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6. A DIFFERENTIATED POSTSECONDARY EDUCATION SYSTEM IN MAINLAND CHINA

The dramatic transformation of the postsecondary education in Mainland China during the last thirty years, along with socioeconomic reform, cannot be overstated. China now has the largest higher education system in the world. In response to the rapid enrollment expansion, it has become a diversified postsecondary education system, particularly since the end of 1990s. This chapter provides an overview of this system and discusses how the Chinese system has been shaped to serve a range of societal and individual needs.

THE CURRENT POSTSECONDARY EDUCATION SYSTEM: AN OVERVIEW

As the Higher Education Law stipulates, higher education in China is defined as “education that is carried out after the completion of senior secondary education,” provided by academies, universities, colleges, vocational institutions, and other collegiate-level institutions, including open universities and career and vocational schools awarding academic degrees or professional certifications (Yu et al. 2012). All HEIs should be authorized by the Ministry of Education (MOE) to award degrees.

Chinese higher education consists of undergraduate and postgraduate education. The undergraduate education consists of Benke and Zhuanke education. Based on Article 16 of the Higher Education Law of 1998, the main difference between Benke and Zhuanke education are in terms of specialization and program duration. Benke education follows a more academic-oriented route, developing the ability to conduct both practical work and research, and teaches general knowledge of the discipline and subject area. Zhuanke education is more vocational-oriented, and delivers specialized knowledge of the subject area and is designed mainly to develop senior engineers and technicians for the production, construction, management and service fields. In terms of course duration, Benke programs usually takes four years and Zhuanke programs usually lasts three years. Graduates with Zhuanke degrees are allowed to pursue their Benke degrees after passing examinations (Zhuanshenben) organized at the provincial level or by an individual university.

Postgraduate education consists of masters and doctoral education. As regulated in the Higher Education Law, masters education focuses on equipping students with “a strong theoretical foundation, systematic subject knowledge, relevant skills, methods, knowledge, and abilities to conduct practical work and scientific research” and doctoral education aims at equipping students with “solid and broad theoretical foundation, systematic and intensive subject knowledge, relevant skills and methods of the discipline, and abilities to independently conduct creative scientific research and practical work” (Yu et al 2012). Masters education usually takes two to three years, with three to four years for doctoral education.

China now has the largest postsecondary education system in the world. The Annual Statistics Report (MOE 2015) recorded that in 2014, the Chinese system consisted of 2,824 higher education institutions (HEIs), including 2,529 regular HEIs (1202 offering degree programs and 1327 vocational colleges), and 295 adult HEIs. While regular HEIs offer full-time and on-campus undergraduate and postgraduate programs, adult HEIs provide postsecondary education and training opportunities to adult learners, including advanced degree education and in-service training. Among the regular HEIs, 727 institutions are in the private sector (Minban); only one adult HEI is privately run. In terms of educational standards and qualification levels, 788 institutions provide postgraduate education, with 571 regular HEIs (107 national HEIs, 459 local HEIs and five private institutions) and 217 specialized research institutions of the science academies (including Chinese Academy of Science, Chinese Academy of Engineering and Chinese Academy of Social Sciences).

The Chinese higher education system enrolls about 35.6 million students, with a gross enrollment rate of 37.5% in 2014. At the postgraduate level, 1.84 million postgraduate students (0.3 million doctoral students and 1.5 million masters students) are enrolled at regular HEIs and research institutes. The total enrollment of undergraduate students is 25.5 million at regular HEIs, 6.5 million at institutions for adult education and the remaining students enrolled in distance programs (MOE 2015). The number of full-time faculty members teaching at the regular HEIs is 1.5 million and 31.5 thousand full-time faculty members at adult education institutions. (See [Table 1](#))

CHINESE HIGHER EDUCATION SYSTEM AND ITS RECENT UNPRECEDENTED EXPANSION

The long history of Chinese higher education can be traced back to the ancient times and has undergone different stages of development. Each period reflects unique features and socioeconomic, cultural and political influences. This important context and background is important to better understand the shape of contemporary Chinese higher education.

A BRIEF HISTORY OF THE CHINESE SYSTEM BEFORE THE RAPID EXPANSION

The development of Chinese higher education took place during five distinct eras: the ancient and imperial era (from 1100 BC to 1840), the modern era (1840-1949), the post-revolutionary era (1949-1966), the Cultural Revolution era (1966-1976), and the new era (1978 to present) (Min 2004; Yu et al. 2012).

