

## League Tables as Policy Instruments: Uses and Misuses

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*This article examines the role and usefulness of league tables that are increasingly used to measure and compare the performance of tertiary education institutions. The article begins with a general overview and a typology of league tables. It continues with a discussion of the controversies they have generated, including the basis and the range of criticism they have invited, the merit of indicators they use as measures of quality, and the potential conditions that place universities at an advantage or a disadvantage in ranking exercises. The paper ends with a discussion of implications of league tables for national policies and institutional practices both in the developing world and in industrial countries.*

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## Introduction

*“Things which are perceived to be real will be real in their consequences.”*

*William I. Thomas*

In 1963, the faculty and administration of the University of California, Berkeley objected strongly when the campus’ radical student newspaper, *Cal Reporter*, took the initiative to publish student evaluations of their courses and professors (SLATE, 2003-2005). Despite this initial resistance, student evaluations have steadily become part and parcel of many universities’ internal accountability mechanisms, not only in the United States but in a growing number of countries around the world. Today, there are even websites where any student can post a rating of his/her professors, no matter where in the world (see for example [www.ratemyprofessor.com](http://www.ratemyprofessor.com)). More generally, over the past 20 years, universities that had traditionally enjoyed considerable autonomy are now being challenged to become more accountable for their performance and the use of public resources. Demands for increased accountability of tertiary education institutions have come not only from the students, but also from other stakeholders such as governments wary of rising costs, employers in need of competent graduates, and the public at large eager for information about the quality of education and labour market prospects.

Accreditation, cyclical reviews, external evaluation by peers, inspection, audits, performance contracts based on predetermined indicators, benchmarking and research assessments are among the most common forms of accountability. Some are initiated by the institutions themselves; some are imposed on tertiary education institutions externally by funding bodies, quality assurance agencies, committees of presidents and vice chancellors, as well as stakeholders at large. One example of the latter is institutional rankings by league tables. At this point, there are no fewer than 30 noteworthy rankings, ranging from broad rankings of national universities, such as *Maclean’s* and *US News and World Report*, to comprehensive international rankings, such as *The Times Higher Education Supplement (The THES)* and Shanghai Jiao Tong University (SJTU), to research specific rankings, such as those of New Zealand and the United Kingdom, and even to idiosyncratic rankings such as those that claim to identify the most wired or most politically active campuses. This does not even include the countless Master of Business Administration (MBA) and other professional school rankings that exist all over the world.

League tables, also referred to as institutional rankings and report cards (Gormley and Weimer, 1999), are constructed by using objective and/or subjective data obtained from institutions or from the public domain, resulting in a “quality measure” assigned to the unit of comparison relative to its competitors. For the most part, the unit consists of tertiary education institutions, primarily universities. However, rankings are also done of colleges or specific subject areas or programmes across all institutions. Most of the discussion offered in this paper is based on leagues tables used to rank universities.

A wide range of indicators is used in league tables. These indicators are intended to measure how the system is set up (input variables), the way it functions and its internal efficiency (process variables), and its productivity and impact (output variables) relative to the performance of other universities and programmes.<sup>1</sup> Various media and other agencies that conduct comparative rankings place different levels of emphasis on the variables selected for comparison and this is most apparent in the weighting they accord to the indicators. Some rankings are done within a class of universities, allowing institutions with various missions and orientation to compete on a level playing field.<sup>2</sup> Others are done across the board, and yet others compare only specific programmes rather than the institution as a whole.

In some countries, the ranking exercise is undertaken as part of the accreditation process, either by the accreditation agency itself, in countries where one exists, or by the authority in charge of tertiary education. At one extreme, there is only a ranking of universities into three or four accreditation categories (*e.g.* Argentina). At the other extreme, the agency involved conducts a full-scale ranking of the institutions under review (*e.g.* Nigeria).

The expansion of league tables and ranking exercises has not gone unnoticed by the various stakeholders and the reaction they elicit is rarely benign. Such rankings are often dismissed by their many critics as irrelevant exercises fraught with data and methodological flaws, are boycotted by some universities angry at the results, and are used by political opponents as a convenient way to criticise governments. One thing they do not do is to leave people unmoved. With leagues tables becoming a growing industry, even in the developing world, their accuracy, relevance and usefulness have become issues of concern (*e.g.* Bowden, 2000; Clarke, 2002; Dill and Soo, 2005; Eccles, 2002). Are they totally inappropriate measures of quality in tertiary education that should be discarded altogether? Can they be adapted to become relevant to the information needs of developing countries? Do they have any beneficial use for public policy, accountability and consumer information purposes?

To answer these questions, this paper examines league tables and similar instruments that classify tertiary education institutions with a particular focus on the role and usefulness of these instruments as public information

mechanisms and as a measure of the quality of education that institutions offer to their students. The article begins with a general overview and a typology of league tables: their beginnings, patterns of growth and distinguishing characteristics. It continues with a discussion of the controversies they have generated: the basis and the range of criticism they have invited, the merit of indicators they usually include as measures of quality, and the potential conditions that place universities at an advantage or a disadvantage, particularly in international ranking exercises. These discussions lead to the final section of the paper which considers implications of league table rankings for national and institutional policies and practices both in the developing world and in industrial countries. Since existing rankings deal essentially with the university sector, this paper follows the same approach, acknowledging that some initiatives have taken place in the non-university sector as well, albeit on a much smaller scale.<sup>3</sup>

## **A typology of rankings and related accountability mechanisms**

### ***The beginnings***

In a recent comprehensive review of league tables, Usher and Savino (2006) trace the origin of media-initiated comparisons of universities to 1981 and to Bob Morse at the *US News and World Report*. However, ranking of tertiary institutions by media seems to have been initiated about three decades earlier by Chesly Manly of the *Chicago Tribune*. The first ranking of tertiary institutions by academics or educational organisations occurred even before that, at the turn of the last century. Table 1, which is based in part on an article by Stuart (1995), shows the evolution of this activity from 1870 to 1982 when this exercise gained wider popularity and became what it is today.

It is interesting to note that, at the outset, academic ranking of institutions was carried out as one of several types of evaluation to determine institutional effectiveness. Other approaches included accreditation, surveys, self-studies, alumni studies, and evaluation of student achievement and opinion (Pace and Wallace, 1954; Stuit, 1960). Also noteworthy is the importance placed on reputation as a measure of quality and the peer review process as a reliable source and mechanism for generating data based on the rankings. For instance, as early as 1959, Keniston's methodology involved asking 25 departmental chairs of institutions, who were members of the Association of American Universities, to rate the strongest departments in their respective fields, using the quality of PhD work and the quality of the scholarship of faculty as primary criteria (Stuit, 1960). Webster (1986) has suggested that one reason for the historical reliance on reputational/peer review measures was that current sources such as citation indices like Thomson's simply did not exist (Clarke, 2006).

Table 1. **Chronology of ranking activities in the United States, 1870-1982**

1870-1890	The Commission of the US Bureau of Education begins publishing an annual report of statistical data, classifying institutions.
1910	The Association of American Universities urges the US Bureau of Education to reinstate classifications.
1910-1933	James Cattell, one of America's first psychologists, professor at the University of Pennsylvania and then Columbia, publishes "American Men of Science" in which he ranks institutions on the basis of the number of eminent scientists associated with an institution either as a student or a faculty member, and factors in the ratio of scientists at a given institution to the total number of faculty.
1925	Raymond Hughes, president of Miami University and later chair of the American Council on Education and its Committee on Graduate Instruction publishes "A Study of the Graduate Schools of America" in which he uses reputational ranking of 26 disciplines in 36 institutions.
1957	Chesley Manly of the <i>Chicago Tribune</i> publishes six different rankings: ten best universities, co-educational colleges, men's colleges, women's colleges, law schools and engineering schools.
1959	Hayward Keniston of the University of Pennsylvania publishes reputational ranking of 25 universities in a range of disciplines.
1966	Allan Cartter of the American Council of Education publishes "An Assessment of Quality in Graduate Education" which ranks 106 institutions.
1973-1975	Blau and Margulies conduct reputation ranking of professional schools.
1982	The US National Academy of Science commissions an assessment of research and doctoral programmes in the United States.
1982	Rankings begin to be extended to undergraduate education ( <i>e.g. Fiske Guide to Colleges, 1982; US News and World Report, 1983; etc.</i> ).

### Patterns of growth

The systematic use of league tables as a widespread phenomenon, however, has a history of less than a decade. Eleven of the 19 league tables included in Usher and Savino's 2006 report have come into existence since the year 2000. Among the exceptions in the list are *US News and World Report*, Canada's *Maclean's University Rankings*, Poland's *Perspektywy/Rzeczpospolita Uniwersytet*, the United Kingdom's *The Times Good University Guide*, and China's *Guangdong Institute of Management Science Rankings* which have had a more extended history. It would not be farfetched to associate the proliferation in league tables with the massification, or unprecedented increase in enrolments, in tertiary education around the world.<sup>4</sup> In addition, the flood of cross border private and distance providers, the trend towards internationalisation of tertiary education, and the related increased stakeholders' demand for greater accountability, transparency and efficiency have all contributed to increased incentives for quantifying quality. Even the potential for economic gain for the producers of rankings has been suggested as a reason for this proliferation.

