

# University Rankings in China

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*Since the mid 1990s of last Century, university rankings have become very popular in China. Six institutions have published such rankings; some of them have also detailed their ranking methodologies. This paper features a general introduction to university ranking in China, and to the methodologies of each ranking discussed. The paper also addresses the characteristics inherent to Chinese university rankings.*

## Introduction

Higher education in China has experienced rapid development in the last 20 years, particularly in the past six years. Some of the basic statistics of higher education of China are shown in Table 1.

The total number of undergraduate and graduate admissions in 2004 is four times that of 1998. The total number of students enrolled in various Chinese higher education institutions reached twenty million in 2004, making China's higher education system the largest in the world. Further increases are expected this year, as the number of undergraduate and graduate admissions will increase by 13 percent and 15 percent,<sup>1</sup> respectively.

Also worthy of note here is the rapid development of private higher education in China. The number of undergraduate and graduate students enrolled in private higher education institutions reached 1.4 million in 2004<sup>2</sup>, or roughly 10 percent of the national total. Almost all private higher education providers focus on undergraduate education; however private higher education in China still has a long way to go in terms of quality, when compared with public institutions.

Six organizations currently publish rankings. Table 2 lists the names of the organizations, and the type and frequency of their respective rankings. Most of them produce institutional rankings.

## The NETBIG Ranking

The newspaper, *China Youth Daily*, published the first NETBIG ranking in 1999. Since then, the updated NETBIG ranking is available on its website.

NETBIG ranks all institutions entitled to award Bachelor's degrees. In addition to an overall numerical order of institutions, ranking results are also presented in 11 categories of institutions including comprehensive, Engineering, Agriculture, Forestry, Medicine, Teacher Education, Language, Economics, Law, Physical Education, and the Arts.

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<sup>1</sup> Retrieved 18 Feb 2005, from <<http://www.moe.edu.cn>>.

<sup>2</sup> (*id.*)

TABLE 1. Statistics overview of Chinese higher education in 2004

| Category                                  | Level             | Institutions<br>(in numbers) | Admissions<br>(in thou.) | Enrolments<br>(in thou.) |
|---|-------------------|------------------------------|--------------------------|--------------------------|
| Graduate studies                          | Doctor's degree   | 245                          | 53                       | 165                      |
|   | Master's degree   | 444*                         | 273                      | 654                      |
| Undergraduate studies                     | Bachelor's degree | 684*                         | 2,099                    | 7,378                    |
|   | Diploma           | 1,047                        | 2,374                    | 5,956                    |
| Sub-total                                 |                   | 1,731                        | 4,799                    | 14,153                   |
| Continuing education<br>at various levels |                   | 505                          |                          | 5,847                    |
| Total                                     |                   | 2,236                        |                          | 20,000                   |

\* The number of institutions offering Bachelor's degrees includes institutions offering Master's degrees, and the number of institutions offering Master's degrees includes institutions offering Doctor's degrees.

Source: The authors.

TABLE 2. Ranking organizations and types of ranking

| Acronym | Ranking organization  | Types of<br>ranking         | Frequency of<br>ranking                      |
|---------|---|-----------------------------|--|
| NETBIG  | NETBIG.competences (China) Limited                                  | Institutional               | First ranking:<br>1999; yearly               |
| GIMS    | Guangdong Institute of Management Science                           | Institutional;<br>programme | First ranking:<br>1995; yearly               |
| RCCSE   | Research Centre for China Science Evaluation,<br>Wuhan University   | Institutional               | First ranking: 2004                          |
| CUAA    | Chinese Universities Alumni Association                             | Institutional               | First ranking:<br>2003; yearly               |
| CIES    | Shanghai Institute of Educational Science                           | Institutional               | First ranking: 2003                          |
| CDGDC   | China Academic Degrees and Graduate<br>Education Development Centre | Programme                   | First ranking:<br>2002; every<br>three years |

Source: The authors.

Table 3 presents the criteria and weights used in NETBIG rankings since 1999 to 2004. The criteria and weights have been relatively stable since 2000.

Table 4 presents the indicators and weights of NETBIG ranking from 2000 to 2004. Fourteen indicators were used in 2000, as compared to only six in 1999. Although the number of indicators has stabilized around 20 since 2001, every year both indicators and their weights suffer significant changes.

