

# **Education Policy Analysis Archives**

**Volume 10 Number 20**

**April 14, 2002**

**ISSN 1068-2341**

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A peer-reviewed scholarly journal

**Editor: Gene V Glass**

College of Education

Arizona State University

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## **The Amalgamation of Chinese Higher Education Institutions**

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Citation: Chen, D. Y. (2002, April 14). The amalgamation of Chinese higher education institutions. *Education Policy Analysis Archives*, 10(20). Retrieved [date] from <http://epaa.asu.edu/epaa/v10n20.html>.

### **Abstract**

The 1990s witnessed revolutionary change in China's higher education system, particularly through radical mergers. The reform process and its background are detailed here, with a case study focusing on Zhejiang University. After nearly 15 years of painstaking effort, the reform goals for the higher education system have been met, and a decentralized, two-tiered administrative system has been installed. However, the most hotly debated reform has been the amalgamation of universities. The need to optimize China's system of higher education has a background dating back about 50 years, when the first reordering of higher education took place. The reordering and its results are described, and the causes and after effects of this reform are detailed.

Never before has Chinese higher education undergone such momentous changes, and

never before has higher education attracted so much attention from both the general public and authorities at all levels. A new awakening has been brought about in higher education and as a result of this new leap forward. As the vice-premier of the Chinese government announced on August 24, 2000, at a meeting of Congress, China's optimization of the administrative structure of higher education has been basically and successfully fulfilled (Li, 2000).

The main target of reform was to change the obsolete system under which universities were owned and run by a variety of central industry ministries, in order to establish a fairly decentralized, two-tiered management system. In this system, administrative powers would be shared by both central and local governments, but with the local governments being required to play a major role. After nearly fifteen years of painstaking effort, this two-tiered administrative system has been finally installed.

During the whole process of reformation, the guidelines were *gongjian*(joint administration), *tiaozheng*(adjustment), *hezuo*(cooperation) and *hebing*(merger). *Gongjian*, or joint administration between the central government and local levels illustrates the potential of provincial governments in the construction of universities. *Tiaozheng*, or adjustment, calls for a shift in the balance of administrative power from the central government to local levels. *Hezuo*, or cooperation, requires universities in the same area to cooperate by making full use of resources owned by different institutions. Now, 452 institutions have changed their masters, and only a few more than 100 universities still remain directly under the administration of the central government. Seventy-one flagship universities are under the jurisdiction of the Ministry of Education (MOE), and another fifty or so professional institutions (e.g., defense, sports, civil aviation, etc.) are temporally under those corresponding ministries. *Hebing*, or merger, refers to the attempt to merge several universities and colleges into one. Although the amalgamation of universities and colleges is the most difficult decision to make, nevertheless a total of 612 higher education institutions have been merged into 250 (Li, 2000), though these mergers have sometimes been perfunctory and unpleasant.

## The Process

The process of reforming the administrative system of higher education can be divided into three stages.

1.*The brewing stage* (1985 to 1992). In 1985, the central authority declared the first act to restructure higher education. New ideas were widely publicized, reform was encouraged, and although, sporadic pilot experiments were indeed performed, no substantial progress was made. Still, the necessary foundation for further change had been laid.

2.*The exploration stage* (1992 to 1997). By 1992, the State Commission of Education (now MOE) actively sought a solution to the problem of segmentation between horizontal (called "bars") and vertical (called "blocks") departments, and by tentatively moving some institutions from the control of central ministries to provincial governments. In 1992, Guangdong province pioneered the pilot reform by co-constructing Zhongshan University and the Huanan University of Science and Technology under an agreement with the State Commission of Education. The administration of the Guangzhou University of Foreign Languages was also moved from

