Articles

Diversity and convergence in Australian higher education

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Questions of diversity between higher education institutions, and the other side of the coin which is convergence between institutions (sameness, homogeneity), are tricky but important. Diversity and its absence are difficult to define and measure. Yet they shape the potential of the student experience, and the limits of innovation in research and teaching.

In an era in which student-centred learning has been foregrounded, the question of the range of educational choices should be of central interest to policy makers. The conventional view is that following the deregulation of missions and course mix, now determined by universities themselves, and with the growing role of market mechanisms such as tuition fees and competition, institutions are being rendered 'naturally' responsive to students. Diverse student needs will become matched by diversity in provision, so that over time a greater variety of higher education will emerge. As Meek and Wood put it:

> *Every official statement on higher education since the Green Paper has stressed the need for a more diverse and responsive set of higher education institutions. Competition in a deregulated environment is seen as a key factor in accomplishing this goal, and the commitment to competition has not changed even if the government has.*[1]

The assumption that market deregulation is automatically associated with greater educational variety and choice is supported in some of the academic literature.[2] But has it really happened? There is also the question of the end of the binary system, which is still discussed a decade later. Has the abolition of the colleges of advanced education led to more diversity, or less? Where are we heading now: towards greater diversity between institutions, or less? What kinds of diversity are desirable? What kinds should disappear?

To answer these questions requires a method which is at the same time conceptually rigorous, data-based, and policy-based. We need to define what we mean by diversity, recognising there is more than one kind of diversity at stake. We need to make judgements about which kinds of diversity are desired. And we need a statistical fix on the variations between and within institutions in the present, and trends in those variations over time.

There has been little solid research on these topics in Australia. Rhetoric about diversity is abundant, especially in university marketing departments of individual universities, which all claim that *their* institution is unique - while at the same time assuring prospective students that their institution can do everything that its competitors do, only better! But individual universities rarely support system-level research. Where they do gather data on the broader picture, it mostly takes the form of targeted bench-marking exercises centred not on the system as a whole but the interests of the institution concerned: that is, research that is Pre-Copernican rather than Copernican in outlook, as if the system revolves around themselves. Such an approach to research is consistent with the dominance of the marketing outlook.

Nevertheless, there have been two recent studies of diversity in Australian higher education conducted from a system vantage point, both financed by the Higher Education Division of the Commonwealth Department of Education, Training and Youth Affairs (DETYA).[3] Governments have biases, too, but is to the credit of the Higher Education Division that it benefits from reflective research on the sector, and commissions academic studies which raise sometimes uncomfortable issues. (How much of this research actually informs Howard/Kemp Government policy is a moot point, but that is another story).[4]

This article begins by assessing the two recent DETYA-financed studies of diversity, and then takes the issues

further. First, it examines definitions of inter-institutional diversity and convergence, and the purposes of diversity. Second, it theorises the dynamics of trends to diversity and sameness. Third, it briefly examines some data on diversity in Australian higher education, and reaches tentative judgements about the main trends.

The focus in this article is on inter-institutional diversity, rather than diversity within institutions or across different fields of study. Recent policy attention has been focused on change in system organisation and at the institutional level. The research study from which this article was drawn was focused explicitly on institution-level analysis.[5] A focus on trends in diversity within institutions might reach different conclusions. For example, are the growing differences in the financing arrangements governing the student experience – HECS places, various scholarships, part fees, full fees – associated with differences in educational services? The question is interesting, but outside the boundaries of this article.

Data on diversity

DETYA's *The characteristics and performance of higher education institutions* (1998) is mostly about 'characteristics' rather than 'performance'. It is in two parts. First, it compares 40 different funded institutions or parts thereof,[6] drawing on the annual DETYA-produced statistics and the Graduate Careers Council surveys to list student numbers, ages, forms of enrolment, discipline spread, characteristics of staff, sources of financing, research outcomes, institutional assets, and so on. Performance measures include research funding, retention and completion rates, employment rates, starting salaries and student satisfaction as measured in the Course Experience Questionnaire. Though the data are all available elsewhere, compiled in a succession of single indicator tables of all institutions, in ladder format, they make compelling reading, albeit individualistic in form. The reader tends to spot for her or his own institution: the overall picture is not so clear.

The other part of the DETYA study is less satisfactory. It is a prolonged attempt to develop a system-level overview of diversity and convergence by isolating different groupings of institutions according to type, such as strong research universities, internationally-focused universities and so on. Unfortunately, it uses solely statistical techniques with no discussion of the dynamics of diversity. In the absence of any history or sociology of the system or its institutions, the method is still-born, explaining nothing, but it does help us to identify certain institutions which do not fit the most common models.

For example, there is a small group of institutions with a pronounced skew to external enrolments, including New England, Deakin, Southern Cross, Charles Sturt, Central Queensland and Southern Queensland. These institutions also tend to have high student-staff ratios, high proportions of non-school leaver entrants and relatively weak research (though UNE is stronger in research than the others). Taken together these are signs of a mode of provision distinct from the comprehensive metropolitan research universities.

The data also spotlight the unique characteristics of the ANU, due to the presence of its large research-focused Institute of Advanced Studies; and the multiple nature of Monash, spread between more institutional types than other universities. Monash is at one and the same time a research university, a school-leaver university, a regionally-based multi-campus university with a large mature-age component, a globalised university with the only Australian university off-shore campus (Kuala Lumpur), and a distance specialist.

The second study, by University of New England scholars Meek and Wood (1998), is one of the more insightful papers on Australian universities since the Dawkins reforms. It does not completely nail the difficult problem of diversity. Meek and Wood are stronger on the international academic literature than in their empirical study of the Australian system, and they duck the question of hierarchy between institutions, a salient aspect of diversity. Nevertheless, their study is a fine basis for further research, and should be widely read.

