in the tradition of elite selection dating back to the medieval universities, failure in or non-completion of studies were among the socially acceptable outcomes. There is, moreover, a strong conviction still that the responsibility of the academic is to the subject and to peers, not to the institution or the state or indeed to the student insofar as responsibility for successful learning is imputed to the student.

The emergence, during the past decade, of the quality assurance movement challenges these assumptions and practices at least to the extent of seeking evidence that teaching is actually occurring, that students are learning and that the individual academic is working in an institutional setting characterised by common goals and standards. These are minimum conditions. "Quality" implies a judgement, not merely a notation, that the teaching is "satisfactory", "good" and that the learning is "appropriate", "relevant" and is "appreciated" or valued by students and others, notably employers.

Clearly, quite difficult questions and issues arise in an attempt, on a nation-wide basis, to define quality, to make judgements about individual performance, to monitor standards and to introduce a regime of rewards and sanctions. Who is best placed to make judgements? Are there widely agreed and unambiguous criteria? What are the implications for the "unsuccessful" teachers or those deemed to be "successful"? What is to be done about weak or unsatisfactory performance? What kind of relationship if any should be established between funding bodies and institutions, and should the performance of the latter be assessed against the stated quality criteria and funding varied accordingly? Should the goal be appraisal, followed by reward (or sanction) or improvement and development of individuals and institutions? And so on.

Such questions are not, of course, confined to the work of universities in curriculum design and development, teaching and assessment of learning, but it is particularly with reference to those that, at the time of the review, Australian universities were themselves being assessed as part of the recently introduced "Quality Assurance Program". That process has several distinctive features and, in the course of only three years, it has had a marked impact on institutional behaviour. The reviewers were impressed by its potential and by the evident responsiveness to its challenge in the institutions visited.

Following acceptance by the Commonwealth Government of recommendations in a report by the Higher Education Council, (entitled Higher Education - Achieving Excellence), a non-statutory body, the Committee for Quality Assurance in Higher Education (CQAHE) was established. Its purpose was to conduct reviews of quality assurance practices and outcomes in the universities and to advise the Minister on the allocation of additional funds. By contrast with research grants, which go to the individual or team, not the whole institution, these funds are for institutional achievement in both processes and quality outcomes. Unlike discipline review, by peers, they do not go into depth, subject by subject, and they are relatively inexpensive to conduct. While institutions need not choose to participate, with the prospect of a financial return for doing so, and perhaps some approbation if they do not, thus far all universities have participated. Consideration was at one time given to restricting allocation to a few outstanding institutions, on the principle that Australia needed to develop "world class institutions" (if indeed it does not already have them). However, the argument, put by the Quality Assurance Committee, that all institutions had done a great deal of work to focus on quality improvement and that this should be acknowledged was accepted. Consequently, all institutions have received something.

It is the view of the former chair of the Committee on Quality Assurance in Higher Education (the CQAHE and its members' terms of reference expired on 31 December 1995 after completion of the three rounds of quality review) that Australian universities have been willing to review and improve practices across the entire institution and, of an independent expert from another country, that there has been a successful culture change across the whole university system. The reviewers' opinion, on the basis of the evidence available to us, is that, as far as teaching is concerned, there have been substantial achievements and the process has been of considerable benefit to the teaching function of universities.

For a long time, research performance and potential have been the keys to appointability, promotion, grants and awards, status and power in the institutions and in the academic community. By contrast, there have been few if any clear and agreed tests of teaching quality; it has not generally featured in appointment procedures, has played a minor role in promotion exercises, has had little recognition -- except by students -- in the institution or outside it. The identification by the CQAHE of teaching quality as a fit subject for review in both the first and second rounds appears to have made a dramatic impact: the establishment of new posts at the most senior level to take responsibility for teaching quality in the institution, the creation or expansion of teaching awards and other ways of conferring merit on outstanding teachers, the establishment or enhancing of procedures for fostering innovations in teaching and for assisting teachers to improve and the introduction of a wide range of assessment procedures which include student appraisal.

We encountered many examples of determined and practical efforts to shift the balance of prestige and status so as to give teaching an equal standing with research or at least a higher profile and better recognition in the life of the institution and we are in no doubt about the value of such efforts. They are needed if there is to be widespread, enduring impact on everyday practice.

Structures and procedures have been put in place but there is much still to be done to address long standing criticism of the quality and relevance of what is taught and how it is taught and in practical terms to achieve the institutional -- and wider social -- status that teaching needs. It is not clear, for example, that there are satisfactory means for ensuring comparable standards of student performance across the system as a whole. This is a delicate issue but one that needs attention, not least as efforts are made to achieve diversity and a variety of institutional profiles within the unified system. We recommend that the government continue to support ways of fostering and strengthening system-wide quality monitoring and appraisal of teaching and give further attention to the issue of system-wide student performance standards.

