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Dynamics of national and global competition in higher education

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Abstract. The paper explores the dynamics of competition in higher education. National competition and global competition are distinct, but feed into each other. Higher education produces 'positional goods' (Hirsch 1976) that provide access to social prestige and income-earning. Research universities aim to maximise their status as producers of positional goods. This status is a function of student selectivity plus research performance. At system-level competition bifurcates between exclusivist elite institutions that produce highly value positional goods, where demand always exceeds supply and expansion is constrained to maximise status; and mass institutions (profit and non-profit) characterised by place-filling and expansion. Intermediate universities are differentiated between these poles. In global competition, the networked open information environment has facilitated (1) the emergence of a world-wide positional market of elite US/UK universities; and (2) the rapid development of a commercial mass market led by UK and Australian universities. Global competition is vectored by research capacity. This is dominated by English language, especially US universities, contributing to the pattern of asymmetrical resources and one-way global flows. The paper uses Australia as its example of system segmentation and global/national interface. It closes by reflecting on a more balanced global distribution of capacity.

Keywords: Australia, competition, globalisation, internationalization, markets.

Introduction

Higher education is now situated in an open information environment in which national borders are routinely crossed and identities are continually made and self-made in encounters with diverse others. We can begin to imagine higher education as a single world-wide arrangement: not as a unitary 'global system' but as a more complex combination of (1) global flows and networks of words and ideas, knowledge, finance, and inter-institution dealings; with (2) national higher education systems shaped by history, law, policy and funding; and (3) individual institutions operating at the same time locally, nationally and globally. It is an imperfectly integrated arrangement, characterised by uneven and changing patterns of engagement and communication; many zones of autonomy and

separation; and stable and unstable hierarchies. Relationships are structured by cooperation and competition; and there are fecund mutual influences, doggedly persistent differences, and often surprising similarities of approach within and across borders. This bounded, complex, hierarchical, fragmented, contested, product-making, subject-forming, continually transforming world-wide arrangement; with its specific rules, discourses and exchanges; recalls Bourdieu's (1996) notion of a 'field of power'.

When surveying this complex terrain, any synthesis is partial. We choose a particular angle from which to illuminate the whole. This paper[1] explores national and global *competition* in higher education, whereby competition is understood as social competition, and economic competition as one of its modes; and competition is analysed in terms of hierarchy and power. The paper considers the national and global as distinct zones of competition, and discusses the overlap between the zones. It is largely concerned with research-intensive universities.

Many commentators (e.g. Scott 1998; King 2004) describe higher education as globalised, in the sense of globalisation as 'the widening, deepening and speeding up of all kinds of world-wide interconnectedness' (Held et al. 1999, p. 14). At the same time, the global dimension is not all-consuming, nor are global effects uniform everywhere. The spread, velocity and intensity of global transformations undergo many permutations, and are articulated through differing national and local zones (Marginson and Rhoades 2002; Valimaa 2004). The relationship between the national and global zones is complex, and often a case by case matter. Global engagement varies from nation to nation; and the global flows between different nations, and individual institutions, are sometimes two-way, sometimes uni-directional. For example, while universities in the USA have the most weight in shaping global trends, they are the least subject to externally-driven transformation. In contrast universities in emerging nations are colonised by the 'brain drain' of key personnel and ideas, by foreign research conversations and agendas, and by the in-your-face visibility and robustness of the leading foreign institutions (e.g. Marginson and Sawir 2005 on Universitas Indonesia). Amid the first open information environment in history, national policy and culture can only partly insulate national systems from the relentless pressures of comparison and imitation in this performance-driven higher education sector.

To support its investigation of interactions between national and global competition, the paper explores one case, that of Australian higher education. Australia is interesting because all its doctoral

institutions are engaged in cross-border markets, and because it is an intermediate national case: stronger in cross-border teaching than research; and located somewhere between the Ivy League institutions in the USA and UK, the research universities of Western Europe, and the Asian nations which provide the most foreign students. Part I of the paper theorises national competition in higher education, adapting Hirsch's (1976) notion of 'positional goods' and discussing the vertical segmentation of national systems. It applies these understandings to competition in the stratified Australian system and the 2005 policy changes which enhance that stratification. Part II discusses global competition, which like national competition is structured in two tiers: a world-wide positional market in elite degrees, concentrated in elite US and UK universities; and a mass education tier driven by revenues and profits. The paper traces global unevenness and inequalities, between nations and between institutions, that are integral to competition. Part III reconciles the analyses of national and global competition, in general and in Australia.

I. National competition

Positional competition in higher education

Within each national higher education system (or national market, as in the USA), students, families and employers of graduates rank the degrees on offer on the basis of institution and field of study. The hierarchy of rankings is steeper in some nations than others, and more powerfully felt in some places than others, but always exists. Higher education operates as a 'positional good' (Hirsch 1976) in which some student places offer better social status and lifetime opportunities than others. The positional aspect is not the only consideration in the minds of prospective students, but it is more important than teaching quality. Institutional reputation is known, teaching quality mostly is not. The acid test is that when faced by choice between a prestigious university with known indifference to undergraduate teaching, and a lesser institution offering better classroom support, nearly everyone opts for prestige. This does not sit well with the 'student-centred' pieties of quality assurance and consumerist marketing, but it is a fact of life. It is also confirmed by research. Moogan et al. (1999) find UK students more influenced by university prestige than measures of program quality. One American

survey of students found that Princeton was ranked in the top 10 Law schools in the country. But Princeton did not have a Law school (Frank and Cook 1995, p. 149). In Australia James et al. (1999, p. xvi), discussing factors influencing the choices of prospective undergraduates, find that 'applicants focus on broadly conceived course and institutional reputations when making their selections'; and that 'course entry scores, and by implication ''university scores'', serve as a proxy for quality in prospective students' eyes'. Applicants had little detail of teaching quality and lifelong earnings in particular courses. They were making individualised choices, and saw higher education as a competitive market. But their mentality was crafted not in the actuarial imaginary of human capital theory, with its private rates of return to investment in learning; and not by screening theory, with equally calculable rates of return not to learning but credentials. Something much older was at work, more instinct than calculation: relative advantage.

In *Social Limits to Growth* (1976) Hirsch analyses the dynamics of positional markets. The related argument by Frank (1985, 2001) on 'winner-take-all' markets discusses status competition in American higher education, as does Geiger (2004). Hirsch emphasises the zero-sum character of positional competition. Elite degrees and other positional goods confer advantages on some only by denying them to others. 'What winners win, losers lose' (Hirsch 1976, p. 52). Within one nation – though 'within one nation' is a significant qualification, as discussed below – there is an absolute limit on the number of positional goods at a given level of value. The number of such goods cannot be expanded without reducing unit value, for example, once everyone can enrol in Medicine and become a doctor, Medicine ceases to be a high income high status profession. Given the absolute limit on the number of high value positional goods, there is an absolute limit on the number of high value institutions, and on the size of individual institutions within the prestige grouping. This is profoundly important. It means that elite doctoral universities cannot expand their production to meet full potential demand, becoming ever larger like a Sony or a Starbucks, without cruelling their *raison d'etre*. They need revenues, and arrange their tuition regimes in profitable configurations, maximise philanthropic and research funding, and sell non-core services. But revenues are a means to the real end: academic and social status, signified by consumer preferment and research reputation; and in fee-based systems confirmed by a 'sticker price' that capitalises status as well as value:

> Prestige ought to reflect quality, but far more is involved. As a function of consumer awareness, prestige is affected by the entire manner in which selective institutions market themselves and how they are treated in the media. Specifically, rankings advance their own definition of prestige, creating a 'positional market'... The positional markers in this competition ... are measures of selectivity, costs, or rank' (Geiger 2004).

The comprehensive research university is framed by the teaching-research nexus, which integrates its different missions and shapes its institutional culture. There is little clear evidence that there are consistent positive links between research work and the quality of undergraduate teaching (e.g. of many, Terenzini and Pascarella 1994). This is unsurprising. The all important 'teaching-research nexus' is vectored not by professional work in each domain, but by status. In elite universities, research status and degree status feed into each other. High research performing universities with stand-out faculty attract bright students and their mostly affluent families. These student-magnet institutions accumulate prestige, cashed out as tuition revenues and further leveraged to raise public and private monies that buy high-cost faculty and sustain research programs. Research performance is visible and measurable in ways that are generally understood (publications, grants, applications for doctoral study, etc.). It attracts cross-border faculty, and enhances the university's capacity in all global spheres: cooperative projects, competition for grants, raising donations and drawing foreign students. Well-funded research infrastructure allows universities to deploy their best performing faculty so as to concentrate areas of strength, and to secure intellectual leadership at both national and global levels. Institutional leadership often follows. Research supplies the material know-how and symbolic capital that helps keeps the research university at the cutting edge. The primacy of research is grounded in day-to-day materiality, though its alleged productivity for teaching is not.