Meek and Wood begin with a discussion of definitions and concepts of diversity, and a review of trends in Australian higher education policy. In their second section questions of diversity and competition are examined from differing perspectives by Jill Maling and Bruce Keepes, Peter Karmel, Russel Blackford of the Australian Higher Education Industry Association, and myself. Space prevents a discussion of these papers but it is worth looking at Karmel's. He makes his now predictable case for a voucher system, and fails to confront those arguments which suggest that markets encourage convergence rather than diversity – a view prominent in some European literature on higher education[7] - but on the way he makes some sharp, insightful comments about the dynamics of diversity.

After the contributed papers Meek and Wood examine statistical variation between institutions, including fields of study, mode and type of attendance, course type, forms of user charges, and access of under-represented groups; and review case study material from three institutions: Macquarie, Southern Cross and the University of South Australia. They consider the management of diversity/convergence in relation to responses to the external environment, in the internal ordering of institutions, and in teaching, research and the organisation of academic units. The concluding section returns to policy questions.

The conclusion is less than conclusive. The authors are sceptical about the claims made about market reform

and diversity, especially regulated reforms in which mechanisms such as Quality Assurance tend to encourage convergence not diversity. They leave an opening to the claim that a 'true' (i.e. unregulated) economic market in higher education *would* stimulate greater diversity, but provide neither a theorisation nor empirical evidence to substantiate this. In relation to sectoral differences, they rightly note that a return to the binary system would be absurd, while leaning to the argument that governments can encourage diversity between institutions by creating different institutional environments, for example through funding policies. However, there is little discussion of TAFE or of cross-sectoral issues, though TAFE is the key example of an environment different to universities.

Definitions of diversity

Nevertheless, the benefits of the Meek and Wood study lie not so much in the unsatisfying conclusion to the journey, as in the journey itself. Their careful scholarship pays dividends in an excellent discussion of concepts of diversity. Adapting from that discussion, and from other work,[8] we can understand the relevant terms as follows:

- *diversity*: variety of types, the presence of different types
- *horizontal diversity*: differences with no necessary implications for status/resource ranking
- *vertical diversity*: distinctions of rank between institutions (or between fields of study within institutions)
- *systemic diversity*: different types of institution within the one system, for example universities and CAEs in pre-1988 Australia, or in America the doctoral universities, four year colleges and community colleges
- *programmatic diversity*: variety in programs or services, whether between institutions or within an institution
- *differentiation*: the emergence of a number of parts which taken together form a unified whole
- *market differentiation*: the effects of market competition in creating vertical diversity

Equally important is the other side of the coin – the tendency to convergence between institutions, the decline of variety and difference. The key concept here is 'isomorphism':

- *isomorphism*: imitating behaviour, the mimicking of one institution (or program) by another institution (or program)

Desirability of diversity

Though people speak about diversity in higher education as if it is an unambiguous good, like 'freedom' with which it is often identified, by no means all forms of diversity between institutions are desirable. An argument for greater diversity needs to be carefully grounded. Some forms of isomorphism are almost universally supported, such as the spread of rights of access to education, certain kinds of financial accountability, a greater transparency in management and governance, and at least minimum standards in teaching and research.

As noted, one argument for diversity is that students have diverse needs, and a diverse set of providers can better match those needs. This argument is often displaced to another: students have varying abilities and a system with different levels of institution can better match those abilities to the map of provision. We should be wary of assumptions that different students have different potentials. Not only can different student needs be catered for within the same institution, rather than serving as a basis for system ordering, measures of static 'ability' tend to correlate closely to prior social inequalities. In this context, an argument for a hierarchy of provision is all too neatly fitted to existing social inequalities, and becomes in effect an argument for replicating and reproducing those same inequalities.

In meta-level policy circles such as the OECD and the World Bank, the American system, with its range of institutions – doctoral universities with their differences in wealth and prestige, four year colleges, community colleges - is held to be a model of inter-institutional diversity. It is argued that a system in which marked differences in functions, costs and prestige are joined to mechanisms for upward movement provides for broader opportunities, while also sustaining the quality of elite institutions. However, the argument is weaker than its frequency of presentation suggests. Though upward movement occurs, not many students pass from bottom to top, and a hierarchy of institutions does not really expand choice. Few have the money or marks to 'choose' elite institutions, while the wealthy and successful are unlikely to choose low status alternatives. In such a system the quality of the elite institutions and the educational advantages enjoyed by their clients are secured specifically by subordinating other institutions and their clients.

This is how markets normally function. Yet there are other options. In Australia in the years 1960-1990, the non-market era in which most of the local system was built, it was a basic assumption of policy that *all* universities should be world-class doctoral universities. This did not diminish the leading institutions, at least until public money began to decline.

Another and stronger argument for diversity associates variety between institutions not with differences in their funding system, cost, accessibility or prestige, but with differences in the educational and research programs themselves, and in the organisational settings in which higher education is provided. This kind of diversity is associated with a spirit of self-confidence and originality. Karmel refers to 'the desirability of escaping from the straight-jacket of uniformity so that progress can be achieved through experimentation, change and the adoption of successful practice' (p. 46).[9] The significant factors here are an institution's mission, values and goals, the kind of cultural climate and human relationships that it fosters, and its strategies in course provision, services and research development.

This kind of diversity, focused on educational benefits, has more policy beef than the others. One danger of institutional isomorphism, whereby universities move towards a common model of good practice drawn from the management textbook, or Ivy League academic practice, is that it can suppress the capacity for educational variety and creativity.