The CQAHE was well funded for a three-year period and its sponsors have good reason to be satisfied with many of the results. Despite initial misgivings and criticism, its procedures seem to have been widely accepted in practice even though there is continuing concern in the institutions about the demands on time and resources that participation entails. Since quality improvements have as one of their functions more efficient use of resources and greater productivity this concern need not be taken too seriously, at least according to the former Committee Chairman in our discussions with him. But, more recently, he has acknowledged that the strains and pressures are such that less demanding procedures are needed. While specially-funded programmes may achieve extremely valuable short-term results, their enduring effects are often disappointing unless, as one of their achievements, they succeed in building new procedures into the structure and culture of the institutions at which they are directed. A key point to highlight in any evaluation of the quality programme is the extent and durability of these changes of behaviour within the institutions themselves. Nevertheless, the quality programme represents a considerable achievement in getting greater institutional focus on more specific changes than those identified in the short visits made to institutions by the "quality review teams". In this respect, as in others, multiplier effects are important and must be taken into account in any appraisal. It is our view that sustained efforts at the institutional level will continue to be needed to keep teaching and learning, curriculum and assessment issues high on the agenda, given the other pressures under which institutions find themselves, notably financial and at the ever-beguiling charms of research.

As already mentioned, there is also the question of standards. When the university system was smaller, internal mechanisms may have ensured that the standard of degrees was maintained at a high level. Now, there is probably a very wide range of standards across institutions and between courses. But the CQAHE took no cognisance of this, and made no "value added" allowance for institutions which do a good job with students of low entrance scores. It is doubtful whether the market and accrediting agencies for the professions (which only cover some fields) are adequate mechanisms for ensuring degree standards. Consideration might be given by the institutions to the selective use of external examiners for undergraduate degrees -- as they are now used for post-graduate degrees.

On a more modest scale (A\$5 million per year instead of A\$70 millions) and with less fanfare, another Commonwealth government programme has been directed at teaching in the universities, the Committee or the Advancement of University Teaching (CAUT). The programme of CAUT includes a grants programme comparable to research grants but with the specific goal of identifying and supporting efforts to improve teaching. Established in 1992, to foster and facilitate the development of good teaching and to identify and provide good practice, CAUT has received over 2 000 applications for its competitive programme on innovations in teaching. It has funded about one quarter of these in the framework of the A\$4 million per year National Teaching Development Grants scheme. In excess of A\$9 million has been awarded since 1992 for 448 innovative teaching development projects.

Other CAUT initiatives include a National Teaching Fellowship scheme; commissioned projects on topics of national significance (e.g. First Year on Campus, and Recognising and Rewarding Good Teaching); national workshops for discussing and disseminating innovations; and Uniserve which acts as a library and publisher for teaching materials and resources. An independent review of CAUT in late 1995 pointed to significant, cost-effective advances toward improving the quality of teaching in Australian universities. Continuance of the programme until 1999 was recommended, with an increase in total funding to support achievement of system level policy objectives.

Whether this recommendation is adopted or not, it is the view of the OECD reviewers that the substantial gains made through the use of discretionary funds by the mechanism of CQAHE and CAUT should be built upon. The promotion of quality and excellence in teaching are, of course, among the central purposes of the university system but with the great expansion that has occurred, the diversification of the student population and the various pressures to which institutions are expected to respond, it is not enough to leave these general purposes in the category "taken for granted". Institutions have their own means of promoting their purposes and evaluating their achievements. Also needed is comprehensive analysis and system-level perspectives. It is to be hoped, therefore, that the new government and DEET will continue to explore practical ways of fostering quality in teaching through well-targeted programmes.

Adapting Curricula to the World of Work

For at least a decade there has been a continuing debate in Australia over the nature of changes in the overall economy and especially the labour market and the kinds of responses higher education should make to them.

The key elements in the debate are the emphasis in first years teaching on broad preparation as opposed to the development of more specific vocational/professional skills and knowledge and a general concern about overall quality and standards in the graduate pool. The Business/Higher Education Roundtable, Finn Committee (*Young People's Participation in Post-Compulsory Education and Training, 1991*) and other groups have taken the view that students in higher education need to be broadly prepared, interpreted to mean openness to the changing realities of social and economic life, second language proficiency, effectiveness in writing and oral communication, civics. This is a common pattern of expectation across OECD countries. A recent survey in Australia of recruiters confirmed the importance of these types of "generic" skills, dispositions and attributes, but did not secure information on expectations of employers with regard to discipline-specific skills and knowledge, a topic on which different views could be expected (and have been encountered in other countries participating in the thematic review).

Surveys of all young people document a growing concern about unemployment, even over the 1990s. In general, there has been a long term trend toward professional (and vocational) education. According to surveys carried out in New South Wales (as reported in the Australian contribution on "Individual Demand"), "the number of students aspiring to university declined between 1992 and 1994, while there was an increase in those aspiring to TAFE". For their part, students at the *tertiary* level apparently are less likely in the mid-1990s than in the late-1980s to give employment-related reasons for pursuing studies. This trend has been attributed to growing tightness in the labour market for graduates (Australia's contribution to the OECD Activity "Individual Demand for Access and Participation", 1995).