The rules of the game are well understood, but the consequences are often perverse. In a positional market there is competition between producers, and competition between consumers. Producer universities compete for the custom of preferred 'customers', students with the highest entry scores. Student 'customers' compete for entry to preferred institutions. Prestige sustains high student scores, competition drives them higher, and scarcity reproduces the prestige of the elite universities, in the kind of circular effect that always drives the reproduction of hierarchy. Wealth follows prestige. Bright students tend to be students from affluent and powerful families: not always, but too often to be compatible with the

ideology of merit. Wealthy families invest in high value education to maintain their social and professional leadership. Positional markets in higher education are a matching game in which the hierarchy of students/families is synchronised with the hierarchy of universities; and the peak group in each hierarchy is steeped in the habits of sustaining the other. The common international experience is that in systems of curriculum, end of school examinations and university entry the more powerful social groups always enjoy advantages, accumulated from the beginning of education to its end; and when policy reform opens up systems to render them more socially egalitarian, they commonly revert to the previous social distribution in less than a generation (OECD 1983).

The downside is not just an unequal distribution of social opportunities (Teese 2000), but the isolation of many of the fruits of intellectual life in a handful of hard-to-enter institutions. The steeper the distance between elite universities and others, the more that society values elite universities and the less it sees of their benefits. This is the logic of a winner-take-all market (Frank 2001). In the USA the proportion of the top scoring students applying to the elite sector continues to grow, so they become more concentrated, segregated from the also-rans who are crowded out (Frank and Cook, 1995, p. 12). In market-based higher education systems winner-take-all markets broaden their network across the whole nation. The American winner-take-all market spreads across the globe, like the markets in film/television or popular music. When high value becomes centralised and concentrated in a small number of products, price differentials lurch upwards. Elite universities are caught in a wasteful 'positional arms race' in which their costs are escalated by bargains with elite faculty and spending on visible signs of prestige (marble pathways, 21st century sandstone). 'When the stakes in such contests are high, each contestant may face irresistible pressures to make heavy investments that in the long term turn out to be mutually offsetting' (Frank 1985, p. 136). Skyrocketing tuition prices reinforce social closure. Scholarships for needy students never seem to be enough.

Institutional segmentation

Vertical segmentation is an inevitable facet of positional competition, because the production of positional goods *necessarily* combines competition with oligopoly and market closure. Whether high tuition is charged or not, the university market is never a freely competitive market. In elite institutions, the more intense is consumer competition

for entry, the less the university finds it necessary to court the consumer in the conventional manner by dropping prices or providing more and/or better services. Providing prestige is sustained, the consumer will follow. For every student dissatisfied with faculty stars they never see, a dozen potential students are waiting at the gate. Marketing, often under-stated, focuses on signs of venerability (gothic buildings, scholars); though in a consumer culture it also resonates with student-centeredness. This where sensitivity to the 'customer' is found. But once a university obtains elite status, where the competition is fierce but closed, and status itself recycles the student custom and research resources, the reproduction of the standing of the university requires no more than ordinary prudence. Thus we find that at the top, regardless of whether the system is a high tuition high aid regime, or a free tuition regime, the positional hierarchy in higher education is remarkably stable over time compared to market leadership in other industries. In Australia all leading institutions are pre-1960 foundations. In the USA they mostly date back to World War1.

In the lower echelons of the hierarchy the laws of competition are different. Whether non-profit or for-profit, anywhere in the world, these institutions must struggle to fill their places and secure revenues. They strive to expand their numbers and their reputations, but once achieved success remains provisional and contestable. These institutions do not have the resources to build a major research effort. Teaching is unequivocally their core business: the University of Phoenix is growing partly because it has aggressively made this limitation into a virtue. At best, when public funding reductions, hyper-marketing and competitive cost-cutting do not undermine program quality, institutional mission and professional cultures combine in impressive teaching efforts, including programs for social groups traditionally under-represented in higher education. But these institutions never receive full recognition for the quality of their work. In a positional market, in which in everyone's mind 'quality' is instinctively centred on the high-prestige universities, the classroom quality of teaching-oriented institutions is over-determined by their low social status. Intermediate institutions, combining some high value scarcity with some low value access places, find it difficult to move up the ladder because of the limit on the number of prestige producers. They cluster as 'second choice' producers, or specialists. Newer research universities struggle hard to break into the upper echelon, imitating its programs and ethos, but in a status market late-comers are locked out. Too often, they provide openings for young faculty and innovative programs only to see people and programs 'brain drain' to the elite universities once success has been established.

Thus the positional markets in higher education are segmented into vertically aligned groupings. Table 1 summarises the typical national segmentation. The top tier is a high value positional competition marked by scarcity and exclusion. At the bottom is high volume basic higher education, under-funded by states and often produced in quasi-commercial or commercial markets, marked by place-filling, expansionism and low unit positional value. The top tier produces elite higher education; the bottom tier is focused on mass higher education. The dynamic of scarcity and exclusion creates the elite/mass dualism and drives further vertical segmentation within it. Stratification is played out in the tense middle zone between the two primary segments, represented in Table 1 by the subordinated research universities. Stratification is both formal and informal, it varies by nation, and it can be much more complex than the Table suggests. Geiger (2004) cites seven segments in the USA. Occasionally there are horizontal variants, such as the differing paths to elite formation in the American research universities and liberal arts colleges. But everywhere, institutions located in the bottom and intermediate segments find that try as they will, firm barriers retard upward movement between the segments, especially the movement of wannabees into the top segment.

Table 1. Typical segmentation of competition in national higher education systems

Segment 1 Elite research universities	Self-reproducing, combining historical reputation, research performance, and student quality/degree status. Driven by status attraction/accumulation not revenues per se. Non-expansionary in size. Limitless ambitions for social status and power. Wealthy. Relatively closed
Segment 2 Aspirant research universities	Struggling to live as Segment 1 but unable to break in. Tendency to brain drain of best students and researchers to Segment 1. May engage in selected commercial activities to generate revenues, but not so efficient in commercial terms. Resource scarcity. Semi-open
Segment 3 Teaching-focused (university or other)	Student volume- and revenue-driven. Some are private for-profit institutions, or public sector operations with a large commercial component, tending to expand. High resource scarcity. Tendency to hyper-marketing and shaving costs/quality under market pressure. Open

Source: Author.

National competition in Australia

In 2003 the publicly funded national Australian system covered 929,952 students enrolled in 38 public universities, three private universities and three small private colleges, with 98 per cent of students in public institutions (DEST 2004). Outside this system, a 1999 survey identified 31,212 more students in 79 private institutions, accredited by state governments but ineligible for tuition subsidies (Watson 1999). Up to 2004 the public/private distinction played only a minor role in system segmentation. Competition in the Australian system is shaped by federal government policy and financing, including policy-engineered markets. Public investment in higher education in 2001 (0.8 per cent of GDP) was below the OECD average of 1.0 per cent; while Australia's private investment (0.7 per cent) was well above the OECD average of 0.3 per cent (OECD 2004b). Within the national system, institutions compete for research funding via merit-based academic schemes, targeted public and private sector projects, consultancy and philanthropy; and also tuition revenues from international and postgraduate students, short courses and continuing professional education. The Australian system is notable for the extent to which positional investment is student-financed, though there is a heterogeneity of charges.

Tuition markets and subsidies

In 2003, fees and charges constituted 38 per cent of institutional income. A further 5 per cent was generated in consultancy and contract research (DEST 2004). The main sources of fee income were foreign student fees (14 per cent), and the Higher Education Contribution Scheme (HECS), a government-administered tuition charge paid mainly by undergraduates (16 per cent). The HECS and international marketing have contrasting implications for competition.

Until 2005 the vast majority of domestic undergraduates, and some postgraduates, were enrolled in HECS-based places, the cost of which was shared between student and government. From its introduction in 1989 to 2004, HECS was not a buyer–seller commercial fee. It was a levy paid by students to national government, which thereupon sent it back to the universities as part of their public grants. HECS was fixed at three levels, varying by field of study from $2576–4295 USD in 2004.[2] There was no cost difference between high and low prestige universities. Students repaid the HECS on an income-contingent basis through the tax system.[3] HECS debts were indexed to community price movements with

no real interest rate. Until HECS levels were raised sharply in 1996,[4] studies found the deterrent effects of HECS were low, and neutral as to socio-economic background. By combining fiscal relief with maintained social access, HECS reconciled dependence on student charges with social equity, securing broad public support. Though the mechanism was novel, in essence the HECS was consistent with the non-commercial fees and charges used in many other nations. Undergraduate students competed for high demand universities and courses; but it was conventional status competition, of the kind found in all higher education systems (even free systems) not an economic market. To the chagrin of neo-liberal economists in federal Treasury, by blocking university-fixed undergraduate tuition fees, the HECS quarantined 60 per cent of student places from price-based competition.

In contrast, since the late 1980s foreign student education in Australia has been explicitly commercial and designed to generate export revenues. Here Australian universities are similar to many UK universities, but more entrepreneurial than American doctoral institutions. In the USA one third of foreign students pay subsidised tuition (IIE 2003). In Australia in 2002, only 1.6 per cent of foreign students received publicly-funded scholarships (DEST 2004).[5] The economic market in global position has grown rapidly in Australia, from 24, 998 in 1990 to 210,397 in 2003; and in 2003 more than 22 per cent of all students were foreign, when offshore twinning, foreign campuses and distance education were included in full (DEST 2004). Australian higher education has the second most internationalised enrolment in the world (OECD 2004b). Education is Australia's third largest services export, earning $3.5 billion in 2002 from international student spending on fees, food, transport, accommodation, living costs and entertainment, on and offshore (Nelson 2003b, p. 35). All universities, whatever their resources and status, are active in this market and compete directly for students. The government is careful to prevent negative marketing between universities. Universities also charge commercial fees to domestic postgraduate students in non-research degrees, particularly in Business, IT, Engineering and Health Sciences, providing 2 per cent of income in 2003 (DEST 2004). From 2002 the government underwrote low cost income-contingent tuition loans for these students. Between 1998 and 2004 universities also charged full fees to some undergraduates, without subsidised loans. But most students who could afford fees had access to cheaper HECS places.

