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MELBOURNE  
GEELONG  
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12 January 1997

Mr Roderick West  
The Review of Higher Education Financing and Policy  
Location Code 728  
GPO Box 9880  
CANBERRA ACT 2601

Dear Mr West

I am pleased to present Deakin University's response to the discussion paper, *Learning for Life: Review of Higher Education Financing and Policy*. In this response, the University suggests issues that it believes the Committee should address in the final report of the review and recommendations it should make to the Commonwealth. The University also recommends broad directions for higher education policy and financing.

The University's suggestions and recommendations are summarised at the beginning of the paper. The points in the summary are drawn sequentially from the text of the response where the justification for each point is given.

We look forward to the final report of the review which we hope will provide a solid foundation for planning and supporting Australian higher education over the next two decades.

Yours sincerely

Professor Geoff Wilson  
**Vice Chancellor and President**

## **RESPONSE TO THE DISCUSSION PAPER**

### *Learning for Life* *Review of Higher Education Financing and Policy*

Deakin University  
12 January 1998

#### **Summary of Recommendations**

Deakin University suggests that the report of the Review should:

- recognise that stakeholders besides students, including parents, employers and the professions, have valid interests and points of view that should help shape the form and content of higher education;
- advocate that continuing development of the higher education system reflect and contribute to a progressive vision for the Australia of the future, not merely react to market forces that will not necessarily reflect the national interest;
- recommend that policy reflect the fact that universities are subject to multiple and at times conflicting pressures; present an analysis of the probable impact of its proposed student funding arrangements on the future of regional campuses;
- recommend how government can assist higher education institutions to contribute broadly to the life and development of the regions in which institutions are located;
- draw attention to the prospect of an increasingly diverse higher education student population;
- propose how government can foster, encourage and invest in increased
- participation in lifelong learning;
- address how information technologies can contribute to the improvement and enhancement of higher education;
- make recommendations on how government policy and financing can assist universities to incorporate appropriate uses of information technology and students to have access to the technologies they need, particularly in these transitional times of rapid development of applications and infrastructure;
- advocate a balance overall between good teaching and good research in Australian universities;
- recommend that universities be encouraged to develop research profiles suited to their particular missions;
- recommend a substantial increase in the funding of research; and
- recommend funding of the best researchers, rather than selected institutions, to do research.

Deakin University recommends that higher education policy and financing should:

- encourage participation in post-secondary education throughout an individual's lifetime through targeted finance and tax incentives for individuals and employers;
- encourage movement between post-secondary education sectors so that educational needs can be satisfied in appropriate ways at appropriate times in an individual's lifetime;
- encourage institutions to work closely with employers and professional societies to ensure the relevance of their curricula;

- encourage institutions and business entities jointly to develop, sponsor and deliver cooperative programs that provide students with an opportunity to learn specialist skills within the context of the workplace;
- encourage institutions to structure curricula in ways that allow students to choose specialist career paths later rather than sooner;
- are non-discriminatory towards students who seek to obtain specialist skills and knowledge following graduation with a first degree;
- encourage and support institutions to structure their curricula in ways that increase their ability to respond flexibly to changing demand;
- facilitate credit transfer and recognition of prior learning, movement between and within sectors, upgrading and career shifts;
- avoid constraining student entitlements to post-secondary education through artificial restrictions to sector, institution, single courses or time in life when study is undertaken;
- acknowledge, in institutional funding, different routes to the same desired end-a highly skilled and versatile workforce;
- restrict the fees charged by public universities to students' funded entitlements plus available income contingent loans;
- make income contingent loans available to all post-secondary students;
- provide incentives for universities and corporations to cooperatively pursue commercial opportunities for research;
- encourage research role differentiation, diversity and strategic institutional change within the higher education system; and
- encourage an overall increase in research in Australia.

### **Points of Agreement with the Discussion Paper**

Deakin University welcomes the opportunity to respond to the recently released discussion paper *Learning for Life*. The University is in agreement with many of the fundamental principles advanced in the discussion paper. Among these points of agreement, broadly speaking, are the 'principles upon which the future should be built'.