Whatever the diversity of views, there have been responses in the Australian universities, ranging from whole new vocational programmes, to partnerships with industry in curriculum design,

teaching and assessment, to the redesign of the traditional degrees in medicine, law, engineering, etc.. and to strengthened partnerships with professional bodies. A distinguishing feature of the former college of advanced education sector was its avowed vocationalism; another was the exclusion of the institutions from formula-based research funding and, with some exceptions, from postgraduate or higher degree programmes. Notwithstanding these limitations and the ultimate collapse of the binary structure, these distinctions provided a rationale for many institutions to focus their energies on building up links with the employment sector and developing courses with a strong vocational orientation often in direct partnership with industry. Combined with the specifically professional programmes in the universities, this meant that much of tertiary education had a quite definite slant towards vocational preparation. Nor should the role of the traditional "non-vocational" university faculties of arts and sciences in preparing graduates for employment in teaching, the public services, librarianships, social work applied science and so on be overlooked.

It would be wrong, therefore, to conclude, as some academic commentators have done, that the strong vocational character of much tertiary education in Australia is a result simply of economic rationalism, with its favouring of human capital theory, which has been a growing emphasis in policy in recent years. The trends already mentioned, the close links between many degree programmes and the respective professional bodies which accredit them, a weak tradition of liberal education and students' career aspirations, all combined to produce a system which required no economic rationalist or human capital theories to explain its vocational orientations. The question is not why has official policy in recent years sought to highlight the relations between tertiary education and employment; rather, it is: why have there been so few attempts to develop institutional programmes that ensure an effective combination of general or liberal studies and more directly vocational ones? Why, in short, is there relatively little evidence in Australian tertiary education of the kind of rethinking of the overall undergraduate degree -- whether as a prelude to further professional studies, or varying combinations of different specialisms, or an end in itself prior to entry to the jobs market? Critical analyses there have been, a reworking of content in particular fields, and the introduction of new programmes but the reviewers were unable to detect a mainstream of curriculum analysis comparable to the institution-wide policies reappraisal and development of teaching practices. Each institution is responsible for its own curriculum but in practice, if we except the governance function of Academic Boards, this responsibility is usually exercised at the department or faculty not the institutional level. However, recent interest in appraising the undergraduate degree in the perspective of lifelong learning, in the form of a very interesting DEET-sponsored report, *Developing Lifelong Learning Through Undergraduate Education*, perhaps represents a new departure or at least recognition that there is more to a degree than a collection of discrete units and disciplines.

In Australian universities, there are two predominant patterns of studies for the three- and four- (or more) year degree programmes: (1) professional programmes in fields such as engineering, teaching, nursing, law, medicine, accountancy, which are predominantly technical and heavily influenced by accreditation requirements specified by professional bodies; (2) arts, social science and science programmes comprising studies in a range of subjects, often with prescribed combinations, and including opportunity for specialisation. Since the latter may also have a technical character and lead on to professional recognition the distinction is not clear-cut but reflects a lesser or greater emphasis on direct career links.

Some institutions have experimented with core programmes of general education and there are some interesting recent departures designed to broaden the base of professional studies. Medicine is a well-publicised example, but there are others. They are isolated instances even so, and, apart from work in the Vice-Chancellors' Committee which grew out of discipline reviews and critical studies of narrow

vocationalism in some professional degree programmes, there is a significant gap, by no means confined to Australia, in the otherwise comprehensive apparatus of policy review and development.

Some of the impetus for this needed policy development is being provided by the emerging debate in Australia on curriculum issues in tertiary education. This has been apparent for some time in the A.V.C.C., in the expressed view of business and industry and in such scholarly centres as the national academies; for example the 1994 Cunningham Lecture and associated forum in the Australian Academy of Social Sciences and in the Academy of Humanities. The debates in these quarters and in the literature commonly takes the form of a critique of perceived government policy, which it is claimed has often tended to favour the economic rationalist position and to give relatively little detailed attention to the broader functions of tertiary education in the social, civic and cultural life of the country. However, the critique might equally well be directed at the institutions themselves which, in curriculum matters, have a great deal more freedom and scope for innovation than is common in many other OECD member countries.

In this respect, institutions could be seen to address the employers' interests in "breadth" and standards in first years' teaching by strengthening expectations of entering and continuing students in communication skills, practical experiences and other "generic" dispositions and skills. Where such capacities are found to be weak, tertiary education institutions could see the need to build up so-called "remedial" courses or other means of student support and to work more closely with secondary schools in enabling younger students to acquire capabilities in these areas. Initiatives in both areas can be found, and the Business/Higher Education Roundtable, among other groups with employer representatives, generally approve. A further implication of the employers' interests is the extension and deepening of co-operation and partnership between tertiary education programmes and businesses.

If, as may be inferred from the foregoing, there is both need and opportunity for the institutions themselves to show greater initiative in rethinking the overall goals, directions and structure for the undergraduate curriculum, there are nevertheless many innovations and developments designed to strengthen links with the world of work. One of the important effects of mass higher education is on the study interests and objectives of enrolling students. Especially evident is an increased number of students who prefer vocationally-linked study programmes. Traditional academic subjects tend to draw smaller numbers of students and they become a diminishing proportion as overall enrolment increases. Many students are the first in their families to attend university; such first-generation students typically are interested in practical studies tied to employability. But, just because they are first-generation students, they may well be receptive to an invitation by the institution to broaden the range of their concerns -- to enter the realms of philosophy, history of science, literature or ecology alongside mechanical engineering or accountancy. Such "cultural" studies appear to be popular with the mature-age students who form a significant and growing proportion of enrolling students in Australian universities. One reason may be that they already have had an occupation, whether domestic or paid employment, and are seeking fresh encounters whereas the young adult is naturally concerned to get a job. However, the changing employment market is not leading to a greater demand for narrowly-trained specialists but for graduates who can think for themselves, communicate, empathise and work with others, invent solutions and create new possibilities. Although the university staffs we met showed awareness of such expectations, we were less certain that they were doing enough in translating them into new curriculum designs.