Institutional segmentation in Australia

There are five distinct segments in the Australian system (Marginson and Considine 2000, pp. 175–232). Segmentation has been shaped by history and funding. Following the creation of a 'unified national system' in 1987–1989, incorporating the sub-doctoral colleges of advanced education into the university sector, system stratification in Australia developed as follows:

- The 'Sandstones, or 'Group of 8': Queensland, Sydney, New South Wales (NSW), Melbourne, Monash, Adelaide, Western Australia (WA), Australian National University (ANU): all the older foundations except the Universities of Tasmania and New England).[6]
- The 'Gumtrees', the second or later universities established in each State prior to 1987.
- The 'Unitechs', large institutes of technology with a long status as vocational institutions, becoming universities from 1987.
- The 'New Universities', other institutions achieving university status after 1987. Some are specialist regional and/or distance education providers.
- Private Universities. The largest are the Australian Catholic University with 12,011 students, and Notre Dame Australia with 3544 in 2003 (DEST 2004).

Policy has determined that Australian universities take only one form, that of the research university comprehensive of fields of study. In a unitary market, in which newer universities tend to produce themselves as inferior copies of the Sandstones, the logic of competition becomes transparent. Institutions are readily compared and ranked and the standing of market leaders is clearly established (Fulton 1996). The relative strength and prestige of the Sandstones is shown by their command of student applications for entry (they attract most applications in each state); the scores that students require for entry; and research performance as measured by grants, publications, citations, and the number of research students. The national Institutional Grants Scheme (IGS), allocated competitively to research performance,[7] is a useful indicator of relative university power. In 2003 the Sandstones received from $24.8 million (Melbourne) to $15.3 million (Adelaide) in IGS grants. Next were Flinders, Newcastle and Tasmania, Gumtrees with Medical Faculties, each with $7.0 million (Table 2). Australian Research Council Discovery Grants follow a similar distribution, from 137 at ANU to 36 at Adelaide. Next highest university was Gumtree La Trobe with 24 Grants (Nelson 2003b, pp. 103–104).

Before 1987 the Gumtrees were funded by government to conduct basic research in all disciplines. They now find it difficult to sustain this, given that public funding per student is down – it is now at 60 per cent of level of the late 1980s (Marginson 2001) – and revenues more dependent on competitive position. Because of their accumulated staff, infrastructure and research reputations, the Gumtrees outperform the post-1987 universities in research (Table 2). But the Sandstones are better placed to attract competitive research funding, business support and student fees. Sandstones Sydney, Western Australia and Melbourne enjoy the highest levels of income from donors and private investments, partly insulating them from both government direction and market forces. Positional leadership confers on the Sandstones broader resources and broader strategic options. For example, they can internationalise without losing their research intensity and extensivity. Other institutions must choose. Those that specialise in high levels of fee-based foreign education, or distance education, or maximise their size, tend to limit their own research capacity. Market based programs can generate surpluses but most are ploughed back into the business.

By 2003 the government share of institutional revenues had fallen to 44 per cent, compared to 90 per cent two decades before. The old public funding regime was designed to ensure that all doctoral universities, old and new, were equivalent world class institutions (though in the nation-bound system of the time, 'world-class' was never defined). Universities are now understood as self-seeking corporations responsible for their own outcomes; and in the first instance their status and resources are determined by their prior positions in the hierarchy. Whereas government action can rearrange status quickly – as happened in Australia in 1987–1989 – positional competition is more conservative. Since 1989 competition has reinforced the position of the Sandstones; particularly the markets for revenues. They start every discrete contest in the strongest position. Vertical stratification has become steeper. Universities are now positioned in the field of global competition and comparison, as well as national, but a universal 'world-class' is out of reach; and the dominance of the Sandstones has become very difficult to contest.

Competition and stratification from 2005 onwards

In December 2003 the Minister for Education, Science and Training, Brendan Nelson, steered four changes in the Australian system through

Table 2. Segments of the university positional market, Australia, 2001/2003

Segments and universities	M	Total student 2002	Flexible delivery share 2002 (%)	Total income 2002 $s mill	Internat'l fee share income 2002 (%)	Research student 2002		New ARC Disc 2003	NCG/ EFT staff 2001 $s	IGS funds 2003 $s m
						number	share			
Sandstones										
U Melbourne	Y	39,378	3.0	856.3	13.1	3908	9.9	104	29,788	29.8
U Queensland	Y	37,498	7.5	814.5	8.0	3669	9.8	81	21,452	28.3
U Sydney	Y	42,305	3.9	816.3	9.5	3473	8.2	98	22,943	27.1
U New South Wales	Y	42,333	10.1	701.5	16.5	2669	6.3	81	23,529	25.4
Monash U	Y	52,010	23.8	735.4	15.1	2935	5.6	56	15,786	19.3
Australian National U	Y	11,979	0	461.7	4.3	1491	12.5	137	**–	16.6
U Western Australia	Y	15,885	0	360.4	8.0	1830	11.5	46	31,157	16.1
U Adelaide	Y	16,188	7.5	334.2	8.3	1512	9.3	36	32,382	15.3
Gumtrees										
U Tasmania	Y	13,750	10.9	199.7	7.1	1030	7.5	22	20,499	7.0
U of Wollongong	N	18,764	1.1	210.1	20.5	1024	5.5	14	14,931	7.0
La Trobe U	N	24,930	0.7	314.0	8.1	1359	5.5	24	10,332	6.3
Macquarie U	N	27,239	17.5	295.9	18.9	1031	3.8	23	12,409	6.2
Griffith U	Y	30,969	7.5	350.7	11.6	1283	4.1	22	7996	6.1
U of Newcastle	Y	23,502	7.5	256.9	10.9	1236	5.3	22	13,835	5.4
James Cook U	Y	13,189	17.0	173.5	6.2	679	5.1	6	11,040	4.9
Flinders U	Y	13,644	10.9	177.2	7.8	905	6.6	10	18,192	4.5

Table 2. (Continued)

Segments and universities	M	Total student 2002	Flexible delivery share 2002 (%)	Total income 2002 $s mill	Internat'l fee share income 2002 (%)	Research student 2002		New ARC Disc 2003	NCG/ EFT staff 2001 $s	IGS funds 2003 $s m
						number	share			
Murdoch U	N	12,734	24.1	156.0	10.4	761	6.0	7	14,954	4.3
U New England	N	18,202	81.9	148.3	3.9	820	4.5	9	13,880	3.8
Deakin U	N	33,033	54.7	325.8	8.5	899	2.7	11	6624	2.9
Unitechs										
Curtin U Technology	N	33,240	11.5	360.9	23.3	1592	4.8	11	6432	5.2
Queensland UT	N	39,192	15.1	365.2	15.6	1105	2.8	13	5121	4.9
U South Australia	N	30,627	22.0	286.1	15.8	1741	5.7	13	5297	4.5
Royal Melbourne IT	N	38,280	3.7	478.2	21.5	1831	4.8	15	3346	4.5
U Technol. Sydney	N	29,290	0	287.7	17.1	918	3.1	13	6892	3.6
New universities										
U Western Sydney	N	35,361	4.5	296.7	12.9	942	2.7	4	5159	3.2
U Canberra	N	10,419	[0.04]	105.8	11.5	265	2.5	2	7332	1.7
Swinburne UT	N	14,404	[0.01]	233.2	14.6	537	3.7	10	6294	1.7
Victoria U Technol.	N	19,475	1.9	277.8	10.5	654	3.4	1	4372	1.7
Edith Cowan U	N	23,829	24.4	202.9	12.1	824	3.5	3	3289	1.4
Northern Territory U	N	5612	26.3	91.6	2.8	213	3.8	2	7885	1.2

Southern Cross U	N	11,961	52.9	89.7	7.6	449	3.8	1	5920	1.2
Charles Sturt U	N	39,776	83.4	187.4	5.4	434	1.1	5	4132	1.2
Central Queensland	N	21,763	40.9	210.6	37.7	316	1.5	0	2995	1.0
South'n Queensland	N	24,271	81.0	118.6	13.3	326	1.3	3	3832	0.9
U Ballarat	N	6615	0	106.9	4.9	187	2.8	3	3754	0.5
U Sunshine Coast	N	3947	11.3	32.5	12.0	62	1.6	0	98	0.1
Private unis										
Australian Catholic U*	N	11,894	8.9	104.4	4.3	338	2.8	1	1496	0.5
U Notre Dame Aust.	N	2832	1.7	20.2	17.7	27	1.0	0	0	0.1
Bond U	N	n.a.	n.a.	n.a.	n.a.	51	n.a.	0	n.a.	0.1
Minor sites										
[various]	–	6250	–	69.4	–	377	–	12	–	0.4
Total	–	896,621	19.2	11,614.1	12.5	45,703	5.1	921	15,165	277.6