the State Commission of Education to Guangdong province. Meanwhile, mergers between universities were used as a mechanism to change the structure of higher education. The Tianjing College of Foreign Trade, owned by the Ministry of Foreign Trade, was transferred and at the same time amalgamated into Nankai University. During this period, some large-scale universities were established through amalgamation. In May of 1992, seven colleges in the city of Yangzhou in Jiangsu Province (Jiansu Agriculture College, Yangzhou Teacher's College, Yangzhou Technical College, Yangzhou Medical College, Jiangsu Business College, and Jiangsu College of Water Conservation) were merged into a single new institution, Yangzhou University. Yangzhou University thereafter covered a wide range of disciplines, and as a result, became then the most comprehensive and perhaps the largest university established since the 1950s. However, the most tortured merger was between Sichuan University and the Chengdu University of Science and Technology in April, 1994. This was the very first case of amalgamation between strong universities. In the reordering of the 1950s, these two universities split from the then original Sichuan University. In fact only one road cuts the campus in two. However, after decades of development, they were almost equally strong, though both suffered the deficits of provincialism and restrictions brought about by the arrangement of narrowly set disciplines. Both were later voluntarily incorporated into one institution with formal support from the State Commission of Education. In addition, other comprehensive and large-scale universities were also created by combining several institutions. These include Nanchang University in Jiangxi province, Yanbian University in Jilin province, Shanghai University, Qingdao University in Shandong province. By 1998, 207 institutions had been merged into 84 (Bao, 1998).

3. *The full-scale advancement stage* (1998 to 2000). In 1988, an important meeting was held in Yangzhou, Jiangsu province to speed up the reform of the higher education administrative system. At the same time, the fourth campaign of governmental restructuring was officially unveiled in the central government. Its goal was to change the role of government in the market economy emphasizing more macro-regulation rather than unnecessarily detailed micro-direction. As a result, the number of departments of the State Council was reduced from 40 to 29 (GUO, Nei, 2000), and the size of governmental staffs was reduced by half. Professional ministries were no longer permitted to run higher education institutions. Instead, universities and colleges were required to separate from their originally affiliated departments and find their own means of survival. Some were to be decentralized to the localities, others were to be transferred to the Ministry of Education, mainly by merging with those universities that were already under the direct administration of the Ministry of Education. In this stage, 1,232 institutions were radically changed through decentralization and amalgamation. About 406 universities have been restructured into 171 since 1996 (Ji, 2000). Consequently, the amalgamation of universities and colleges was accelerated. Before 2000, the focus was on the readjustment of administrative powers of those universities, which were separated from their former masters. However, from the start of 2000, a general advancement was pushed forward. In just six months, 778 institutions affiliated with 49 departments under the State Council had been restructured.

The entire process rested on two basic premises. First, all top-rate universities should be comprehensive, should include most disciplines, and should be big enough to handle large enrollments. Secondly, most medical universities should be incorporated into comprehensive educational institutions, and recognized as essential parts of first-class

universities.

There are two kinds of merger. One is to merge closely located institutions sharing the same or similar disciplines, but affiliated with different governmental departments. This is done in order to increase efficiency and effectiveness, and to tackle the problem of segmentation and provincialism. Another is to form many larger and stronger universities by combining leading universities with relatively narrow disciplines. This is done in order to build representative and supposedly world-class universities. As a result, a number of bigger and stronger universities emerged with comprehensive fields of study in literature, arts, science, technology, agriculture and medicine. For example, Tsinghua University, China's leading university in science and engineering, incorporated the Central Academy of Arts, a leading institute in art design. The new Zhejiang University, the new Wuhan University, and the new Huazhong University of Science & Technology were each created from four smaller universities, and the new Jilin University was created through the merger of five smaller universities. The latter, which now consists of five campuses, presently has the largest student enrollment in China consisting of about 46,000 full-time resident students, 130 undergraduate programs, and 180 postgraduate programs including 71 doctoral programs (Chen, 2000). The new Zhejiang University covers all disciplines except military science, has five campuses, 40,000 full-time students, a staff of ten thousand, 98 undergraduate programs, 193 postgraduate programs, and 106 doctoral programs. Established in 1988 by merger of Zhejiang University, Hangzhou University, Zhejiang University of Agriculture, and Zhejiang University of Medical Science, it is one of the largest and most comprehensive universities in today's China (Wen & Bi, 2000).