*Learning for Life* paints a picture of a future post-secondary education system in which:

- there is near universal access to some form of post-secondary education;
- there is universal access to some form of income contingent loan;
- the study options of students are maximised through the provision of programs in which the content, location and mode of study reflect student needs;
- quality is judged in terms of outcomes;
- institutions are held accountable by students and taxpayers;
- the research effort emphasises knowledge, skill and technology transfer to the broader community;
- public funds are used effectively; and
- there is a fair balance between public and private financial contributions.

An underlying assumption is that one key purpose of the higher education system is the education and training of a productive workforce that can contribute to the improvement of national competitiveness and the generation of national wealth.

The University supports these principles. Its concerns with *Learning for Life* stem not from a disagreement with its intent but from the belief, first, that the discussion paper goes on to reflect a narrow and sometimes simplistic view of the roles, contributions and constituencies of higher education and, second, that some policy options and directions canvassed in the paper will hinder rather than help in the achievement of the aims it professes to value. This response to *Learning for Life* outlines areas where the University believes the scope and perspectives of the discussion could be improved and enhanced; it then lists some essential elements of its vision for higher education over the next twenty years.

## **Issues of Scope and Perspective**

### **The limitations of a student market driven basis for policy**

The policy framework presented in the discussion paper proposes that a market approach in which students are regarded as customers will deliver both efficiency and effectiveness and, by implication, solve the crisis the Committee perceives in Australian universities. It further assumes that issues of access and equity can be addressed through government policy and funding interventions in that market. Like all approaches, the market approach has its strengths and weaknesses. Deakin University accepts that a market approach can usefully inform policy but does not accept that the approach is, of itself, a sufficient basis for higher education policy. It is not that universities do not need to recognise that students constitute a market for programs, as in fact they already do. Rather, the force of this market in guiding universities should be seen as only one of several legitimate forces to which universities need to respond. Furthermore, the University rejects any suggestion that the apprehended crisis, which we believe is caused by serious underfunding, would be alleviated by the introduction of a market driven approach; indeed, it would lead to a greater crisis for the nation.

A narrow student market driven approach, for example, will see the demise of basic science teaching in all but a handful of Australian universities. The direct effect on the nation of this in terms of numbers of trained scientists and the indirect effects in terms of diminished levels of research and innovation suggest a need for policy interventions on bases other than that of the short term dictates of student demand. The University thus argues that the Committee's report should not only address how those aspects of the system that are to be market driven will serve the nation and its people well, but also recognise the responsibility of government to use a broad range of policy instruments to achieve national goals. This requires a policy framework that is more broadly based than the narrow market driven approach underlying *Learning for Life*.

The report of the Review should:

- recognise that stakeholders besides students, including parents, employers and the professions, have valid interests and points of view that should help shape the form and content of higher education;
- advocate that continuing development of the higher education system reflect and contribute to a progressive vision for the Australia of the future, not merely react to market forces that will not necessarily reflect the national interest; and
- recommend that policy reflect the fact that universities are subject to multiple and at times conflicting pressures.

### **The importance of regional campuses**

The discussion paper does not address the role of regional campuses in their communities, though a commissioned paper (Appendix 12) with a narrowly economic brief does conclude that universities do provide economic benefits to the regions in which they are located. Furthermore, in advocating a student market driven approach, the discussion paper does not address the probable impact of such a strategy on regional campuses and non-metropolitan communities.

Given Australia's urban concentration and the unusual disinclination of Australian students to relocate in order to pursue university studies, it is clear that student funding arrangements that permit unlimited growth at metropolitan campuses, at the expense of regional ones, will lead to serious decline in enrolments at the latter. In fact, Australia already has a number of examples of such decline as a result of the increase in metropolitan places and the reduction of unmet demand. Some regional campuses may lose their viability if they must rely on their small local population bases for students. While strong arguments can be mounted that students in so far as possible should be able to study where they choose and that institutions need to be creative in building local and distant markets for their courses, the issue still is one that the Committee needs to address. The very substantial public investment in regional campuses, the reliance of regional communities on their economic contribution and the probable fate of local students unable to relocate demand such attention.