Dynamics of diversity

In the academic literature on diversity in higher education, debate at the meta-theoretical level is divided between those who argue that the dominant tendency is towards increased diversity, and those who focus on homogenisation and mimicking. Levy rightly urges us to be open-minded and case-by-case in approach, focusing on the empirical data:

> *The balance between isomorphism and diversity depends largely on where we look. But the conclusion here is not that the isomorphism-diversity dichotomy is pointless, much less that isomorphism reigns. What is required in the face of the coincidence of isomorphism and diversity, of a complex and evolving mix of these broad and consequential tendencies, is that we identify the conditions under which each gains strength and that we try to understand those conditions as much as possible.*[10]

The present environment has potential for both greater diversity and greater sameness. Globalisation brings universities into contact with a wider variety of higher education and foregrounds cultural diversity, which is increasingly important in creating variety. At the same time, in the context of market competition, globalisation strengthens the power of a small number of institutional models drawn from the peak Anglo-American universities, and global agencies such as OECD and the IMF are encouraging national systems to imitate the American system. More generally, globalisation is associated with the spread of a world-wide culture of the form in which other institutions with different traditions, such as hospitals and churches and universities, are adopting common corporate practices.

Governments can create variation through systemic diversity and by deliberately funding experiment and variety. Or they can encourage convergence between institutions, through such mechanisms as the relative funding model, competitive bidding for funds, quality assurance, fee systems, standardised measures of research activity, and reports such as Hoare (1995) and West (1998) which expect universities to behave like corporations. On the whole, it has been the standardising face of government that has been uppermost in recent years, but policy could readily move in the reverse direction.

Markets also have contrary potentials. They can facilitate small specialised institutions and niche courses, providing the framework of regulation permits. At the same time, competition is a powerful driver of isomorphism at every level. For example, international marketing encourages convergence around a small number of standard courses.

Nevertheless, it is important to recognise that though markets have contrary potential, unregulated markets' potential for diversity is *not symmetrical* with their potential for sameness. There is an exciting range of possible alternatives that could be provided in higher education, but are excluded by the economic bottom line which dictates only proven risks and saleable goods are acceptable, and tends to empty out quality along with cost. Given this, it is the homogenising aspect of markets that is more important. Another way to state it is that markets encourage convergence between producers overall, while multiplying the variations within a narrowing range of market-viable activity. Above all, market competition is strongly associated with isomorphism in management strategy. Karmel notes that in a competitive system there is an *inherent* incentive to imitate:

> *There is another factor that can work against differentiation in spite of autonomy. It is the tendency for institutions to copy other (especially neighbouring) institutions. There are a number of examples of duplication of specialist programs unrelated to the demand for their products on the principle of 'anything you can do, I can do better'. This tendency is exacerbated when there is keen competition among institutions, particularly for students. It is a force against diversity… In this situation some degree of central regulation may, perhaps surprisingly, be the best means of preserving a degree of diversity.*[11]

It is a crucial insight into competitive behaviour. Competition involves 'othering', yet in a process of mutual convergence the 'other' becomes more like the self. Indeed, the game logic of competition demands this. If institutions were sufficiently different to each

other that their diverse missions, profiles and outcomes could scarcely be compared, competition would become meaningless. Since the 1988 White Paper government has set out to shape higher education in Australia as a system-managed competition. Such a competition is impossible unless a certain level of sameness is factored in from the start. Karmel draws attention to the way this level of sameness tends to grow over time.

Isomorphism is academic as well as managerial. The status of key scholars and leading departments sustains world-wide imitating behaviour. Sometimes the leading institutions are on the cutting edge, sometimes not, but their example always matters. In the Sandstone universities, academic and managerial isomorphism tend to reinforce each other, producing that odd combination of cautious creativity, in which Sandstone control over the definition of innovation is combined with the guarding of Sandstone reputation.

On the face of it, it might seem surprising that new universities do not attempt something radically different, for example in research. There is no real prospect that the adoption of isomorphistic strategies can overcome their historic disadvantages. Why then do new universities use imitating strategies? It is because in a market, emulation, rather than originality, is the quicker route to legitimacy and to a limited kind of success. When allocating scarce resources to investment in new research programs, the Unitechs and the New Universities are constrained by the quantum formula for maximising outcomes, which privileges the dominant applied science-based approaches to organising research activity, and peer-driven isomorphism in the assessment of proposals for ARC grants.

Where new universities do attempt to develop niches, the need to minimise the width of the band of risk encourages voluntary conformism in other areas. They 'copy in all ways other than the particularly distinguishing one' as Levy puts it.[12] It is not that competition inhibits *all* forms of innovation in universities. Rather, innovation safe within the terms of market competition is encouraged, while more far-reaching innovations in education and research are not. New competitors find it hard to change the rules of the game.

Above all, isomorphism is about reducing uncertainty in a competitive situation. By adopting the same innovations as competitor universities, isomorphs ensure that even if those strategies fail, the relative (competitive) position of the institution will not decline.

Yet isomorphism is not something that universities confess to. As noted, university officers and marketing departments always talk about being 'distinctive and innovative'. The two strategic imperatives of marketing taken together – the drive to maximise total market share, and the drive to differentiate from competitors – readily lead to aggressive image-making that is combined with educational conformity.[13] At worst, *all* innovation becomes concentrated in periodic 'reinventions' of the university by the marketing department, and that department secures a veto power over educational initiatives.

Has diversity increased?

What are the main forms of diversity between higher education institutions in Australia? Has diversity increased or decreased since the abolition of the binary system?

