

# Global University Rankings: Implications in general and for Australia

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Global university rankings have arrived, and though still in a process of rapid evolution, they are likely to substantially influence the long-term development of higher education across the world. The inclusions, definitions, methods, implications and effects are of great importance. This paper analyses and critiques the two principal rankings systems prepared so far, the research rankings prepared by Shanghai Jiao Tong University and the composite rankings from the *Times Higher Education Supplement*. It goes on to discuss the divergence between them in the performance of Australian universities, draws attention to the policy implications of rankings, and canvasses the methodological difficulties and problems. It concludes by advocating the system of university comparisons developed by the Centre for Higher Educational Development (CHE) in Germany. This evades most of the problems and perverse effects of the other rankings systems, particularly reputational and whole-of-institution rankings. It provides data more directly useful to and controlled by prospective students, and more relevant to teaching and learning.

## Introduction

The global context of higher education is a fast-moving, fast-changing and uneven environment, criss-crossed by shifting relations of collaboration, competition and hierarchy. It takes in global agencies, governments, corporations and individual universities. It generates sudden flows of knowledge, people and capital; and is shaped by the long, patient building of relationships and cultural synergies. It provides universities and their staff with awesome strategic challenges. There are almost too many opportunities to imitate, to partner and to innovate. Within this vast field of discussion, this paper is focused on global university rankings. These rankings are less than three years old but have already reshaped the global context of higher education.

Global university rankings are all too simple and utterly visible. They cannot be evaded or escaped. Ranking is perhaps *the* decisive move in norming higher

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education as a global market of nations and of universities in both research and doctoral education, and vocational programs (Marginson, 2006, 2007). Ranking exposes universities in every nation to a structured global competition that operates on terms that favour some universities and countries, and disadvantage others, much as the deregulation of currencies in the 1980s exposed trading economies to global market forces. It is relentless in its process of comparison, however unfair or inappropriate this might be in particular cases. It is also an irreversible development, for good or ill. Now the rankings genie is out of the bottle it will always be with us. The discipline imposed by global rankings is as inevitable as death and taxes, and more inevitable than public spending on higher education. At the same time, the particular rankings systems are not fixed in stone, at least not yet. There are different approaches. The effects vary. We are in a time in which approaches to university rankings are more than usually open to debate, innovation and evolution. This is the best point at which to intervene in such a discussion. All of this suggests that it has become mandatory to think critically about the assumptions and methods of rankings.

There are two global rankings of significance: the research university comparison by the Shanghai Jiao Tong University Institute of Higher Education, which began in 2003; and the combined index of 'the best universities' managed by the *Times Higher Education Supplement*, which commenced in 2004. They use very different methods and below the very top they produce very different results for certain nations, including Australia. This paper first summarizes the basis of the two ranking systems. It then explains the contrasting performance of Australia in the two sets of rankings, which sharply illuminates the differences in approach. The paper then explores the policy implications of university rankings, and considers questions of methodology (there is more that could be said here, but see Marginson & van der Wende, in press, and forthcoming). The paper concludes by discussing another rankings system very different to those of Shanghai Jiao Tong University and the *Times Higher Education Supplement*. This is the data base on aspects of university performance generated by the Centre for Higher Educational Development (CHE) in Germany. Arguably, CHE generates a less pejorative set of comparisons between higher education institutions, and one more directly useful to prospective students.

### **The Shanghai Jiao Tong University Rankings**

In local competition between universities the key factors are historical tradition; student demand and student selectivity within the city, district, state/province or nation; research performance; and the reputation of the university with local employers. In *global* competition most of this does not count. Unless the university is a genuine worldwide name like Harvard or Oxford, local tradition and student selectivity are irrelevant, though the level of demand from good-quality foreign doctoral students can be important. The keys to global competition are research performance and reputation, which is partly fed by research performance. The

Shanghai Jiao Tong University rankings (SJTUIHE, 2006) focus on research. Primarily, the *Times Higher Education Supplement* (28.10.2005) reflects and creates reputation, though arguably the *Times Higher* index underplays the role of research in forming and reproducing university reputation.