The University also believes, however, that the contribution of regional campuses goes far beyond narrow economic benefits to the community and direct educational outcomes in the production of graduates. The OECD currently is sponsoring a major investigation into the response of higher education institutions to regional needs. The project leader, Professor John Goddard of the University of Newcastle upon Tyne, has extended the scope 'beyond a narrow technical and economic approach' to examine the 'role of universities in enhancing the stock of human capital within in a region' (1997). According to Professor Goddard, one effect of global economic change and advances in information technology is a range of new clients for education and research who have a local or regional agenda. Universities can contribute 'locally relevant knowledge production', 'gateways to global information resources', 'human capital formation' and local leadership [<http://www.ncl.ac.uk/~ncurds/univ/imhe-97.htm>]. The Committee should widen its vision of higher education to encompass a breadth of contributions to the community and the nation.

The report of the Review should:

- present an analysis of the probable impact of its proposed student funding arrangements on the future of regional campuses; and
- recommend how government can assist higher education institutions to contribute broadly to the life and development of the regions in which institutions are located.

### **Diverse markets for higher education and the need to increase participation in lifelong learning**

Deakin University believes that the discussion paper characterises the higher education market as being considerably more homogeneous than is the case and understates the importance to the nation of expanding participation in lifelong learning. The paper makes passing reference at many points to the need for education to be a lifetime activity but gives the impression in the body of the text, and indeed in the title, that higher education is a full-time activity engaged in by school leavers that is intended to prepare them for adult employment. Furthermore, Appendix 5 (pages 98-99) appears to exclude 'older people [needing] to re-skill and to upgrade their qualifications' from serious consideration in the projection of future demand, dismissing them with the comment that their needs 'are more likely to be met through participation in vocational education and training, non award higher education courses, second degrees and postgraduate coursework degrees.' Several points are important to note.

First, the higher education student population is already a diverse group. While young people pursuing a first degree constitute the largest group, 28 percent of higher education students are in the 30-64 year old age group and this is not a homogeneous group. Some adult students are vocational education and training graduates seeking a higher education; some are university graduates seeking further qualifications at a post-graduate level or to enhance specific job skills in a vocational education and training course; still others are seeking to facilitate a change of career; a few are individuals without specific vocational goals who are learning for self improvement.

Second, even if participation rates of adult students remain constant over the projected twenty year period, they will become an increasing proportion of the total population of higher education students because of the higher rate of growth of the 30-64 year old age group. Therefore, student diversity in higher education will increase substantially. And incidentally, the University believes that the projections represented in Figures 8 and 9 of Appendix 5 are incorrect based on the information given and reflect an underestimate of demand (see Attachment 1).

Third, there is a need for significant growth in the diverse part-time adult market for post-secondary and higher education. While participation rates of Australian school leavers in higher education, as Appendix 5 indicates, are slightly better than average in comparison with other OECD countries, participation rates for the 30-64 year old population are modest in comparison to many OECD countries. In its submission to the Review Committee, the University cited evidence that, for a nation to remain competitive, every member of the workforce should spend the equivalent of one year in full-time post-secondary study in every seven years of work. This estimate suggests a need for 1.3 million full-time equivalent learners in an Australian workforce of 8.9 million. Even if one assumes that one year in ten is sufficient, this still generates a need for the equivalent of 890 000 full-time students drawn from the workforce. If as few as one third of these require higher education as opposed to vocational education and training, this still indicates a need for close to 300 000 full-time equivalent students drawn from the

workforce. Participation in professional and technical continuing education in Australian universities is nowhere near to such a figure. It is clear that participation in university-based continuing education ought to increase dramatically if Australian management personnel, professionals and skilled workers are to match the educational participation, level of qualifications and productivity of their OECD-based competition.

Fourth, continuing education of the workforce calls for investment. To give one example, in its recently released report, the Australia Business Foundation states that Australia needs to shift significant resources into knowledge intensive industries. A knowledge or 'learning based' economy, it suggests, emphasises the use and dissemination of information. Education is identified as a key area requiring sustained investment if Australia is to make the needed transition.

It is inconceivable that higher education policy and finance should be silent on these matters that are so important to Australia's international competitiveness. The report of the Review, therefore, should:

- draw attention to the prospect of an increasingly diverse higher education student population; and
- propose how government can foster, encourage and invest in increased participation in lifelong learning.