In examining the answers, reference will be made to the categorisation of institutions in Table 1, based in historical distinctions. The Sandstones are the oldest universities in each State, founded before world war one. The Redbricks were created in the 'second wave' after world war two, and grew quickly to become as strong, or nearly as strong, as the Sandstones. The Gumtrees began between 1960 and 1975. The Unitechs grew out of the large institutes of technology. The New Universities were also founded in the last decade. (The categories were discussed in a previous *Australian Universities' Review*).[14]

Diversity between institutions will now be briefly examined in nine areas: institutional size and type, the character of the student catchment, mode of enrolment, mode of entry and other aspects of the composition of the student body, field of study provision, research higher degrees, research funding, incomes and assets, and education and research.

In terms of **institutional size and type**, Australia has a system that by world standards is relatively uniform in character. The private sector remains weak and very small overall, enrolling less than 1 per cent of students. With the exception of a handful of specialised institutions, all higher education is provided in comprehensive public doctoral universities in the size range 4,000-40,000 students. There are no mega-institutions of 100,000 or more like some American universities, and no undergraduate only institutions. There are no great distance education or broadcast providers such as the 157,000-strong UK Open University or the 530,000 strong China TV University System.[15] There is less diversity than before 1987 when there were 19 universities funded for research, and 46 colleges of advanced education with very varied sizes and functions. There are no longer specialised media, arts and agricultural institutions (except for the publicly funded private Marcus Oldham Farm Management College), and most smaller universities would grow larger if they could. While systemic diversity has declined, diversity *within* institutions has risen. Though the focused intimacy of small institutions is missing, in a unitary sector of relatively large institutions many students have a wider range of courses and subjects to choose from.

Table 1 Australian Universities by Segment				
Sandstones	**Redbricks**	**Unitechs**	**Gumtrees**	**New Universities**
U. Sydney	***Aust. National U.***	UT. Sydney	***U. New England ****	U. West. Sydney
U. Melbourne	U. NSW	RMIT	Macquarie U.	Charles Sturt U.
U. Queensland	Monash U.	Queensland UT	U. Newcastle	Southern Cross U
U. West Australia		Curtin UT	U. Wollongong	Victoria UT
U. Adelaide		U. South Australia	La Trobe U.	Swinburne UT
U. Tasmania			***Deakin U.***	U. Ballarat
			Griffith U.	Central Qld U.
			James Cook U.	U. Southern Qld
			Murdoch U	Sunshine Coast
			Flinders U.	Edith Cowan U.
				U. Canberra
				Nthn Territory U.
				Batchelor College.
				Aust Catholic U.

U indicates University of, UT indicates University of Technology. RMIT means Royal Melbourne Institute of Technology. Bold italics indicates universities that do not share all characteristics of others in the group.

* the University of New England was founded in 1954, pre-dating Monash, but was not given a Medical faculty and has always been confined by its regional role. It shares some characteristics with the older Gumtrees, some with regional New Universities, and some with other distance education specialists.

In terms of **student catchment area**, there is considerable variation. Sandstones and Redbricks lead the competition for well qualified school-leavers in each State/Territory, and some such as Melbourne are developing a larger national role. Unitechs and some Gumtrees take in most of the rest. While the Sandstones, Redbricks, Unitechs and certain Gumtrees have metropolitan-wide and State-wide catchments, others are strongly regional, including James Cook, Central and Southern Queensland, Sunshine Coast, Southern Cross, New England, Newcastle, Charles Sturt, Wollongong, and Ballarat. Deakin, La Trobe and Monash include a regional campus within a larger State-oriented network.

Related to the question of catchment is diversity in the **mode of enrolment** (full-time, part-time, external) and in the **age and prior qualifications** of the student body. Here there is considerable variation, as there was before 1988. The New Universities, Unitechs and some Gumtrees depend on their capacity to attract students other than school leavers, including entrants from TAFE, older students, and students in full-time work upgrading qualifications. For example in 1997, 75 per cent of all Bachelor-level entrants to the University of Western Australia were school leavers, but only 20 per cent of Bachelor-level entrants to Southern Cross were in this category. Only 1 per cent of Bachelor-level entrants to Melbourne, Adelaide and ANU were from TAFE, but 18 per cent at Edith Cowan and 14 per cent at the University of Technology in Sydney, and Charles Sturt.

Post-1987 universities tend to have more part-time students. In 1997 18 per cent of UWA's students were internal part-time, whereas 46 per cent of UTS's students were in this category. As noted, some institutions specialise in distance education: except for Deakin and New England, these are post-1987 universities. While at nine universities less than 1 per cent of students were external, 72 per cent at UNE, 70 per cent at Southern Queensland, 68 per cent at Charles Sturt and 51 per cent at Central Queensland were externals.[16] Space does not permit a full discussion of these variations, but Table 2 contains data on the proportion of Bachelor-level entrants from TAFE, and the proportion of all students enrolled in external mode.

Has inter-institutional diversity in catchments, and student composition of the student body, increased or decreased since 1988? Diversity between institutional types is decreasing. The smaller CAEs were often more localised and specialised than any present universities. At the same time, the growing proportions of students aged over 30 years, and from TAFE, and the slowly improving rates of participation in regions outside the main cities, suggest that another kind of diversity - diversity in routes of access - has grown.

In terms of **fields of study**, the main post-binary tendency is again convergence. The new universities have duplicated the comprehensive approach of the pre-1987 universites, while the Gumtrees have extended in Law and Engineering. Most universities now offer Law, and MBA programs are now almost universally available. One vital form of diversity remains: the distinction between Medicine universities and non-Medicine universities (Table 2). Universities with Medical faculties are strongly placed players. Not only does Medicine attract both highest scoring school leavers, and public support, it is well funded, and Biomedicine and Biotechnology have immense commercial potential. There has been no increase in Medical faculties since 1987, but the recent budget provided for new medical places at James Cook University at Cairns, and Charles Sturt at Wagga Wagga.