The Jiao Tong rankings are not holistic university rankings, though they have been widely interpreted as such. The SJTUIHE group argues that the only data sufficiently reliable for the purpose of ranking are broadly available and internationally comparable data of measurable research performance (Liu & Cheng, 2005, p. 133; Liu, 2006); it is considered impossible to compare teaching and learning worldwide, 'owing to the huge differences between universities and the large variety of countries, and because of the technical difficulties inherent in obtaining internationally comparable data'. Further, the SJTUIHE group did not want to employ subjective measures of opinion or data sourced from universities themselves. An additional rationale for using research performance data is that arguably research is the most important single determinant of university reputation and widely accepted as merit-based. The SJTUIHE has consulted widely throughout the higher education world on the calculation of the index and compilation of the data. The successive measures have proven to be increasingly robust. It is broadly accepted that Jiao Tong provides solid measures of where university research is at.

The major part of the SJTU index is determined by publication and citation in the sciences, social sciences and humanities: 20% citation in leading journals; 20% articles in *Science* and *Nature*; and 20% the number of Thomson/ISI 'HiCi' researchers on the basis of citation (Thomson-ISI, 2006). Another 30% is determined by the winners of Nobel Prizes in the sciences and economics and Fields Medals in mathematics, in relation to their training (10%) and their current employment (20%). The remaining 10% is determined by dividing the total derived from the above data by the number of staff. The SJTU rankings favour universities large and comprehensive enough to amass strong research performance over a broad range of fields, while carrying few research-inactive staff. They also favour universities particularly strong in the sciences; universities from English language nations because English is the language of research (non English language work is published less and cited less); and universities from the large US system, as Americans tend to cite Americans (Altbach, 2006). No less than 3,614 of the Thomson/ISI 'HiCi' researchers are in the USA. This compares with 224 in Germany, 221 in Japan, 162 in Canada, 138 in France, 101 in Australia, 94 in Switzerland, 55 in Sweden, 20 in China and none in Indonesia (Thomson-ISI, 2006). Harvard and its affiliated institutes alone have 168 HiCi researchers, more than the whole of the universities in France or Canada taken together; Stanford has 132 HiCi researchers, more than all the Swiss or Australian universities taken together; UC Berkeley has 82; and MIT has 74. There are 42 HiCi researchers at the University of Cambridge in the UK, 29 at Oxford and 10 at the University of Manchester.

The Nobel Prize criterion is the most controversial. The prizes are submission based. Scientific merit is not the only determining factor, there is potential for politicking to enter decisions. The Literature and Peace prizes are excluded. Another (lesser but real) problem with the Jiao Tong data base is the reliance on Thomson/ISI data. Thomson is a commercial company that publishes academic journals, and it is also the agency that determines which academic journals gain the coveted ISI rating which qualifies them for inclusion in the data base. The company has a vested interest in including its own academic journals and refusing those of other companies.

### **The *Times Higher Education Supplement* University Rankings**

Though the *Times Higher Education Supplement* promises ‘the best guide to the world’s top universities’ and a holistic ranking rather than one limited to research, the data are less solid than those of SJTUIHE. The larger part of the *Times Higher Education Supplement* index—i.e. 40%—is comprised by an international opinion survey of academics. Another 10 per cent is comprised by a survey of ‘global employers’. There are two internationalization indicators: the proportion of students who are international (5%) and the proportion of staff (5%). Another 20% is determined by the student–staff ratio, a proxy for teaching ‘quality’. The remaining 20% is comprised by research citations per staff member, using the Thomson/ISI data base. The *Times Higher Education Supplement* rankings are open to methodological criticisms. Reputational surveys indicate the market position of different institutions but not their merits, a distinction the *Times Higher* does not make. The reputational surveys comprising half of the index are non-transparent. It is not specified who was surveyed, nor what questions were asked. The student internationalization indicator rewards volume building, not the quality of students or of programs. Teaching quality cannot be adequately assessed using a resource quantity indicator such as student–staff ratios. Research plays a minor role in the index. The *Times Higher* rankings reward a university’s marketing division better than its researchers. Arguably, however, this is not how most of the world judges universities. The Jiao Tong ranking has a stronger standing than the *Times Higher*, especially outside the Westminster countries.