## The Guangdong Institute of Management Science (GIMS) Ranking

Published for the first time in 1993, in the Chinese newspaper, *Guangdong Science and Technology*, the GIMS ranking appeared two years later, in 1995, in the *Science of Science and Management of Science and Technology* Chinese journal. Before 1999, the GIMS ranking took into account institutional research performance only. As of 2000,

TABLE 3. Criteria and weights used in NETBIG Ranking from 1999 to 2004

| Criteria           | Weight (in percentages) |         |      |      |      |      |
|--------------------|-------------------------|---------|------|------|------|------|
|                    | 1999                    | 2000    | 2001 | 2002 | 2003 | 2004 |
| Reputation         | 30                      | 15.4500 | 15   | 15   | 15   | 15   |
| Academic Resources |                         | 19.6930 | 20   | 20   | 20   | 20   |
| Research Output    | 20                      | 21.8342 | 22   | 22   | 22   | 22   |
| Student            | 30                      | 11.2472 | 12   | 12   | 12   | 12   |
| Faculty            | 10                      | 20.0538 | 19   | 19   | 19   | 19   |
| Physical Resources | 10                      | 11.7219 | 12   | 12   | 12   | 12   |

Source: The authors.

TABLE 4. NETBIG ranking indicators and weights used between 2000 and 2004

| Criteria                 | Indicators*   | Weights (percentages) |      |      |      |      |
|--------------------------|---|-----------------------|------|------|------|------|
|                          |   | 2000                  | 2001 | 2002 | 2003 | 2004 |
| Reputation               | Survey among academicians, well-known scholars, high school and university presidents | 15.4500               | 15.0 | 15.0 | 15.0 | 15.0 |
|                          | Number of doctoral programmes per student   | 4.9233                | 4.4  | 4.4  | 4.4  | 4.4  |
| Academic resources       | Number of Masters' programmes per student   | 2.5601                | 2.4  | 2.4  | 2.4  | 2.4  |
|                          | Number of national key programmes per student   | 6.4987                | 4.6  | 4.6  | 4.6  | 4.6  |
|                          | Number of national key labs and centres per student                                   | 5.7110                | 4.2  | 4.2  | 4.2  | 4.2  |
|                          | Number of national centres in Social Sciences per student                             |                       | 4.4  | 4.4  | 4.4  | 4.4  |
|                          | Total and per faculty papers  | 20.7425               |      |      |      |      |
| Research output          | Total and per faculty books   | 1.0917                |      |      |      |      |
|                          | Total and per faculty papers indexed by SCI**   |                       | 5.5  | 5.5  | 5.5  | 8.1  |
|                          | Total and per faculty papers indexed by SSCI**  |                       | 4.2  | 4.2  | 4.2  | 6.2  |
|                          | Total and per faculty papers indexed by EI**  |                       | 3.7  | 3.7  | 3.7  | 5.5  |
|                          | Total and per faculty papers indexed by ISTP**  |                       | 2.9  | 2.9  | 2.9  |      |
|                          | Total and per faculty papers indexed by A&HCI**                                       |                       | 2.2  | 2.2  | 2.2  | 2.2  |
|                          | Total and per faculty papers indexed by CSTP**  |                       | 2.0  | 2.0  | 2.0  |      |
|                          | Total and per faculty papers indexed by CSSCI**                                       |                       | 1.5  | 1.5  | 1.5  |      |
| Students                 | Average score in national entrance examinations                                       | 4.7238                | 5.9  | 5.9  | 5.9  | 5.9  |
|                          | Percentage of graduate students among all students                                    | 3.1492                | 6.1  | 6.1  | 6.1  | 6.1  |
|                          | Placement rate of undergraduate students  | 1.1247                |      |      |      |      |
|                          | Placement rate of graduate students   | 2.2494                |      |      |      |      |
| Faculty                  | Percentage of faculty members holding PhD degrees                                     | 20.0538               | 19   | 8.0  | 8.0  |      |
|                          | Percentage of faculty members holding professorial ranks                              |                       |      |      |      | 8.0  |
|                          | Number of academicians of Chinese Academies   |                       |      | 5.0  | 5.0  | 5.0  |
|                          | Number of Changjiang Scholars (China)   |                       |      | 4.0  | 4.0  | 4.0  |
|                          | Faculty-student ratio   |                       |      | 2.0  | 2.0  | 2.0  |
| Infrastructure resources | Research funding per faculty member   | 7.6192                | 7.5  | 6.0  | 6.0  | 6.0  |
|                          | Volume of books and books per student   | 4.1027                | 4.5  | 3.0  | 3.0  | 3.0  |
|                          | Amount of building and areas per student  |                       |      | 3.0  | 3.0  | 3.0  |

\* NETBIG introduced the concept of per capita measures in 2003.