A different way to look at patterns of growth of league tables is to consider their regional concentration. Table 2 shows this distribution and, in addition, provides insight into the type of institution in each country that initiates the

Table 2. **Ranking systems worldwide, 2006**

Region	National and international ranking system
East Asia and Pacific	Australia (B), China (B, C, IB), Hong Kong (C), Japan (B, C), Korea (A), Malaysia (A), New Zealand (A), Thailand (A)
Eastern Europe and Central Asia	Kazakhstan (A, B), Poland (C), Romania (B/C), Russia (B), Slovakia (B), Ukraine (B/C)
Latin America and the Caribbean	Argentina (D), Brazil (A), Chile (C,D)
Middle East and North Africa	Tunisia (A)
North America	Canada (B, C, B/C), United States (C, IC)
South Asia	India (C, D), Pakistan (A)
Sub-Saharan Africa	Nigeria (A)
Western Europe	Germany* (B/C, C), Italy (C), Netherlands (A), Portugal (C), Spain** (B, C, IC), Sweden (C), Switzerland (B/C), United Kingdom (A, B, IC)

A = Ranking prepared by a government agency (Ministry of Higher Education, Higher Education Commission, University Grants Council, etc.). B = Ranking prepared by an independent organisation, professional association, university or preparatory school. B/C = Ranking prepared and published through a partnership between an independent agency and a newspaper or magazine. C = Ranking prepared and published by a newspaper or magazine. D = Ranking prepared by an accreditation agency. I = International ranking (IA, IB, IC and ID linking the international dimension to the type of institution conducting the ranking).

\* Austrian and Swiss universities are included in the German ranking prepared by the Centre for Higher Education Development (CHE).

\*\* A consortium of Spanish, Portuguese and Latin American universities, Universia, computes a ranking of Iberian and Latin American universities based exclusively on publications in internationally recognised journals (<http://investigacion.universia.net/>).

Sources: World Bank and CEPES data, and the following articles: Rocki, M. (2005), "Polish Rankings: Some Mathematical Aspects", *Higher Education in Europe*, Vol. 30, No. 2, July, pp. 173-182. Clarke, M. (2005), "Quality Assessment Lessons from Australia and New Zealand", *Higher Education in Europe*, Vol. 30, No. 2, July, pp. 183-198. DeMiguel, J.M., E. Vaquera and J. Sanchez (2005), "Spanish Universities and the Ranking 2005 Initiative", *Higher Education in Europe*, Vol. 30, No. 2, July, pp. 199-216. Liu, N.C. and L. Liu (2005), "University Rankings in China", *Higher Education in Europe*, Vol. 30, No. 2, July, pp. 217-228. WENR (2003), "Nigeria: NUC Releases 2003 University Rankings", September/October, [www.wes.org/ewenr/03Sept/Africa.htm](http://www.wes.org/ewenr/03Sept/Africa.htm), accessed 3 April 2006.

ranking. As can be discerned, the majority of league tables are prepared and published by newspapers and magazines (e.g. in Canada, France, the United Kingdom and the United States). However, they can also be initiated by a government agency such as the Ministry of Higher Education or University Grants Council (e.g. in the Netherlands, New Zealand, Pakistan, Thailand and the United Kingdom), by independent organisations (e.g. in Germany and Spain), by universities or professional associations (e.g. the Shanghai Jiao Tong University ranking), or by accreditation agencies (e.g. in Argentina).

Table 2 reveals that the proliferation of this activity is not evenly extended across regions and countries. In the Middle East and North Africa, in Central Asia, and in Sub-Saharan Africa, with the exception of Nigeria, league tables are still non-existent. In contrast, they are increasingly more prevalent in industrial countries.

The consequence of league table rankings varies depending on the authority that conducts the exercise. In the first instance it can influence public opinion, as is the case with magazine rankings. In some cases, rankings can be deemed as one step in the accreditation process as is the case in Argentina and Pakistan. Finally, rankings of research outputs, as practiced in New Zealand and the United Kingdom, have a direct impact on the level of government funding flowing to concerned institutions.

### **Characteristics of league tables**

Extensive discussions of typologies and critical analysis of methodological flaws associated with league tables are available in a number of recent review articles (see, for example, Bowden, 2000; Brooks, 2005; Dill and Soo, 2005; Liu and Cheng, 2005; Provan and Abercromby, 2000; Usher and Savino, 2006; Yonezawa *et al.*, 2002). These reviews provide useful insight into the conceptual and theoretical underpinnings of league tables, elaborate on the indicators used as measures of quality, and offer a critical assessment of the methodologies involved and their respective shortcomings. In the section below, the most salient points from this literature are highlighted.

League tables share several common characteristics. The first is that they include a set of indicators or clusters of indicators as proxies of quality. The most simplified classification of categories of indicators is input, process and output indicators. Usher and Savino (2006) offer a more elaborate framework with seven sets of categories: beginning characteristics (*e.g.* student entry qualifications such as high school grade point average or selectivity), learning inputs (*e.g.* institutional resources, both financial and material, available to students and staff, nature of institutional funding, etc.), learning inputs (*e.g.* staff qualifications, ratio of staff to students, workload assignments, contact hours, etc.), learning outputs (*e.g.* skills sets gained, retention and completion rates), final outcomes (*e.g.* employment rates, success rate in graduate school acceptance, job satisfaction, etc.), research (publications, awards, citations, impact factor, research budgets, research based chairs, number of patents, etc.) and reputation (*e.g.* from a range of perspectives including those obtained from peers, academic administrators and employers). The more reputable league tables typically include multiple measures for each dimension.

A second characteristic associated with many though not all league tables is that a weighted score is accorded to each set or cluster of indicators. The weightings vary across league tables and typically reflect the view of the table's publisher rather than being grounded theoretically (Brookes, 2005; Clarke, 2002; Provan and Abercromby, 2000). These weights are then used to generate a single rating. In September 1996, Gerhard Casper, the sitting President of Stanford University, wrote an open letter to *US News and World*

Report, criticising this exact issue (Casper, 1996). There is general consensus that this arbitrary and subjective element is a fundamental flaw in the methodology of league tables (Brooks, 2005; Provan and Abercromby, 2000). In its exercise to determine the international standing of Australian universities, the Melbourne Institute of Applied Economic and Social Research also takes the view that "... allocation of weights is a subjective exercise but it can be informed by surveys of peers" (Williams and Van Dyke, 2004). As one measure to reduce subjectivity, the exercise requires that domestic and foreign university heads place a percentage weight on each of the six categories used as measures of performance (i.e. quality/international standing of academic staff, quality of graduate programmes, quality of undergraduate intake, quality of undergraduate programme, resource levels and subjective assessment). One can wonder, however, whether this actually reduces subjectivity or merely spreads the responsibility for it.

The arbitrary nature is brought to light further with the observation that weightings and ranking formula can change from one year to the next as was the case with *The Times* from 1992 to 1997 (Bowden, 2000). Clarke (2002) tracked four types of changes introduced to the *US News* rankings of graduate professional schools as well as undergraduate liberal arts colleges over a period of six years. She found that overall, 85% of the changes pertained to weight, definition or methodology rather than the addition or deletion of indicators. She also found that changes were less prevalent at the undergraduate level compared to graduate level professional programmes and more salient in some professional rankings (e.g. law) than in others (e.g. medicine). On average, there were six to eight formula changes in the six editions of the *US News* rankings reviewed in her study and most changes were concentrated in a small number of indicators. Clarke (2002) concluded that changes introduced to each ranking formula made it impossible to compare a given school's performance over a period of several years based on the rankings it obtained from one year to the next. Comparison, however, was possible if only a fraction of the indicators that remained stable over time were taken into account.

A third aspect of rankings that needs to be taken into consideration in that context is the extent to which differences in rank among pairs of institutions can be made to appear larger than they really are, hence giving rise to an illusion of significance of the differences across institutions. But in reality, however, small differences between ranking variable scores of pairs of ranked universities may not be statistically significant. In extreme cases, the ranking variable may be so unreliable that one would be hard-pressed to make meaningful (statistical) distinctions between an institution at the 90th percentile and another at the 60th. This could lead to misrepresentation of the ranking results. For consumers and other stakeholders who may not be aware of the magnitude of difference, the



manner in which rankings are presented and the implicit message they convey could be seriously misleading.