A trend towards career-related studies is quite evident in Australian universities. Student interest in business studies and in law has grown rapidly, for example, and new career lines -- notably nursing -- have been brought into the universities. Interest in career advice and guidance has also grown; university career offices are responding by offering more varied and detailed advice and by expanding their services

beyond the final year to all years of study. They appear to have been less successful, however, in their efforts to communicate employers' expectations to the university curriculum makers and teachers. In parts, their links to employers have evolved as the personnel function in firms has changed (e.g.. the use of "outsourcing" and more direct contacts with individual faculties and departments rather than through careers offices).

There is a growing interest in combined or double degrees for which arts-law is a long established precedent. There is an increasing interest, too, in double TAFE-University awards; such combinations, could be considerably extended through improved links with the TAFE sector. They are particularly valuable in a changing employment market where multiple, generic and transferable skills are in demand, and they have a considerable appeal to students whose specifically academic interests and motivation are modest. These combinations have the advantage of reflecting students' decisions and choices. However, there is an ad hoc quality to this trend thus far and universities might usefully consider whether more effective relations between programmes are needed. Are the costs of retaining a largely general focus in university study programmes (here, the costs in terms of multiple qualifications) warranted by the benefits? Could the balance be achieved through a better organisation of curriculum/curriculum modules or different pathways through each of the programmes, including closer articulation of TAFE-university programmes?

The reviewers were not convinced that curriculum issues of the kind outlined above have received intensive policy attention at any level, except that of subject departments, course teams and, on occasion, academic board and specialist committees within institutions, where, of course, they may be of major importance. However, while at the system level and in overall institutional and management such concerns as institutional financing, management processes, decision-making, teaching and research are high on the agenda, the overall education of the student as a person, citizen, worker, family member seems not to be. Perhaps the most prevalent model is that whereby the specialist teacher seeks to induct the student into the culture of the individual discipline, in the belief that the student can and will make those applications and connections that are so often advocated alike by both supporters and critics. This may well be the outcome for the academically stronger students, those who are well set on a definite career course and those with strong family and cultural roots, but there are as many students whose needs are not being fully addressed. There is a widespread tendency to "atomise" subjects through semester or term-long units of study, and to provide a bewildering array of options and combinations. In these circumstances, how realistic is it to expect students to interrelate their studies and to find the meanings in their studies for which they are searching?

The inconclusive and indeed acrimonious debate over "economic rationalism" has yet to result in a searching analysis of ways in which the undergraduate curriculum might be reconceptualised and restructured to enable students to face the demands and challenges of contemporary life. We do not underestimate the difficulty of any such attempt beyond the level of the academic department or faculty, such has been the impact of research-led specialised inquiry on the life of the modern university. Moreover, it is not evident that education as distinct from job preparation rates high in student expectations. The issues are often unclear and are undeniably complex. They draw in questions about the nature of knowledge and human understanding, values and their uses and applications, and student commitment and motivation. But it is necessary to raise, yet again, the questions of what is to be taught, and why, to what is now becoming a majority of young (and not so young) people in our societies. Should, as some Australian commentators advocate, an additional year of consolidation and synthesis be added at the end of the three-year "pass" (or "ordinary") degree in arts, social sciences and sciences? (Only a small minority takes the four-year bachelor degree in science or arts, and this adds to specialisation rather than broadening education). Should the efforts some institutions have made to build

in an introductory or orientation year of general education prior to subsequent specialisation be revitalised and extended? Is there a case for a continuing strand of common studies for all undergraduate programmes and extending over several years and, if so, what should it comprise and who would teach it? Should all professional programmes move in the direction of those two or three schools of medicine which have redesigned their curricula on the basis of a first degree in arts, science or social science? Should all teachers, regardless of discipline, be making more efforts to present their subjects in a broader context and with greater reference to methods of inquiry and processes of discovery and knowledge creation? Should there be greater diversification between institutions, and programmes some moving more in the direction of a revitalised general education, others more specialised?

These and other questions are being asked, often in small, specialist fora, but they do not seem to have been picked up in and through the kind of comprehensive studies and enquiries that we think will be needed as the transformation of tertiary education into a mass and then a universal system proceeds.

Government initiatives in equity, quality assurance and quality enhancement have been extraordinarily effective in Australia. Reform of the undergraduate curriculum has been debated for many years with only scattered examples of effective change. It may be timely for the government to capitalise on the scattered work in this area with programmes designed to stimulate more coherent and liberal curricula in universities.

Financing Mass Participation in Australian Tertiary Education: HECS

As mentioned above, an important policy initiative has been the introduction, in 1989, of the Higher Education Contribution Scheme (HECS) for undergraduate and some postgraduate students. Students are expected to contribute 23 per cent (in 1995) of the estimated average total cost for a full-time student undertaking a standard programme of study. The HEC is repaid by automatic contribution through the income tax system, when the taxable income of the individual with HECS liabilities equals or exceeds the equivalent of average weekly earnings payable for all Australians. The annual contribution varies in line with an institutional price index, and outstanding HECS 'liabilities' over one year old are adjusted in line with movements in the consumer price index (but no interest accumulates on HECS balances). Students can meet the obligation 'up-front' by paying their contribution at a discount (originally 15 per cent, increased to 25 per cent in 1993).