\*\* SCI: Science Citation Index; SSCI: Social Science Citation Index; EI: Engineering Index; ISTP: Index to Science and Technology Proceedings; A&HCI: Arts and Humanities Citation Index; CSTP: Chinese Science and Technology Papers; CSSCI: Chinese Social Sciences Citation Index.

Source: The authors.

the GIMS ranking also includes indicators of educational performance, and lists the top 100 institutions.

Tables 5 and 6 display the criteria, sub-criteria, and weights of the GIMS ranking from 2000 to 2004. Following the 1999 radical changes in ranking criteria, both criteria and their weightings have become relatively stable since 2000.

Significant changes of indicators and their assigned weights occur every year. Among the 25 indicators used in rankings since 2000, GIMS has either discontinued more than one third or introduced new ones during the same period (cf. Table 7). Furthermore, the weighting and definition of most indicators have also been altered.

The scoring procedures of GIMS rankings are complicated. Before 2000, only criteria and sub-criteria bear specific weights, and the indicators in a sub-criterion compete for the latter's assigned weighting. Since 2001, however, each indicator receives a preset weighting.

In addition to publishing a ranking of top institutions, GIMS also publishes—since 2000—a ranking of subject categories and programmes. GIMS re-uses the same dataset for its institutional ranking, but has not published detailed scoring procedures. It ranks 11 categories, including Sciences, Engineering, Agriculture, Medicine, Philosophy, Economics, Law, Education, Literature, History, and Management. Each institution obtains a grade on an eleven-grade scale, with only top institutions, with grades better than B<sup>+</sup>, included.

## Rankings by the Research Centre for China Science Evaluation, Wuhan University (RCCSE)

RCCSE first published its ranking in 2004, in the *China Youth Daily's Weekly Journal of Learning*. Universities empowered to award graduate degrees are divided into two categories, and ranked separately. The first category includes the 121 'national key universities' with intensive research programmes, and the second features the rest.

TABLE 5. Criteria and weights since 2000

| Criteria  | Weight (in percentages) |       |       |       |       |
|-----------|-------------------------|-------|-------|-------|-------|
|           | 2000                    | 2001  | 2002  | 2003  | 2004  |
| Education | 62.51                   | 57.09 | 57.09 | 57.09 | 57.09 |
| Research  | 37.49                   | 42.91 | 42.91 | 42.91 | 42.91 |

Source: Wu *et al.* (2004).

TABLE 6. Sub-criteria and weights since 2001

| Criteria  | Sub-criteria    | Weights |       |       |       |       |
|-----------|-----------------|---------|-------|-------|-------|-------|
|           |                 | 2000    | 2001  | 2002  | 2003  | 2004  |
| Education | Graduate        | 62.51   | 19.10 | 19.10 | 19.10 | 19.10 |
|           | Undergraduate   |         | 37.99 | 37.99 | 37.99 | 37.99 |
| Research  | Sciences        | 30.78   | 34.74 | 34.74 | 34.74 | 34.74 |
|           | Social Sciences | 6.71    | 8.17  | 8.17  | 8.17  | 8.17  |

Source: Wu *et al.* (2004).