In terms of **level of study**, there has been a particularly rapid growth of research higher degree enrolments in the post-1987 institutions (albeit from a small base) indicating another tendency to convergence. Despite this, inter-institutional diversity in the extent of research activities, and in **income from research activities**, remains very marked. While all institutions are now eligible for research funding, most of that funding is distributed on a competitive basis, and dominated by already research-strong institutions. Research performance is a primary determinant of the vertical differentiation between Australian universities. Along with accumulated assets, and patterns of school-leaver preference, it is the means whereby Sandstones and Redbricks sustain a leading position. Table 2 shows that at the University of Queensland, 24 per cent of all income in 1996 was from research activities, whereas the corresponding figure at Deakin, Charles Sturt and Edith Cowan was 2 per cent. At the University of Western Australia 11 per cent of all government operating funds were generated by the research quantum compared to 1 per cent at Southern Cross and Central Queensland. Institutions with the strongest academic research performance as measured by the quantum tend to be strongest also in attracting commercial research funding.[17]

DETYA also provides data on diversity in **incomes and assets**. In 1996 the proportion of all income derived from student fees and other charges for services varied from a high of 19 per cent at UNSW to 6 per cent at Newcastle. The proportion of income from uncontested private sources (property, investments, donations, endowments and bequests) varied from 29 per cent at UWA to 5 per cent at James Cook. The level of non-current assets varied from almost $2.5 billion at Sydney to less than $100 million at Southern Cross. These variations in uncontested private incomes and non-current assets signify the extent to which an institution is financially independent of government and market forces. They tell us much about its capacity to shape its own identity and destiny.

What about diversity in **teaching and research**, educational diversity?[18] While the integration of advanced education into a unitary sector diminished the binary diversity in course content and pedagogies, and spread the research role, more subtle trends elude us. Not since the Commonwealth-financed discipline reviews of the 1980s has there been a close look at diversity between institutions in pedagogies, course coverage and values. In the DETYA data it is difficult to discern trends at the level of academic discipline, in educational diversity and in the relationship between institutional diversity/isomorphism and educational diversity/isomorphism.[19] To explore these issues a more fine-grained analysis is necessary. Here the most useful research tools are qualitative, not quantitative. The discipline reviews were grounded in interviews and document analysis. More such research is needed in order to illuminate the all-important trends in educational diversity.

It is likely that educational diversity has decreased. A recent study of governance and organisational cultures in Australian universities unearthed strong indirect evidence of increasing isomorphism in educational programs and research practices.[20]

Diversity and hierarchy

The main form of institutional diversity in Australian higher education is in fact the vertical differentiation of the system into the categories listed in Table 1: Sandstones, Redbricks, Unitechs, Gumtrees and New Universities. In all of the forms of diversity that have been discussed so far, the role of this institutional hierarchy is very apparent. This is no horizontal division of labour, no situation in which diversity expresses notions of 'equal but different', it is a system premised on dominance/subordination. The Sandstones and Redbricks outcompete the other universities in the competition for school leavers and research grants. Other universities would take over those roles if they could.

The Sandstones and Redbricks all have Medical faculties, and are consistently strong relative to other institutions not only in high scoring school-leavers but in their proportion of students enrolled at higher degree level, in their level of research income, in their level of private

Table 2: Diversity between higher education institutions: some indicators

University	Medicine faculty or research school	Proportion of all Bachelor-level entrants from TAFE 1997	Proportion of all students in distance education 1997	Research students as a proportion of all students 1997	Research income as a proportion of total income 1996	Uncontested private income as a proportion of total income 1996
		%	%	%	%	%
Sydney	YES	2	3	11	15	22
Melbourne	YES	1	2	9	23	12
Queensland	YES	3	4	11	24	10
Western Australia	YES	1	0	10	23	29
Adelaide	YES	1	4	10	24	15
Tasmania	YES	7	3	6	14	6
Aust. National	YES	1	0	11	50	20
New South Wales	YES	2	8	8	20	13
Monash	YES	8	16	7	14	15
UT., Sydney	NO	14	0	3	5	14
RMIT.	NO	10	2	5	6	8
Qld. UT	NO	8	7	3	5	7
Curtin UT	NO	11	7	4	7	11
South Australia	NO	7	14	3	7	12
New England	NO	5	72	6	12	5
Macquarie	NO	4	9	5	15	10
Newcastle	YES	5	3	4	14	16
Wollongong	NO	7	3	7	12	8
La Trobe	NO	3	0	6	9	13
Deakin	NO	5	38	2	2	10
Griffith	NO	6	4	4	8	6
James Cook	NO*	4	6	8	10	5
Murdoch	NO	6	15	7	13	6
Flinders	YES	3	7	5	22	11
West. Sydney	NO	5	3	3	3	11
Charles Sturt	NO*	14	68	1	2	24
Southern Cross	NO	10	46	2	3	4
Victoria UT	NO	8	0	3	4	11
Swinburne UT	NO	19	0	3	5	4
Ballarat	NO	3	0	1	3	3
Central Qld.	NO	9	51	2	3	12
Southern Qld.	NO	5	70	1	3	14
Sunshine Coast	NO	n.a.	n.a.	n.a.	n.a.	n.a.
Edith Cowan	NO	18	18	3	2	12
Canberra	NO	9	0	3	7	10
Nthn. Territory	NO	13	11	4	10	9
Batchelor Coll.	NO	n.a.	0	0	n.a.	9
Aust. Catholic	NO	4	4	1	1	4
AUSTRALIA	n.a.	7	13	5	14	13

In the 1999 Federal budget medical places were allocated to James Cook University at Cairns, and Charles Sturt at Wagga Wagga. n.a. means data not available. Non-contested private income includes donations, bequests and income from university properties and assets.