The emphases on reputation and on internationalization suggest that the *Times Higher* rankings are designed to intervene in the market in cross-border degrees, in which both UK and Australian universities are particularly active. The *Times Higher* is published in the UK and its owner, Rupert Murdoch, was originally from Australia. The *Times Higher* rankings boost the number of leading British universities and reduce the US universities in the world’s top 100 from 54 to 31; and as discussed below, the *Times Higher* rankings enhance the standing of Australian universities to a remarkable extent. This compounds the impression that the *Times Higher* rankings are a rigged game.

### **Australian Higher Education in the Rankings**

As measured by Jiao Tong, Australia has 16 of the world's top 500 research universities and has the eighth largest research capacity of all nations using this measure. At the elite level research performance is dominated by the English-speaking nations, with 71% of the world's top 100 research universities, and particularly by the United States, which has 17 of the top 20. The USA has 54 of the top 100 research universities, the UK 11 and Canada four. Within the English-speaking group Australia's performance is not strong at the elite level, though there is depth. Australia has two universities in the top 100, ANU and Melbourne at 54 and 78 respectively. Sydney, Queensland and Western Australia are in the top 150; the University of Western Australia benefited from the award of the 2005 Nobel Prize to Medicine to one of its research professors. The University of NSW is in the top 200; Macquarie, Monash and Adelaide in the top 300; Latrobe and Newcastle are in the top 400; and Flinders, James Cook, Murdoch, Tasmania and New England are in the top 500 research universities (SJTUIHE, 2006).

Australia does much better in the *Times Higher Education Supplement*, where it emerges as the third strongest university nation in the world after the USA and UK, well ahead of Japan, Canada, Germany and the rest of Europe. There are 12 Australian universities in the *Times Higher* first 100, though only Melbourne (19) and ANU (22) are in the first 30. The *Times Higher* also provides discipline-specific rankings in five domains, and again, Australia does well. ANU (at 13), Melbourne, Sydney, Monash and New South are in the top 50 for Science. New South (at 16), Melbourne, Monash, ANU, Queensland and Sydney for Technology; Melbourne (at 10), Sydney, ANU, Monash, Queensland, New South and QUT for Biomedicine; Melbourne (at 8), ANU, La Trobe, Monash, UTS, Macquarie, Sydney and WA for Arts and Humanities; and Melbourne (at 11), ANU, Monash, Sydney, New South, Queensland, RMIT and Macquarie in Social Sciences—all in all, a brilliant result. Despite the relatively weak performance of the Australian universities in the *Times Higher* citation indicator, the sole part of the index based on research, they do very well in the reputational surveys and internationalization indicators (*Times Higher Education Supplement*, 28.10.2005).

However, Australian universities can take no great comfort from this result, notwithstanding the global marketing advantages it creates. It appears that the *Times Higher* has artificially inflated the performance of Australian universities. There is a danger that the *Times Higher* result will induce complacency in university and policy circles in Australia, enabling the Jiao Tong performance, which is more material and influential, to be set aside. Here it is instructive to compare Australia with Canada. Canada has 50% more than Australia's population and GDP. Like Australia, it is somewhat in the shadow of the USA, though more so; and like Australia, it continues to be shaped by British university tradition, though Canada has higher levels of participation than in either the UK or Australia. The main source of funding is the provincial governments. They have not instigated the dramatic reductions in public funding per head and the great shift to private sources of support that has occurred in

Australia. Canada has four of the top Jiao Tong top 100. Toronto at 24, and the University of British Columbia at 36, are well ahead of the ANU. The research output of the University of Toronto is massive: in raw publication and citation it is second to Harvard. The only area in which the Australian universities clearly outperform their Canadian counterparts is in the number of international students.