Effects on Cost-Effectiveness. A claim made for HECS is that, when students participate in the financing of their own education, they will be more likely to demand high quality, relevant provision from the institutions in which they enrol, to make choices which are better aligned to future employment prospects and to devote their efforts more intensively to acquire understanding, knowledge and skills in as short a period as possible. While HECS may play a role in strengthening all of these behaviours, it should be kept in mind that students (or their families) already invest in their education, not least through the time required to obtain degrees and student living costs. Further research on the strategic role of HECS in individual and institutional choices will be of value as this important plank of financial policy continues to evolve.

In particular, we were told in our discussions with the chair of the Higher Education Council that institutions are, indeed, becoming more "client"-oriented, meaning "student as customer". Possibilities to strengthen the 'clients' influence through, for example, enterprise participation in paying HECS on behalf of students (i.e.. HECS liabilities, on behalf of graduates) have not been exploited, apparently partly because such payments would be considered as taxable income for the student/graduate especially for

employees engaged in part-time post-graduate study. Some enterprises, however, do offer such inducements.

Evidence on the effects on student behaviours is difficult to come by. Students told us that there is pressure to complete higher education studies quickly in order to minimise their HECS liabilities (with perceptions of adverse consequences on the possibilities for participation in the wider range of activities available in the higher education community, e.g. institution-wide seminars; various student groups). Owing to the evolution of demand and greater competition for jobs in the market for the highly qualified, there is some evidence that students are increasingly staying on for second degrees -- even with the imposition of up-front tuition fees for an increasing number of postgraduate courses. HECS criteria are being tightened up to impose larger contributions on those who stay on beyond the time normally required to complete a first degree. In view of the relatively young age at which school leavers commence university study (the median age is 17), HECS obligations seem likely to inhibit what should be a desirable period of exploration of vocational options and courses.

Approximately 20 per cent of post-graduate students (principally research students) receive Australian Postgraduate Awards and are exempt from HECS. About 62 per cent of postgraduate students pay HECS, with the remaining 18 per cent paying up-front fees. There is no interest in extending HECS comprehensively to postgraduate study (where full-cost fees already are increasingly being put in place), or to TAFE (given that TAFE funding is largely a State not a Commonwealth responsibility). In light of the intention to promote the development of TAFE and the potential value of fostering useful linkages and partnerships between universities and TAFE institutions and the growing overlap of the first year or two of studies in the two sectors, it is an obvious question as to how the model and criteria for HECS might be applied in this sector.

Effects on Participation. It has been argued that the expansion of participation in higher education has been financed in part with the funds generated by HECS. The sums collected in 'up front', voluntary repayments (paid ahead of schedule) and payments 'on schedule' are expected in 1995 to account for A\$1 billion --representing about 15 per cent of the overall revenue available for higher education. Thus, it has been possible for the Government to increase places while holding spending out of public tax revenues relatively stable or reducing them in terms of per capita expenditure. An issue is the extent to which the increase in the number of places represents "additional" students, or rather refers to students who remain to complete second degrees (as described above). While it is not possible to judge whether HECS-generated revenues replaced funds that otherwise could have been provided from tax revenues, it is probably the case that the rate of increase in student numbers over the 1988 - 1993 period would not have been possible without this additional, non-public source of funds. If that can be demonstrated, HECS would represent a significant policy approach as an incentive both to leverage additional funds for higher education and as a means to strengthen the student's (and family's) perception of participation at this education level as an investment.

At present, the government's view is that participation in higher education has reached the level which is warranted in relation to overall economic requirements. The government's higher education package in the 1995 Commonwealth Budget provided for 'growth in student places ... with the costs offset by the reallocation of existing resources and improvements to the operation of the Higher Education Contribution Scheme' (Appendix D, First Years of Tertiary Education in Australia, responses to questions submitted to the OECD, 1995). In a report prepared by a NBEET working party (higher education and training), entitled 'Resource Allocation in Higher Education', it is stated: '... there is no short-term demographic imperative for an increase in the public resources allocated to higher education nationally'. By contrast, there is a felt need to invest further on TAFE and, for reasons already given, this cannot be

seen as independent of the overall growth of the higher education sector. It is another question, however, whether demand for higher education places can be held in check. The total number of places that the government is prepared to fund rests ultimately on a political appraisal and is not a matter of demographic or other "imperatives". The political appraisal will reflect the pressures and demands in the community itself and the nature of the case that is or can be made for other uses of public money. Investment in higher education must be balanced against other kinds of investment, and the costs accepted but in a context of the overall constraints on investment.

Effects on Equity. Features of HECS might be expected to protect against the discouragement of enrolments from 'target' groups (most particularly, those from low income families). Students are not obliged to pay their contribution at the time of enrolment, and assuming those in 'target' groups are more risk-averse (an assumption), they will be less reluctant to incur a HECS liability, the compulsory repayment of which begins at the time when taxable incomes exceed average earnings and is scaled at rates of 3 per cent to 6 per cent according to the level of income.