A fourth characteristic of rankings pertains to the unit of comparison, which can be the institution or a particular programme (e.g. MBA). The international league tables consider the institution as the unit of comparison and do not discriminate among different types of institution or taking their relative size into consideration. The comparison of institutions that have different missions and resources from one another is considered to be a methodological flaw and hence inappropriate (Eccles, 2002) as well a socially irresponsible undertaking (Hodges, 2002). This practice also inadvertently disadvantages smaller institutions and those that are not research intensive and, as a consequence, are less likely to get high scores on indicators related to research and reputation (Brooks, 2005). At the national level, however, some league tables do rank institutions within the same category. For instance, *Maclean's* of Canada ranks three categories of institutions: medical/doctoral, comprehensive and primarily undergraduate.<sup>5</sup>

A fifth characteristic is the considerable reliance of league tables on the peer review process for generating data. Academic peers and administrators as well as employers are asked to rank institutions based on their view of institutional or programme reputation. Even though the editor of *The THES* 2005 league table has claimed stability in the process, others have criticised the practice on a number of accounts, including the following three: being confounded due to the halo effect, a bias in which the assessment of one quality influences the judgment of other qualities ([http://en.wikipedia.org/wiki/halo\\_effect](http://en.wikipedia.org/wiki/halo_effect)) (Cartter, 1966; Diamond and Graham, 2000), being subjective due to the absence of a common frame of reference of quality for raters (Brooks, 2005), and being inaccurate because of raters' lack of familiarity with programmes they have been asked to rate (Brooks and Junn, 2002). German researchers have found, however, that while reputation indicators as they are commonly used tend not to be very useful, measuring reputation among academics does seem to constitute a reasonable proxy for research productivity (Federkeil and Berghoff, 2006). In any event, reliance on reputational data will always mean a strong bias in favour of long established universities and a serious disadvantage for new institutions or programmes.

With these characteristics in common, league tables share important similarities to other approaches to institutional evaluation, such as accreditation. Many of the indicators that probe into institutional resources, such as faculty and student data and completion and retention rates, are common in both. Similarly, the heavy reliance on the peer review process is a shared attribute.

Exercises such as rankings and accreditation procedures are significantly different, however, in that accreditation processes typically place greater

emphasis on programmes and measure institutional performance against delineated, absolute standards and criteria. Performance in league tables, on the other hand, is a relative matter as institutions or programmes are compared to one another on a set of criteria and the result is a rank ordering. Accreditation and institutional rankings/league tables are also different in the degree of emphasis placed on reputation and research output.

### **A thin line between love and hate<sup>6</sup>**

One thing is certain: rankings do not leave institutions and stakeholders indifferent. If their publication is eagerly anticipated by students, they are often dreaded by university administrators. International rankings generate pride and anger, and the press and political parties are eager to use them as weapons against the government. In numerous examples from around the world, governments and institutions have responded with words and deeds to the power of university rankings.

In September 2005, for instance, the latest league table published by *TheTimes Higher Education Supplement* showed Malaysia's top two universities slipping by almost 100 places compared to the previous year. In response, the leader of the opposition called for a Royal Commission of Inquiry, notwithstanding the fact that the dramatic decline was partly due to a change in the ranking methodology.<sup>7</sup>

At times, fierce controversies have erupted around league tables and rankings, leading even to boycotts or lawsuits. In the early 1990s, for example, a group of student activists at Stanford University formed the "Forget US News Coalition" in an unsuccessful attempt to persuade universities and colleges to join them in a boycott of the *US News and World Report* ranking. In 1997, the president of Alma College in Central Michigan carried out a survey of more than 150 university and college senior officials to establish their views about the *US News* rankings, in an unsuccessful attempt to have them join him in boycotting the rankings (Provan and Abercromby, 2000, p. 7).

After *Asiaweek* published its first rankings of Asian and Pacific region universities in 1997 and 1998, 35 universities refused to participate in the survey in 1999; more than half were from China and Japan. The boycott led to the actual termination of the initiative. *Asiaweek* attributed the negative reactions partly to the fact that many universities had taken offence to their low ranking and partly to political motivations, as in the case of some Chinese universities upset by the inclusion of Taiwanese universities in the ranking. Interestingly, the University of Tokyo, which had been ranked number one each time, also chose not to participate anymore in 1999. The explanation provided by its president, Hasumi Shigehiko, was that "the quality of our

education and research cannot be compared with that of other universities” (Provan and Abercromby, 2000, pp. 6-7).

Controversies surrounding the *MacLean's* ranking of universities began when it was first introduced in 1991 and continue to this day. When it was first published, the ranking elicited strong negative reactions from the academic community for its poor wording and design, for ranking all types of institutions together irrespective of their mission, size and mandate, and for using a weighted index to arrive at one global score without disclosing the methodological framework. A number of changes, some fundamental, were introduced in the survey in subsequent years. Among them were the rewording of survey questions and the ranking of universities into three categories: doctoral/medical, comprehensive and primarily undergraduate. Following the 1992 survey, *Maclean's* also provided an explanation of the methodology it used for the survey. In 1993, Memorial University and Carleton University refused to participate in the *Maclean's* rankings as a protest to the methodology used (MUN, 1995). The concerns of the academic community about the flaws and methodological shortcomings were collectively captured in a letter that the newly installed vice chancellor and principal of McGill University, Bernard Shapiro, wrote in 1994 to the then co-ordinating editor of the *Maclean's* annual university rankings, Anne Dowsett Johnson. In the same year, 15 universities withdrew their participation from the exercise and in 1995, the group of francophone universities in Quebec joined Memorial, the University of Manitoba and the *Université de Moncton* as non-participants. These universities, however, continued to provide data similar to those requested by *Maclean's* to the Association of Colleges and Universities of Canada (AUCC) for comparison purposes.

Earlier this year, Peter George, the president of McMaster University, suggested that “there are a lot of universities that are thinking about not participating in the fall rankings” carried out by *Maclean's* despite the positive effects that rankings have had in standardising data and identifying areas of strength and weaknesses (Drolet, 2006, p. 29). In retrospect, the earlier withdrawal of a number of top research universities including the University of Toronto from the Graduate Survey that *Maclean's* conducted in 2005 and 2006 and the departure of Anne Dowsett Johnson from *Maclean's* were precursors to a more drastic recent development: the decision by 11 universities to withdraw from *Maclean's* 2006 annual rankings (Alphonso, 2006b).<sup>8</sup> With growing discontent and dissent on the part of major players, the *Maclean's* annual rankings may soon become history. Interestingly enough, *Maclean's* editors announced in turn that they would use “freedom-of-access” laws to obtain the data necessary to compile the rankings from those universities who decided to no longer participate (Alphonso, 2006a).

In March 2004, two universities in New Zealand successfully sued the government to prevent the publication of an international ranking that found them poorly placed in comparison with their Australian and British competitors. The vice-chancellors were concerned that the rankings would negatively affect their ability to attract fee-paying international students. In the end, the government was allowed to publish only the rankings of the national tertiary education institutions without comparing them to their peer institutions overseas. The rankings focused on the research performance of the 5 570 researchers in New Zealand's 22 tertiary education institutions (Cohen, 2004).

A similar situation has developed in the Netherlands, although the controversy has been less public than elsewhere.<sup>9</sup> After the Ministry of Education prepared its first set of rankings in 2005 and shared them with the concerned universities, one of the most prestigious universities in the country, outraged at finding itself with a lower than expected ranking, threatened to sue the minister. In the end, the university did not go to court but the ministry still went ahead and made the rankings public on its website.

Opponents question every element of the rankings, from the very principle of participating in an exercise seen as a typical product of an "Anglo-Saxon" culture obsessed with competitiveness or as an intolerable infringement on the universities' independence, to a systematic criticism of flawed methodologies, including the conceptual design of the surveys, the choice of indicators, the relative weight attached to each indicator and the data bases on which the rankings are done. The results are often dismissed as irrelevant or wrong. In many if not most cases, the criticisms have come from institutions dissatisfied with their position in the rankings. Ironically, universities with good results increasingly use the rankings as advertisement arguments, especially those trying to attract international students.

When institutions have chosen not to participate in ranking exercises, the consequence has not always been negative or harmful to the institution. Reed College's experience in the United States is a case in point. After its refusal to submit data to *US News and World Report*, it found itself among the lowest ranking colleges in the country, based on estimates compiled by the magazine. However, its pool of applicants since the ranking not only increased significantly but it also found that students with higher SAT scores were applying and being accepted. Today, Reed College is considered among the best and most selective liberal arts colleges in the United States.<sup>10</sup>

## And the winner is...

*“There’s always an easy solution to every human problem – neat, plausible and wrong.”*

*H.L. Mencken*

Is the ranking exercise a fair game with unbiased rules for all institutions? It only takes a close look at the top 100 institutions on two international rankings carried out in 2005, the Shanghai Jiao Tong University (SJTU) and *The THES*, to discern that this is not the case. High ranking institutions share several common features that raise serious doubts about the validity of international league tables.