### **Policy Implications of the Rankings**

The Jiao Tong data can be used to explore the research performance of the different nations in more depth, by mapping each nation's share of global economic capacity against its share of the Jiao Tong top 100 and top 500 research universities. In Table 1 national economic capacity is calculated by multiplying total GDP with GDP per head. This takes into account both total economic size and the intensity of wealth. Using this measure, the USA over-performs in its share of the top 100 universities, but under-performs in the top 500. The extreme concentration of status and research resources in the top US universities creates American global leadership at the expense of a broad-based research capacity in regional knowledge economies. On this measure both the UK and Canada are doing very well at both top 100 and top 500 levels. Australia does well at top 500 level, indicated a broad-based distribution of research capacity, but is weaker in the top 100, where a number of European nations do better relative to capacity, including Switzerland, Sweden, The Netherlands, Denmark and Finland and the UK.

Generally, the nations that do best relative to economic capacity are nations that are strong investors in public universities, with the private sector playing a relatively minor role. In technical economic terms, research is largely a public good that tends to be under-provided in markets (Stiglitz, 1999). In all nations the great majority of university research is government funded. Even in the USA corporations finance only about 5% of university research.

Regardless of whether they are performing well or badly relative to economic capacity, all nations want to increase their number of ranked universities and to see their leading institutions move up the Jiao Tong and *Times Higher* tables. As noted, it appears that global ranking has secured mainstream public and policy credibility, and most institutions have accepted them. Given this, research universities are impelled to succeed within the terms of the measures and will adopt institutional policies and strategies that optimize their position—especially their position in the Shanghai Jiao Tong rankings, which are seen as more credible. Rankings have exacerbated competition for the leading researchers and best younger talent, and are likely to drive up the price of high-performing researchers and research groups. Within national systems the rankings have prompted the desire for more and higher-ranked universities both as symbols of national achievement and prestige, and supposedly, as engines of the knowledge economy. There is a growing emphasis on institutional stratification and research concentration. All these responses have cemented the role of the rankings themselves and further intensified competitive pressures.

Table 1. Nation shares of top 500 and 100 research universities, as measured by Shanghai Jiao Tong University, compared to their shares of world economic capacity, 2003–5