* Private university funded as public universities. M = Medicine Faculty (Y = Yes, N = No). Dollar amounts in current prices. Flexible delivery share = % of students external (distance) students and multi-modal students, distinct from internal (wholly campus-based). Research student share = number of research students as % of all students. IGS = Institutional Grants Scheme, awarded competitively on the basis of research performance (see note). NCR per EFT staff = National Competitive Research Grants per effective full-time member of staff, teaching/ research staff research only. ** Not all ANU staff eligible as funded separately for research. New ARC Discov = new Australian Research Council Discovery Grants, awarded on academic merit in all fields except Medical sciences. Sources: DEST (2003); Nelson (2003b); Australian Vice-Chancellors Committee; Australian Research Council. For discussion of segments see Marginson and Considine 2000, pp. 175–232.

federal parliament (Nelson 2003a). First, from 2005 universities are permitted to vary the cost of HECS between 0 and 25 per cent above prior levels ($0-5369 USD p.a.), moving the system closer to the forms of a buyer-seller market. Most universities, including all Sandstones, have opted to charge the maximum HECS. Second, public universities are permitted to fix direct tuition fees at any level for 35 per cent of undergraduate students in each course.[8] Third, fee-paying students are now eligible for a new voucher-like government-subsidised loan, FEE-HELP. Like HECS (rechristened HECS-HELP), repayments under FEE-HELP[9] are income contingent with no real interest rate. The government has also lifted the income threshold for HECS and FEE-HELP repayments by 40 per cent, to $24,500 USD p.a., delaying loan repayments, rendering loans more accessible and universalising the potential market. Fourth, students in accredited private institutions are now made eligible for FEE-HELP, creating the first economically viable private sector. (Later, in 2004, the government announced that the private Notre Dame University would establish a publicly funded Medical school.) The new system has created potentials for both a small number of elite comprehensive private universities and a larger number of more specialist vocational private institutions. Further down the track, the government could create a unified full-fee undergraduate market by lifting the cap on the maximum HECS, extending it to the private sector, and abolishing limits on FEE-HELP places. The public subsidy of HECS could be redefined as merit or equity scholarships.

The 2003–2004 reforms have changed the forms of status competition. First, FEE-HELP, and the reduced cost gap between full fee places and HECS places, encourage students to upgrade from a HECS-place in a middle status Gumtree or a Unitech to a Sandstone fee-paying place. The number of fee-based places covered by FEE-HELP is expected to increase rapidly (Chapman 2003).[10] The new high tuition market in Australia might also encourage affluent parents to consider the option of an American degree. Second, the gap between Sandstones and other public universities has been widened. The Sandstones will dominate the new market in undergraduate fee-paying places; and given the role of research as the source of competitive advantage, they could be expected to plough part of the new income into research capacity, including star faculty, again lifting their status and relative resources. The post-2005 market is no less competitive, but is mostly less contestable at the top, though in the longer term the Sandstones might have more competition from the private sector. At the middle level, most Gumtrees are being pushed downwards, facing pressure on their research capacities at the

same time as students are being streamed into Sandstone fee-paying places. Middle and lower level institutions will be squeezed by the public costs of HELP loans: the subsidisation of interest rates and the cost of default will place fiscal pressure on grants to institutions. Some institutions at lower levels are likely to experience a 'race to the bottom' as they struggle to fill their places. Both of their obvious strategic options – varying HECS charges down and hyper-marketing – will thin out teaching and research capacity. Third, economic competition now plays a larger role; and this is instrumental in the supremacy of the Sandstones, that have been restructured as a high cost segment dependant on private positional investment. Price variation enables a more differentiated set of economic choices overall, matched by steeper variations in capacity.

The Nelson reforms create a neater, tighter and fiscally cheaper positional market. Though total participation might not fall, more important is the stratification of participation, not just access to higher education, but 'access to *what*?', and '*who* obtains it'? (Bastedo and Gumport 2003). The closure between prices, resources and status consummates another closure: between the social power of the Sandstones, and that of their clients. Each have a mutual interest in the other's status. The cost of HECS and fee debts could be expected to stream low income families away from high status high value high tuition places, given the absence of high aid. On the positive side, the use of the income contingency mechanism to underpin HECS modifies price signals and will slow the rate of social exclusion. Overall, to the extent that positional competition becomes an economic market, all else being equal this assists those with prior advantages, both producers and consumers, to consolidate their social position.

II. Global competition

Global markets

Although most higher education students continue to be educated within their national systems a growing number now cross national borders. In 2001 there were 1.58 million foreign students in OECD nations, constituting just over 5 per cent of OECD enrolments with much variation by OECD nation. One third entered the USA, and a quarter the other English speaking nations: the UK, Australia, Canada and New Zealand. France and Germany are also major exporters.

There are three broad domains of cross-border education (OECD 2004a). First, student movement between OECD nations, especially in Europe. Many are on short-term exchange. Most pay less than full cost fees, and aside from those entering the USA nearly all return to their nation of origin. Second, students from emerging nations, especially in Asia, enter the English-language nations (71.6 per cent of all Asian international students in 2001), Western Europe and Japan. Global competition in degree courses in higher education is largely centred on these students. Numbers are growing most rapidly where cross-border education is a commercial business with full-price tuition, for example, the UK and Australia. Foreign students, who are mostly self-financed, invest in global positional goods that facilitate mobility and changing identity. Many graduates enter mobile occupations such as business, IT and scientific research where English-language skills are used. The positional goods include not just foreign degrees themselves but foreign language, the experience of living abroad, and access to migration: all English speaking nations encourage foreign graduates to migrate. Third, foreign education is conducted within importing nations, in two forms that are also growing rapidly. One is foreign branch campuses in Singapore, Malaysia, China and elsewhere, mostly offered by local private partners; though some British, US, Australian and French institutions have established their own premises. The other is distance education, which is largely online with links to locally based study centres. Foreign online distance education has not grown as rapidly as many English-language universities expected, partly because ICT capacities are narrowly distributed outside the OECD. However this medium will become more important (Marginson 2004b).

Global student flows

In higher education the rhetoric of 'internationalisation' norms global engagement as two-way flows premised on mutual cultural respect. The reality is different. Global competition in degree programs is an export-import market in positional goods, characterised by uni-directional student flows and asymmetrical cultural transformations. Some nations are primarily exporters, others are primarily importers; while a third group, including Japan and parts of Europe, exhibit a more balanced two-way exchange. Figure 1 models the global flows of students. It illustrates the magnetic attraction of American higher education, for which research on student choice identifies strong and almost universal demand (e.g. Mazzarol et al. 2001), especially for elite universities. It also emphasises the massive demand for foreign education in Asia-

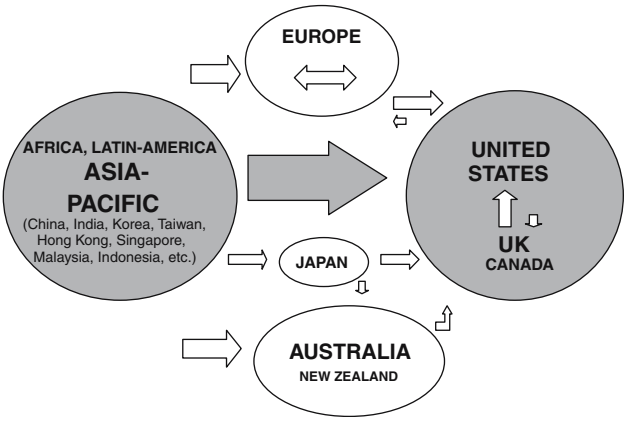


Figure 1. Student flows in the worldwide environment of higher education.

Pacific, driven not just by positional benefits gained in off-shore provision but by an inadequate quantity of places in reputable degree programs at home. Four of the world's five largest importing nations are in the Asia-Pacific – China, Korea, India and Japan – and Malaysia, Indonesia, Hong Kong and Singapore are also in the top 20 importing nations (OECD 2004b).

Where positional competition is the dominant mode, the flows become uni-directional. On the other hand, the high degree of cross-border activity in Europe demonstrates that global mobility is not necessarily market-driven and can be practised in more reciprocal fashion. Likewise, though the national Japanese higher education system itself is highly competitive and largely privatised, the Japanese government treats foreign education as a means to learning and internationalisation, rather than as revenue-generating business (OECD 2004a); and student flows out of Japan are balanced by those coming in, mainly from China and Korea.

