# NATIONAL CONFERENCE ON THE FUTURE OF HIGHER EDUCATION POLICY AND RESEARCH

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*The Emerging Australian Context for Higher Education*

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I have been asked to offer a perspective on the emerging Australian context for higher education to inform discussion about policy research. As there are various domains of policy application from the global (say affecting intellectual property transactions) to the local (say affecting learning interactions of students in a course), there are multiple levels of relevant context. My perspective is primarily from a national system level, serving the Government's objectives for increasing the autonomy of higher education institutions, their quality and their responsiveness to the diversification of demand. Policies relating to such matters as student admissions, curriculum structures and offerings, teaching methods and assessment processes, staff appointments and conditions of employment, content of research and publication, are seen to be most appropriately determined within and by institutions themselves. In a competitive global knowledge economy, as institutions continuously work to strategically position and improve themselves, one can envisage a growing demand for policy research to meet different institutional needs.

During the recent Federal election campaign, Dr Kemp, now returned as Minister for Education, Training and Youth Affairs, set out the Government's principal objectives in tertiary education. They were to increase access to education and training, to expand the opportunities for lifelong learning, and to improve the quality and responsiveness of institutions and courses. From a national policy perspective, our general concerns relate to the overall provision, cost-effectiveness and viability of higher education, and public confidence in its quality and international reputation. We have a concern for coherence of policy purposes and consistency in the application of policy principles, acknowledging that the latter does not imply one size fits all but that responsiveness to varying needs and circumstances requires a policy framework that gives institutions responsible freedom to innovate and differentiate. We also have an interest in public accountability for the results achieved with the use of public funds. And we have a need to understand emerging pressures on and priorities for the allocation of public funds.

Our overseas guest speakers have identified several aspects of the global context that inevitably impact here, albeit in peculiar ways, so some overlap is to be expected in our presentations if we are in sync in our understandings whether or not we have agreed interpretations. Some divergence of view ought to be expected, not only reflecting our differences from European or North or South American or African or Asian conditions but also our own policy achievements which in several areas are regarded as internationally pace-setting. Much of the debate in Europe, for instance, involves consideration of shifts in the political-economic culture towards practice already adopted in Australia, for instance regarding student admissions, financial contributions, and durations and modes of study. Australia might perhaps look to the experience of North America and Asia where diversity and differentiation of provision is more widely established and traditions of private saving and philanthropy more entrenched.

Our usage of the term "higher education", with its 'heads above hands' presumption, remains more restricted and hierarchical than in many other countries. In several countries higher education refers to all formal education beyond compulsory education, including some of which we may define as "secondary", "tertiary" or "vocational". This whole vocabulary is becoming a bit confusing even just in Australia, as we can have VET in schools and HE in schools and school programmes in TAFE as well as concurrent study in multiple sectors. So we are moving to define this stage of education and training as not having its own defining characteristics but as being "post" some other stage or type, for instance post-school, post-secondary, or, more correctly, post-compulsory.

The ABS estimates that in the twelve months before March 1997 some 6.2 million people, 80% of Australian wage and salary earners, had undertaken some study or training, including 72% on the job training. Some 54% were undertaken studies or training courses, 33% had done an in-house training course and 20% external training.

When we consider the diversity of ways and means, places and times post-compulsory education and training can be "accessed" or "delivered" by diverse providers locally, regionally, nationally and globally, at varying private costs with and without public subsidies, it is no wonder we have hardly any reliable and comparable data to measure its dimensions and evaluate its characteristics. Without adequate information it is difficult to appreciate the emerging policy requirements, such as for scale and distribution of provision, equity of opportunity, coherence of curricula, quality assurance and accreditation processes, regulatory and financing frameworks. It is also clear to us that no single agency of Government can maintain sufficient in-house capability to be on top of all this dynamic diversity; we must develop networks and make use of the skills and understandings of others.