TABLE 7. GIMS ranking indicators

| Criteria                          | Sub-criteria            | Indicators                         | Remarks                 |
|-----------------------------------|-------------------------|------------------------------------|-------------------------|
| Education                         | Graduate education      | Number of doctoral graduates       |                         |
|                                   |                         | Number of Master's graduates       |                         |
|                                   | Undergraduate education | Number of Bachelor graduates       |                         |
|                                   |                         | Number of other undergraduates     | Discontinued since 2004 |
| Research                          | Sciences                | Number of papers published in S&N* | Introduced in 1999      |
|                                   |                         | Number of papers indexed by SCI*   |                         |
|                                   |                         | Number of papers cited by SCI      | Discontinued since 2001 |
|                                   |                         | Number of papers indexed by ISTP*  |                         |
|                                   |                         | Number of papers indexed by CSCD*  |                         |
|                                   |                         | Number of papers cited by CSCD     | Discontinued since 2002 |
|                                   |                         | Number of papers indexed by EI*    |                         |
|                                   |                         | Number of books in sciences        |                         |
|                                   |                         | Number of invention patents        |                         |
|                                   | Social Sciences         | Number of other patents            |                         |
|                                   |                         | Number of national awards          |                         |
|                                   |                         | Number of provincial awards        |                         |
|                                   |                         | Number of papers indexed by SSCI*  | Introduced in 1999      |
|                                   |                         | Number of papers cited by SSCI     |                         |
|                                   |                         | Number of papers indexed A&HCI*    | Introduced in 2002      |
|                                   |                         | Number of papers indexed by CSSCI* |                         |
|                                   |                         | Number of papers cited by CSSCI    |                         |
|                                   |                         | Books in social sciences           | Discontinued since 2002 |
|                                   |                         | Number of national awards          |                         |
| Number of provincial awards       |                         |                                    |                         |
| Number of papers in Xinhua Digest | Introduced in 2001      |                                    |                         |

\* S&N: Science and Nature; SCI: Science Citation Index; ISTP: Index to Science and Technology Proceedings; CSCD: Chinese Sciences Citation Database; EI: Engineering Index; SSCI: Social Science Citation Index; A&HCI: Arts and Humanities Citation Index; CSSCI: Chinese Social Sciences Citation Index.

Source: Wu *et al.* (2004).

Table 8 shows the criteria and weightings used by the RCCSE for its ranking of national key universities. The ranking system is fairly complex, involving thirteen sub-criteria and some 50 indicators. Table 9 displays the criteria, sub-criteria, and weightings used for the non-key universities. Without including the criterion of reputation and redistributing the weighting of other criteria, the contents of the table emphasize education rather than research.

In addition to its comprehensive ranking of institutions, the RCCSE also provides a ranking of institutional research performance in the Sciences, Technology, and the Social Sciences. It uses the same set of data as for the comprehensive ranking above, while selecting some indicators and redistributing weightings.

## The Chinese Universities Alumni Association (CUAA) Ranking

CUAA first published its ranking in 2003 on its website, and determined its ranking criteria and weightings through an online survey. Table 10 shows the 2004 CUAA ranking criteria, indicators, and weightings. The 2004 ranking listed only the top 140 universities.

TABLE 8. RCCSE ranking of key universities in 2004

| Criteria and weights (percentages)             | Sub-criteria and weights (percentages) | Indicators                                       | Weights (percentages)             |      |
|--|--|--|-----------------------------------|------|
| Resources<br>— 16.71                           | Infrastructure resources — 2.37        | Total and per student area of campus             | 0.10                              |      |
|  |  | Total and per student area of campus             | 0.29                              |      |
|  |  | Total and per student value of equipment         | 0.28                              |      |
|  |  | Total and per student value of equipment         | 1.00                              |      |
|  |  | Total and per student volume of books            | 0.14                              |      |
|  |  | Total and per student volume of books            | 0.56                              |      |
|  |  | Total educational expenditure                    | 1.00                              |      |
|  | Educational expenditures — 3.98        | Educational expenditure per student              | 2.98                              |      |
|  |  | Faculty resources — 5.63                         | Number of academicians            | 2.35 |
|  | Key programmes — 4.73                  | Faculty resources — 5.63                         | Number of national scholars       | 1.48 |
|  |  |  | Number of doctoral supervisors    | 0.90 |
|  |  | Percentage of professors                         | 0.55                              |      |
|  |  | Student-faculty ratio                            | 0.35                              |      |
|  |  | Key programmes — 4.73                            | Number of doctoral programmes     | 1.19 |
|  |  |  | Number of Master's programmes     | 0.76 |
|  |  |  | Number of national key programmes | 2.29 |
|  | Education<br>— 26.16                   | Student quality and quantity — 4.43              | Number of innovative programmes   | 0.49 |
| Average score in national entrance examination |  |  | 0.43                              |      |
| Number of doctoral degrees conferred           |  |  | 1.52                              |      |
| Number of Master's degrees conferred           |  |  | 1.06                              |      |
| Number of Bachelor's degrees conferred         |  |  | 0.81                              |      |
| Student composition — 10.13                    |  | Employment rate of graduates                     | 0.61                              |      |
|  |  | Ratio of graduate to undergraduate students      | 5.07                              |      |
|  |  | Ratio of international to undergraduate students | 5.07                              |      |
| Educational awards — 11.60                     |  | Educational awards — 11.60                       | National education award          | 4.00 |
|  |  |  | National Award on courses         | 2.80 |
|  |  |  | National Award on textbooks       | 2.12 |
|  |  |  | National Award on doctoral theses | 1.29 |
|  |  |  | International awards              | 1.40 |
| Research<br>— 45.31                            | Teams and labs — 6.36                  | Number of national key teams                     | 3.55                              |      |
|  |  | Number of national key labs and centres          | 2.03                              |      |
|  |  | Percentage of research personnel                 | 0.78                              |      |