### **A different perspective on the role of technology**

*Learning for Life* rightly identifies the digital revolution as a key factor in the changing environment of higher education over the next two decades. Web-based multimedia and other Internet technologies are already having an impact on teaching and research in universities. The questions posed by the Committee on page 11 are important. There are thus elements of the discussion of technology and its use in higher education with which the University concurs. The University, however, disagrees profoundly with two of the key implications that the Committee appears to have drawn from the study by Global Alliance Ltd (Appendix 11). These are that:

- the use of digital technologies in higher education in Australia both can and should lead to significant cost savings; and
- Australian universities will face significantly increased competition from online off-shore providers across the range of their programs.

Both these positions represent, the University believes, a misinterpretation of the evidence presented in Appendix 11.

Global Alliance Ltd. reports (Appendix 11, page 22) that mega-universities with in excess of 100 000 enrolments operate at below fifty percent of the per student cost of other institutions in the same systems. This is true enough but the following points not addressed in their report need to be considered before drawing conclusions from their findings.

- Most of the institutions they list, particularly those that are based in the developing world, offer little if any instruction or student support. Most have reduced the educational process to one of information transfer and examination. This is not a model to be encouraged in Australia.

- Mega-universities typically have very high non-completion rates making comparisons of cost per graduate less favourable than cost per enrolled student. Sir John Daniel, in his book *Mega-universities and knowledge media* (which was cited in the discussion paper), concluded that the UK Open University with a graduation rate of 31 percent was doing vastly better than its counterparts in other countries where, from available figures, none exceeded ten percent.
- The institutions typically offer a very limited and generalist curriculum with relatively few professional programs available.
- Those institutions within developed countries that offer high quality instruction enrol primarily adult students on a part-time basis, as is the case in Australian university distance education programs. Projects within the United Kingdom and Canada to involve cohorts of school leavers in distance learning programs were notably unsuccessful and abandoned as not providing a model of good educational practice for this group.

Given the above, the University contends that it is to misinterpret the evidence to suggest that Australian universities can effect major cost savings and sustain the quality of outcomes through the provision of mediated mass programs for undergraduates. This is particularly the case given the already remarkably cost efficient nature of Australian universities. OECD evidence from 1992 indicates that the expenditure per student in Australian universities was US\$6600. This compared with US\$12 350 in Canada, US\$11 880 in public institutions in the United States and US\$15 060 in the United Kingdom. The average figure for all OECD countries was US\$10 370 (*Education at a glance*, OECD, 1995, page 92). There is no further scope for cutting public expenditure in Australian higher education.

The above is not an argument that digital technologies should not play a major role within the University. This is far from the case. Rather it is to argue that the role of digital technologies is two-fold, allowing the University to

- reduce administrative costs through the continued development of cost effective, efficient and flexible administrative systems; and
- offer high quality teaching programs both on and off campus through the creation of rich learning environments that:
  - ◊ provide high levels of student access to timely expert advice from academic staff;
  - ◊ facilitate collaborative student work and communication;
  - ◊ provide easy access to a wide range of digital learning resources;
  - ◊ facilitate the provision of contextual learning experiences for students;
  - ◊ facilitate the use of demonstration and simulation as teaching techniques; and
  - ◊ provide students with unlimited intelligent machine based practice and drill.

Technologies should be used to maintain and enhance quality and not as a means to seek spurious cost savings to the detriment of quality outcomes.

*Learning for Life* also appears to envisage a future in which Australian universities face significant competition from online off-shore providers of undergraduate programs. The University believes that this will not be the case. Prestigious institutions overseas are simply not involved in the provision of mass undergraduate programs. Much of their prestige is concerned with their being difficult to access. Rather, the competition will come from programs addressing the advanced needs of specialists in business, engineering, health care and the like. Many such programs are already offered 'off campus' on one or more continents and some of these are offered by Australian institutions. These programs may be

mediated not because this allows a provider to access a mass market but rather because there is insufficient demand in any one location to justify a conventional program. The National Technological University in the USA and Brunel University in the UK offer exemplars of the sorts of programs that will provide the competition for Australian institutions over the next two decades. They are high cost programs aimed at specialist professionals. If Australian universities wish to be involved in these sorts of programs they will necessarily have to operate internationally in most fields. With the exception of some masters level offerings in business, the market in Australia is too small to support the highest quality, and therefore most competitive, programs. Digital technologies will be central in these programs, but their use will be to allow a program to exist at a high level of educational quality, not to render cost savings. It is ironic that this vocationally oriented, post-degree market is precisely the market that *Learning for Life* ignores as apparently outside the scope of higher education policy and financing in Australia.