Nation	Gross National Income, 2003 \$b USD PPP	Population, 2003	GNI per head, 2003 \$ USD PPP	Share of world economic capacity, 2005 %	Share of top 500 research universities, 2005 %	Share of top 100 research universities, 2005 %
USA	10,978	290.8	37,750	41.8	33.6	53.0
UK	1,643	59.3	27,690	4.6	8.0	11.0
Germany	2,279	82.5	27,610	6.3	8.0	5.0
Japan	3,629	127.6	28,450	10.4	6.8	5.0
Canada	950	31.6	30,040	2.9	4.6	4.0
France	1,652	59.8	27,640	4.6	4.2	4.0
Sweden	239	9.0	26,710	0.6	2.2	4.0
Switzerland	237	7.4	32,220	0.8	1.6	3.0
Australia	572	19.9	28,780	1.7	2.8	2.0
The Netherlands	463	16.2	28,560	1.3	2.4	2.0
Italy	1,546	57.6	26,830	4.2	4.6	1.0
Israel	130	6.7	19,440	0.3	1.4	1.0
Austria	241	8.1	29,740	0.7	1.2	1.0
Finland	143	5.2	27,460	0.4	1.0	1.0
Denmark	167	5.4	31,050	0.5	1.0	1.0
Norway	173	4.6	37,910	0.7	0.8	1.0
Russian Federation	1,284	143.4	8,950	1.3	0.4	1.0
China*	6,410	1288.4	4,980	3.2	6.5	0.0
Spain	910	41.1	22,150	2.0	4.5	0.0
Korea	862	47.9	18,000	1.6	4.0	0.0
Belgium	300	10.4	28,920	0.9	3.5	0.0
China Hong Kong	195	6.8	28,860	0.6	2.5	0.0
Taiwan	NA	NA	NA	NA	2.5	0.0
New Zealand	86	4.0	21,350	0.2	2.5	0.0
Brazil	1,326	176.6	7,510	1.0	2.0	0.0
South Africa	464	45.8	10,130	0.5	2.0	0.0
India	3,062	1064.4	2,880	0.9	1.5	0.0
Ireland	123	4.0	30,910	0.4	1.5	0.0
Poland	428	38.2	11,210	0.5	1.5	0.0
Singapore	103	4.3	24,180	0.3	1.0	0.0
Hungary	140	10.1	13,840	0.2	1.0	0.0
Turkey	475	70.7	6,710	0.3	1.0	0.0
Greece	220	11.0	19,900	0.4	1.0	0.0
Mexico	919	102.3	8,980	0.8	0.5	0.0
Argentina	420	36.8	11,410	0.5	0.5	0.0
Chile	155	15.8	9,810	0.2	0.5	0.0
Czech Republic	159	10.2	15,600	0.3	0.5	0.0
Portugal	185	10.4	17,710	0.3	0.5	0.0
All other nations**	8,219	2338.2	3,456	2.9	0.0	0.0
World total	51,401	6272.5	8,190	100.0	100.0	100.0

Notes: \*China Hong Kong is listed separately. \*\*Population and GDP data include Taiwan. World economic capacity is measured as an aggregate of the individual nations' economic capacity, defined as GNI multiplied by GNI per head. All nations without any top 500 research universities are treated as one unit. Sources: World Bank (2006); SJTUIHE (2006).

The incentive effects should not be underestimated. They are likely to be very influential in framing behaviours, if the rankings continue as they have begun. In the United States the annual US News and World Report (USNWR) survey, which commenced in 1983, has been very influential in determining institutional prestige and influencing flows of students, faculty and resources, and in shaping institutional strategies designed to maximize the USNWR position, for example, by pushing up student scores and apparent rejection rates, often by shifting student aid from needs-based support to merit support (Kirp, 2004). In some universities enrolment managers are paid more than football coaches, and much more than the university president!

The Jiao Tong rankings have already intensified the global competition for HiCi researchers, the best postdocs and foreign doctoral students. Salaries and research support are not the only determinants of where researchers choose to work, but they are important. Here the United States universities, and nations such as Singapore paying at close to American rates, are most strongly placed. Professorial salaries for one year in Australia are three-quarters of average salaries for 9–10 months in the US doctoral sector. Australia pays Federation Fellows double salaries (\$150,000 USD) but the US pays 6% of professors more than \$200,000 for 9–10 months. The United States also benefits here from its dominant role in the global doctoral market. In 2004 it enrolled 102,000 foreign doctoral students, compared to 8,000 in Australia. Nearly 31% of all the foreign students enrolled in the American research-intensive universities are research degree students, compared to 5% in Australia and 10% in the UK (IIE, 2006; OECD, 2004, 2005). Most of the foreign doctoral students in the USA are supported by American scholarships. More than half of the foreign doctoral graduates stay on in the USA and many enter university research. Most nations have a net brain drain to the USA.

### **Methodological Problems**

The powerful clarity of league tables of universities conceals a whole array of methodological problems and anomalies. These will be summarized only briefly here, but they profoundly affect the level of validity of particular rankings (especially those of the *Times Higher Education Supplement*) and they should be taken into account when the practical implications of rankings are discussed.