The first is that successful institutions in both SJTU and *The THES* league tables are located in countries where English is either the official language or the language of instruction. In the SJTU 2005 world rankings, 70 of the top 100 universities were located in English-speaking countries (53 in the United States, 11 in the United Kingdom, 4 in Canada and 2 in Australia). Similarly, in the 2005 *THES* world rankings, 60 of the top 100 universities were located in English speaking countries (31 in the United States, 13 in the United Kingdom; 12 in Australia; 3 in Canada, and 1 in New Zealand). Moreover, an additional 11 universities in the top 100 rankings conducted at least some their graduate programmes in English (Denmark, Finland, Israel, the Netherlands, Norway, Sweden and Switzerland). And these countries, along with institutions in Hong Kong, India and Singapore having graduate programmes offered in English, account for an additional 16 institutions in *The THES* top 100. The point here is not to isolate language of instruction as the cause of institutional success or lack thereof in international rankings. It is rather to state an apparent fact that one way in which institutions and academics advance their reputation is by their presence in scientific publications. Since citation indices compile data primarily from journals published in English, the facility with which academics can disseminate research results in English becomes a critical factor in enhancing institutional reputation. Needless to say that institutions functioning in English are more likely to engender such success.

The second is that the majority of institutions ranked in the top 100 in the two international rankings are those that have adopted key aspects of the American research university model and are located in countries that conduct national rankings of their own institutions, such as Australia, Canada, China, Japan, the United Kingdom and the United States (Table 3). It is reasonable to deduce that their inherent appreciation for indicators of quality which are more or less the same indicators used in ranking exercises, combined with their familiarity with rankings, a well-developed capacity to compile and report data, and the ease with which they can package their data, provides these institutions with an edge in international league tables.<sup>11</sup>

Table 3. **Top 100 international rankings by region and date of initiation or duration of ranking exercise, 2005**

Regions	SJTU	<i>The THES</i>	National league tables
Americas	57	35	
<i>Canada</i>	4	3	<i>Maclean's</i> (1991)
<i>Mexico</i>	0	1	
<i>United States</i>	53	31	<i>US News and World Report</i> (1983)
Asia/Pacific	8	29	<i>Asiaweek</i> (1997-2000)
<i>Australia</i>	2	12	
<i>China</i>	0	4	Guangdong Institute of Management Science (1993); Netbig Chinese University Rankings (1999)
<i>Japan</i>	5	3	<i>Asahi Shimbun</i> (1994)
<i>New Zealand</i>	0	1	
<i>Hong Kong</i>	0	3	
<i>India</i>	0	2	
<i>Singapore</i>	0	2	
<i>South Korea</i>	0	1	
Europe	35	36	
<i>Continental Europe*</i>	24	21	<i>La Repubblica</i> (Italy, 2000); <i>Excelencia</i> (Spain, 2001)
<i>United Kingdom</i>	11	15	<i>The Times Good University Guide</i> (1993)

\* Number represents institutions spread across 17 countries in the SJTU ranking and across 22 countries in *The THES* ranking.

Universities in Europe and North America combined comprised 92% of the top 100 rankings of SJTU. In this exercise, Japan was the only country outside the western world with five universities ranked in the top 100. In *The THES* rankings, the distribution was more even across universities in the Americas, the Asia/Pacific region and Europe. Tables 2 and 3, viewed together, highlight stark regional disparities and, in particular, the absence of nationally initiated rankings in some regions. Perhaps it is not a coincidence that no university made it to the top 200 ranking by *The THES* or to the top 500 by SJTU from countries and regions which do not have their own tradition of ranking tertiary institutions.

A third feature common to high ranking institutions is their research capacity supported by research funding and endowments and direct and indirect national investment in higher education research and development (R&D) expenditure. For instance, top ranking Canadian universities in international rankings are also the top universities in research income (CAUT, 2006).<sup>12</sup> Similarly, countries where the tertiary education R&D expenditure as a percentage of total domestic R&D is high stand a better chance of having the required resources to compete favourably in international rankings.<sup>13</sup> Clearly, international rankings favour research-intensive universities at the cost of excluding excellent institutions that are primarily undergraduate institutions and even those that are classified as “comprehensive” despite having extensive research activities and a wide range of programmes at the graduate

level. The top three universities in the comprehensive category in *Maclean's* 2005 rankings compared with *The THES* and *SJTU* rankings speak to this disadvantage (Table 4). The higher regard for research institutions arises from the academy's own stance toward research and teaching. That teaching is not regarded as highly as research has been voiced nowhere stronger than in Boyer's plea to fully recognise the scholarship of teaching as both legitimate and of equal importance to research (Boyer, 1990). This leaves the academy with the daunting task of developing objective and reliable metrics that can be accepted universally for assessing the quality of teaching.

Table 4. **Canadian universities rankings across different league tables**

<i>Maclean's</i> top three universities in the "comprehensive" category	<i>SJTU</i> ranking	<i>The THES</i> ranking
1. Waterloo	293	159
2. Victoria	291	–
3. Guelph	256	–

In a similar fashion, the process seems to recognise elite private institutions that receive significant research funding and are in a better financial position to attract top professors and researchers. Among the 20 top ranked universities in the United States, only two – Michigan State and Berkeley – are public. (In the United States, private universities pay their professors 30% more than public universities on average, [Chronicle of Higher Education, 2006].) In Japan, "the University of Osaka can be regarded as a top public institution that has improved its prestige and performance for almost 30 years. Even so, it would be almost impossible for it to be ranked above the University of Kyoto or the University of Tokyo" (Yonezawa *et al.*, 2002, p. 381). It is interesting to observe that countries where institutions secure a large proportion of their funding from private sources also stand out in international rankings. These include Australia (with about 52% private funding), Japan (around 51%), the United States (about 45%), Canada (about 42%) and the United Kingdom (about 28%) (OECD, 2005).

The points highlighted above raise serious questions about the validity of the impact of league tables on national and institutional policies, depending on the value that countries or institutions place on international or national rankings. For instance, if publishing in English is a condition of success in international rankings, will it be necessary for any institution aspiring to obtain higher rankings to consider adopting English as the language of instruction to reinforce scientific "thinking" in English despite a strong desire to strengthen or protect national identity? This was the case in Malaysia until the government recently signalled the need to put more emphasis on English. Should national governments increase investments in higher education and

R&D if they wish to see their institutions improve in the rankings? If internationalisation is an important element in league tables, should they support student and staff mobility programmes such as Erasmus Mundus, Canada-US-Europe Mobility and NAFTA Mobility programmes? Should all countries implement national rankings to prepare their universities for this activity at an international level? Should all institutions be encouraged to increase their revenues even if this entails increased privatisation in order to be able to provide the requisite resources for improved institutional performance as measured by a higher ranking?

## **Do league tables measure quality?**

*“It is true that left-wing CEOs and flying fishes do exist,  
but neither is exactly representative of its species.”*

*Michel Audiard*

The correlation between indicators used in league tables and indicators of educational quality remains an illusive one for several reasons. Most significantly, there is no commonly accepted static definition of quality that would fit all institutions, regardless of type and mission. With a few exceptions (e.g. *Maclean’s*, *US News and World Report*) league tables treat all universities alike. Turner (2005) has asserted that in the absence of both absolute standards of efficiency and the ability to differentiate between inputs, process and outputs, league tables end up comparing institutions with dissimilar comparators (p. 353).

The ambiguity of the construct of quality is best observed in the selection of indicators used in various league tables. In a comparative study, Dill and Soo (2005) took into account four dimensions, namely input, process, output and reputation variables to ascertain the degree of convergence (i.e. conceptual representation of quality) between the five league tables they had selected for their study: *Good Universities Guide* (Australia), *Maclean’s* (Canada), *The Guardian* and *The Times Higher Education Supplement* (United Kingdom), and *US News and World Report* (United States). They concluded that there was convergence amongst the different league tables primarily because they included more or less the same input measures (e.g. faculty, students, financial resources and facilities). The divergence in process and output measures apparently did not influence their conclusion. In a more recent comparative study, however, Usher and Savino (2006) reported contradictory findings. Examining the indicators used across 19 league table, they assert that there is no convergence in the way quality is conceptualised by league tables. They associate the discrepancy between their findings with past findings to both their larger



sample (19 league tables) and the wider range of categories of indicators based on which comparisons were done (seven clusters of indicators).

Another measure of inconsistency in defining the construct of quality is the yield of rankings across various tables. Looking at the top 50 institutions ranked on *The THES* and *SJTU* rankings, only 42% appear on both lists: only one institution received the same ranking; 24% were within a range of five positions; 8% were within ten positions; and 22% were more than ten positions apart. Comparing the rankings given to Canadian universities in *The THES* and *Maclean's* rankings in the year 2005, the results were identical in the ranking of the top two institutions. Between *Maclean's* and *SJTU*, only one institution shared a common ranking, in the sixth position. In general, rankings were closer up to number eight and completely scattered beyond.

Similarly, the dramatic shift in position of institutions on the same league table from one year to the next reinforces the view that little relationship exists between an institution's ranking and its quality. Universities are complex organisations, notorious for their inability to change quickly. Nevertheless, in both *The THES* and the *SJTU* rankings, there have been institutions that have had spectacular rises and falls from one year to the next. For instance, in the 2005 *THES* rankings, Duke University in the United States jumped to 11th from being ranked 52nd in the previous year. Such drastic shifts are more likely due to manipulations in methodology rather than to a significant change in quality.