The report of the Review should:

- address how information technologies can contribute to the improvement and enhancement of higher education; and
- make recommendations on how government policy and financing can assist universities to incorporate appropriate uses of information technology and students to have access to the technologies they need, particularly in these transitional times of rapid development of applications and infrastructure.

### **The importance of research to Australia's future**

*Learning for Life* recognises the need for a research effort that emphasises knowledge, skill and technology transfer to the broader community. The University supports this position but is concerned that the general tone of the paper downplays the importance of research as a vital component of the higher education system. The paper argues that 'The balance of incentives must ensure that teaching and scholarly practice are valued at least as much, and indeed preferably more than, research' (page 6). If the intent of the statement is that all universities should strive to ensure that academic staff teach well then it is unproblematic. If, however, the intent is to suggest that the balance between research and teaching in Australian universities has somehow become distorted in favour of research, then Deakin University disagrees. The value Deakin places on good teaching is exemplified in the extent of its professional development initiatives and the importance of evidence of good teaching in the promotion process, and the University's teaching performance is demonstrated in its outstanding results on the Course Experience Questionnaire. The University contends that the Australian higher education system overall does not privilege research over teaching and, like many other Australian universities, it values both.

The national interest demands, in fact, that policies support an increase, and not a decrease, in levels of research. As the President of the Federation of Australian Scientific and Technological Societies recently remarked, Australia needs to decide in policy terms if it wishes to be a high wage economy specialising in the knowledge business or a low wage economy specialising in the production of goods and raw materials. If Australia is to opt for the former, then its scientific research must be a source of comparative advantage *vis a vis* other high wage countries. Being better than also-rans will not be good enough. This requires a substantial increase in levels of public investment in fundamental research and research training. There can be no value adding applied research without the foundations provided by

basic knowledge and trained researchers. It also requires that no policy change in research funding be introduced that has the effect of discouraging, on the basis of their institutional affiliation, any researchers from conducting research. The best researchers should be funded to carry out research.

The present situation in Australia is not a happy one. Australia is ranked 18th in the World Competitiveness index; its ranking on the Science and Technology component of this index has fallen, however, from 15th in 1992 to 24th in 1997. This is a position indicative of a nation opting for a low wage economy. Given existing good universities, high quality research infrastructure and among the lowest wage rates in the OECD, Australia has an opportunity to become a centre for quality research. Taking advantage of this opportunity will require a supportive policy environment and substantially increased public expenditures on basic and applied research and on the training of future researchers.

The report of the Review should:

- advocate a balance overall between good teaching and good research in Australian universities;
- recommend that universities be encouraged to develop research profiles suited to their particular missions;
- recommend a substantial increase in the funding of research; and
- recommend funding of the best researchers, rather than selected institutions, to do research.

### **The University's vision for the next twenty years**

Flexibly serving the educational needs of professional workers is central to Deakin University's strategic vision. It is a vision, however, that can only come to pass in a favourable policy environment, a policy environment that recognises the particular and peculiar nature of the educational market place. Successful policy will recognise these particularities and peculiarities and set a framework that allows successful institutions collectively to bring into place a system that will meet the needs of students, employers and the nation. What will the characteristics of such a system be and what are the policies needed to bring it about?

### **Programs that attract students and meet their needs**

The higher education system will need to provide a range of programs that meet the diverse and differing needs of the market segments discussed above. Evidence suggests that the majority of students are looking for courses that will help them meet career aspirations. School leavers are looking for programs that will land them first time employment in the occupation of their choice. Adult students are looking for courses that improve their prospects in a career already under way or that will enable them to change careers. Policies are needed that facilitate the meeting of these diverse student needs.