Source: DETYA, The characteristics and performance of higher education institutions, 1998

money, and in their assets. The Sandstones have few students from TAFE and less adult part-timers than other institutions, and no significant role in distance education.

The Unitechs maintain a special role in continuing and vocational education, with a high number of mature age, part-time and working students. The Unitechs are not strong in research. The Gumtrees have an intermediate role. They work hard to sustain research - where all Gumtrees except Deakin outperform the post-1987 universities, and Flinders and Newcastle benefit from Medical faculties – while some have developed distance education. There is more entry from TAFE than takes place in the Sandstones. The New Universities struggle for a research role. Postgraduate research numbers remain relatively small and research income is low. They are building student numbers in the areas of emerging participation, such as regions and TAFE-leavers. Four of them are major distance education specialists and two more have a significant level of distance enrolment.

Have these differences hardened into a genuine division of labour, as in the days of the binary system? Not really. Some Unitechs and the New Universities appear to emphasise the vocational utility of qualifications, or student-centredness in delivery, contrasting with the traditional academic university. However the real distinctions are usually less than the marketing ones. Sandstones draw school leavers not so much because they are research institutions but because the distinction associated with attending a Sandstone (including its image as a research university) provide a head start in the labour markets. Utilitarianism is strong across the whole higher education system, as the DETYA study notes.[21] Meek and O'Neil remark that though the universities created out of the CAE sector often present as if they are 'more geared to the demands of industry and serve a student clientele having more vocational and applied interests', 'there is little available evidence to demonstrate that courses and students are as different as they are made out to be'.[22]

In this context claims about vocational utility and a special orientation to continuing education are often little more than a *post hoc* rationalisation of a secondary competitive position. There is no evidence to suggest that mature age students, working students or leavers from TAFE see the Unitechs and New Universities as intrinsically more desirable than the Sandstones. They are enrolled in the Unitechs and the New Universities because it is those institutions that (rightly) have provided access to them. The match between institution and students is a function not of niche provision, in which specialist courses match to particular needs, but of the unequal workings of supply and demand within a common system-wide competition. Vertical differentiation remains the dominant element.

Everyone in Australian higher education knows that this vertical differentiation of universities is important, and that it drives both the patterns of diversity and the patterns of imitation, the tendency to ape the leading models. Yet policy makers are bound by a peculiar form of tokenism in which all universities are treated as formal equals. They are unwilling to challenge the social power of the Sandstones (where most of the policy elite is itself educated), and are chronically unable to address questions of power and domination/subordination in any governmental sites. They do not acknowledge vertical differentiation. Perhaps this is why Meek and Wood's DETYA-financed study avoids it too. This weakens their analytical hold on the problem of diversity, and is one reason why their findings are inconclusive. Unless the roots of existing diversity/isomorphism are acknowledged, it is not possible to develop clear-minded policies to increase horizontal diversity.

At the same time, not every form of inter-institutional diversity is tied to hierarchy and dominated by the Sandstones. In the last decade Australian universities have developed a number of strategies for changing their mission and their educational activities, so as to enter emerging fields of activity and gain a competitive advantage over other institutions. Here the Redbricks and the New Universities have often been more adventurous than the others. One such area of diversity, already noted, is specialisation as a distance education provider. Distance learning and flexible delivery have a growing potential because of the emergence of on-line courses and inter-university global collaboration. While the Sandstones neglect it, the role in distance education cuts across the other categories, embracing Gumtrees, New Universities and the Redbrick Monash at Gippsland.

Distance education is only one such avenue of upward mobility. These various forms of diversity that have been deliberately designed to lift an institution's competitive position are examined, in detail, in the study noted above.[23] The squeeze on recurrent funding, reduces academic potential and makes it more difficult to sustain such strategies. Nonetheless, they are an important exception to the overall pattern of vertical differentiation.

Diversity and the market

Compared to 1988, the pattern is one of a more diverse student body able to experience a wider range of activities within larger, more diverse institutions, but in institutions more standardised. The abolition of the binary system, and the creation of a common template of the large comprehensive managed university, were designed to achieve just that.

It would be interesting to conduct a detailed comparison of diversity before and after the watershed year of

Table 3 Research income by category of institution, 1990s

Institutional grouping, number of institutions	Proportion of all funds provided specifically for research purposes *			Proportion of total research quantum	
	1992	1994	1996	1995	1999
	%	%	%	%	%
Sandstones (6)	52.5	44.7	46.7	50.4	48.2
Redbricks (2) **	18.1	21.0	18.0	19.4	17.8
Unitechs (5)	6.6	6.9	8.8	6.8	8.1
Gumtrees (10)	19.8	22.7	22.2	20.6	20.7
New Universities (14)	3.0	4.8	4.3	2.8	5.2
Total (37)	100.0	100.0	100.0	100.0	00.0

* excludes that proportion of recurrent funding that in the DETYA data is notionally allocated to research activities.
** excludes Australian National University.
Source: DETYA, Selected higher education research expenditure statistics, DETYA, Canberra.

1988. This would throw some light on the respective roles of the state, and quasi-market competition, in relation to diversity and isomorphism. For example, it might be argued that the centrally planned binary system of 1965-1988 was associated with greater systemic diversity than today's system. There was restraint on isomorphism across the binary divide, though this restraint partly broke down when the CAEs broadened their course mix and entered degree programs on a larger scale. At the same time, binary diversity was achieved at the price of a narrower set of study options, especially in the CAE sector, and a more limited range of functions in the traditional universities. But additional data would be required to test these hypotheses in detail.