It is also enlightening to compare the results of accreditation and rankings in countries where data are available for that purpose. In South Africa, for example, the daily newspaper the *Financial Mail* has compiled and published a ranking of MBAs for several years. In 2005, the Commission of Higher Education's accreditation arm conducted an assessment of all MBAs in South Africa and ended up closing down a third of the existing programmes, including two foreign ones. Another third got only conditional accreditation. Interestingly, there was little correspondence between the rankings and the outcome of the accreditation process. In fact, quite a few among the shut down programmes were among the highest ranked MBAs. Since that episode, the *Financial Mail* has adjusted its methodology and changed the relative weights of indicators.

A second concern pertains to the choice of constellation of indicators and their validity and reliability as well as their comprehensiveness as a measure of quality (Brooks, 2005; Clarke, 2002; Dill and Soo, 2005).

Ranking systems' authors believe that each indicator is a reasonable proxy for quality and that, suitably aggregated and weighted, these indicators constitute a plausible, holistic "definition of quality". What our results here show is that most indicators are probably epiphenomena of some underlying feature that is not being measured (a hidden X factor,

which might be the age of the institution, faculty size, per student expenditures). (Usher and Savino, 2006, pp. 32-33)

Pike (2004) found that the National Survey of Student Engagement data did not bear a strong relationship to *US News* rankings, suggesting that student impressions of their educational experiences are influenced by different inputs than the institutional characteristics measured in the rankings (p. 14). Other findings related to the indicators and their validity and reliability as appropriate measures of quality have, at best, been inconsistent.

For instance, research related to beginning characteristics (attributes and abilities of incoming students, performance on national standardised tests, percentage of students receiving scholarships, institutional selectivity, international students) has shown that high school grade point average (GPA) correlates positively with academic performance (Hoschl and Kozeny, 1997; Houglum *et al.*, 2005; Jensen, 1989; Meeker, 1994) and that generally, past performance is the best predictor of academic success (Himmel, 1967). However, there is also some evidence that is less conclusive. For instance, Ting (2003) found that for students of colour, non-cognitive variables were better predictors of academic success. Jenkins (1992) indicated that, in Canadian contexts, SATs were somewhat reliable in predicting academic success when they were used as a supplement to high school GPA. Similarly, Watkins (1986) found that Approaches to Studying Inventory (used in Australia) contributed to the prediction of freshman grades beyond entry achievement. Finally, van der Wende (forthcoming) found no empirical evidence that internationalisation was correlated with improved quality.

With respect to learning inputs related to financial and material resources, although Ramsden (1999) has suggested that these are “contributing factors to successful completion, levels of scholarly productivity, types of professional socialization, and rate of academic progress” (p. 13), he has not provided empirical evidence to support his assertions. As to learning inputs related to staff (faculty-student ratio, staff qualifications, contact hours, the way staff are deployed), Graunke and Woosley (2005) found that satisfaction with faculty was a significant predictor of GPA in the sophomore year. Similarly, Ramsden (1999) found that favourable student-staff ratios, a high proportion of graduating students continuing into further study and a high proportion of research qualified staff accounted for a large proportion of variability in research performance.

Concerning the final outcomes category of indicators (employment rates, percentage returning for graduate studies, income and job satisfaction), Bowen and Bok (1998) have asserted that even though results are generally positive, studies have not used national samples and have left out master’s and professional school students.

Finally, regarding the categories pertaining to learning outputs (skills sets gained, retention, completion rates) and research and reputation, Brooks (2005) has asserted that there is no theoretical or empirical justification to link reputation, faculty research productivity, and student experiences and outcome with quality. Other criticisms point to the fact that not all disciplines value the same kind or source of publication. For instance, Bergh *et al.* (2005) have pointed out that certain types of articles are cited more frequently, disadvantaging certain disciplines and depicting a distorted view of institutional quality. Similarly, Moore *et al.* (2001) have stated that a smaller number of frequently cited papers enhance reputational capital more than a greater number of less frequently cited papers. Finally, based on alumni surveys and graduate employment records, Goddard *et al.* (1999) have claimed that employability is linked with degree rather than with attended university.

A third concern is related to the methodologies used to generate an aggregate and global score based on indicators that have completely different scales and are theoretically flawed, excessively simplistic and “in mathematical terms ... indefensible” (Turner, 2005, p. 355).

## **Can rankings be used in a constructive way?**

How does one explain the passion for university rankings, despite the fact that they have so many conceptual and methodological limitations? What advice should be given to governments, tertiary education institutions and the public at large for using the information provided by rankings in a constructive and critical way?

### **At the government level: rankings as proxy for quality assurance mechanism**

In 1990, after the fall of the Berlin Wall, teams of academics from the West German Science Council were given the task of evaluating their counterparts in East German universities. As they proceeded to perform this mission, they realised that, in the absence of a tradition of evaluation in West German universities, they had to invent an appropriate methodology as they went. More recently, the ranking exercise conducted since 1998 by the Center for Higher Education Development (*Zentrum für Hochschulenentwicklung*), an independent policy research agency, along with the German Academic Exchange Service (*Deutscher Akademischer Austausch Dienst*) and their media partner *Die Zeit* has become the first comprehensive system providing a panorama of quality indicators in Germany, a federal country where the main responsibilities for financing and overseeing the universities belong to the states. The survey incorporates data on a total of 132 universities and 148 technological institutes (*Fachhochschulen*), and more than 210 000 students and 21 000 professors ([www.daad.de/deutschland/studium/hochschulranking/04690.en.html](http://www.daad.de/deutschland/studium/hochschulranking/04690.en.html)). Instead of

calculating a global ranking of institutions based on weighted indicators as *The THES* and *SJTU* do, the Centre for Higher Education Development (CHE, *Centrum für Hochschulentwicklung*) presents detailed survey data from thousands of teachers and students as well as third-party data, dealing with the universities and the technological institutes separately. To facilitate using the information generated by the collected data, the CHE rankings provide six main categories of indicators, along with sub-groupings. These include:

- *Academic studies and teaching*: e-learning, contact between students, contact between students and teachers, courses offered, study organisation, practical semester support, counselling, teaching evaluation.
- *Equipment/capital resources*: computers, media equipment, classrooms, library facilities, workstations.
- *Job market and career-orientation*: employment market-related programmes.
- *Overall opinion of students and professors*: overall assessment, research reputation, professors' (insider) tip.
- *Research*: doctorates, internationally visible publications, other publications, third party funding.
- *Study location and higher education institution*: intramural-level sports, low rent/cost of living, small college location, intercollegiate sport.

Anyone who wants to consult the data (published by the German newspaper *Die Zeit* and also available online) can look at the standing of each university, or even a specific academic subject, against a particular indicator or set of indicators.<sup>14</sup> Readers can even constitute their own ranking based on the indicators most relevant to them. The approach developed by CHE presents the additional advantage of avoiding data biases linked to self-reporting by universities. The Austrian and Swiss universities have recently joined this exercise, accepting to be benchmarked against the German universities, with the exception of the Austrian medical schools that have participated but refused to have their results published.

In Pakistan, after a national task force set up in 2000 presented a distressing diagnosis of the tertiary education situation in the country – one of the lowest enrolment rates in the world (3%), poor quality, insufficient funding –, the government launched a large-scale reform spearheaded by the newly-established Higher Education Commission (HEC). Besides drastic changes in governance and financing arrangements (election of university leaders, creation of boards of trustees, increased financing, introduction of a funding formula, etc.), the reform also envisages setting up an accreditation agency to monitor and enhance quality in both public and private universities in Pakistan. But conscious that it will take a few years to effectively accredit a significant number of programmes, the HEC decided to carry out a ranking exercise as a shortcut to

assess the quality of existing tertiary education institutions (based on direct observations and interviews conducted in August 2005 and March 2006).

The ranking of universities in Pakistan developed out of a direct mandate given to the HEC in 2002 to evaluate the universities in a way that promoted rapid and comprehensive development of the entire tertiary education system, particular to support the country's place in the world economy ([www.hec.gov.pk/quality/Mandate.htm](http://www.hec.gov.pk/quality/Mandate.htm)). By comparing the inputs and outputs of the country's institutions, Pakistan has established a mechanism for rewarding excellence and investing in improvement in institutions that are currently lacking. The five main ranking criteria used by the HEC are similar to ranking indicators in many other countries. The breakdown of indicators is i) faculty qualifications (25%), ii) research output (25%), iii) students (20%), iv) facilities available (15%) and v) finances (15%). The fact that these rankings favour research output and faculty qualifications over other indicators, such as the quality of student inputs and campus infrastructure, may imply that Pakistan has fully adopted the Western ideals for universities, and this weighting of indicators certainly warrants further debate about its relevance for developing Pakistan's tertiary education system today.

The Advisory Committee overseeing this ranking exercise, comprised of HEC officials and university representatives, had to decide whether or not to make the results public. Under vehement protests from one of the leading vice-chancellors, whose public university had scored low, the committee agreed not to publish the results. What the HEC did instead was to share key benchmarking data with each university, notably its relative position against each criterion used in the rankings. For example, University X was told that, with respect to the proportion of professors with a doctorate, it scored in the lowest quartile compared to all universities in Pakistan.

