CHENG Ying, LIU Niancai

Tracking the development of China’s top universities using scientometric indicators, 1997–2005

Abstract This study reviews the developments of 9 Chinese top universities supported by “985 Project” during 1997–2005 based on the analysis of a series of scientometric indicators, including the total number of publications indexed by Science Citation Index Expanded and Social Sciences Citation Index, the cumulated impact factor of publications, the number of publications divided by the number of faculty members, the average impact factor of publications, percentage of publications in top 20 percent journals, the percentage of internationally collaborative publications, the number of publications in six broad subject fields and the Index of Disciplinary Balancing. The findings are helpful to the understanding of the achievements of Chinese top universities during this period as well as the remaining gaps between them and world-class universities.

Keywords 985 Project, Chinese top universities, world-class universities, scientometric indicators

Abstract 以中国“985 工程”第一批建设的9所名牌大学为样本, 以科学引文索引(扩展版)和社会科学引文索引为数据源, 分析了这些大学在1997–2005年间一系列科学计量学指标的变化趋势。计算的科学计量学指标包括: 论文总数、累计影响因子、师均论文数、平均影响因子、高水平论文比例、国际合作论文比例、学科均衡系数等。研究结果有助于深入了解中国名牌大学近年来的发展状况, 以及它们与世界一流大学的差距, 为下一阶段制定有关政策提供依据。

Keywords 985 工程, 中国名牌大学, 世界一流大学, 科学计量学指标


CHENG Ying (陈英文), LIU Niancai (刘念才)
Graduate School of Education, Shanghai Jiao Tong University, Shanghai 200240, China
E-mail: ycheng@sjtu.edu.cn, ncliu@sjtu.edu.cn
1 Introduction

Building world-class universities is of great importance to China’s modernization and prosperity. The central government of China has been supporting a number of nationally top universities to build world-class universities and disciplines by allocating them special funding, which is called the “985 Project”. The “985 Project” was formally launched in 1999, and 9 universities were selected in the first period. The second round of the project, which was started in 2004, has extended the supporting scope to thirty-eight universities (Chen, 2006). Eight years has passed since the startup of the “985 Project”, and the government, universities and general public are eager to know the changes of these top universities such as, for example, are there any progress achieved? Which aspects should be concerned more during the next period? This study uses a series of scientometric indicators to describe the developments of 9 Chinese top universities that are firstly supported by the “985 Project”. It is expected that the results would help to deepen the understanding of Chinese top universities.

2 Samples and data source

The sample universities in this study are 9 universities which were selected and supported by “985 Project” since 1999, including Peking University, Tsinghua University, Fudan University, Nanjing University, Shanghai Jiao Tong University, Zhejiang University, University of Science and Technology of China, Xi’an Jiaotong University, and Harbin Institute of Technology. Table 1 shows the profiles of these universities. There are 7 of 9 universities directly under the Ministry of Education of P.R.C., and 2 other universities are controlled by Chinese Academy of Science and Commission of Science Technology and Industry for National Defense respectively. Almost all the sample universities were founded around 1900, and the University of Science and Technology of China is an exception, founded after the foundation of P. R. China. During the past few years, 8 universities have undergone merger.