Most strikingly, the majority of strong medical universities have been absorbed into flagship universities in this large-scale merger. Beijing University took in Beijing University of Medical Sciences, the best in its field. Shanghai No.1 University of Medical Sciences, one of the best, was incorporated into Fudan University. Other medical school mergers include Tongji University of Medical Science and Huazhong University of Science and Technology, Hunan University of Medical Sciences and Zhongnan University, Huaxi University of Medical Science and Sichuan University, Hubei University of Medical Science and Wuhan University, Zhejiang University of Medical Science and Zhejiang University, Baiqiu University of Medical Science and Jilin University, and Xi'an University of Medical Sciences and Xi'an Jitong University. Many ambitious universities dreaming of becoming so-called world-class institutions are finding ways to incorporate with the left over medical universities to avoid being perceived as inferior to others in competition for resources and status in the hierarchy of higher education.

Nevertheless, the new round of amalgamations of universities and colleges was eventually completed, having proceeded reluctantly for some universities and willingly for others, but all reacting to the polices of the central government. For more detail on these amalgamations, please see the Appendix: Major Mergers of Universities Currently Under the Direct Administration of the Ministry of Education.

## Behind the Amalgamation

Why did China's system of higher education need to be optimized? The reason can be found in an examination the situation about fifty years ago when the first reordering of

higher education took place.

When the People's Republic of China was set up in October 1949, the higher education sector was fairly small. Among the 205 higher education institutions at that time, 60 percent were publicly-owned, 40 percent were privately-owned or owned by foreign missionary organizations, and enrolled in total just 117,000 students (only 2.2 students per 10,000 population), and 16,000 teachers (MOE, 1984). In 1951, after about two years of minor readjustments, among the 211 universities and colleges there were 49 universities that had at least three schools or departments of discipline classes; 91 independent colleges that had only one or two schools or departments of discipline classes; and 71 special higher institutions that in general covered only one or two disciplines. However, when the large-scale industrial construction of the First Five-year Plan began nationally, such a system of higher education revealed very distinct drawbacks. Geographically, most higher institutions were located in coastal areas. In 1949, while 79 of the 205 were in Beijing, Shanghai, Jiangsu, and Guangdong provinces, there were only nine in the large northwestern areas. In the structure of disciplines, there were too many arts and literature, social sciences and humanities programs on campuses, but little engineering, agriculture and animal husbandry, medical sciences, and teacher training programs. There were a hundred institutions that offered programs in politics and law, and seventy offered programs in economics and finance. Students studying engineering, agriculture and animal husbandry, and medical science accounted for a mere 31.5% of total enrollments (Liu, 1991).

As required under the First Five-year Plan, large-scale economic restructuring and construction concentrated on a series of industrial projects with the support of the then Soviet Union. As socialist construction needed a large pool of labor talent, mainly technical professionals, a major reorganization of higher education became inevitable. However, what pattern would be followed: the traditional Chinese pattern, the communist revolutionary pattern, or some foreign pattern?

At this point, however, the international political climate suddenly changed. The intensification of the Cold War forced the newly established China to close its doors to the West, and moreover, China's participation in the Korean War from 1950 to 1953 led Chinese politicians to a closer relationship with the socialist Soviet Union. Politically, economically, and culturally, the Chinese government chose an all-out emulation of Soviet Union patterns and practices, with the cordial assistance of large numbers of Soviet experts both as consultants to the various ministries, and as teachers and researchers in a number of specific institutions. Therefore, higher education increasingly assumed a Soviet Union character.