First, there is the core issue of the definition of higher education that underlies rankings. Usher and Savino (2006) examine 19 league tables and university rankings systems from around the world. Like Van Dyke (2005), they make the point that the different rankings systems are driven by different purposes and are associated with different notions of what constitutes university quality. Each ranking system norms particular notions of higher education and its benefits and effects. In the Jiao Tong universe, higher education is scientific research. It is not teaching or community building or democracy or solutions to local or global problems. In the *Times Higher* universe, higher education is primarily about reputation for its own sake, about the

aristocratic prestige and power of the universities as an end in itself, and also about making money from foreign students. It is not about teaching and only marginally about research. To accept these ranking systems is to acquiesce at these definitions of higher education and its purposes.

Second, whole of institution rankings norm one kind of higher education institution with one set of institutional qualities and purposes, and in doing so, strengthen its authority at the expense of all other kinds of institution and all other qualities and purposes. The Jiao Tong rankings not only norm comprehensive research universities, their blueprint is a particular kind of science-strong university in the Anglo-American tradition. Around the world there is considerable variation in the size, scope and functions of leading research universities. The 200,000–300,000 student national universities in Mexico City and Buenos Aires combine national research leadership with professional preparation and broad-based social access and necessarily carry a large group of non-researching staff, disadvantaging them in the Jiao Tong index. Further, there are no cross-national measures of the performance of vocational education systems or institutions equivalent to the SJTUIHE measures in research universities. While in most nations vocational education commands lesser status than research-based universities the German *Fachhochschulen* (vocational technical universities), relatively well resourced and with equivalent status to academic universities plus links to industry, are in high international standing. Similar comments can be made about vocational provision in Finland, Switzerland and France. Another model in high regard is the Indian Institutes of Technology (IITs). But in the absence of policy moves to shore up diversity by other means, attention to global research rankings may weaken the standing of non-research institutions and trigger the evolution of more unitary but vertically differentiated systems. There is no reason to assume that intensified competition in itself will generate a more diverse national or global pattern of specialization.

Third, because most rankings systems purport to ‘evaluate universities as a whole’ (Van Dyke, 2005, p.106), they depend, as Usher and Savino (2006) note, on arbitrary weightings of the different elements used to construct composite indexes covering different aspects of quality or performance: ‘The fact that there may be other legitimate indicators or combinations of indicators is usually passed over in silence. To the reader, the author’s judgment is in effect final’ (Usher & Savino, 2006, p. 3). As Rocki (2005, p.180) notes in reflecting on the Polish experience: ‘The variety of methodologies, and thus of criteria used, suggest that any single, objective ranking could not exist.’ Composite approaches muddy the waters and undermine validity. It is dubious to combine different purposes and the corresponding data using arbitrary weightings. Links between purposes and data are lost. Likewise, it is invalid to mix subjective data on reputation with objective data on resources or research outputs as the *Times Higher Education Supplement* does.

Fourth, rankings become an end in themselves without regard to exactly what they measure or whether they contribute to institutional and system improvement. ‘League tables’ become highly simplistic when treated as summative, but this is

*normally* the case. The desire for rank ordering overrules all else. A common problem is that in rankings systems institutions are rank-ordered even where differences in the data are not statistically significant.

Fifth, rankings divert attention from some central purposes of higher education. No ranking or quality assessment system has been able to generate comparative data based on measures of the 'value added' during the educational process, and few comparisons focus on teaching and learning at all (Dill & Soo, 2005, pp. 503, 505) though such data might be useful for prospective students. Altbach states, 'there are, in fact, no widely accepted methods for measuring teaching quality, and assessing the impact of education on students is so far an unexplored area as well' (Altbach, 2006, p. 2; see also Guarino *et al.*, 2005, p. 149). Instead there are various proxies for teaching 'quality' such as quantity resource indicators, student selectivity and research performance. But 'empirical research ... suggests that the correlation between research productivity and undergraduate instruction is very small and teaching and research appear to be more or less independent activities' (Dill & Soo, 2005, p. 507). And data on student selectivity simply provide measures of reputation. Often it is argued that the rationale for university rankings is the provision of information for student 'consumers'. Yet the data say nothing about actual teaching and are only marginally concerned with educational resources. In fact there is a serious danger that the incentives triggered by rankings will detour universities from the renovation of pedagogy and curricula, which will not show up in the rankings position.