The expansion of higher education, made possible through HECS, might be expected to have improved equity. The evidence is mixed. On the one hand, the AVCC series on 'unmet demand' (defined as those who are not admitted to their preferred course and do not apply to any other) has dropped by about half from its peak in 1992 to 1995 (the measure is imperfect, and its trend reflects developments other than HECS e.g. new distance learning opportunities organised through Open Learning Australia; wider employment developments). Further, the Higher Education Council undertook to assess the differential effects of HECS on initial access and choice of fields of study and found no evidence indicating any adverse consequences. Institutional officials reported that they had been able to maintain enrolments from 'target' groups in the expansion, although other stakeholders disagreed (e.g. National Tertiary Education Industry Union). Even if such enrolments were maintained, it is reasonable to ask whether they should have been increased in relation to enrolments from other groups in the course of expansion. A recently-published Australian Council for Education report notes the persistence of differential rates of access to higher education (with children from wealthy families being twice as likely as those from poor families to enrol in universities; some of the gap might be explained by reverse patterns of enrolments in TAFE institutions). Quite apart from individual equity considerations this represents a substantial reservoir of "human capital" whose potential for development is being neglected.

Another aspect of the equity issue concerns the possibilities for those who fail to qualify for a publicly-funded place (with HECS) to enter tertiary education on a full-cost basis. Institutions presently are afforded considerable discretion to enrol overseas students at full-cost fees; such opportunities are not available for Australian students (except in private institutions). However, it is not clear that there is a significant demand: the private university sector is a very small part of the whole and is not expanding and the issue of undergraduate fees for "home" students, while present, is not prominent in the current debates.

The larger issue is whether benefits to individuals from participation in tertiary education are of such significance that those enjoying them (graduates in jobs) should not be wholly subsidised.

Addressing Increases in Costs

As in other OECD countries, there is concern in Australia about the resources required to provide tertiary education on a scale that matches growing individual and social demand. The concerns derive both from the higher global costs of mass provision, at a time of increasing pressures and constraints on

public budgets, and from pressures on 'unit costs' owing to the labour intensive nature of higher education. The latter is an efficiency issue.

Efficiency is assessed by reference to recurrent average costs, where the average cost figures implicitly include components of salaries (academic and general), and non-salary costs. The main funding unit is the dollars per EFTSU (Equivalent Full-Time Student Unit), which is adjusted each year according to changes in cost indices for the components just mentioned. However, 'average costs' (and the dollars per EFTSU) is to be seen not as an estimate of the costs of providing and supporting instruction but rather the resources, on a per student basis, to be made available to institutions for carrying out teaching (and presumably related research) as part of each institution's mission.

The government has put in place a set of policies on funding which have had the aim of promoting efficiency through controlling costs. First, an overall envelope for funding is established, based on notional allocations according to broad groups of fields and disciplines. Within that envelope, each institution agrees to enrol a given number of students by field, according to its own institutional profile (the fields in which it is permitted, and able, to provide instruction) and to the 'target' enrolment approved for funding by the government. The government policy of agreeing institutional profiles has had the effect of minimising the potential for costly and inefficient duplication of programmes (e.g., medical schools); the approach has the value of flexibility and permitting more qualitative judgements on what programmes and fields might be needed both nationally and within institutions. Institutions are, themselves, very much aware that core funding is driven by enrolment. Cost reductions have been achieved directly through a gradual reduction in the EFTSU, partly due to a reallocation of core funding to the research quantum. In addition, institutional officials report that, since the funding scheme penalises institutions for falling short of the agreed targets, most will deliberately over-admit in anticipation of the failure of some of those admitted to actually enrol. The consequence appears to have been overall enrolments which exceed the targets, and some interesting foot work by university administrators in balancing the needs of teaching students with the resources actually available.

A positive feature of this approach to funding is that each institution is free to determine how it will marshal staff and physical resources to deliver instruction. This applies to capital funding as well, an allowance for which is now 'rolled in' to the funds provided to institutions. Further flexibility arises from the provision for a rolling, three-year commitment of funds. Within the framework of such flexibility, officials in different institutions described considerations of different ways to provide instruction, (e.g. the 'trade-off' between building large lecture halls or investing in the development of technology-based delivery -- including distance education components; the 'trade-off' between delivering first years or all years of instruction at multiple sites, quality considerations and retention of enrolments to higher levels; 'flexible resource approach' balancing face-to-face and distance education -- or 'convergence' of methods). Quality figured in these descriptions, as officials were concerned to maintain the standards, attractiveness and relevance of their programmes.

From an institutional perspective, there are adverse consequences of the EFTSU funding scheme, particularly with regard to the way the EFTSU takes account of part-time enrolment. For some institutions, funding for part-time enrolment is less favourable (relative to the services which must be provided) than that available for full-time enrolment. If part-time enrolments are small and relatively evenly shared among institutions, this may impose modest burdens on services, staff and the overall financial balance. However, in an environment where institutions compete for students and have little incentive or support to co-operate to 'share' such burdens, it appears that the burden could fall disproportionately on some institutions. One solution is to re-calibrate EFTSU funding to make part-time

enrolments relatively more favourable on budget. More generally, policy could provide more targeted support for co-operative efforts.