In the Asia-Pacific region there is considerable potential for the further growth of demand for education as a global positional good. These nations include well over half of the world's population, and 10 of the world's 16 cities with over 10 million people, representing immense concentrations of present and future demand for education. China has seen two decades of high economic growth and the nation could produce one fifth of world GDP by 2050. Expenditure on tertiary education is low and in 2000 only 8 per cent of the school leaver age group entered degree programs in China. Domestic provision will expand but middle class demand for tertiary education will also grow. Thailand and

Indonesia are also expected to experience continued unmet demand. In much of Asia the habit of private investment is entrenched. In Korea 70 per cent of domestic expenditure on tertiary institutions is private spending, in Japan 56 per cent, in Indonesia 56 per cent, in China 43 per cent (OECD 2003). For governments in emerging nations, by supplementing local provision foreign education postpones the expensive task of building local infrastructure. On the other hand there are costs in 'brain-drain' and the loss of policy and cultural control. Singapore, Malaysia and China encourage foreign provision at home but position it as a source of local educational development. However, even when Asian nations expand and improve their own systems, reputable foreign university education will continue to provide positional advantages at home and abroad. Korea and Japan have enough good quality tertiary places at home but positional demand for foreign education is strong.[11]

Segmentation of global competition

Like national competition global competition is powered by an elite/mass dualism created by the exclusionary logic of the positional market. The two hierarchically ordered segments are relatively stable. The upper Segment 1 (elite foreign higher education) is a traditional positional competition. Students compete for and invest in scarce status goods in sought-after universities. The subordinated Segment 3 (mass foreign higher education) is revenue driven, expansionary and often commercial. Between these segments is an unstable differentiation of intermediate institutions, for example, the less prestigious research universities in Segment 2 (Table 3).

Yet on the supply side, national and global competition differ from each other. First, high value global education is provided not in institutions offering 'global degrees' but institutions whose business is national positional competition. Foreign students are academically and socially selected: the average cost of tuition and living expenses in the US state universities is eight times the per capita income of China (IDP2001; World Bank 2004). But foreign students (apart from the best doctoral students)[12] do not create status benefits, additional to revenues, as do students from the national catchment. It is de rigueur for elite universities to be globally engaged, yet foreign students are strangely marginal to reputation (though in the US graduate students are often a vital source of labour in research and teaching). Second, commercialisation is more important in global than national competition. It may soon encompass a majority of foreign students.

Table 3. Segmentation of global competition in higher education

Segment 1 World market of elite universities	The American doctoral sector and the high prestige universities in UK. Prestige not profit-driven. Prestige rests on research reputation and global power of degree
Segment 2 Exporting national research universities	Research universities in the UK, Canada, Australia, Europe, Japan. Prestige-driven at national level but often run foreign degrees as a profit-making business
Segment 3 Teaching-focused export institutions	Lesser status institutions in the export nations, operating commercially in the global market, catering to a lower cost/ lower quality echelon of foreign education.
Segment 4 Nationally-bound research universities	Prestige providers within a single nation, normally research intensive universities. Nationally competitive with Segment 2 (but not 1), minor cross-border role
Segment 5 Lesser status national/ local institutions	Confined to national competition and local demand. No cross-border role. The largest group of institutions, especially in importing nations

Source: Author.

The first world market

Segment 1 is comprised by the leading English-language providers, mostly located in the USA. The emergence of a unified world market in educational positional goods with supreme value, led by household names such as Harvard, Stanford, MIT and Oxford, is a striking feature of the global era. In a networked environment the leading universities are overwhelmingly visible, cutting a powerful presence as ideal-exemplars and as practical leaders of the sector drawing high achieving academic staff from across the world. While only a small number of foreign students access these universities the institutions exercise great symbolic power. Outside the USA/UK, this worldwide market does not replace the national markets, it subordinates them. Above the national competition it layers an additional stratum of student places with superior positional value to all places created at national level. Global positional value is formed in the same manner as value is formed in national competition, via a combination of degree/ brand status and research performance/reputation. Strong research universities are also strong attractors of foreign students. Table 4, from the worldwide survey of research achievement[13] by the Shanghai Jiao Tong University Institute of Higher Education (SJTUIHE), lists the 40

leading universities. (The full group of elite universities includes most of the US doctoral sector.)

This single world market is exemplified by doctoral training, which is integrated global competition in its most advanced form. High achieving research students from everywhere, including many from nations where there are already ample research training opportunities, enter the 'world graduate school' in the American universities and Oxford, Cambridge, LSE and other leading British institutions. Here market competition operates as a classic positional matching game where departments compete for the most valued students and students seek entry in preferred departments. Places are scarce and subsidised by scholarship funding, rather than expanding in capitalist fashion like the market in Business Masters degrees. With the support of the US government, American universities compete with each other for the best students, who add value to research and are employed as low-paid graduate teaching assistants. More than half the American doctoral graduates in Engineering are foreign (OECD 2002).

Commercial foreign education

Segments 2–3 of global competition are dominated by commercial provision, further layered according to level of provider (Masters, undergraduate, vocational), and overlaid by the global educational hierarchy of nations. Though commercial provision plays a minor role in the leading research universities, many others recruit foreign students into full fee programs: four year and two year US institutions, many British research universities and UK further education, all Australian and New Zealand universities. Some West European nations, and Malaysia and Singapore, are developing English-language programs to secure a share of revenue flows. Here there is no single world-wide market, no unified social structure with clear boundaries, within which every institution can be simultaneously imagined. First, foreign education takes place in largely separated zones lying on the boundaries of national systems. Second, studies of student choice suggest that below the top tier, institutional 'brand' carries less weight than national 'brand'. Students choose between one or another of the national systems of institutions:

> In considering where to study the key choice factors for mobile students are, in order, country (54 per cent), course (18 per cent), institution (17 per cent) and city (10 per cent). While supporting the idea that awareness of quality (or even reputations) of institutions is

Table 4. The world's top 40 research universities, based on measured performance, 2004

1	Harvard USA
2	Stanford USA
3	Cambridge UK
4	California–Berkeley USA
5	Massachusetts IT USA
6	California IT USA
7	Princeton USA
8	Oxford UK
9	Columbia USA
10	Chicago USA
11	Yale USA
12	Cornell USA
13	California – San Diego USA
14	Tokyo Japan
15	Pennsylvania USA
16	California- Los Angeles USA
17	California – San Francisco USA
18	Wisconsin Madison USA
19	Michigan–Ann Arbor USA
20	Washington, Seattle
21	Kyoto Japan
22	Johns Hopkins USA
23	Imperial College UK
24	Toronto UK
25	University College London UK
26	Illinois, Urbana-Champaign USA
27	Swiss Fed IT Zurich Switzerland
28	Washington, St. Louis USA
29	Rockefeller USA
30	Northwestern USA
31	Duke USA
32	New York USA
33	Minnesota–Twin Cities USA
34	Colorado–Boulder USA
35	California–Santa Barbara USA
36	British Columbia Canada
37	Texas–SW Med Centre USA
38	Vanderbilt USA
39	Utrecht Netherlands
40	Texas, Austin USA

Source: SJTIHE (2004).

> mostly local (and difficult to compare across countries), it shows that international students thus tend to assimilate institutions to the country they come from and to build their perceptions on the assumption that quality depends on perceived quality of post-secondary education in a country rather than in a specific institution. This is clearly shown in a study of Chinese students who tend to separate countries (rather than institutions) into reputation tiers. The attractiveness of a foreign post-secondary education institution will thus not merely depend on its objective quality but on the overall perception of the quality of post-secondary education in its country (OECD 2004a, p. 266).

Revenues rather than status drive the commercial market. Between 1995 and 2000 average government funding per student fell 30 per cent in Australia and 17 per cent in the UK, though 2 per cent in Canada, where the growth of foreign enrolments was slower (OECD 2004a, p. 255). The supply-side drive for tuition revenues has matched the demand-side drive for positional goods. This explains the explosive growth of the market. The commercial market can expand in capitalist fashion because below Segment 1, foreign competition and investment are not subject to the same limitations as national competition. Within the nation the number of high value positional goods is always subject to absolute limitation, regardless of the institution. This constrains the growth of high fee high value places, limits the number of institutions that produce such goods, and rules out status-bearing commercial education. In Segments 2–3 of global competition, as long as educational border-crossing creates positional goods, as long as a foreign education leverages upward social mobility at home or abroad, there are no such limits. Massive growth in the number of foreign students has no necessary impact on the value of nationally referenced positional goods obtained by domestic students, providing the two sets of graduates are largely quarantined from each other.[14] Meanwhile, for the foreign graduates returning home to Thailand or Tajikistan, all reputable foreign degrees provide positional value.

The global hierarchy of nations

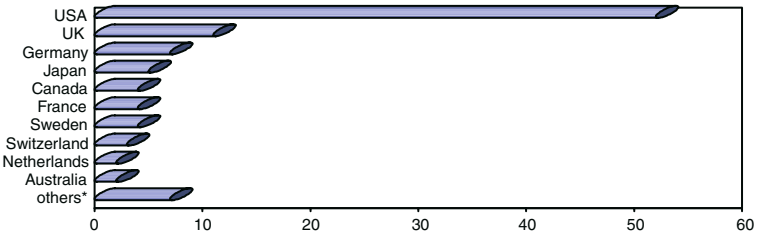
Positional markets cannot exist without inequalities of value. Like uneven international flows, global hierarchy is integral to competition. The global hierarchy is structured by three factors:

1. The distribution of research capacity – which underpins also professional training, especially in science-based fields – between national higher education systems;
2. The global advantage of English. Globalisation is dominated by Anglo-American culture and economy and the English-language universities exercise a special power, expressed as cultural colonisation and the displacement of other languages in education and research, and displacement of the intellectual traditions they support; [15]
3. The global dominance of the US in higher education, akin the uni-directional flows of film and television. A small fraction of US screen time is devoted to foreign films/TV, but US products loom large in every other nation. It is similar in higher education.