The first large-scale reform of higher education was put into practice in 1952 and 1953 under full guidance from the Soviet Union. This program was called *yuanxi tiaozheng*, which in Chinese means the reordering of colleges and departments. The reordering involved two important aspects: the geographical rationalization of the higher education layout, and the reestablishment of new types of institutions with special emphasis on the development of new engineering universities, both polytechnical and specialized, and teachers colleges. The primary concern was to restructure the whole higher education system in ways which would immediately serve the economic and political objectives set by the First Five-year Plan. Each institution and each program had a specially designated mission oriented directly to an industrial sector or a specific product or technical process. Consequently, all institutions were put under scrutiny and reorganized by

department and specialization. Tactically, universities that had spent decades developing fairly comprehensive programs of literature and the arts, sciences, engineering, agriculture, law and medicine were destroyed in order to build new specialist universities, colleges, and departments. All related departments, programs, teachers, equipment, and books in the related higher education institutions were concentrated and moved to one newly designed institution so as to build a specialized college. Almost overnight specialist colleges mushroomed across the nation. In order to ensure an even geographical distribution of each type of higher institution, six major regions (the Northwest, the Southwest, the Central South, the East China, the North China, and the Northeast) were designated as the basic units for political-administrative planning. Each region was allowed to establish one or two comprehensive universities (i.e., liberal arts and/or science(s) institutions), one or two polytechnical universities or colleges, one major teachers college, one to three agriculture universities or colleges, and other specialized institutions.

Following the two years of reform from 1951 to 1953, the total number of higher institutions decreased from 211 to 182. Among the 182 institutions, there were 14 comprehensive, 39 engineering, 31 teachers, 29 agricultural, 29 medical, 6 financial, 4 political and law, 8 language, 15 art, 5 sports, 2 ethnic, and 1 other (CIES, 1984). While the Ministry of Higher Education (now MOE) had been the only legitimate administrative organ for higher education, and directly administered comprehensive, polytechnical and key teachers colleges, specialized institutions were rationed to and administered by the corresponding central specialized ministries, (e.g., all mechanical institutions were under the direct leadership of the Ministry of Mechanics, all agricultural institutions under the Ministry of Agriculture, etc.). The whole process was, to a large degree, centrally planned and monitored. The only institutions administered at the provincial level were small local teachers colleges. In order to improve the geographical balance, from 1955 to 1957 a small-scale restructuring was initiated by moving five coastal universities to the hinterland, and building twelve new institutions there. Although other reforms were tried in the 1960s and 1970s, the overall structure and framework remained relatively unchanged after the radical reordering of the 1950s.

This system had two obvious characteristics. From the perspective of the administrative structure, professional ministries owned and administered relevant specialized institutions. The so-called *bumen banxue* (institutions owned and operated by ministries) led to compartmentalization, insularity, and self-protection in each sector, and an almost-closed system of higher education. All programs were set according to the sector's needs; all students were recruited on the basis of the sector's needs. In other words, all resources of specialized institutions in a certain system belonged to the affiliated ministry. Of course, such a system gave incentives for every ministry to support its own institutions both financially and politically, and to develop its own *zhuanye* (majors or specialized fields) and employ its own graduates. Naturally, institutions in such a closed system had no need to worry about their survival. Under a system of highly centralized planning, such closed systems were somewhat appropriate to the needs of the fledgling economy and social development. However, as the prevailing policy was turning from highly centralized planning to a market-oriented economy, such a pattern was no longer rational. Institutions oriented to self-aggrandizement in a closed system resulted in a great waste of scarce resources and inefficiency. In 1998, for example, 147 four-year universities and colleges had on average fewer than 2,000 students on campus, a figure representing 24.9% of all

four-year institutions. The enrollment in each of the 108 two-year and three-year specialized institutions was below 1,000 students, accounting for 25.5% of this category. Improving efficiency and effectiveness became the biggest motivation for the full-scale amalgamation of institutions.

From the perspective of the functional type of institutions, all universities and colleges had become too narrow and specialized in disciplines, with engineering, agriculture, medicine, etc., artificially separated from liberal arts and basic sciences. As a result, there were no genuine comprehensive universities. This fragmentation of disciplines runs counter to the current trend of scientific integration, and of course, is detrimental to the cultivation of a body of students with broad vision and an integrated structure of knowledge. Thus, in the 1990s there was a cry from both within and outside for the establishment of several truly comprehensive universities with enough strength for competition in the world market. This is another important reason for the large-scale amalgamation of higher education institutions.