What of more recent trends, since 1988? Do we have data confirming that the growth of inter-institutional competition is associated with diversification? Or convergence?

The system settings suggest a trend to market-generated inequalities. In 1997 only 54 per cent of institutional revenues were from Commonwealth grants, compared to 87 per cent in 1986. The Higher Education Contribution Scheme (HECS) provided 15 per cent, and fees and charges another 15 per cent.[24] One would expect the strongest institutions to be best placed to compete for these private sources of income. However, not all business activities are captured by the DETYA data. It is difficult to discern trends by category.

One area where the data are stronger is research incomes. DETYA shows that between 1992 and 1994, the proportion of total research incomes received by the Sandstone universities declined, and that of the Redbricks, Gumtrees and New Universities improved. Perhaps this was an effect of greater reliance on competitive systems, allowing academic merit in the Redbricks and Gumtrees to be expressed, and official support for generalising the research role. However, from 1994 to 1996 there was a reverse movement: an increase in the Sandstone and Unitech share of research incomes, decline in the Redbricks, and a lesser decline in the Gumtrees and New Universities. Table 3 sets out these trends.

Table 3 also compares the distribution of the research quantum in 1995 and 1999, by category of university. The position of the Unitechs and the New Universities improved, the Sandstones and Redbricks declined, and the Gumtrees showed no change. If anything, this suggests trends to convergence not vertical differentiation. However, note that the dominance of the Sandstones has scarcely altered. Educating 19.8 per cent of all students in 1998, they were allocated 48.2 per cent of the research quantum for 1999. A decade of research development in the 19 post-1987 universities has made little difference. The New Universities are still minor players. Overall there has been little closing of the gap between research strong and research weak institutions, especially in relation to research quantum, the most powerful

measure. The jury is still out, but one suspects that in future research will drive greater vertical diversity in universities' incomes, roles, and reputations.

In the longer term, this combination of a stable hierarchy, a competitive system, and a small number of models of successful institution – Australia has one primary model (the Sandstones with a Redbrick variant) and one secondary model (the Unitechs) – is bad for diversity. As Clark puts it in relation to the US system, 'institutions become variously sorted out on a continuum of degrees of difference'. What he calls 'weak emulating' by newer universities increases the gradient of vertical differentiation.[25] In the UK and Australia relentless government comparisons of quality and research performance reinforce the effect. As Fulton puts it in relation to a similar post-binary outcome in the UK:

> *What is emerging from student selection, from teaching assessment and ... from other indicators as well – and it is confirmed by the composite league table of 'good universities' which several national newspapers now regularly publish – is a single status hierarchy in which all of the main indicators point in the same direction. This is bad news for diversity: it gives great authority to the leading universities to impose their values and practices on the rest of the system, whether deliberately or not; and it renders alternative values and practices distinctly suspect...Far from encouraging diversification, the new unitary structure is serving to underpin the robustness of the pre-existing hierarchy.*[26]

The US system contains a larger variety of models, but the same league table logic takes over within each category: doctoral universities, four year colleges, and so on. The effects of institutional hierarchy and of market forces tend to reinforce each other.

Conclusions

The data suggest significant diversity between Australian universities in a number of respects, such as catchment areas and student composition, income from research, income from private sources, and financial independence. Most of these forms of diversity are closely correlated to the historical segmentation of the Australian system, led by the Sandstone universities. By American standards, Australia has low diversity in institutional size, role and fields of study. By world standards the relative absence of small specialist institutions is unusual and narrows the range of potential student experiences. On the other hand, the pattern of large doctoral universities, all with at least some research activities, ensures significant internal diversity.

Since 1988 higher education has become both more and less institutionally diverse. On one hand ('more') there is the tendency to greater vertical differentiation, at this stage more a plausible hypothesis to be tested than a rock solid trend. Perhaps market forces have so far counter-acted any trend to a 'flatter' system arising from the Dawkins reforms, with the opposing effects cancelling each other out overall. If so inequalities will develop quickly during the next decade, in which market forces are likely to be more dominant. In the past a centralised industrial relations system, with common determination of pay and conditions across the system, has tended to 'flatten out' vertical differentiation. The shift to a more decentralised system - see John O'Brien's article in this *AUR* - might reinforce market differentiation, unless union strategies such as 'pattern bargaining' are successful.

On the other hand ('less') both the state and market forces have encouraged systemic convergence, and have encouraged organisational and academic isomorphism. Canberra has administered a 'one size fits all' approach, and has supported standardised governance and common definitions of academic work. Few would argue for a return to the binary system, and in an emerging global knowledge economy[27] surely none would argue for a return to higher education without research: in fact research activities are now developing apace in TAFE. Nevertheless, policy needs to factor in greater variation in institutional size, and should use targeted subsidies to initiate forms of horizontal diversity.

Market pressures are associated with greater variety in quality, prices and mode of provision, as institutions compete for market share, develop sub-markets and colonise new customers. It seems that expectations of a flowering of creativity in course content, pedagogical innovation and fundamental research inquiry have been disappointed. These forms of creativity depend on long lead times and thus on the security of funding that enables a willingness to take risks. In a managerial environment in which untied public funding is falling as a proportion of total incomes, and isomorphism is uppermost in strategies, the capacity for such innovations has become more restricted.

If so this raise a major question about the move to a competitive market, the guiding principle of the last decade of reforms. Earlier it was argued that there is no evidence that market competition is associated with greater responsiveness to students.[28] In research, the move to markets is associated with a tendency to greater reported quantity of research, but there is no necessary increase in the quality of research.[29] If there is no evidence that market reform is associated with greater educational creativity and diversity, either, we must question just what market reform *does* achieve: that is, aside from a reduction in the level of public spending on higher education, and a convergence with business models.