Data on capital flows and the flows of research personnel in global higher education emphasise its asymmetry. In 2001 the USA took in $11.5 billion from foreign students, and Australia $2.1 billion. Few students from these nations went abroad (US $2.4 billion, Australia $0.4 billion) and the nations spent little on foreign aid for post-secondary education (US $111 million, Australia $13 million). The net capital flows were almost $ 9 billion in favour of the US and $1.8 billion in favour of Australia. OECD data also show that the majority of doctoral students from emerging nations, and some OECD economies including the UK and Germany, have 'firm plans' to stay in the US after finishing their studies. Of the 1996 PhD graduates in Science and Engineering, 96 per cent of those from China and 86 per cent of those from India were still in the USA in 2001 (Tremblay 2002, p. 44; OECD 2004a, pp. 32, 281 and 286). In comparison, few American doctoral graduates 'brain drain' to the emerging and under-developed nations.

Global distribution of research capacity

The USA's dominance of global research capacity, and the lesser power of the English-language nations, Scandinavia, the low countries and Germany, become more obvious as the comparison moves up the research hierarchy. The world-wide distribution of the leading 500 research universities is uneven but pluralistic. In 2004 there were 37 nations in this group; and 65 Asian universities, 235 in North America and the UK, and 166 from Europe and Israel. Thus 34 per cent of the top 500 were in the USA. However the USA provided 52 per cent of the



* Norway, Denmark, Finland, Italy, Austria, Israel, Russia each one.
source: SJTUIHE 2004

Figure 2. The world's top 100 research universities, based on measured performance: distribution by nation.

leading 100 universities, with 11 in the UK, four in Canada and two in Australia. The English-language nations had more than two thirds of the top 100, a disturbing concentration (Figure 2). Of the others, 24 were from Western Europe, one Israeli, one Russian and five in Japan. Strikingly, 17 of the leading 20 research universities were in the USA. Two of the others were Cambridge and Oxford. The University of Tokyo at 14th was highest placed non-English speaking institution.

One way to assess the global competitiveness of national research capacity is to compare each nation's share of the top research universities against the research infrastructure that economic size and per capita wealth would suggest.[16] Using this measure Israel, Sweden, Switzerland, the UK and the Netherlands have outstanding research systems, with more than double the expected number of universities in the top 200. All of the English speaking nations exceed expectations. Canada has two research universities in the top 40. Other nations with strong research capacity relative to economic resources are Finland, Denmark, Germany (the third largest research infrastructure after the USA and UK) and Singapore. The USA, with 43 per cent of the total wealth index, has 90 research universities in the top 200, slightly ahead of the 86 its national wealth would suggest. Nations that conspicuously under-perform include Spain, Italy, Greece, Japan, Korea, China and Brazil. These are all non-English speaking nations. Another factor at work is the role of public investment and provision vis a vis private sector development. None of the nations with higher than expected research capacity, apart from the USA, has a large private higher education sector. Many of the low performers have large private sectors. These are mostly teaching-only institutions, narrowing the spread of research universities. The broad and deep research capacities in each

Northern European nation are supported by public investment in research across whole university systems. The UK is an exception – it depends on mixed public/private funding and the newer universities are relatively weak in research. However there is a strong cluster of research universities, the Russell group, where the basic research infrastructure is derived from government funding and mediated by research assessment.

The data also show that the distribution of research capacity is lopsided in terms of national wealth. Only 29 universities (5.8 per cent) of the top 500 are in nations with a per capita GDP of less than $15,000 USD PPP per year, which includes the vast majority of nations. Only 15 are found in nations where per capita GDP is below the global average of $8200 (World Bank 2004): eight in China, three in Brazil, two in India. Though the Chinese government's goal of 100 'world class' universities will modify this, for the foreseeable future English language universities will continue to draw students and staff from elsewhere, redistributing potential research resources in their favour.

III. Global and national markets

Inside the USA global competition has little effect on national competition in higher education. At its peak global competition *is* American competition, and vice versa. The global positional market is shaped by the US positional market. But students outside the USA experience a new global map of opportunity. This has remade the terms on which every national competition operates, and the strategic position of each nationally based research university, in two rather contrary ways.

First, the positional hierarchy itself is fundamentally changed. Global engagement varies from university to university, but the potency of global referencing does not. Research is integral to the status of research universities, and research has become irretrievably global. Essentially, all universities are now judged in terms of two active frames of reference, the national and the global. The more an individual university aspires to the top end of competition, the more significant global referencing becomes. Above the national hierarchy in every nation now looms the American doctoral sector and the leading UK universities. Few people in each nation know the higher education systems of other nations, but the peaks of global status are visible from everywhere. Although the national and global hierarchies are imperfectly integrated, they now constitute a single set of possibilities for a

growing number of undergraduate students and their parents (they have long been seen this way by faculty and many graduate students). This has immediate, negative implications for the elite universities in every national system outside the USA/UK. They were once unchallengeable positional leaders in their own domain. But the nation is no longer solely their domain; nor is the nation the sole domain. There are leaks in the circular reproduction of status: many of their treasured clients are crossing borders and slipping from their grasp. Once globally referenced their research performance becomes less worthy and more significant. Suddenly, venerable universities become less attractive and more vulnerable. This affects the status of leading universities in nations such as Australia, where at least they are global players in their own right; and leading universities in many emerging nations where national geo-strategic power is weaker and individual institutions often lack the capacity in research and communications technologies to make a ready transition to the global era.

Second, and on the other hand, global competition offers all institutions a new set of strategic options, identities and development paths. They might create international research partnerships, double-badged degrees, ICT-based linkages, foreign education as a business, and/or a cosmopolitan curriculum. Now operating in more than one sphere they can use the outcomes of strategies in one sphere – resources, networks and reputation – as inputs in the other. (They also face new tensions between domestic investment and global investment options.) Some non-elite universities, locked out of the elite segment of their national systems, position themselves as providers of high value positional goods for students from elsewhere. Nationally garnered elite status facilitates global operations, but is not essential except in Segment 1. At the same time, the national zone imposes constraints. First, some governments closely regulate global operations. Second, in all nations university revenues continue to be sourced largely from national and local sources not global sources. Even export-oriented Australia derived only 13 per cent of university revenues from teaching foreign students in 2003 (DEST 2004). University work off-shore tends to lose money. Research universities normally spend more on globally linked research activity than they generate in international research funding.

The new salience of global competition also feeds into a changing distributional politics of higher education (OECD 2004a, pp. 241–248). It is difficult to monitor equality/inequality of opportunity among the

citizens of national education systems when there are leakages to foreign providers abroad and growing numbers of non-citizens at home. How can national equity be established between students attempting to access scarce places in national universities (e.g. in professional training in Medicine or Law) and other students who 'queue jump' by accessing such programs offshore? What is the equitable balance between foreign and local students in the same high demand courses and institutions? There are also questions about the social, cultural and gender composition of mobile student populations. What is the role of parental income and social status in determining effective access to sponsored schemes, and to full-cost foreign places? What are the longer term effects of the differentiation of access to foreign education among students in emerging nations, in the formation of societies in those nations?

Global/national competition in Australia

Although all Australian universities are engaged in global competition they enter it on different terms, depending on their positional location; and they pursue different global strategies with varying levels of extensivity and intensity. Some more than others leverage global activity so as to lift their national and global status. Table 5 sets out foreign student enrolments, offshore numbers in distance education and branch campuses, foreign research students and foreign fee income (DEST 2004), partly illuminating variations in globally-inflected position and strategy.

The Australian Sandstones are overshadowed by the US/UK global leaders and constrained by reductions in government funding per student. Because of the latter all but the ANU have built a large enrolment of foreign fee-paying students, from 14.9 per cent to 27.9 per cent of all students (2003). They have focused more on numbers and revenues than on positional value and student quality, a strategy closer to non-elite Australian universities than to leading US universities. In 2003 each of Monash, NSW, Melbourne and Sydney enrolled more foreign students than any American doctoral institution. Correspondingly, the proportion of foreign students who were research students was 2.5–11.3 per cent, compared to 15 per cent in US higher education and much higher levels in some peak American universities. Individual Sandstones have also pursued more particular

Table 5. Fee-paying international education, Australian universities, 2002

Institution	All international students		Offshore international students		International research students		Revenue from international fees	
	Share of all students		Share of all students		Share of int'l. students		Proportion of all revenues	
	Number	%	Number	%	Number	%	$s mill.	%
Sandstones								
Monash U	14,499	27.9	2030	3.9	358	2.5	111.1	15.1
U New South Wales	10,330	24.4	565	1.3	499	4.8	115.9	16.5
U Melbourne	7850	19.9	0	0	523	6.7	112.1	13.1
U Sydney	7378	17.4	635	1.5	374	5.1	77.9	9.5
U Queensland	5586	14.9	35	0.1	549	9.8	65.4	8.0
U Western Australia	2543	16.0	684	4.3	287	11.3	28.8	8.0
U Adelaide	2472	15.3	436	2.7	203	8.2	27.6	8.3
Australian National U	2017	16.8	274	2.3	357	17.7	19.6	4.3
Gumtrees								
Macquarie U	6598	24.2	1191	4.4	180	2.7	55.9	18.9
U Wollongong	6563	35.0	2109	11.2	207	3.2	43.1	20.5
Griffith U	5370	17.3	335	1.1	107	2.0	40.6	11.6
Deakin U	4274	12.9	1102	3.3	51	1.2	27.7	8.5
La Trobe U	3319	13.3	1135	4.6	150	4.5	25.5	8.1
U Newcastle	3015	12.8	1011	4.3	154	5.1	28.1	10.9
Murdoch U	2210	17.4	678	5.3	73	3.3	16.3	10.4