Despite the general outcry against the publication of the rankings, this experience has had at least two positive consequences. In the first place, it has forced the universities to take data collection much more seriously. When confronted with the first draft of ranking results, most university representatives dismissed them, arguing that the data were blatantly wrong. But when it was proven to them that the data were exactly those submitted by their respective university, they realised the importance of collecting and sharing accurate data. It appears that the second round of data collection has yielded a much more reliable set of data.

These rankings have allowed the government, for the first time in Pakistan's history, to engage in a professional dialogue on the quality of education with the universities based on an instrument that has been jointly developed. Imperfect as these HEC rankings may be, the conversation around specific factors that are somehow related to the quality of teaching and learning is an important first

step towards developing a culture of quality in the Pakistani tertiary education system. It should also be noted that some of the criteria included in the calculation of the rankings, such as the proportion of professors holding a PhD, are also part of the new funding formula used for the distribution of the budget to the public universities.

Thus, the Germany and Pakistan examples illustrate that, in countries without established evaluation or accreditation mechanisms, rankings can be used effectively to monitor and enhance quality. But it is important to underline that governments cannot expect universities and other tertiary education institutions to work towards improving the quality and relevance of their programmes on the basis of rankings or any other quality assurance mechanism unless they enjoy sufficient autonomy to be able to introduce significant curriculum and pedagogical reforms on their own initiative. Having access to additional resources to support these reforms, including the ability to finance the recruitment of top professors/researchers from the country or from overseas, is also essential. In the case of Pakistan, for instance, the Higher Education Commission has set up several financial windows to help those universities willing to upgrade the quality of their programmes.

Finally, it is interesting to note that rankings are not used only by governments in their national context, but also increasingly in an international perspective. In Mongolia and Qatar, for example, the authorities have decided to restrict scholarships for studies abroad to students admitted to a highly ranked university. Qatar's Institutional Standards Office compiles a list of eligible universities in destination countries based on the Shanghai and *The THES* rankings ([www.english.education.gov.qa/section/sec/hei/sco/univlist](http://www.english.education.gov.qa/section/sec/hei/sco/univlist)). In the same vein, donor agencies and foundations that provide scholarships for students from developing countries are looking at the results of rankings to establish their list of eligible destination institutions. The UK Treasury has even offered to issue fast track visas to graduates of the top MBA programmes based on the *Financial Times*' ranking. Even some of the Canadian universities that have recently decided to withdraw from the *Maclean's* rankings continue to rely on the results of international rankings to choose foreign institutions considered worth establishing a partnership with.

### **Utilisation by tertiary education institutions: rankings as a benchmarking tool**

In spite of the controversial nature of rankings, there seems to be a persistent desire on the part of universities to assert their international rank by the position they clinch on league tables. In the year 2000, the University of Toronto's president expressed that he was "both relieved and gratified that we have once again received the number one ranking among research universities in Canada" (*The Bulletin*, 2000, cited in Provan and Abercromby, 2000, p. 4).

Universities in emerging economies are equally eager to become “world-class” universities, and they usually define their goal as being recognised among the top universities in international rankings.

Rankings are increasingly used by institutions for goal setting purposes, as the following example illustrates. Clemson University, a land grant university in South Carolina traditionally focused on agriculture and mechanical engineering, has undertaken a radical transformation process in recent years. Based on an in-depth analysis of the transformation of South Carolina into one of the leading automotive regions in the United States, Clemson University formed a strategic partnership with BMW aiming to recreate itself as the premier automotive and motor sports research and education university. Its new vision statement specifically mentions the target of becoming one of the country’s top-20 public universities (as measured by *US News and World Report*), up from rank 74 four years ago and 34 in 2005 (Przirembel, 2005).

Marc (2004) examined the impact of the *US News and World Report* rankings on a variety of variables and concluded that even though rankings have differential impact on public and private schools, “many schools’ admission outcomes are responsive to movements in the rankings”. The following two excerpts from the minutes of senate and board of governors meetings of two Canadian universities illustrate well the extent to which rankings are deemed important and ways in which the highest academic bodies seek to respond to them.

If rankings prompt a retrospective analysis of institutional performance, leading to setting goals to support institutional and national visions, then they can be considered as having a positive impact toward improvement. For instance, countries such as Japan have found rankings carried out at the national level to be a useful exercise, forcing systematic data collection and benchmarking, and leading to implementation of important reforms toward quality improvement (Yonezawa *et al.*, 2002).

As the relative score on various indicators shows, institutions can excel in different areas even though their overall ranking may convey a different message.

The various disciplines also throw up different leaders. Academics see Harvard as pre-eminent in the arts, medicine and social sciences, but Cambridge leads in the sciences and MIT in technology. Such variety of outcomes underlines that universities have different missions and different strengths that make them difficult to compare. There is no sign that a high-ranking university in our table is better than one more lowly ranked. (O’Leary, 2005)

One of the major risks of relying on ranking results is when the exercise becomes the goal itself instead of serving as a measure of progress towards

### Box 1. Excerpts from senate and board of governors meetings in Canadian universities

#### Laurentian University

Minutes of the 204th Regular Meeting of the Board of Governors of 29 November 2002.

##### 3.2 Maclean's Rankings.

Dr. Woodsworth reported on the encouraging results published in *Maclean's*, and further that our institution has improved in a number of categories including Alumni support and the reputational survey. A special meeting of the Management Team has been called to discuss mechanisms and methods to improve the University's performance in the rankings ([www.laurentian.ca/president/governors/minutes\\_e.php?id=204](http://www.laurentian.ca/president/governors/minutes_e.php?id=204), accessed 6 May 2006).

#### Simon Fraser University

Senate Meeting of 1 December 1997.

##### 14. Classes Taught by Tenured Faculty.

Reference was made to the *Maclean's* issue relating to university ratings. Although it was nice to see that Simon Fraser University was ranked at the top of the overall ranking in the comprehensive category for the second year in a row, concern was expressed about the low ranking SFU received in the "First Year Classes Taught by Tenured Faculty" category. Senate was advised that the *Maclean's* information is provided by Analytical Studies and SFU has consistently been below 40% in this category in recent years. Senate was informed that the Vice-President Academic has previously raised this issue with the Deans and that these statistics were of concern to his office. The methodology used by *Maclean's* to collect and analyze the data was questioned and the Vice-President Academic was asked to make further investigations into this issue ([www.sfu.ca/Senate/archives-Senate/SenateMinutes97/Sum\\_1297.html](http://www.sfu.ca/Senate/archives-Senate/SenateMinutes97/Sum_1297.html), accessed 6 May 2006).

quality. It would be to the advantage of academic institutions to take a proactive role in identifying indicators that are true measures of quality education. Academics, after all, possess the expertise and know-how to arrive at evidence-based conclusions. For instance, by generating meaningful and appropriate indicators of teaching quality, they can begin to take a resolute step toward realising the scholarship of all academic activities including research, teaching and learning (Boyer, 1990). Institutions also have a role in this regard: they need to assume a leadership role in collaborating with media, governments and other agencies that initiate rankings to ensure that the vision of quality used



in rankings is grounded both theoretically and empirically, is comprehensive and is accepted by all stakeholders.

Within universities, departments and academic units are in the best position to identify the peers with whom they choose to benchmark their own performance. If institutions want to be recognised as high performing, they must also be able to provide the resources to their units in order to enable them to benchmark with their strongest peers. By being explicit about their mission, honest about their performance and transparent about the way in which they use their resources, institutions as well as academic units can be much more effective in delivering what the popular media set out to do by disseminating league tables widely.

One caveat, though, is that smaller, regional universities may feel a perverse incentive to acquire more of a research focus and consolidate into larger universities that would fare better in world rankings for sheer reasons of size. Mergers to that effect seem to be under consideration in Denmark and Finland, and even in larger countries like France where the Department of Higher Education is openly encouraging universities to regroup themselves into larger and stronger regional “poles of excellence”.

### **When the public applies pressure**

The press is often criticised for using rankings as a gimmick to boost sales. The commercial aspect was indeed an important consideration when *US News and World Report* started its college ranking 20 years ago (Morse, 2006). However, the mass media can play a genuine educational role by making relevant information available to the public, especially in countries lacking any form of quality assurance mechanism. In Poland, for example, when the transition to the market economy started in the early 1990s and many private education institutions began to operate, there was a thirst for information about the quality of these institutions, which pushed the owner of the *Perspektywy* magazine to initiate the country's first ranking (Siwinski, 2006). Similarly, in Japan, for many years the annual ranking published by the *Ashi Shimbun* newspaper fulfilled an essential quality assurance function in the absence of any evaluation or accreditation agency.