Still these reasons are not sufficient to explain the large-scale amalgamation of institutions. The most important external force came from the fourth governmental restructuring initiated in 1998. Through this restructuring, all national ministries were optimized and minimized. Except for very special and national security related universities, no one was permitted to remain under the leadership of the central ministries except the Ministry of Education. Those universities originally attached to the specialized ministries had to find ways to survive whether through decentralization to the provincial governments, being moved to the Ministry of Education, or through merging. Thus was the push towards large-scale amalgamation of universities finally accelerated.

## **Disquiet During the Amalgamation**

Opponents have argued that radical amalgamation is full of risk, especially when it involves those institutions that are forced or are at least reluctant to be combined. The act of merger, these opponents argue, does not always raise the quality of a university, but in fact, might even dampen the enthusiasm of those institutions merged. Instead of radical amalgamation, some have pointed to other ways of improving efficiency, including internal restructuring of disciplines and increasing enrollment. Another criticism is that the existing 1,000-plus general institutions cannot meet the education needs of a country with 1.3 billion people, so to reduce this small number through merger is in fact not necessary.

Mergers between bigger and stronger universities can result in difficulties caused by the fusion of campus cultures, personnel, disciplines, and the pressure of management of large-scale universities. Many oppose these mergers between the bigger and stronger universities, but support it in the case smaller and weaker institutions, and also approve of the annexation of smaller and weaker institutions by bigger and stronger universities because of the relative ease with which the former can be manipulated and managed. Because of this opposition, the central government has attempted to enhance its administration and encouraged mergers through financial subsidies. In any event, the period of rampant amalgamation of higher educational institutions in China is over. Now is the time for reflection and facing new challenges of institutional management. Whether amalgamation will be regarded as a success or not, only history will tell.

## A Case in Point: Zhejiang University

Zhejiang University was founded in 1894 as Qioushi Academy in Hangzhou City, Zhejiang province. By 1950, Zhejiang University had earned a national and international reputation, and had become one of China's best and most comprehensive universities. The university had 24 departments in 7 schools: the school of literature, the school of sciences, the school of engineering, the school of agriculture, the teachers college, the school of law, and the school of medicine. In addition there were ten institutes, affiliated hospitals, factories, farms, and a forestry center.

However, when the reordering of institutions and departments began in 1952, Zhejiang was changed from a comprehensive university to a polytechnic institute. Then it was divided into some specialized colleges, and certain parts were moved to other universities. The school of medicine was incorporated with another medical college as an independent Zhejiang College (renamed University in the 1990s) of Medical Science. Its school of agriculture also became another unattached Zhejiang College (also renamed University in the 1990s) of Agriculture, and its teachers college was merged with another university thereby forming a new school first known as Zhejiang Teachers College, but later named Hangzhou University. And the major part of its school of sciences was transferred to Fudan University that had been designated as a comprehensive university. The department of forestry was transferred to Northeast College of Forestry in Harbin, Heilongjiang province, and the department of animal husbandry and veterinarian medicine was transferred to Nanjing College of Agriculture. The department of aeronautics was shifted to Nanjing College of aeronautics, and department of water conservancy was transferred to East China College of Water Conservancy in Nanjing, Jiangsu province. Some of its teachers were ordered to four other universities. After this unprecedented reordering, the new Zhejiang University had only four departments: mechanics, chemical engineering, civil engineering, and electrical mechanics—a true polytechnic university.

Then in 1988, another revolutionary readjustment began which essentially reversed the reordering of 1952. Zhejiang University, Hangzhou University, Zhejiang University of Agriculture, Zhejiang University of Medical Science (four universities that had the same ancestor) were amalgamated into a new Zhejiang University. The new Zhejiang University, which today is the most comprehensive university in China, boasts disciplines ranging from philosophy and the sciences to agriculture and management, and a student population second only to Jilin University in enrollment. In all it has 20 schools, 70 departments, 183 institutes, more than 40,000 students on five campuses, and a staff of almost 30,000.