TABLE 8. (Continued)

| Criteria and weights (percentages) | Sub-criteria and weights (percentages) | Indicators  | Weights (percentages) |
|------------------------------------|--|---|-----------------------|
|                                    | Output — 4.83                          | Number of patents                                 | 1.93                  |
|                                    |  | Number of papers indexed by SCI, SSCI, and A&HCI* | 1.46                  |
|                                    |  | Number of papers indexed by EI, ISTP, and ISSHP*  | 0.66                  |
|                                    |  | Number of papers indexed by CSTP and CSSCI*       | 0.45                  |
|                                    | Quality — 14.63                        | Number of books in social sciences                | 0.33                  |
|                                    |  | Number of national scientific awards              | 7.13                  |
|                                    |  | Number of highly cited papers                     | 3.20                  |
|                                    |  | Number of representative research                 | 2.20                  |
|                                    |  | Number of papers cited by SCI, SSCI and A&HCI     | 1.28                  |
|                                    |  | Number of papers cited by CSTP* and CSSCI*        | 0.81                  |
|                                    | Grants — 11.09                         | Number of NSFC* grants                            | 3.93                  |
|                                    |  | Number of NSSFC* grants                           | 3.93                  |
|                                    |  | Total number of grants and projects               | 1.45                  |
|                                    |  | Total amount of research expenditure              | 1.78                  |
| Efficiency — 8.40                  | Output per faculty                     | 4.20  |                       |
|                                    | Output per dollar of expenditure       | 4.20  |                       |
| Reputation — 11.82                 | Reputation — 11.82                     | Academic reputation                               | 5.01                  |
|                                    |  | Social reputation                                 | 5.91                  |

\* SCI: Science Citation Index; ISTP: Index to Science and Technology Proceedings; EI: Engineering Index; SSCI: Social Science Citation Index; A&HCI: Arts and Humanities Citation Index; CSSCI: Chinese Social Sciences Citation Index; CSTP: Chinese Science and Technology Papers; NSFC: National Science Foundation of China; NSSFC: National Social Science Foundation of China.  
*Source:* The authors.

TABLE 9. RCCSE ranking of non-key universities

| Criteria and weights (percentages) | Sub-criteria            | Weights (percentages) |
|------------------------------------|-------------------------|-----------------------|
| Resources — 25.99                  | Physical resources      | 3.68                  |
|                                    | Educational expenditure | 6.19                  |
|                                    | Faculty resources       | 8.76                  |
|                                    | Key programmes          | 7.36                  |
| Research — 32.75                   | Teams and labs          | 4.60                  |
|                                    | Research output         | 3.49                  |
|                                    | Research quality        | 10.57                 |
|                                    | Research grants         | 8.01                  |
|                                    | Research efficiency     | 6.07                  |
| Education — 41.26                  | Student quality         | 6.98                  |
|                                    | Composition of students | 15.98                 |
|                                    | Educational awards      | 18.29                 |

*Source:* The authors.