The Colombian accreditation experience is also a valid illustration of this point. Colombia was the first country in Latin America to set up a national accreditation system in the mid 1990s, but the number of programmes reviewed by the new accreditation agency remained relatively low in the first years. Since the accreditation law made the process voluntary, the most prestigious universities, public or private, did not feel any compulsion to participate. Starting in 2000, however, the country's main newspaper, *El Tiempo*, started to publish the full list of accredited programmes twice a year to help students

choose among the various offerings; since then the universities have felt increasing pressure to join the accreditation process as students have showed a marked preference for accredited programmes.

Another important merit of rankings is to stimulate public discussions around critical issues affecting the tertiary education system that are often ignored either for lack of a broader perspective or out of reluctance to challenge established practices or vested interests. A good example is the debate that started in France when the Shanghai Jiao Tong University world rankings were published for the first time. After observing that the best French university was ranked 65th, the daily paper *Le Monde* ran an article on 24 January 2004 entitled “The Great Misery of French Universities”. Surprisingly, none of the university presidents or union leaders interviewed for this article criticised either the principle of calculating a ranking or the methodology of the SJTU ranking. Instead, they focused on the problems facing their institutions, looking especially at the lack of budgetary resources as one of the main explanations for the demise of the French university system.

### Box 2. **Watching the rankings: The French experience**

Each year, when Shanghai’s Jiao Tong University publishes its world ranking of universities, France responds with a mix of indignation and consternation. Indignation, because French educators complain that the system favours “Anglo-Saxon” universities and makes no allowance for France’s unusual division into elite *grandes écoles* and mass universities. Consternation, because not a single French university makes it into the world’s top 40. Its best-placed institution – Paris VI – manages only 45th place.

Source: The Economist (2006), “Lessons from the Campus”, Special Survey Section on France, 28 October.

A few months later, one of the country’s leading education economists, François Orivel (2004), wrote a very lucid article analysing the reasons why French universities are not internationally competitive. One of the principal factors identified was the fact that French universities are not allowed to select the most academically qualified students. A unique feature of the French tertiary education system is the dual structure which separates the top schools (*grandes écoles*), which recruit the best students through competitive national examinations, and the universities to which all secondary school graduates have automatic access. Since the *grandes écoles* are predominantly elite professional schools that conduct little research, most doctoral students in the research universities do not come from the most academically qualified

student groups, unlike the practice in more successful university systems in Japan, the United Kingdom or the United States. The other important factor is the absolute lack of competition among universities. All universities are treated equally in terms of budget and assignment of personnel, with the result that there are few centres of excellence with a large concentration of top researchers.

Another interesting example comes from Brazil where in 1996 the Ministry of Education introduced an assessment test meant to compare the quality of undergraduate programmes across universities. In a way, it could be described as a ranking exercise in the sense that university programmes could be categorised based on the average score of their participating students (on a scale from A to E). Even though the results of the *Provão* did not count towards the marks of graduating students, at first it met with opposition and resistance. The students were reluctant to take the test, and the universities themselves were not keen to encourage their students to participate, especially after the first rounds showed that some of the top public universities had scored less than expected while some students from lesser known private universities had achieved good results. But, over time, the *Provão* became more accepted and, increasingly, employers asked job applicants to share their test results, thus making it a strong incentive for students to participate (Renato de Souza, 2006). The *Provão* results even influenced students in their choice of tertiary institution. Between 1996 and 2002, the demand for courses in private institutions that had been evaluated positively (grades A or B) grew by about 20%, whereas the demand for courses with a negative assessment (grades D or E) declined by 41% (JBIC, 2005).

Similarly, in Nigeria, after the National Universities Council initiated a ranking of professional programmes in 2001, even going as far as closing down a number of programmes among the weakest, private sector employers started to regain confidence in local universities and to hire graduates of the highest ranked programmes (Okebukola, 2006).

## Conclusion: the way forward

*“I come to the dialogue about rankings with a good deal of scepticism about their ability to serve as effective indicators of institutional quality. But I think it’s fair to say that whether or not colleges and universities agree with the various ranking systems and league tables findings is largely irrelevant. Ranking systems clearly are here to stay. As a result, I’ve come to the conclusion that it is important to learn all that we can about how these ranking systems work, and to provide a framework for those who do ranking so that they can improve and enhance their methodologies.”*

*Jamie P. Merisotis, President, Institute for Higher Education Policy, at a meeting of the Council for Higher Education Accreditation, 26 January 2006*

The world seems to be obsessed with rankings in every walk of life. Countries are ranked for their performance in all possible domains, from the Olympics to the quality of life. Even Mozart's musical pieces were ranked as the planet celebrated his 250th birth-year anniversary. It is therefore not surprising that, in the present tertiary education world characterised by increased global competition for students, the number of league tables of universities has grown rapidly in recent years.

The stakes are high. Governments and the public at large are ever more preoccupied with the relative performance of tertiary education institutions and getting the best perceived value as consumers of education. Some countries are striving to have "world-class" universities that will spearhead the development of a knowledge-based economy. Others, faced with a shrinking student population, struggle to attract increasing numbers of fee-paying foreign students. Just as scarcity, prestige and having access to "the best" increasingly mark the purchase of goods such as cars, handbags and blue jeans, the consumers of tertiary education are also looking for indicators that enhance their capacity to identify and access the best universities.

At the same time, many analysts consider ranking across countries worthless given the huge differences in essential characteristics of tertiary systems and their respective social and cultural contexts. Sources of funding, governance patterns, degree of management autonomy, differences in institutional missions, availability of reliable data and the potential to manipulate statistics are important dimensions that contribute to variation and that support their claim for the meaninglessness of this activity.

Notwithstanding their controversial nature and methodological shortcomings, university rankings have become widespread and are unlikely to disappear. Possible reactions, in the face of this rapidly expanding phenomenon, are to ignore, dismiss or boycott any form of ranking. Another, less extreme response is one that seeks to analyse and understand the significance and limitations of ranking exercises. The recent international experience with league tables, which this article has tried to review, provides a set of lessons that can help policy makers, institutional leaders and the public at large make more informed decisions about the usefulness of ranking mechanisms. Based on the discussion presented earlier, the following general recommendations can contribute to making the ranking exercise beneficial to institutions, governments, students, parents and the public, as they were originally intended to.

*Be clear about what the ranking actually measures.* Notwithstanding the ambiguities surrounding the construct of quality, organisations, government bodies or media that rank institutions should be explicit about their definition

of quality. They should also specify what is it they measure or do not measure, the purpose of their ranking, and the audiences for whom they do the ranking. The validity, reliability and comprehensiveness of selected indicators can be better discerned in light of this information and taking into account the scope of the academic tasks (e.g. teaching, research, etc.) and the types of institutions being assessed. Furthermore, they should make the raw data upon which they base the ranking widely available and the calculation process transparent so that their derived rankings can be verified independently. Information on the statistical significance of pair-wise comparisons of institutions being ranked should be provided in a transparent way. An example of good practice in this regard is how the International Association for the Evaluation of Educational Achievement (IEA) publishes multiple comparison tables for means of countries ranked on their assessments. From this kind of information one can learn, for example, that although Australia was ranked 14 out of 46 among participating countries in the IEA's 2003 eighth grade mathematics assessment, its mean score was not statistically significantly higher than that of New Zealand, with a rank of 21.

*Use a range of indicators and multiple measures rather than a single, weighted ranking.* The definition of quality in the context of tertiary education implies enabling students to succeed in meeting their aspirations, the expectations of society, the demands of governments, business and industry, and the standards set by professional associations (Gola, 2003). League tables should thus use a wide range of indicators, placing greater emphasis on output and outcome indicators to ensure that every dimension of quality gets factored in the evaluation. Multiple sets of indicators will yield multiple scores rather than a global score, thus bringing to light areas of strengths as well as areas of weaknesses. The inconsistency between ranking results of different league tables and the absence of significant differences between institutions, despite wide spreads in their position relative to one another, suggest that rank ordering entire institutions is meaningless. It is more appropriate to rank in clusters of institutions/programmes, as is done through the German approach or the Australian star approach, than to assign a discrete rank to each institution.

*Compare similar programmes or institutions.* Because of their methodological limitations, rankings are more meaningful when the unit of comparison is smaller. Ranking programmes is, therefore, preferable to ranking institutions. And if it is absolutely necessary to rank institutions, care must be exercised to compare similar institutions. This means going beyond looking at institutions that are similar in name (university with university, community college with community college) and making sure that they are also similar in mission, organisation and programme focus, for example research universities with research universities, or teaching colleges with teaching colleges.

*At the institutional level, use rankings for strategic planning and quality improvement purposes.* Tertiary education institutions that look at detailed ranking data for benchmarking purposes, whether within a single country, across countries and over time, can use the results to inform their strategic thinking and planning. Areas of weakness and strength can be identified in that manner, and corrective actions can be defined. The important point to bear in mind is that individual universities should not agonise over their overall rank *per se* or set themselves a specific rank to beat, but rather look at specific indicators in order to understand better the determinants of their performance and work towards improving the quality of teaching, learning and research as may be the case.