Australia needs to encourage participation in post-secondary and higher education throughout an individual's lifetime. *Learning for Life* rhetorically embraces this conception but fails to advance concrete suggestions. Government has a role in working with industry and indeed with the general public in ensuring that what is undoubtedly a significant need for increased participation is reflected in an increased demand. Evidence suggests that Australian industry undervalues and thus underspends on the training and continuing education of its workforce. Industry, the professions and individuals need encouragement to participate. Government policies need to be structured to help transform needs into demands. Tax regimes need to encourage participation. Consideration should be given to providing some level of public subsidy to students throughout their working lives. If the demand is there, providers will move in to efficiently and effectively meet it. Institutions have only limited means, however, of ensuring employers and employees recognise that they have mutual needs for further education and training.

Furthermore, educational needs will be addressed best with greater movement of students between the higher education and vocational education and training sectors. An increasing number of vocational education and training graduates enter a university at some point in their careers to pursue degree studies. Policies that encourage or require a consistent and equitable approach to transfer credit and credit for prior learning are required if this group of students is to be well served. Policy should also recognise and support the fact that these inter-sector flows do and should flow in both ways. Many university graduates find that the most appropriate way in which to gain new skills required for career advancement is through participation in a vocational education and training course. Policy should recognise such participation as being equally as valid as is movement in the other direction, and thus should in no way discriminate against the university graduate engaged in vocational education and training.

These outcomes will not be achieved unless policy is structured so as to encourage them. The higher education market needs to be regulated and supported in ways that encourage, and not discourage, desired outcomes. Needs do not automatically generate demands. Institutions can go only so far in encouraging employers to recognise the needs of their workforces unless a supportive government policy framework is in place.

Deakin University advocates policies that:

- encourage participation in post-secondary education throughout an individual's lifetime through targeted finance and tax incentives for individuals and employers; and
- encourage movement between post-secondary education sectors so that educational needs can be satisfied in appropriate ways at appropriate times in an individual's lifetime.

### **Students with skills and knowledge to successfully find employment**

A recent review of *The first years of tertiary education in Australia* conducted by a team from the OECD suggested that, 'For the last 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 the first years' teaching on broad preparation as opposed to the development of more specific vocational/professional skills and knowledge...A recent survey of Australian recruiters confirmed the importance of

these types of 'generic' skills, dispositions and attributes...' (OECD, 1997). Deakin University believes that the evidence suggests employers are looking, in potential first time employees, for well rounded generic skills, but generic skills gained from a thorough grounding in a broadly based field of study. Specialist skills we suggest are best developed elsewhere than through highly specialised first degree programs, through participation after graduation in further courses, for example, or through the development of cooperative education programs or programs involving other forms of work placement. Undergraduate curricula in many Australian universities have become too narrowly focussed over the past decade.

We are not arguing that undergraduate degrees should be confined to the liberal arts or sciences and be in part or whole prerequisite to professional study as is the case in North America. Rather the University is arguing that many students do not know in detail at the age of seventeen or eighteen which career they wish to pursue. They may know they wish to work 'in business' but few will know if they wish to be in finance, marketing or human resource management. As a recent report to DEETYA noted, 'The Australian higher education model requires students to make career choices before they leave high school. Many make choices on the basis of inadequate knowledge regarding the range of possible careers or of their own interests and abilities' (Rosenman, 1997). As Australian students move into University study at a younger age than do many of their counterparts in Europe and North America, this is to ask Australians to make their career choices at a younger age than is the case anywhere else in the developed world. The solution, we believe, is in the provision of first degrees that provide a broadly based introduction to a field such as business and in so doing develop needed generic skills and the prerequisite skills and knowledge for specialist study. Such an approach also helps institutions adapt to changing demands as is discussed in the following section.

Deakin University therefore advocates policies that:

- encourage institutions to work closely with employers and professional societies to ensure the relevance of their curricula;
- encourage institutions and business entities jointly to develop, sponsor and deliver cooperative programs that provide students with an opportunity to learn specialist skills within the context of the workplace;
- encourage institutions to structure curricula in ways that allow students to choose specialist career paths later rather than sooner; and
- are non-discriminatory towards students who seek to obtain specialist skills and knowledge following graduation with a first degree.

## **Flexibility and responsiveness to changing student demand**

The market model advocated in *Learning for Life* rests on a number of underlying assumptions. Among these are that competition for income will lead institutions to assess, and flexibly respond to, student demands, and that in so responding they will serve students, employers and the nation well. The University recognises the reality of an increasingly competitive future but is concerned that higher education finance and policy need to assist, not hinder, its ability to flexibly and effectively meet the challenges posed by these conditions. One challenge, simply stated, is that Australian undergraduate curricula are inflexible.