A more adventurous redesign of the funding scheme would be to switch some or all of the component for undergraduate education from an input to an outcome base. This could be done relatively easily by counting only active students who pass their annual or semester examination (as in Denmark) or credits for units passed (as in Sweden) or students who pass at least one half of a year's coursework (as in the Netherlands). In Australia's case, the Swedish system would effectively overcome the problem of how to count part-time students. A beneficial effect of output funding is that it causes universities to be judicious in admissions practice. It also focuses attention on the education process and leads to steps to eliminate avoidable failure and drop-out. A negative possibility, of course, is that institutions may be tempted to lower standards in order to get more students through. We discussed the question of monitoring standards in section 6 above. It is an important issue; nevertheless those countries which have introduced output funding based on student progress are convinced that standards have not declined.

Another feature of the Australian funding system is the use of a somewhat complicated composite index measuring performance in research which is used to reallocate some core funding (at present a little over 5 per cent) to a research quantum. Universities are not bound to distribute funds internally according to DEET allocations, but there is a tendency for this to happen. This has implications for teaching, not just because research activities can claim that they earned the money, but also because the use of performance-based funding for research but not for teaching sends a message to staff that the former should be given priority.

Productivity

Evidence on productivity effects (as opposed to cost minimisation, discussed above) would consist of improvements in learning, staying on/degree completion rates and initial and long-term employment experiences.

There appears to be very little evidence on 'value added', although we were told by the chairman of the Higher Education Council that -- in the light of the diversity in backgrounds now represented in tertiary education and the different patterns of entry -- it is important to generate such information. Reference is made above to the importance of the value added concept when quality exercises focus on outcomes. Is there a consensus on what constitutes 'value added', e.g. standards or bringing each student to his/her highest level of attainment?

We heard very little on the non-continuation problem. The background report notes that the percentage has held steady in the mid-teens over the past fifteen years. It goes on to report that, based on one investigation, some of those who withdraw eventually return -- leading to a net non-completion rate of something like 10 per cent. We have no indication of the possible impact of HECS; its effect on productivity measured by degree completion may be either positive or negative. DEET now assembles a vast array of statistical information including data on student performance. It ought be possible to use this as the basis for a comprehensive and reliable study of students' academic progress, graduation and drop-out.

With regard to employability of graduates, overall statistics continue to show that university graduates find employment quickly (an estimated 6 per cent do not have a job 6 months after completing their studies). Institutions certainly demonstrated concerns about the employability of graduates, and have

taken steps to strengthen the likelihood of employment: double degrees; 'named degrees' which are marketed to both students and employers; improved guidance and counselling and at a growth of curriculum partnerships with industry. Some outside of higher education are not persuaded that the institutions have sufficiently adapted programme contents and methods; in this regard, the 'newer' universities are seen as more responsive and more 'in-touch' than the 'magnificent seven' (or eight or nine). But, we also heard the view -- reinforced by comments from a range of staff within the institutions -- that tertiary education is "feeling the pressure of a changed society, 'technology of life', 'globalisation of life', 'empowerment of individuals'". If institutions have not yet fully adapted, many responsible for their management as well as 'front-line' teaching staff are aware of the new challenge.

Changes in the working conditions and expectations of teaching staff could be expected in the course of expansion, the amalgamations and new financing arrangements. The reviewers were told that there are new pressures on the teaching role (staff are expected to undertake research, find money and accept administrative responsibilities in addition to teaching; new pressures for curriculum development (for example, to meet the needs and expectations of the growing number of international students); new pressures for working with industry partners and an uncertain field with regard to intellectual property; new pressures to adapt to new technologies and distance education methods. While re-doubled efforts in each of these areas might well be needed to respond to new demands and interests of individual students, the economy and the society, the changes combine to place considerable pressure on available time (needed to support the necessary adaptations) and on the existing physical plant and other resources which, in their present mix and levels, limit the scope for flexible responses.

There is some evidence of increased teaching loads across the system, and in several institutions, the tutorial approach to teaching and learning appears to be under threat. While some noted that the tradition of senior staff teaching first years' courses was being maintained, others believed that there was a weakening of this practice. Common funding criteria appear to be leading to internal re-allocations according to whether the institution or programme was previously located in an "old" university or CAE (increase in teaching load at "old" universities; reduction in teaching load at "old" CAEs).

One approach to address the combination of issues raised for first years' teaching could be the wider development of career profiles in which rewards, recruitment and promotion criteria could vary. While we were informed about attention to teaching in recruitment and promotion decisions, the weight given to teaching proficiency and effectiveness -- even if growing -- appears to be small.

Conclusion

The reviewers were greatly impressed by the vitality and dynamism of the Australian university system as it consolidates and refines what is probably the most substantial, far reaching and rapid series of changes in its whole history. Progress has been considerable, but at the level of undergraduate status a number of difficult problems arising from rapid growth and change remain. If solutions are not always in evidence, there is an acute awareness of challenges and needs. Academics, institutional leaders, policy makers and representatives of relevant groups showed a keen interest in all of the themes identified in this international comparative study and, in many cases detailed knowledge including a close understanding of international developments and trends. So far from being remote from the wider social, economic and cultural environment, the universities have extensive contacts and a detailed understanding of changes and expectations. At the system level, there is a powerful apparatus for consultation, advice and decision making both with government and its major relevant department, DEET, and in the various consultative and advisory bodies, notably the National Board of Employment, Education and Training and its Councils.