*At the government level, use rankings to stimulate a culture of quality.* In countries that do not yet have a well-established evaluation and/or accreditation system, rankings can be used as a proxy for quality. Similarly, at the international level, in the absence of a single global quality assurance agency, ranking systems (public and private) take on some characteristics of a quality regulator for international students. To this end, it is important to adopt a robust methodology based on the principles described in the preceding paragraphs. Involving the tertiary education institutions themselves in defining the methodology is important to create a sense of ownership and common purpose. After Nigeria introduced institutional rankings in 1999, there was little resistance because the University Grants Commission in charge of the exercise had given the universities the opportunity to criticise and modify the criteria with which they did not agree.

*Use rankings as one of the instruments available to inform students, families and employers and to fuel public debates.* Rankings that rely on multiple indicators rather than a single weighted measure can provide useful information about programmes to prospective students as well as to employers in search of graduates with appropriate professional and academic qualifications. But rather than being considered as the ultimate measure of quality and/or relevance, rankings should be complemented by information on accreditation and labour market outcome data collected through surveys of employers and tracer surveys. Finally, the results of league tables can also serve to generate a national debate about long-term strategic priorities and policies for tertiary education, as the French example illustrated.

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## Notes

1. Examples of input variables are: autonomy in governance, resources allocated, cumulative grade point average of admitted students, qualifications of faculty, available budgets and types of programme. Examples of process variables are: methods of instruction and assessment and educational experiences of students. And most importantly examples of outcome variables are: graduate employment rates, number of awards won by students and faculty, and number of publications.
2. *Maclean's* weekly news magazine which performs an annual ranking of Canadian universities, places them in one of three categories, primarily undergraduate, comprehensive and medical-doctoral. The Carnegie classification of universities released five new classification schemes for use by the higher education community in November 2005. The new classifications include all accredited, degree-granting, non-specialised institutions of tertiary education in the United States.
3. In Ontario (Canada), for example, community colleges are assessed in terms of their performance on five key performance indicators: i) students' satisfaction, ii) graduates' satisfaction, iii) employers' satisfaction, iv) graduation rate and v) employment rate. The government uses the results of such assessments to reward good performance through performance-contingent additional funding allocation (Cunningham, 2002; PEQAB, 2006).
4. Average tertiary gross enrollment ratios in 1965 and 1995 in low, middle and high income countries were 0.02:0.05; 0.05:0.25; 0.12:0.40, respectively (The Task Force on Higher Education and Society, 2000).
5. Institutions that *Maclean's* classifies in the medical/doctoral category have a broad range of PhD programmes and research, as well as medical schools. Those classified as comprehensive have extensive research activities and a wide range of

- programmes at the undergraduate and graduate levels, including professional degrees. Those classified as primarily undergraduate are largely focused on undergraduate education, with relatively few graduate programmes.
6. From the title of an insightful article on ranking controversies: Jennings, M.V. (2004), "A Thin Line Between Love and Hate", *Currents*, Vol. 30, No. 9, October, pp. 22-27.
  7. The drop in Malaya University's standing from the 2004 ranking can be in part attributed to extremely low scores obtained on two indicators: citations per faculty and recruiter review. "Recruiter review" was a new indicator introduced in the 2005 ranking. It reflects the opinion of employers about the quality of graduates. The sample of employers include financial institutions, airlines, manufacturers in areas such as pharmaceuticals and the automotive industry, consumer goods companies, and firms involved in international communications and distribution.
  8. The universities are: Dalhousie University, McMaster University, Simon Fraser University, University of Alberta, University of British Columbia, University of Calgary, University of Lethbridge, University of Manitoba, *Université de Montréal*, University of Ottawa and University of Toronto.
  9. This account is based on interviews with Dutch Ministry of Education officials who have asked not to be identified by name because of the sensitive nature of the case.
  10. "College and University Rankings", [http://en.wikipedia.org/wiki/University\\_rankings](http://en.wikipedia.org/wiki/University_rankings), accessed 5 April 2006.
  11. Italy and Spain are exceptions in that, despite local experience, they were not ranked in the top 100 in *The THES*, and only Italy ranked in the SJTU, in the 97th position.
  12. In 2004, five Canadian universities which topped the list in terms of research funding included the University of Toronto (USD 623 532 000), McGill University (USD 543 497 000), *Université de Montréal* (USD 383 764 000), University of British Columbia (USD 363 337 000) and University of Alberta (USD 360 009 000).
  13. R&D expenditure as a percentage of total domestic R&D in 2003 was 35.7% in Canada, 28% in Australia (2002 data), 21.4% in the United Kingdom and 16.8% in the United States.
  14. The rankings are available on the CHE site at [www.che.de/cms/?getObject=2&getName=CHE-Ranking&getLang=de](http://www.che.de/cms/?getObject=2&getName=CHE-Ranking&getLang=de) as well as on the site of the German Academic Exchange Agency at [www.daad.de/deutschland/studium/hochschulranking/04690.en.html](http://www.daad.de/deutschland/studium/hochschulranking/04690.en.html).



## ANNEX A

## Selected List of Agencies and Organisations Responsible for Rankings (as of November 2006)

Country	Institution conducting ranking
International	Shanghai Jiao Tong University world university ranking <i>The Times Higher Education Supplement</i> world university ranking <i>Asiaweek</i> , ranking of universities in Asia and the Pacific (between 1999 and 2002) <i>Newsweek</i> (weekly magazine)
Argentina	<i>Consejo Nacional de Evaluación y Acreditación de las Universidades</i> (government accreditation agency classifying universities into three categories)
Australia	International Standing of Australian Universities, prepared by the Melbourne Institute of Applied Economic and Social Research (Melbourne University)
Brazil	<i>Provão</i> , annual standardised examination ranking university programmes on a five-grade scale from A to E, administered by the National Institute for Educational Studies and Research (between 1993 and 2003)
Canada	<i>Macleans</i> ' (weekly magazine) Ranking of research universities prepared by Research Infosource Inc., a division of a consulting firm University Report Card Navigator, prepared by the Educational Policy Institute in partnership with <i>The Globe and Mail</i> (daily newspaper)
Chile	<i>El Mercurio</i> (daily newspaper) <i>Que Pasa</i> (daily newspaper) <i>Consejo Nacional de Acreditación</i> (National Accreditation Agency, grants accreditation for different lengths of time from three to seven years)
China	Guangdong Institute of Management Science (university) Netbig Chinese University Rankings published by <i>China Youth Daily</i> (newspaper) Research Center for China Science Evaluation, Wuhan University Chinese Universities Alumni Association ranking Shanghai Institute of Educational Science Ranking China Academic Degrees and Graduate Education Development Center Ranking
Germany	Center for Higher Education Development (independent policy research institute), in partnership with <i>Die Zeit</i> (weekly magazine) <i>Karriere</i> (monthly magazine)
Hong Kong	Education 18.com (media agency)

Country	Institution conducting ranking
India	National Assessment and Accreditation Council (autonomous accreditation agency established under the University Grants Commission, classifying tertiary education institutions into categories A, B and C) <i>India Today</i> ranking (daily newspaper)
Italy	<i>La Repubblica</i> (daily newspaper)
Japan	<i>Ashi Shimbun</i> (daily newspaper) Kawaijuku rankings, prepared by preparatory school (2001)
Kazakhstan	National Accreditation Commission (Ministry of Higher Education) Center for Economic and Social Research
Korea	Korean Council for University Education
Malaysia	Qualifications Framework Agency, Ministry of Higher Education
Netherlands	Ministry of Education (in charge of higher education)
New Zealand	Performance-based research fund, prepared by Ministry of Education
Nigeria	Ranking of Nigerian Universities, prepared by National Universities Commission as part of accreditation exercise
Pakistan	Ranking of universities, prepared by Higher Education Commission
Poland	<i>Perspektywy</i> (weekly magazine)
Portugal	<i>Jornal Público</i> (daily newspaper)
Romania*	Babes-Bolyai University, to be published by <i>Adverul</i> (daily newspaper)
Russia	ReitOR (private foundation)
Slovakia	Academic Ranking and Rating Agency (independent organisation)
Spain	GRS Research Group (independent research organisation) <i>El Mundo</i> (daily newspaper) Universia (consortium of universities)
Sweden	<i>Moderna Tider</i> (weekly magazine)
Switzerland	SWISSUP ranking, published by <i>L'Hebdo</i> newspaper
Thailand	Ministry of Higher Education ranking
Tunisia	<i>Comité National d'Évaluation</i> (government university evaluation agency)
Ukraine*	UNESCO Chair, Kyiv Polytechnic Institute, to be published by <i>Zerkalo Nedeli</i> (weekly magazine)
United Kingdom	<i>The Times' Good University Guide</i> (daily newspaper) <i>The Sunday Times</i> (weekly newspaper) <i>The Guardian</i> (daily newspaper) <i>The Daily Telegraph</i> (daily newspaper)
United States	<i>US News and World Report</i> (weekly magazine) <i>Washington Monthly</i> (monthly magazine)

\* New ranking under preparation.

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