## Conclusion

The massive amalgamation of China's higher education system is basically concluded. The reform reflects the revolutionary changes in Chinese society, and general developmental trends in higher education from around the world.

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## Appendix

### Major Mergers of Universities Currently Under the Direct Administration of the Ministry of Education

University	Institutions Merged
Beijing University	Beijing University, Beijing University of Medical Sciences
Tsinghua University	Tsinghua University, Central Academy of Techniques Arts

Nankai University	Nankai University, Tianjing College of Foreign Trade
Northeast University	Northeast University, Gold college
Jilin University	Jilin University, Jilin Industry University, Baiqiuwen University of Medical Sciences, Changchun University of Science and Technology, Changchun College of Postal and Communication
Fudan University	Fudan University, Shanghai University of Medical Sciences
Tongji University	Tongji University, Shanghai Railway University, Shanghai College of City Construction, Shanghai College of Construction Materials
Shanghai Jiaotong University	Shanghai Jiaotong University, Shanghai Agriculture College
Huadong University of Science and Technology	Huadong University of Science and Technology, Jinshan Petrochemical College
Donghua University	China Textile University, Shanghai Textile College
East-China Teachers University	East-China Teacher's University, Shanghai College of Education, Shanghai No.2 College of Education, Shanghai Teacher's College for Children
Dongnan University	Dongnan University, Nanjing College Railway Medial Medical Sciences, Nanjing Jiaotong College
Hefei Industry University	Hefei Industry University, Anfei College of Technology
Zhejiang University	Zhejiang University, Hangzhou University, Zhejiang University of Medical Sciences, Zhejiang Agriculture University
Shangdong University	Shangdong University, Shanghai University of Medical Sciences, Shanghai Industry University
Wuhan University	Wuhan University, Wuhan University of Hydroelectric, Wuhan University of Mapping and Survey, Hubei University of Medial Sciences
Huazhong University of Science and Technology	Huazhong University of Science and Technology, Tongji University of Medial Sciences, Wuhan College of City Construction, Wuhan Training College of Science and Technology for Cadres
Wuhan University of Science and Technology	Wuhan Industry University, Wuhan University of Auto-Industry, Wuhan University of Communication Technology
Hunan University	Hunan University, Hunan University of Finance

Zhongnan University	Zhongnan Industry University, Hunan University of Medical Sciences, Changsha Railway College, Changsha Industry College
Zhongshan University	Zhongshan University, Zhongshan University of Medical Sciences
Sichuan University	Sichuan University, Chengdu University of Science and Technology, Huaxi University of Medical Sciences
Chongqing University	Chongqing University, Chongqing University of Construction, Chongqing College of Construction
Xi'an Jiaotong University	Xi'an Jiaotong University, Xi'an University of Medical Sciences, Shannxi College of Finance
Northwest University of Agriculture and Forestry Sciences	Northwest University of Agriculture Sciences, Northwest College of Forestry Sciences, Institute of Water Conservancy of China Academy of Sciences, Northwest Institute of Irrigation works of the Ministry of Water Conservancy, Shannxi Academy of Agriculture, Shannxi Academy of Forestry, Northwest Institute of Plants of China Academy of Sciences
North Jiaotong University	North Jiaotong University, Beijing College of Electric Power
Beijing University of Chinese Medicines	Beijing University of Chinese Medicines, Beijing College of Acupuncture and Bone Injury
University of Foreign Trade and Economy	University of Foreign Trade and Economy, China College of Finance
Zhongnan University of Finance and Law	Zhongnan University of Finance, Zhongnan University of Law
Chang'an University	Xi'an Road Transportation University, Northwest College of Construction Engineering, Xi'an College of Technology

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