TABLE 10. Criteria and weights of the 2004 CUAU ranking

| Criteria                  | Indicators  | Weights<br>(percentages) |
|---------------------------|---|--------------------------|
| National key universities | Universities in the "211 Project"   | 1.77                     |
|                           | Universities affiliated to the Ministry of Defence                              | 3.54                     |
|                           | National key universities   | 1.77                     |
| Research                  | National Award for Textbooks  | 1.77                     |
|                           | National Award for Science and Technology                                       | 4.42                     |
|                           | National Award for Courses  | 1.77                     |
|                           | National Award for Academic Books   | 8.85                     |
|                           | Grants from the "973 Project"   | 1.77                     |
|                           | National Laboratories and Centres   | 1.77                     |
|                           | National Science Park of University   | 1.77                     |
|                           | Quality journals of Social Sciences   | 1.77                     |
|                           | National Award for Doctoral Thesis  | 1.77                     |
|                           | National Award on Technology Innovation   | 1.77                     |
| Faculty                   | Members of National Instructional Committee                                     | 4.42                     |
|                           | National Award for Excellent Teachers   | 1.77                     |
|                           | National Award for Young Scholars   | 1.77                     |
|                           | National Project for Young Teachers   | 1.77                     |
|                           | Changjiang scholars   | 5.31                     |
|                           | Authority of professorial promotion   | 1.77                     |
|                           | Members on the Science and Technological Committee of the Ministry of Education | 1.77                     |
|                           | Academicians  | 4.42                     |
| Programmes                | Projects for National Doctoral Programmes                                       | 1.77                     |
|                           | Programmes with Changjiang Scholars   | 1.77                     |
|                           | Doctoral programmes at sub-field level  | 1.77                     |
|                           | National labs for teaching or research  | 5.31                     |
|                           | National key programmes   | 8.85                     |
|                           | Programmes of professional education  | 0.88                     |
|                           | Various national pilot programmes   | 1.77                     |
|                           | Graduate schools accredited by the Ministry of Education                        | 1.77                     |
|                           | Doctoral programmes   | 1.77                     |
| Students                  | National Award for Challengers  | 3.54                     |
|                           | National Award for Competition in Electronic Design                             | 1.77                     |
|                           | National Award for Competition in Mathematics                                   | 1.77                     |
| Reputation                | Applicants for graduate admission   | 0.88                     |
|                           | Reputation  | 8.85                     |

Source: The authors.

## The Shanghai Institute of Educational Science (SIES) Ranking

SIES first published its rankings in 2003, in *Exploring Educational Development*, a Chinese journal. The SIES ranking divided universities with Bachelor's degree-awarding power into five categories, and ranked each category separately. The five categories are: Arts and Sciences, Engineering, Teacher Education, Medicine, and Finance or Law.

Major indicators include total enrolment, the percentage of graduate students, the number of international students, the percentage of faculty members with PhD degrees,