Flinders U	1655	12.1	451	3.3	109	6.6	13.9	7.8
James Cook U	1389	10.5	26	0.2	109	7.8	10.7	6.2
U Tasmania	1252	9.1	242	1.8	92	7.3	15.4	7.1
U New England	1221	6.7	724	4.0	88	7.2	5.9	3.9
Unitechs								
Royal Melbourne IT	13,371	34.9	6257	16.3	220	1.6	102.7	21.5
Curtin U Technology	11,313	34.0	5510	16.6	413	3.7	84.1	23.9
U South Australia	8881	29.0	6587	21.5	980	11.0	45.1	15.8
U Technology Sydney	5242	17.9	1014	3.5	105	2.0	49.3	17.1
Queensland UT	5042	12.9	168	0.4	110	2.2	57.0	15.6
New universities								
Central Queensland U	9187	42.2	1913	8.8	63	0.7	79.5	37.7
Charles Sturt U	8333	20.9	5980	15.0	102	1.2	10.1	5.4
U Western Sydney	7645	21.6	4180	11.8	82	1.1	38.2	12.9
U Southern Queensland	6406	26.4	0	0	107	1.7	15.8	13.3
Victoria U Technology	4574	23.5	64	0.3	140	3.1	29.2	10.5
Edith Cowan U	3818	16.0	1647	6.9	413	10.8	25.0	12.1
Swinburne UT	3193	22.2	0	0	53	1.7	34.1	14.6
U Ballarat	2107	31.9	1164	17.6	14	0.7	5.2	4.9
U Canberra	1845	17.7	663	6.4	44	2.4	12.1	11.5
Southern Cross U	1686	14.1	1404	11.7	112	6.6	6.8	7.6
U Sunshine Coast	413	10.5	0	0	15	3.6	3.9	12.0
Northern Territory U	345	6.1	68	1.2	16	4.6	2.6	2.8

Table 5. (Continued)

Institution	All international students		Offshore international students		International research students		Revenue from international fees	
	Share of all students		Share of all students		Share of int'l. students		Proportion of all revenues	
	Number	%	Number	%	Number	%	$s mill.	%
Private universities								
Austral. Catholic U*	961	8.1	103	0.9	13	1.4	4.5	4.3
U Notre Dame Aust.	530	18.7	0	0	4	0.8	0.9	17.7
Bond U	24	n.a.	0	0	n.a.	n.a.	n.a.	n.a.
Minor sites								
[various]	601	9.6	27	0.4	54	9.0	1.3	–
Total	185,058	20.6	50,412	5.6	7274	3.9	1449.8	12.5

*Private university funded in the same manner as public universities. Source: DEST (2003).

global strategies. The most distinctive is the ANU, long funded by national government to build research and international links. ANU derived only 4.3 per cent of income from foreign students in 2003 but it maintains extensive cross-border research projects. In 2004 it was the best performed Australian university in the Shanghai Jiao Tong ratings at 53. A relatively high 17.7 per cent of foreign students were enrolled in research degrees in 2003. The University of Melbourne, proclaiming its intention to become one of the world's leading universities, organised a cross-border consortium of universities to mount a global on-line university focused primarily on China, Universitas21 Global. It originally hoped to enrol 500,000 students by 2011. The attempt appears to have failed (Marginson 2004b). Monash and NSW are developing offshore campuses in Malaysia and South Africa (Monash) and Singapore (UNSW). In future, by creating a fee-based market for local undergraduates the Nelson reforms may enable the Sandstones to reduce their dependence on high volume foreign enrolments and open more nuanced global strategies. Of the other universities, some emphasise offshore distance education, while others have committed to a high exposure to the foreign market, for example, Central Queensland (37.7 per cent of all revenues), Curtin (23.9 per cent), RMIT (21.5 per cent) and Wollongong (20.5 per cent).

Global commercial competition has also been associated with changes in the organisational cultures of Australian institutions. More efficient, responsive and standardised administration is a function of mass education as Trow (2000, pp. 5–6) notes. In Australia as in the UK this takes a specific form in which the university is normed as an autonomous self-serving corporation, and entrepreneurial behaviours and business systems become central to institutional personality. Commercial global competition reinforces this by installing business bottom-lines. Unlike the UK, in Australia this is associated with a weakening of disciplinary cultures even in some established research universities, with negative implications for research capacity (Marginson and Considine 2000). The UK has been able to combine global commercialisation, especially in lower status universities, with an uneven but very strong research performance in global terms.

For Australia, Americanised global competition also presents more subtle difficulties for national identity and strategy. Australia has positioned itself as a high volume provider by marketing and manage-

ment, inventive off-shore engagement, standard cost training in Business and IT, improved non-academic services, proximity to Southeast Asia, a friendly climate and peaceful social atmosphere, and a currency-generated price advantage over the USA/UK. Through much of the 1990s the total cost of fees and living expenses was about two thirds that of the UK and the US public universities (IDP 2001). But the discipline base is narrow, the Australian business studies curriculum is little different to the USA/UK, foreign research degree enrolments are weak, and following appreciation of the Australian dollar and cost increases in urban areas the price advantage has largely disappeared (IDP 2004). Australian international education is price dependent rather than status or content dependent. For example some Segment 2 universities operate more in global Segment 3 than Segment 2 (see Table 3). The danger is that Australia has boxed itself into a narrow market niche, that of global polytechnic.

National/global competition in the USA

American universities dominate in the institution-to-institution networking which structures the communicative field of global competition and enables it to be imagined. Universities in the different world regions have partial linkages with other regions but are always linked to universities in the United States, which is the global communications and business hub (Castells 2001). Yet those same American universities scarcely imagine the global field. There is an intense domestic competition for top students, leading academic staff and research reputations; but global competition does not generate the same vigour. American global 'exceptionalism' in higher education is constituted not only by hegemony but also indifference and insularity. Doctoral universities could draw much greater revenues from foreign education but they define it more as foreign aid and cultural exchange than as a revenue raising project. In 2003–2004 foreign enrolments were at 572, 509, which was 4.3 per cent of students. This was a decline of 2.4 per cent from the previous year (IIE 2004). Global war and visa security take priority over foreign students.

American global hegemony is exercised without entrepreneurial marketing. It is sustained by American economic, technological, cultural and military power. American universities do not have to adjust their programs or cultural ambiance to attract international support.

They do not sell an internationalised curriculum. Rather, they offer themselves as the global standard. Foreign students flock to them like the crowds of tourists streaming into Disneyland. The global transformations are all in one direction. Mobile foreign students are transformed by the US experience. Fixed foreign universities are remade on Americanised templates, and repositioned in a US-dominated research competition. But aside from a small number of specialist international programs, American universities themselves are little touched. Globalisation in higher education is what America does to the world, not what the world does to America.

Conclusion

Global higher education is produced and consumed within a world-wide university hierarchy in which inequality between research universities, and between nations – and the often uni-directional flows of people, capital and knowledge associated with those inequalities – are necessary to global competition. Export nations benefit from the absence of higher education capacity in emerging nations, and the deflated value of higher education places in those nations. English-language nations benefit from the dominance of English. This global hierarchy is not necessary to research collaboration or to non-commercial student exchange as the heavy student traffic in Western Europe demonstrates. But without such a global hierarchy there would be no positional advantage and hence no world-wide social competition through higher education.

However, the development of higher education capacity in the emerging nations, especially research capacity, can modify global asymmetries and uni-directional transformations. Educational imports make the optimum contribution to national capacity building when domestic infrastructure is strong, so that national systems can maximise 'brain return', make effective use of foreign-trained nationals and act as a magnet for diasporic investment. Global hierarchy in higher education is not fixed for all time but subject to continual movement and flux. It seems more unstable, more changeable, than national positional hierarchies in the industrialised nations – though as in national positional competition, the elite segment is more stable than any other. In the medium term the hegemony of US higher education is beyond challenge. In the longer term European collaboration could change the terms of competition, given the research strength of the West European

nations; and Singapore and Taiwan have shown that robust emerging nations can reverse the brain drain and transform their national role in education and research. China has pledged to create a layer of top research universities.

The chief concern is nations currently outside the research university circuit altogether. Higher education and research are integral to nation-building and to modernised national strategies able to secure purchase in the global setting. However, the worldwide growth of the commercial market is associated with a decline in foreign aid for higher education, especially aid from primary export nations such as the UK and Australia (OECD 2004a, pp. 284–286). Developing nations have been rendered less aid-dependant and more market-dependant. But in poorer developing nations the mechanisms of competition and markets will not deliver and it is essential to invest in higher education as a public good. Thus the overall outcome of global competition has been that while elite English-speaking institutions have been insulated from the full force of global competition by the seller-dominated dynamics of positional goods, and affluent students from middle level emerging nations (though not all students from those nations) have secured expanding opportunities via full fee places, capacity in poorer developing nations has been retarded. National and global competition in higher education will always produce globally stratified outcomes unless modified by policy action that is coordinated across borders.