Policy research in relation to post-compulsory education and training may be categorised by its content, its form and its orientation. By orientation let me suggest three sets of possible broad purposes for the research: "historical-reflective"; "immediate-contributory"; and "anticipatory-interpretive". On one dimension the orientation is that of time: whether the focus is on analysing the past experience of policy, or attending to immediate policy issues, or looking ahead to future policy questions and options. On another dimension the orientation is that of motivation: whether to describe, explain, evaluate or expose (a reflective purpose); whether to identify, measure, assess or associate (a contributory purpose); or whether to extrapolate, project or envisage (an interpretive purpose). There is some overlap and circularity among these categories. No doubt some would consider a sound critical analysis of past policy misfortunes as contributing to a rounding of immediate policy discussions and to future policy improvement, and so it well might.

My purpose is simply to suggest, from a national policy perspective, it appears that Australian policy research in the post-compulsory sector falls mainly in the first and second of the above categories. The historical-reflective work has been done mostly in universities as part of the research interests of academic staff or by research students. Not a lot of it seems to have made much impact on policy, at least over the past decade or so as the influence of government has either waxed or waned. The immediate-contributory work has largely been commissioned by government agencies or non-government bodies; occasionally one finds such work initiated by academic researchers or centres who happen to be connected with policy formation and evaluation timeframes. Most of it, however, has been short-term, purpose-specific with limited generalisability and somewhat ad hoc. There does not appear to be a strong ongoing base of policy research pursuing independent directions and what there is seems backwards rather than forwards oriented. Yet I expect that is now where we need to turn our attention.

I thought I should outline some of the work we have in train, which is largely of the category 2 type, and then pose one or two questions to suggest some category 3 type work for your network and others, noting that others will be addressing future priorities for policy research.

To assist the policy formation and implementation processes in respect of higher education (I am confining these remarks now to one sub sector) the Department is undertaking or commissioning various pieces of work which may be categorised as follows:

1. understanding contexts: environmental assessment is a basic strategic tool. We need to be able to provide informed advice to our Minister about global, technological, demographic, labour market, fiscal, regulatory and other developments influencing higher education opportunities (including constraints on the ability of Australian universities to meet emerging challenges);

2. encouraging diversity and innovation: good policy accommodates difference fairly; dissemination of information can assist the diffusion of innovation. We need to be able to inform our Minister and the public about the extent of diversity of conditions (missions, contexts, inputs, structures, processes, outputs, outcomes) in which universities operate, and the various efforts they are making (eg. educational objectives, curriculum design, educational delivery technologies, student admissions, student services, assessment procedures, administrative efficiency improvements).

3. informing student choice: consumer access to information is essential for the effective functioning of markets. We need to ensure the availability of reliable public information on which students themselves and their advisors (eg. parents, teachers, careers advisors) can draw in considering choices.

4. assuring quality and accountability: the claims of service providers need to be authenticated. We need to develop ways and means of verifying to the Australian public and the international community that our universities have in place, are using and are making an impact with robust internal quality assurance processes. We should also be able to report to the nation on the contributions and achievements of universities, the "social return on public investment".

5. improving management: universities are "academic enterprises" which must be managed professionally. We need to offer assistance to (but not impose particular models on) university management in the development and adoption of tools that enable them, more self-reliantly, to achieve efficiency gains without reductions to quality. We also see value in encouraging collaboration among universities, across sectors and with industry in the design and delivery of educational programmes, joint use of facilities and equipment, common-use bulk purchasing and shared purchasing, for both efficiency and effectiveness reasons.

Several of our activities have multiple purposes and so cross a number of these 5 categories. For example, the publication of comparative performance indicators is intended to inform student choice, improve accountability reporting and enable management improvement. The appraisal of strategic planning experiences, using case studies of several universities, is intended to provide contextual information to guide policy advice to the Minister on ways of reducing the reporting requirements of institutions to the Commonwealth, and also to share innovations and lessons from experience across the sector for the purposes of improving practice overall.

understanding contexts

In-house, we are working on projections of demand for post-secondary education, analysing demographic growth patterns and participation rates on a regional basis, flows of graduates to the labour market and the distribution of graduate employment by occupation and industry. It is in this context, as well as in relation to the expansion of choice and the maintenance of quality, that we have an interest in labour supply and demand mismatches from the perspective of graduate generic skills for work in a variety of changing jobs, and employers' satisfaction with the knowledge, skills and attitudes of graduates. The Minister has provided funding to a network hubbed at UC, and also funded by ANTA and NCVER, to investigate the extent and nature of participation in education and training after initial entry to the labour market; eg. who participates, how much, where and when, who provides, how delivered, who pays? This area is emerging as a growth area for education and training in Australia and internationally. I will return to this topic presently.