Footnotes

[1] V. Lynn Meek and Fiona Q. Wood, *Managing higher education diversity in a climate of public sector reform*, Evaluations and Investigations Program, Higher Education Division, DETYA, 98/5, Australian Government Publishing Service, Canberra 1998, p.4.

[2] For example see Burton Clark, 'Diversification of higher education: viability and change' in V. Lynn Meek, Leo Goedegebuure, Osmo Kivinen and Risto Rinne, *The mockers and the mocked: comparative perspectives on differentiation, convergence and diversity in higher education*, Pergamon, Oxford 1996, pp. 16-25.

[3] Meek and Wood, *op cit*; Higher Education Division, Commonwealth Department of Education, Training and Youth Affairs, *The characteristics and performance of higher education institutions*, Occasional Paper, November 1998.

[4] One would like to see Education faculties and specialist centres on higher education carrying out such research, but in contrast with the United States, higher education studies in Australian universities is a small field. Over the last decade DETYA has generated an uneven but substantial body of work on higher education, constituting most of the research conducted on the sector in Australia, though this is not always acknowledged in the academic literature. DETYA-supported research takes the form of both in-house papers, often with a statistical bent, and commissioned studies by academic researchers. Commissioned work varies from papers arguing a policy case, to evaluations of the outcomes of policy changes which accept the terms of policy as given, to critical scholarly studies which raise questions sometimes uncomfortable for government. There are also DETYA's regular statistical series. Much of this body of work, and all recent commissioned studies that have been released, can be downloaded from the DETYA Higher Education Division Web page. See http://www.deetya.gov.au/highered/index.htm

[5] Simon Marginson and Mark Considine, *The Enterprise University: governance, strategy, reinvention* [forthcoming].

[6] Some smaller units such as the Australian Defence Forces Academy are treated as separate, though these are formally part of larger institutions.

[7] For example see contributions by Neave, Fulton and others in Meek at al 1996, *op cit*; and Simon Marginson, *Markets in education*, Allen and Unwin, Sydney, 1997.

[8] Simon Marginson, 'Competition and contestability in Australian higher education: 1987-1997', *Australian Universities' Review,* 40 (1), 1997, pp. 5-14; Simon Marginson, 'Harvards of the Antipodes? Universities in a globalising environment', *Leading and Managing*, 4 (3), 1998, pp. 156-171. The issues will receive more extended treatment, connecting to questions of institutional organisation, leadership, strategy and identity, in Marginson and Considine, *op cit*, chapter 6.

[9] Frans van Vught, 'Isomorphism in higher education? Towards a theory of differentiation and diversity of higher education systems', in Meek et al, 1996, pp. 44-45.

[10] Daniel C. Levy, *Isomorphism in private higher education*, paper prepared for the conference on international private higher education, Boston College, May 1998, p. 29.

[11] Peter Karmel, 'Funding mechanisms, institutional autonomy and diversity', in Meek and Wood 1998, *op cit*, p. 50.

[12] Levy, *op cit,* p. 23.

[13] There is a brilliant account of the positioning strategies of Australian universities in Colin Symes, 'Selling futures: a new image for Australian universities?', *Studies in Higher Education*, 21 (2), 1996, pp. 133-147.

[14] See Marginson, 'Competition and contestability in Australian higher education: 1987-1997', *op cit*. In contrast with the previous article, Table 1 introduces the additional category of 'Redbricks', renames the 'Wannabees' the 'Gumtrees', and moves the University of South Australia from a marginal category into full membership of the Unitechs. For a more extended discussion of all these issues see Marginson and Considine, *op cit*.

[15] Global Alliance Limited, 'Australian higher education in the era of mass customisation', Appendix 11, *Learning for life: Review of higher education financing and policy – a policy discussion paper* (the West Report discussion paper), DETYA, AGPS, Canberra, 1997, p. 21.

[16] DETYA, *op cit*, pp. 19, 92, 101 and 107; DETYA, *Selected higher education statistics 1997*, pp. 25-26.

[17] The composites of the quantum, and the many problems generated in measuring and managing research quantity (and quality) using quantum-type measures, are examined in Marginson and Considine, Chapter 5.

[18] Diversity in organisational design has diminished in Australia. The Gumtree experimentalism in governance and academic field definition that characterised the earlier years of Griffith, Murdoch, La Trobe, Deakin and others has slowly faded and these institutions converged with the Sandstone norm, though not completely. However, diversity in management and governance is another story. For more discussion see Marginson and Considine, *op cit*.

[19] Meek and Wood also stop short of this – see *op cit*, pp. 133 and 194.

[20] Marginson and Considine, *op cit*.

[21] DETYA, *op cit*, p.2.

[22] Meek and O'Neil, "Diversity and differentiation in the Australian unified national system of higher education', in Meek et al, 1996, *op cit*, p. 73.

[23] See Marginson and Considine, *op cit*, especially chapter 6.

[24] DETYA, *Selected higher education finance statistics, 1997*, DETYA, Canberra, December 1998, http://www.deetya.gov.au/highered/statpubs.htm

[25] Clark, *op cit*, pp. 23.

[26] Oliver Fulton (1996), 'Differentiation and diversity in a newly unitary system: the case of the U.K., in Meek et al, 1996', *op cit*, pp. 174-175 and 179.

[27] Peter Sheehan and Greg Tegart (eds.) *Working for the future: technology and employment in the global knowledge economy*, Victoria University Press, Melbourne, 1998.

[28] Marginson, 'Competition and contestability in Australian higher education', *op cit*.

[29] Marginson and Considine, *op cit*, chapter 5.