TABLE 11. Comparison of various ranking results in 2004

| Average rank | Institution                                      | NETBIG | GIMS | RCCSE | CUAA | Consistency* |
|--------------|--|--------|------|-------|------|--------------|
| 1.3          | Tsinghua University                              | 1      | 1    | 1     | 2    | Good         |
| 1.8          | Peking University                                | 2      | 2    | 2     | 1    | Good         |
| 3.5          | Fudan University                                 | 4      | 4    | 3     | 3    | Good         |
| 4.0          | Zhejiang University                              | 5      | 3    | 4     | 4    | Good         |
| 4.8          | Nanjing University                               | 3      | 6    | 5     | 5    | Good         |
| 7.0          | Shanghai Jiao Tong University                    | 7      | 9    | 6     | 6    | Good         |
| 8.8          | Wuhan University                                 | 13     | 7    | 7     | 8    | Fair         |
| 9.5          | University Science and Technology of China       | 5      | 15   | 8     | 10   | Poor         |
| 10.3         | Huazhong University of Science and Technology    | 15     | 5    | 14    | 7    | Poor         |
| 11.8         | Zhongshan University                             | 11     | 11   | 10    | 15   | Fair         |
| 12.3         | Xian Jiao Tong University                        | 11     | 12   | 15    | 11   | Fair         |
| 12.5         | Nankai University                                | 8      | 19   | 11    | 12   | Poor         |
| 13.3         | Jilin University                                 | 24     | 8    | 12    | 9    | Poor         |
| 14.0         | Harbin Institute of Technology                   | 13     | 13   | 17    | 13   | Fair         |
| 15.0         | Sichuan University                               | 20     | 10   | 16    | 14   | Poor         |
| 15.8         | Beijing Normal University                        | 9      | 22   | 13    | 19   | Poor         |
| 16.3         | Renmin University                                | 10     | 28   | 10    | 17   | Poor         |
| 18.3         | Tianjin University                               | 15     | 16   | 22    | 20   | Fair         |
| 19.5         | Tongji University                                | 21     | 21   | 20    | 16   | Fair         |
| 19.5         | Shandong University                              | 24     | 14   | 19    | 21   | Fair         |
| 21.3         | Beihang University                               | 17     | 23   | 23    | 22   | Fair         |
| 21.3         | Central South University                         | 29     | 17   | 21    | 18   | Poor         |
| 22.0         | Xiamen University                                | 17     | 25   | 18    | 28   | Poor         |
| 22.5         | South East University                            | 21     | 20   | 26    | 23   | Fair         |
| 23.3         | Dalian University of Technology                  | 17     | 26   | 25    | 25   | Poor         |
| 26.5         | Northwestern Polytechnic University              | 24     | 29   | 29    | 24   | Fair         |
| 27.0         | South China University of Science and Technology | 31     | 24   | 27    | 26   | Fair         |
| 29.0         | China Agriculture University                     | 28     | 30   | 28    | 30   | Good         |
| 30.3         | East China Normal University                     | 24     | 34   | 24    | 39   | Poor         |
| 31.5         | Beijing Institute of Technology                  | 32     | 36   | 31    | 27   | Fair         |
| 32.0         | University of Science and Technology of Beijing  | 21     | 40   | 34    | 33   | Poor         |
| 33.5         | Northeastern University                          | 34     | 27   | 42    | 31   | Poor         |
| 34.0         | Lanzhou University                               | 29     | 42   | 33    | 32   | Poor         |
| 36.5         | Chongqing University                             | 51     | 31   | 35    | 29   | Poor         |
| 39.5         | East China University of Science and Technology  | 34     | 35   | 43    | 46   | Poor         |

\*'Good' indicates an average deviation smaller than 1; 'Poor' indicates an average deviation greater than 3.

Source: The authors.

the ratio of full professors to students, educational expenditure per student, total and per capita faculty research grants, the number of National key programmes, and the number of National Educational Awards, etc. No detailed scoring procedures are available.

## The China Academic Degrees and Graduate Education Development Centre (CDGDC) Ranking

The CDGDC ranking of graduate programmes appeared first in 2002, in *Chinese Graduate Education* (journal in Chinese). Twelve programmes were ranked The Centre ranked 42 programmes and another 26 programmes in 2003 and 2004, respectively, for a current total of 80 programmes, as per the Chinese classification of instructional programmes. While identifying the top institutions in each programme area, the ranking offers no detailed ranking criteria and weights.

## Comparison of Various University Rankings in China

Table 11 compares the ranking of selected top Chinese universities by various ranking systems. Significant differences may be noted for a number of universities, such as University of Science and Technology China and Huazhong University of Science and Technology, particularly between the NETBIG and GIMS rankings. This is due, in part, to the fact that the NETBIG ranking emphasizes output per capita, whereas the GIMS ranking puts more weight on quantity. A small-sized and high-quality institution would perform better in NETBIG, whereas a large university will achieve a better rank in GIMS.

## Conclusion

University rankings in China are a relatively new phenomenon, and need time to mature. There are certain general problems regarding the availability of comparable data, the accessibility of data sources, and reliability. The Chinese ranking systems are complicated by a large amount of China-only indicators, that are hard to understand for users from other countries and do not lend themselves to international comparison. Finally, the misinterpretation and improper use of ranking results by the public is worrisome.

Looking ahead, it is safe to expect that more rankings will emerge and that competition will intensify. All stakeholders should pay attention to the problems related to higher education rankings, and help to improve the ranking process itself as well as its proper use. It is the responsibility of governments to make comparable data available, and accessible; likewise, in this case it is the responsibility of Chinese ranking bodies to make their rankings as transparent and reliable as possible.

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