Our work in relation to regions also has several purposes, partly to identify the extent to which provision affects participation (supply generates demand), the distribution of participation between regions and within regions, and the ways (and new opportunities) by which universities actively assist regional economic development. We have published an EIP paper by Professor Steve Garlick SCU) on this matter and engaged him further to work on some international comparative activity in this area. There is also some interesting work being undertaken through the IMHE group of the OECD on the role of higher education in regional development. Tom Karmel will be addressing this topic later today.

With regard to global contexts more broadly, we commissioned Professor Ron Johnston (Sydney) to outline developments in the global production, dissemination and application of knowledge. We had pieces of work done on different international forms of higher education system governance (CCE) and levels of public and private sector financing (Monash). These reports have been published in the EIP series. We have also published the findings of a report on "borderless education" (QUT) which dispelled some myths and identified emerging forms of virtual and corporate education and training. We have engaged them to do a follow-up study focussing on virtuals and corporates; and we are doing this in cooperation with both the AVCC and the UK's CVCP.

Coming back home, we are doing some trend analysis of changes in university staff by numbers, academic and general, classifications, casual and fractional full-time, research only, teaching only, teaching & research, age and gender. This should raise some interesting questions about capacities and constraints. We have also commissioned a piece of work (U of Melbourne) to survey the work roles of Australian academics, using a core set of questions from the UK survey for the Dearing Committee (but the Australian survey has 40 questions as compared with Dearing's 127). A sample of 5000 is envisaged. Key elements of the survey are allocation of work time, work values and motives, conditions of employment, work preferences and realities, career development and professional education and perceptions of changing work practices. This should provide university managers with some national data as well as allow us to observe some similarities and differences between Australia and the UK.

encouraging diversity and innovation

We are seeking to achieve greater public visibility of the extent of innovation, improved responsiveness and diversification of offerings emerging in Australian higher education. Some of this is descriptive activity with the related purpose of disseminating innovation. We are also trying to obtain some more analytical information, for example through a national inventory of electronic courseware (RMIT), on the characteristics, usage (including shared use) and quality/efficiency trade-offs associated with computer-based learning materials. We have also provided funding for the creation of a National Tertiary Teaching Collections Database of electronically accessible materials (including text, images and digitised video) for use in the development of on-line courseware. A project to promote best practice in the use of libraries (QUT), involving international comparators is underway.

The Minister approved Australian membership on the Board of the US-driven IMS initiative for developing global standards for courseware design and delivery. Australia will have access to all coding information a will participate in a number of trial sites for development and testing of specifications. This involvement is to ensure that Australia remains up with the global pace of change, that our courseware and related student services are IMS compliant and interoperable, and so can be used to our competitive advantage.

The Minister has approved a number of projects to widen university admissions procedures beyond reliance on the TER and widen choices for students, recognising their varying backgrounds, needs and circumstances. The Minister has also approved a range of projects for maintaining student choice through institutional collaboration in the provision of courses and units of study in fields of small enrolments.

informing student choice

We have published a broad range of indicators of characteristics and performance of universities at the level of the institution and work has been commissioned (U of Melbourne) to develop a series of comparative indicators by field of study to be published early next year.

We have several studies underway in an endeavour to determine how students make their choices as between higher education and VET, what information they use, who influences their decisions, when their decisions are made. We are also analysing relationships between student preferences and experiences. The findings will inform the future development of information strategies for better informing student choice. The Minister has approved funding to the AVCC's project on credit transfer for the purpose of improving the availability of information and options for students in terms of their learning pathways, and for smoothing their transitions and reducing the wastage of repeated learning.