As discussed above, courses over the last decade have become narrower in focus and increasingly vocationally specific. Most require students to make early rather than late choices and commit to three or more years of study upon entry. Such a system of curriculum organisation does not allow for swift response to changing needs, either of individual students reassessing their interests and aptitudes or of the employment market for graduates. A perceived and immediate need for increased numbers of a particular type of specialist graduate will be reflected in numbers of graduates four and five years later. Likewise the collapse of employment opportunity in a field effectively 'traps' three cohorts of students in dead-end programs. Such a situation makes universities poor servants of their students, employers and the nation. Industry requires shorter response times and students need to be able to adjust career aspirations quickly as circumstances change.

The answer, we believe, lies in the adoption of the curriculum model discussed above, in which the early years of post-secondary education would provide a broad general education in a field of study, with specialist expertise being concentrated at the end of a degree program or obtained through a variety of programs that may last for periods of much shorter duration than a three year degree. In such a model a student with a good general grounding in business could specialise in, say, management information systems after she has worked for some time, through participation in a graduate diploma or coursework masters degree. Such programs allow for a far more flexible response to changing demands than do programs of longer duration.

If Australian curricula are to change in ways that will make them more flexible, this will require a degree of government leadership. Deakin University therefore advocates policies and funding arrangements that will:

- encourage and support institutions to structure their curricula in ways that increase their ability to respond flexibly to changing demand;
- facilitate credit transfer and recognition of prior learning, movement between and within sectors, upgrading and career shifts;
- avoid constraining student entitlements to post-secondary education through artificial restrictions to sector, institution, single courses or time in life when study is undertaken; and
- acknowledge, in institutional funding, different routes to the same desired end a highly skilled and versatile workforce.

## **Near universal access to post-secondary education and universal access to income contingent loans**

As noted earlier in this response, Deakin University supports near universal access to post-secondary education as an ideal for a future post-secondary system; it also believes income contingent loans to be a prerequisite condition for near universal access. These considerations, and the increasingly inter-related nature of some vocational education and training and higher education programs, lead the University to support the availability of income contingent loans for all students enrolled in postsecondary studies irrespective of age. The importance of universal access to loans that cover the full cost of course fees cannot be over-emphasised in a system in which institutions have significant discretion to set their own course fees. The funding options put forward in *Learning for Life*, however, suggest that the Committee is considering recommending policies that restrict access to loans and which set maximum values for those loans.

The University recognises that, in a situation in which institutions have freedom to set course fees, the Government needs to have a mechanism to control the volume of loan monies taken out to pay institutional fees. Access and equity arguments, however, suggest that such control is better exercised through imposing caps on University fees and allowing loans fully to cover these than through capping loan amounts and requiring students to pay for themselves the difference between a course fee and the maximum loan amount available for the course.

There will be some few programs in some universities (Medicine at the University of Melbourne, for example) that are attractive enough to be able to charge course fees significantly in excess of a loan cap calculated as a percentage figure above the level of public funding available to a student. Without a fee cap, such programs will, *de facto*, become inaccessible to all but those with access to significant private financial resources. The University believes that access to such programs should be available to students judged by the university in question to possess the highest academic ability and willing to incur the liabilities attached to income contingent loans. The alternative is to privilege students with lesser, if adequate, academic ability who also have access to sufficient private resources to pay the 'top-up' course fee. The University recognises that such an approach is an intervention in the higher education market but believes that competition for entry into programs should be on the basis of academic ability and not on the basis of ability to pay.

Deakin University advocates policies that:

- restrict the fees charged by public universities to students' funded entitlements plus available income contingent loans;
- make income contingent loans available to all post-secondary students.