Sixth, reputational surveys like those of the *Times Higher Education* generate numerous lacunae and perverse effects. When holistic rankings of institutions become centred on measuring and/or forming reputation, and the measures derive from selectivity of entry and research status, the terms of inter-institutional competition are being defined by credentialism rather than by the formative outcomes of higher education. The implication is that students' only concern is the status of their degrees, not what they learn. They favour universities already well known regardless of merit, degenerating into 'popularity contests' (Altbach, 2006). They are open to the charge that they simply recycle and augment existing reputation (Guarino *et al.*, 2005, p. 149) regardless of whether it is grounded in the real work of institutions or not: 'Raters have been found to be largely unfamiliar with as many as one third of the programs they are asked to rate' (Brooks, 2005, p. 7). Well-known university brands generate halo-effects. For example one American survey of students ranked Princeton in the top 10 Law Schools in the country, but Princeton did not have a Law School (Frank & Cook, 1995, p. 149). It was created by the halo-effect!

More generally, regardless of whether it is based on reputational data or not, any system of global rankings tends to function as a reputation maker that entrenches competition for prestige as a principal aspect of the sector and generates circular reputational effects that tend to reproduce the pre-given hierarchy. Reputational rankings are the worst form of ranking, in that they generate the least public goods and the most public bads, and the most selective distribution of private goods. At the same time, they are accessible, appear credible and are easy to generate.

## **A Better Approach to University Rankings**

Given that global university rankings are a potent device for framing higher education on a global scale, it seems better to enter rather than abstain from the debate on them (van der Wende, 2006). It is important to secure 'clean' rankings: transparent, free of self-interest and methodologically coherent, that generate an across-the-board dynamic of improvement.

The one system of rankings meeting these requirements is that developed by the Centre for Higher Education Development (CHE, 2005) in Germany (<http://www.che.de>) and issued in conjunction with the publisher Die Zeit (Ischinger, 2006). This system includes data on all higher education institutions in Germany and now also encompasses Switzerland and Austria. The Netherlands and Belgium (Flanders) are preparing to join. Some Nordic institutions are also showing interest. The CHE ranking system has also received positive responses from scholars in the English-speaking world (Van Dyke, 2005; Usher & Savino, 2006). The chief virtue of the CHE rankings, which has far-reaching implications for the form of competition in higher education, is that it dispenses with a spurious holistic (summative) rank ordering of institutions and instead provides a range of data in specific areas, including single disciplines. CHE notes that there is no 'one best university' across all areas and 'minimal differences produced by random fluctuations may be misinterpreted as real differences' in holistic rankings systems. Best of all, the CHE data are provided via an interactive web-enabled database. This permits the prospective student to examine rank-identified programs and/or institutional services based on their chosen criteria (CHE, 2005) and to decide how the different objectives ought to be weighed. It enables a customized comparison that is tailored exactly to the purpose of the student, rather than to the interests of the university or the agendas of publishing companies.

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## **References**

- Altbach, P. (2006). The dilemmas of ranking. *International Higher Education*, 42, 1–2.  
Brooks, R. (2005). Measuring university quality. *Review of Higher Education*, 29(1), 1–21.