We are seeking to continuously improve the Course Experience Questionnaire (CEQ). A PREQ is under development. A national employer satisfaction survey is close to finality. The building of several instruments to assess graduate skills is about to begin. These tools have several purposes, one of which is to increase the availability of information on which students can draw in making their choices and exercising influence over what is provided.

assuring quality and accountability

The comparative performance indicators we are producing provide inputs to discussion about quality, efficiency and effectiveness, reveal diversity in the sector, and provide a data set for accountability reporting.

The graduate skills assessments tools that are under development should enable students who may have acquired learning from a variety of experiences and multiple education and training providers to validate their claims for admission to a course of study or to employment. In addition, the GSA tools may be used to verify graduate quality of outcomes in Australia and internationally, so aiding labour mobility and supporting the quality reputation of Australian higher education. They may also stimulate curriculum and teaching improvements to the extent that learning gaps are identified.

The ATN group of universities is being funded to identify and define desired graduate attributes, to build these into currriculum, pedagogy and assessment processes, and to facilitate graduate transfers to employment. Such an approach allows students improved customisation of programmes, a better understanding of what is expected of them, what purposes their courses are designed for, how well they are progressing and what they can demonstrate they have achieved. This approach, more broadly, is being adopted by a number of universities , though not so systematically, as revealed in their reports on the application of their quality assurance process. These reports will be compiled and published next year.

CAPA is being funded to identify the changing needs of postgraduate coursework students and to coordinate a national symposium on the quality of research training environments and supervision, recognising the diversifying destinations of higher degree graduates and their need for breadth of knowledge, skills and experiences as well as depth. The development of the PREQ complements this initiative.

As part of the Commonwealth's outputs/outcomes budget and accountability framework, we are working to produce more comprehensive public reporting on the state of the sector regarding, financial health, quality, innovation and diversification, internationalisation, equity and efficiency. Some particular activities, such as the Deloitte trend analysis of university financial statements, are designed for this purpose of public reporting, but also to enable some dialogue with university managers regarding financial health.

improving management

The Deloitte financial indicators give us a look at trends and expose matters which prudent university managers need to take into account. We have also purchased the top end of a budget forecasting and planning tool (developed by Edith Cowan University with Phillips/Curran) which also enables some strategic dialogue around scenarios and positioning options. We need this in order to appreciate the varying impacts of changes to policy or shifts in demand, arising from natural factors and from competition, so that we can advise the Minister about pressure points and the priorities for allocation of discretionary funding.

We have engaged Ernst & Young to develop a methodology for costing various university activities. We saw the need for this as the operating context for universities was becoming more demand driven and competitive, and as the resources available to the sector needed tighter management. We noted that the UK Funding Councils had invested in developing costing tools for British universities to enable them to find operating efficiencies and improve their international competitiveness. It was evident in Australia that while most universities know their expenditures and direct costs, few know their full costs and may be under-pricing their contracted activities. The attribution of overhead costs is, when it is undertaken, not always consistent within institutions and what might look like a surplus to a faculty can be a net loss to an institution. More broadly, costing information assists benchmarking and, hence, improvements in quality, efficiency and effectiveness. There is a cultural change factor of importance here too, that of "cost-consciousness", given the need to ensure best use of available resources. The next phase of the costing exercise is to invite a number of universities to trial more detailed activity based costing of particular functions inputs and outputs, such as graduate units costs by field and mode of study.

As well as the quantitative comparisons that institutions will be able to make, using our bank of indicators, their internal data bases and eventually better costs data, the Minister has agreed to contribute to the initial costs of an international benchmarking exercise that will give attention to qualitative and process comparisons. This exercise is a longer-term project. Its scope is still being defined but some areas it might look at include customer service quality, including, for example, ways of providing feedback to students.