The numerous reports and surveys produced during the past decade, which it has been impossible to analyse in depth in this review, show that a powerful knowledge base is in process of construction. Of particular value are the overall surveys of the characteristics and performance of the system, carried out by DEET and by the Vice-Chancellors' Committee, the specialised reports on issues, such as the role of the undergraduate degree in lifelong learning, or industry-higher education partnerships, and the evaluations of policy initiatives. Few national systems are reviewing and documenting their own development with such comprehensiveness or interest. The results of all of this work will be of inestimable value in the strategic planning that will continue to be needed.

Within the institutions, there is a remarkable ebullience. Notwithstanding an understandable weariness with the scale and pace of reform and the immense pressures resulting from amalgamation and continued restructuring, the institutions, as a whole, are displaying strength and capability. Whether, in their new, mostly much larger and more complex form, they are more governable or manageable than they were, whether decisions can be more effectively and efficiently made, whether the anticipated savings have been or can be made are still open questions and will remain the subject for debate -- and study -- for several years to come. However, it is evident that there has been a major effort by staff to change and adjust, to renew and revitalise their department, faculties and institutions. When, as is often the case, this means new patterns of authority, responsibility, decision-making, new course designs, new forms of communication across widely scattered campuses brought together in a single institution, it must be recognised that staff have been under unrelenting pressure. Our suggestions for further effort, for example in curriculum analysis and development are made in acknowledgement of what has been achieved but in recognition of the challenges still to be met.

The continued commitment, strong motivation and continuing education and training of the staffs of the institutions are essential if the ambitious policy goals that continue to be set are to be met. Both institutional leadership and government policies relating to conditions and salaries for staff need to acknowledge the effort and commitment underlying what has been achieved but also the tasks that lie ahead. These considerations are bound to arise in the course of a prolonged and intensive system-wide change process. The record of recent years is that, with strong government leadership and support a new pattern of university education has emerged. That pattern will not remain unchanged, at least as far as the undergraduate years are concerned. There is not only much unfinished business consequent on the great reform initiatives of the late 1980's, but an evident determination to keep up the momentum. We heard many references to the need for "consolidation", but we have the impression that the process set in motion by the reform and new demands on the system will require further efforts by the institutions. It seems appropriate now that detailed attention should be turned towards delivery and performance. That has begun with the procedures of profiling and institutional review. We believe greater efforts would pay dividends in the fields of undergraduate curriculum and assessment, teaching and learning, institutional governance and management and the quality and efficiency of the everyday working environment for staff and students alike. These are all aspects of a broad-based approach to quality monitoring and improvement, with an emphasis on institutional responsibility backed by overall guidelines, research analysis and incentives in which government has a key role to play.

These conclusions are directed mainly at the institutions which are likely to remain the principal providers. But, in retaining that role, the institutions will need to show a continuing capacity for innovation especially in course design and delivery, teaching and assessment of students and on new kinds of provision. Demand for mass tertiary education need not and probably cannot be met only through a system of large, publicly-funded universities. Government policy initiatives are needed to stimulate greater efforts and contributions by industry and less formal ways to acquiring qualifications than regular institutional attendance. Industry's role is threefold. First, to play an active part in the debate about

purposes, directions and performance of the system as a whole. Second, to be more enterprising in developing partnerships with institutions across the whole spectrum of undergraduate status including intended industrial placements and ranking experience. Third, to enter into discussion with institutions about recognition of learning that take place outside the normal tertiary institution environment. The credit transfer project is a useful step in this direction and reflects the readiness to innovate and explore new avenues that is a welcome feature of the tertiary education environment. That and the other elements of partnership to which we have alluded depend on an openness by institutions to relationships with the wider community.

Australia has a long tradition of part time and distance education and further development of these modes will make a significant contribution to meeting increased demand. But, as we observed above, university learning is a social as well as a cognitive matter, and the importance of a campus based learning community has to be set against the gains in access through part-time and distance modes. The enterprise sector has a role to play over and above its present one in finding new ways to meet the demand and need for tertiary education. Much attention is focused on the role of enterprises in the TAFE sector but there is no less need for greater enterprise participation in the sphere of undergraduate degrees.

For the system as a whole, there are obviously several fundamental issues to address: is it envisaged that expansion will continue in undergraduate numbers and, if so, what are the implications, for funding, for course content, for teaching and learning and, not least, for the "pipeline" effect on higher degrees and further study? Can the efforts to increase variety and diversity of institutional profiles succeed in the face of the press to conformity induced by the dominant model of a "true" university and student, parent and community expectations of what "their" university will provide? Will the balance between research, teaching and a miscellany of service functions be maintained or will the incentives and rewards associated with the first and the third of these functions squeeze out teaching? Specifically, will government policies continue to provide encouragement and support to high quality teaching?

We end with these questions -- and others stated or implied in our report -- since it seems appropriate, with a new government in office, to raise matters to which we think attention could be usefully addressed as new policies are forged.

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