Notes

1. An early version of this paper was presented as the December 2003 Radford Lecture to the annual conference of the Australian Association for Research in Education (AARE) held in Auckland, New Zealand, subsequently revised for *Australian Educational Researcher* (Marginson 2004a). I am grateful to Professor Jane Kenway, Managing Editor of *AER*, for permission to use material published there, and to the anonymous *Higher Education* reviewers.
2. Assumes that $1.00 AUD = $0.70 USD. Since the mid 1980s the exchange rate has fluctuated between 49 and 85 per cents US.
3. That is, students/graduates only started to repay their HECS debt when their incomes reached a threshold level, which was $17,000 USD per annum in 2004 (Nelson 2003b).
4. The 1996 changes, implemented in 1997, encouraged some poorer students to switch demand from high-HECS courses to low-HECS courses (Aungles et al. 2002).
5. In addition a small number of foreign students classified as fee-paying receive university scholarship support.

6. The Sandstone group here includes the Australian National University, Monash University and the University of New South Wales, although these are more recent post-second world war foundations for which (following the architectural metaphor) the title 'Redbrick' might seem more appropriate. Redbricks is the term used in Marginson and Considine (2000). However, in popular usage 'Sandstones' includes these three.
7. The IGS formula is income from research grants (60 per cent of the IGS), the number of higher degree research students (30 per cent) and publications over the previous two years (10 per cent) (see Nelson, 2003b, pp. 103–104).
8. As well as the 35 per cent limit there were other constraints: students taking FEE-HELP loans paid a surcharge of $2000 p.a., and there was a $50,000 limit on total FEE-HELP debts.
9. The new fees/loans system from 2005 absorbs the Commonwealth government's Postgraduate Education Loan Scheme (PELS) system of loans for fee-charging postgraduate courses, introduced in 2002.
10. In the first full year of operation of the PELS in 2002, 11,387 students, constituting 33 per cent of all fee paying domestic postgraduates, took out a PELS loan at an average liability per full-time equivalent student of $10,076 for one year (Nelson 2003b, p. 68).
11. Like participation in higher education itself, once the acquisition of foreign education becomes a normal practice of middle class business families in mainland China and Southeast Asia, it becomes not so much a method of gaining a special advantage, as a 'defensive necessity' (Hirsch 1976) for maintaining social position and retaining the effectiveness of the family business.
12. The other exception is elite universities or parts of universities that specialise in educating foreign students, such as the London School of Economics, or the Kennedy School of Government at Harvard.
13. The SJTUIHE data cover Nobel Prizes, publications, citations, the number of highly cited researchers, and a measure of these outputs per staff member.
14. Thus if the bulk of foreign graduates become migrants to the nation of study, this reduces the value of nationally-allocated positional goods, creating a national/global contradiction.
15. Apart from English, in the Asia-Pacific there are 14 languages spoken by 65 million people or more, including Putonghua (Mandarin) by 1000 million, Hindi and Urdu by 900 million, Bengali by 250 million and Indonesian/Malay by 160 million (Linguasphere Observatory 2003). All of these languages could become alternative global mediums, but the global university markets relentlessly reproduce the hegemony and homogeneity of English. The bedrock assumption of English-language universities is that native English speakers have little to learn in other languages. Along with the global hegemony of universities in the English-speaking nations comes global insularity, a blindness to other languages and the cultures embedded in them, regardless of the immense richness these entail.
16. As measured by using a composite index derived from GDP size and GDP per capita (World Bank 2004).

References

Aungles, P., Buchanan, I., Karmel, T. and MacLachlan, M. (2002). *HECS and Opportunities in Higher Education:* Department of Education, Science and Training (DEST). Canberra: DEST.

Bastedo, M. and Gumport, P. (2003). 'Access to what? mission differentiation and academic stratification in U.S. public higher education', *Higher Education* 46, 341–359.

Bourdieu, P. (1996). *The State Nobility: Elite Schools in the Field of Power*. translated by L. Clough. Oxford: Polity Press.

Castells, M. (2001). *The Internet Galaxy: Reflections on the Internet, Business and Society*. Oxford: Oxford University Press.

Chapman, B. (2003). 'Hidden costs the big burden', *The Australian*, 10 December, p. 36.

Department of Education, Science and Training, DEST (2003, 2004) Selected Higher Education Statistics. http://www.dest.gov.au/highered/statinfo.htm

Frank, R. (1985). *Choosing the Right Pond: Human behaviour and the quest for status*. New York: Oxford University Press.

Frank, R. (2001). 'Higher education: The ultimate winner-take-all market?' In Devlin, M. and Meyerson, J. (eds.), *Forum Futures: Exploring the future of higher education*. Forum Strategy Series Vol. 3. Jossey-Bass.

Frank, R. and Cook, P. (1995). *The Winner-Take-All Society*. New York: The Free Press.

Fulton, O. (1996). 'Differentiation and diversity in a newly unitary system: The case of the UK', in Meek, V., Goedegebuure, L., Kivinen, O. and Rinne, R. (eds.), *The Mockers and the Mocked: Comparative Perspectives on Differentiation, Convergence and Diversity in Higher Education*. Oxford: Pergammon.

Geiger, R. (2004). Market Coordination In Higher Education: the United States, in P. Teixeira, B. Jong bloed and D. Dill (eds.), *Markets in Higher Education: Rhetoric or reality*? Dordrecht: Kluwer, 161–184.

Hirsch, F. (1976). *Social Limits to Growth*. Cambridge: Harvard University Press.

IDP Education Australia, with Australian Education International (2001). *Comparative Costs of Higher Education Courses for International Students*. Sydney: IDP.

IDP Education Australia, IDP (2004). Data on the comparative costs of courses. http://www.idp.com.au

Institute for International Education, IIE (2003). Data on US international education. http://www.iie.org/

James, R., Baldwin, G. and McInnis, C. (1999). *Which University? The Factors Influencing the Choices of Prospective Undergraduates*. Evaluations and Investigations Program, Higher Education Division (Canberra, DEST) http://www.dest.gov.au/archive/highered/eippubs/99-3/whichuni.pdf

King, R. (ed.) (2004). *The University in the Global Age*. Houndsmills: Palgrave Macmillan.

Linguasphere Observatory (2003). data on world language use. http://www.linguasphere.org/

Marginson, S. (2001). 'Trends in the funding of Australian higher education', *The Australian Economic Review* 34(2), 205–215.

Marginson, S. (2004a). 'National and global competition in higher education', *Australian Educational Researcher,* 31(2), 1–28.

Marginson, S. (2004b). 'Don't leave me hanging on the Anglophone: The potential for online distance education in the Asia-Pacific region', *Higher Education Quarterly*, 58(2/3), 74–113.

Marginson, S. and Considine, M. (2000). *The Enterprise University: Power, Governance and Reinvention in Australia*. Cambridge: Cambridge University Press.

Marginson, S. and Rhoades, G. (2002). 'Beyond national states, markets and systems of higher education: A glonacal agency heuristic', *Higher Education* 43, 281–309.

Marginson, S. and Sawir, E. (2005). 'University Leaders' Strategies in the Global Environment: A Comparative Study of Universitas Indonesia and the Australian National University', *Higher Education*, forthcoming.

Mazzarol, T., Soutar, G., Smart, D. and Choo, S. (2001). *Perceptions, Information and Choice*. Canberra: Australian Education International www.dest.gov.au

Moogan, Y., Baron S. and Harris, K. (1999). 'Decision-making behaviour of potential higher education students', *Higher Education Quarterly* 53(3), 211–228.

Nelson. B., Commonwealth Minister for Education, Science and Training (2003a). *Our Universities: Backing Australia's Future* www.dest.gov.au/highered/index1.htm

Nelson. B., Commonwealth Minister for Education, Science and Training (2003b). *Higher Education. Report for 2003 to 2005 Triennium* www.dest.gov.au/highered/index1.htm

Organisation for Economic Cooperation and Development, OECD (1983). *Policies for Higher Education in the 1980s*. Paris: OECD.

OECD (2002). *International Mobility of the Highly Skilled*. Paris: OECD.

OECD (2004a). *Internationalisation and Trade in Higher Education*. Paris, OECD.

OECD (2004b). *Education at a Glance*. Paris: OECD.

Scott, P. (ed.) (1998). *The Globalisation of Higher Education* Buckingham: Open University Press.

Shanghai Jiao Tong University Institute of Higher Education, SJTUIHE (2004). *Academic Ranking of World Universities* http://ed.sjtu.edu.cn/ranking.htm

Teese, R. (2000). *Academic Success and Social Power*. Melbourne: Melbourne University Press.

Tremblay, K. (2002). 'Student mobility between and towards OECD countries: A comparative analysis', in OECD, *International Mobility of the Highly Skilled*. Paris: OECD, pp. 39–67.

Trow, M. (2000). 'From mass higher education to universal education: The American advantage', *Minerva* 37, 1–26.

Watson, L. (1999). *Survey of Private Providers in Australian Higher Education 1999*. Canberra: DEST http://www.dest.gov.au/archive/highered/eippubs/eip00_4/survey.pdf