Back home we have asked QUT to document for the benefit of others, a number of its management improvement initiatives, including its approaches to data warehousing, course appraisal and performance management. We have already published the Ballarat University model for strategic rationalisation of programmes. We have asked CQU to prepare a paper on options for the internal management of assets. We are contributing to the costs of identifying a practical menu of collaborative, and in some cases shared, administrative services for all the universities in Perth, both to help them find efficiencies and as a demonstration to others of what can be done.

This is not an exhaustive list of our developmental activities but enough of one I trust to give you some understanding of what we are trying to achieve. Looking ahead, there are a number of topics that need to be more thoroughly investigated and appreciated.

First let me return to the topic of graduate flows to the labour market. From what we know, with the possible exceptions of computing, education and health professionals in some regions, there appear to be few instances of long-term shortages of people with professional skills. We appear to be broadly meeting the higher skills requirements of jobs associated with the developing knowledge economy. Indeed the Workforce 2005 report projected that other occupations which have not till now had many degree qualified workers would see their workforces' skill levels increase. This forecast has been confirmed by more recent work which indicates that since 1989 the occupational destinations of graduates have been shifting. While professional occupations remain the major employment destinations for most recent graduates there are many graduates, particularly those from less vocational-specific fields of study taking up non-traditional employment opportunities.

An issue worthy of consideration is the extent to which the employment of higher education graduates in these non-traditional occupations is changing the nature of work in those occupations? Are higher education graduates professionalising those areas? Are skill levels increasing? Or are employers raising the educational entry requirements for such occupations for sorting purposes without the entry requirements having strong relevance to the nature of the work? Are higher education graduates under-employed? And are less qualified individuals being pushed into less skilled occupations?

A corollary of the greater occupational dispersion of graduates is that higher education institutions will need to give greater attention to the nature of the education delivered in terms of graduate learning outcomes. It will not be sufficient for either professors or employers to be broadly satisfied with field-specific knowledge and skills, as for many graduates these will not be their main fields of employment. The balance of breadth and depth in the undergraduate curriculum may need to be reconsidered, especially as a foundation for continuous learning throughout life.

It is also interesting to observe in this context, that over a decade of far-reaching changes in employment by industry and occupation, and in the structure and content of work, that the shares of undergraduate student enrolment by field of study have changed only slightly. In 1989 the Humanities, Social Sciences and Sciences represented 11.9%, 12.4% and 11.6% respectively and their corresponding shares for 1998 were 11.5%, 12.8% and 11.8%. Engineering's share rose slightly from 5.0% to 5.6% over the period, the health sciences stayed at 8.4%. The main increase was in Business and Economics, up from 14.9% to 16.5%. Law interestingly fell from 5.0% to 4.5%, though Justice and Legal Studies rose by 1 percentage point to 1.3%. Education fell from 9.8% to 7.5%. And, curiously, mathematics and computing fell from 6.3% to 4.6%. How do we account for this pattern of enrolments? How responsive is it student preferences and labour market requirements? Or does it more reflect provider interest and capacity than customer choice?

Some have suggested that inadequate preparation of university graduates for the world of work lies behind their greater rates of transfer to the VET sector than is occurring from VET to higher education. I am not aware that the patterns, causes and motivations for these movements have been analysed yet; they need to be. There is considerable action more broadly both ways on the cross-sectoral front and a wide agenda of policy issues and research topics opens up.

In some States there are multi-sector institutions. In others there are multi-sector precincts or campuses of single-sector institutions. In several States there are shared open learning centres. Various institutions are developing joint awards. Others are developing articulation agreements. And some are allowing some credit transfer. The range of cooperation arrangements varies in structure and possibly in efficiency and effectiveness. Some case studies are in train to take stock of the experiences and draw lessons about what works and why.

Similarly, there is wide and increasing use of information and communications technology in teaching and learning. The technologies are rapidly expanding in capacity and user friendliness and would appear to have immense potential to transform educational processes and organisational arrangements. Our understanding of this potential, its costs and risks, needs also to be rapidly expanded. This is but one further example of developments in knowledge that make it necessary for policy to be informed from a variety of sources and for cooperative networks like yours to have an active role.