### **Vigorous curiosity driven and applied research and high quality research training.**

Deakin University supports the view that research funding should support a variety of kinds of research and accepts that in many fields it is reasonable to expect returns to the economy resulting from the input of public funds. The University warns, however, against a too narrow implementation of this view. The benefits flowing from research are of many kinds: economic, social, cultural, etc. Many are not realised for decades following discoveries of curiosity driven researchers. There is no high road to economic benefit from fundamental research and any policy that encourages the commercialisation of research results must not do so to the detriment of fundamental research. In the final analysis, it is the market that determines the commercial and economic value of research findings. Policies need to assist, and not attempt to replace, the market in performing this function. The University therefore advocates policies that provide incentives for universities and corporations to cooperatively seek commercial opportunities for research findings but argues against policies that attempt to identify 'winners' for increased levels of research support. Second guessing the future is fraught with dangers.

The University, as noted earlier, also believes that the national interest requires increased, rather than more narrowly targeted, public spending on research. Policies must allow institutions to contribute to the national good in the ways to which they are best suited. In some institutions this will be through emphasising world class fundamental and applied research and the training of new researchers rather than an emphasis on the teaching of undergraduates. That some institutions focus, and others will focus, on research rather than teaching large numbers of undergraduates is not a problem but rather a vital necessity if Australia is to become a knowledge based, high income economy. There is no one model of what a university does that will serve the nation well. This differentiation should be allowed to emerge on the basis of competition rather than through prescription, as institutions adapt in differing ways to local conditions and changing circumstances. The University therefore advocates a policy framework that encourages genuine role differentiation and diversity within the higher education system, along with the opportunity for institutions to alter their particular pattern of emphasis.

The University's position with regard to the institutional targeting of research funds is simply stated. The University strongly advocates retention of present arrangements whereby project research funds are allocated to researchers and not to institutions. Research monies should be available to the best researchers in a given field irrespective of their institutional affiliation. To pre-determine which six, or eight, institutions should be supported to conduct research would be counter-productive. It is individual researchers and groups of researchers who conduct research, not institutions. Arguments that the country cannot afford to support more than a limited number of research institutions miss the point. Limited research funds will continue to be a fact of life, a fact of life arguing for their use by the nation's best researchers as judged by their peers., Recent evidence suggests that some smaller institutions, such as Flinders, James Cook and Wollongong Universities, receive greater large ARC funding per fulltime equivalent academic than do some members of the self-styled Group of Eight. They do so because researchers at those institutions are judged by their peers to be capable of producing superior research in their field than are their colleagues within the Group of Eight. One member of the Group was not in the top ten on the basis of per capita value of large ARC grants. To pre-select institutional winners would be fraught with danger. Let peer review competition between researchers determine the institutional level of project-based research funding.

Deakin University advocates policies that:

- provide incentives for universities and corporations to cooperatively pursue commercial opportunities for research;
- encourage research role differentiation, diversity and strategic institutional change within the higher education system;
- encourage an overall increase in research in Australia.

### **Calculating the demand for higher education**

The University believes that Figure 8 in Appendix 5 does not represent what it purports to do and thus seriously misrepresents the impact of increasing rates of adult participation in higher education. The appendix states that the size of the 16-20 year old population will increase by 10 percent by 2015, that the size of the 20-30 year old population will remain more or less constant and that the size of the 30-64 year old population will increase by approximately 30 percent. The proportion of students over 30 years of age is reported as being 28 percent of the total. On this basis it concludes that with 1995 participation rates the increase in demand for undergraduate places will be in the order of six percent by 2015.

This estimate seems to be inconsistent with the above data. A ten percent increase in the population size of 16-20 year olds and a constant number of 20-30 year olds will, with constant participation rates, result in an increase in the number of 16-30 year old students in the order of five to seven percent. Numbers of students over 30 years of age will increase by 30 percent. As 72 percent of present students are under thirty, this results in an increase of between 13 and 15 percent rather than the six percent indicated. Under this scenario, 33 percent of students will be over thirty years of age. Likewise the upper bound for demand which is calculated on the assumption that adult participation rates will increase by five percent per annum from 1997 until 2015 appears to be incorrectly represented. With such increased participation, the number of students over thirty will increase by some 95 percent as a result of population growth in that age range and a 2015 participation rate that is some 2.5 times the 1995 rate. This suggests that overall growth in demand could be in the order of 70 to 72 percent. Of this greatly increased student population, approximately 55 percent would be students over thirty years of age.

The University believes that *Learning for Life* seriously underestimates the need for Government to develop higher education policies that recognise the increasing importance of adult students. A system in which more than half the students are not school leavers requires policies that reflect that fact.