- Center for Higher Education Development (CHE). (2005). *Study and research in Germany. University rankings, published in association with Die Zeit*. Retrieved March 16, 2006, from <http://www.daad.de/deutschland/studium/hochschulranking/04708.en.html>.
- Dill, D., & Soo, M. (2005). Academic quality, league tables, and public policy: A cross-national analysis of university rankings. *Higher Education, 49*, 495–533.
- Frank, R., & Cook, P. (1995). *The winner-take-all society*. New York: The Free Press.
- Guarino, C., Ridgeway, G., Chun, M., & Buddin, R. (2005). Latent variable analysis: A new approach to university ranking. *Higher Education in Europe, 30*(2), 147–165.
- Institute for International Education (IIE). (2006). *Data on US international education*. Retrieved August 17, 2006, from <http://opendoors.iienetwork.org/?p=69736>.
- Institute for Scientific Information, Thomson-ISI. (2006). *Data on highly cited researchers*. Retrieved April 10, 2006, from <http://isihighlycited.com/>.
- Ischinger, B. (2006). Higher education for a changing world. *OECD Observer*, June, 3.
- Kirp, D. (2004). *Shakespeare, Einstein and the bottom-line: The marketing of higher education*. Cambridge, MA: Harvard University Press.
- Liu, N. (2006, February 16). *The differentiation and classification of Chinese universities and the building of world-class universities in China*. Presentation at Seminar, Leiden University. Retrieved March 16, 2006, from [http://www.leidenslatest.leidenuniv.nl/content\\_docs/presentation\\_prof\\_liu.ppt#364,4,Dream of Chinese for WCU](http://www.leidenslatest.leidenuniv.nl/content_docs/presentation_prof_liu.ppt#364,4,Dream of Chinese for WCU).
- Liu, N., & Cheng, Y. (2005). The academic ranking of world universities. *Higher Education in Europe, 30*(2), 127–136.
- Marginson, S. (2006). Dynamics of national and global competition in higher education. *Higher Education, 52*, 1–39.
- Marginson, S. (2007). Global position and position-taking: The case of Australia. *Journal of Studies in International Education, 11*(1), 5–32.
- Marginson, S., & van der Wende, M. C. (forthcoming). *Globalisation and higher education*. Paris: OECD.
- Marginson, S., & van der Wende, M. C. (submitted). To rank or be ranked: The implications of global rankings in higher education. *Journal of Studies in International Education*.
- Organization for Economic Cooperation and Development (OECD). (2004). *Internationalization and trade in higher education: Opportunities and challenges*. Paris: OECD.
- Organization for Economic Cooperation and Development (OECD). (2005). *Education at a Glance*. Paris: OECD.
- Rocki, M. (2005). Statistical and mathematical aspects of ranking: Lessons from Poland. *Higher Education in Europe, 30*(2), 173–181.
- Shanghai Jiao Tong University Institute of Higher Education (SJTUHE). (2006). *Academic ranking of world universities*. Retrieved August 1, 2006, from <http://ed.sjtu.edu.cn/ranking.htm>.
- Stiglitz, J. (1999). Knowledge as a global public good. In I. Kaul, I. Grunberg, & M. Stern (Eds.), *Global public goods: International cooperation in the 21st century* (pp. 308–325). New York: Oxford University Press.
- Times Higher Education Supplement*. (2005). World University Rankings. *Times Higher Education Supplement*, October 28. Retrieved April 10, 2006, from <http://www.thes.co.uk>.
- Usher, A., & Savino, M. (2006). *A world of difference: A global survey of university league tables*. Retrieved April 2, 2006 from <http://www.educationalpolicy.org>.
- Van Dyke, N. (2005). Twenty years of university reports cards. *Higher Education in Europe, 30*(2), 103–124.
- Wende, M. C. van der. (2006). The challenges of university ranking. Paper presented at Seminar, Leiden University, 16 February, 2006. Retrieved March 16, 2006, from [http://www.leidenslatest.leidenuniv.nl/content\\_docs/presentation\\_prof\\_van\\_der\\_wende.ppt](http://www.leidenslatest.leidenuniv.nl/content_docs/presentation_prof_van_der_wende.ppt).
- World Bank. (2006). *World Bank data and statistics*. Retrieved April 2, 2006, from <http://www.worldbank.org/data>.