In the ancient era, the education system developed leading intellectuals and focused on the Chinese classics, mostly to prepare students for imperial examinations. The imperial examination system played a significant role in cultivating and selecting civil servants (Min 2004). This system was terminated in the early 20th century; however, it still has profound impact on educational values and philosophies in China.

The modern era, between the First Opium War in 1839 and the founding of People's Republic (PRC) in 1949, introduced a new higher education system in China. Western educational philosophies were introduced, western university models and structures were incorporated, and the learning of science and technology was promoted. At this stage, the first group of HEIs was established in China¹. Also, relevant education reforms were implemented under the Nationalist Party's governance: an academic degree system emerged with new regulations, national needs were identified, and academic standards were defined in keeping with this period (Yu et al. 2012).

The post-revolutionary era marked the time span between the founding of PRC in 1949 and the beginning of the Cultural Revolution. Political priorities played a major role in developing and reforming education in China. The higher education system and its HEIs were restructured, influenced heavily by a Soviet higher education model: solely public ownership, central planning, and well-defined hierarchies. Furthermore, top universities were administered directly by the MOE, while others were managed either at a provincial level or by other national government ministries. In terms of teaching and learning, the Chinese system then was highly departmentalized, segmented, overspecialized and separated teaching from research (Bian 1994). These features formed the structure of the contemporary Chinese higher education system until the 1990s when China was transformed into a dynamic market economy model with implications for all aspects of society.

As part of the Soviet influence, an independent national research system, the Chinese Academy of Sciences, was established. Hundreds of specialized research institutes throughout the country carried out the function of research and innovative activities, separated from the higher education system. Even since the higher education restructure reform in the 1990s, research institutions, along with universities, still act as think tanks for the central government, conducting basic and applied research and providing advice on science policies.

The Cultural Revolution, from 1966 to 1976, disrupted higher education; Chinese academic traditions, western academic influences and the dominant Soviet higher

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education model were paused. The existing HEIs were closed; universities colleges were only allowed to admit “worker-peasant-soldier students” based on political criteria (Deng and Treiman 1997). The gaokao, the national university entrance exam, was abolished. The student enrollment was significantly reduced. The quality of university teaching and learning severely deteriorated. These disruptive developments led to a serious shortage of well-educated human resources (Min 2004).

A NEW ERA: HIGHER EDUCATION EXPANSION SINCE 1990S

The new era for Chinese higher education reform began in 1978. A series of education reforms, along with socioeconomic transformation, were launched. By 1978 the country was set on an economic-oriented path to modernization. As one of the first goals, the education system was reformed and university entrance examinations to universities and colleges were reintroduced (Reed 1988; Yang 2004).

In 1985, a policy document titled, “Decision of the Chinese Communist Party Central Committee on Education System Reform” (*Zhonggong zhongyang guanyu jiaoyu tizhigaige de jue ding*), was issued by the central government. This policy document was designed to modify the goals, structures and management of China’s higher education system. As a result of the country’s socioeconomic reform, the Chinese higher education system experienced a series of transformations and restructuring.

In 1999, the Ministry of Education issued a policy document titled, “Action Scheme for Invigorating Education towards the 21 Century” (*Mianxiang ershiyi shiji jiaoyu zhengxing xingdong jihua*). This policy guided Chinese higher education to unprecedented expansion. China’s continuous economic growth created a robust demand for highly educated knowledge workers. Education is regarded as an investment for individuals and families to secure high-income employment opportunities and higher social status. In this context, the strong demand for education compelled the government to expand educational opportunities at both undergraduate and post-graduate levels starting in the late 1990s. China had only enrolled 860,000 undergraduate students in 1978; this number increased to over 4 million in 1999 and kept soaring to about 25.5 million by 2014. The enrollment rate for young people at the age of 18-22 increased from 1.5% in 1978 to about 10.5% in 1999 and 37.5% in 2014. It is expected to reach 45% in 2020 (MOE 2015).

Related radical higher education reform and restructuring included increased student enrollment, the introduction of tuition fees, the termination of the job allocation system for graduates, and the development of private HEIs. HEIs implemented marketization reforms and were given increasing autonomy in terms of management and governance as well as greater accountability (Yang 2007). At the same time, the Chinese higher education system still functioned as on the central planning model inherited from the Soviet Union. Beginning in 1992, more than 200 previously Soviet-style

specialized HEIs were merged to form larger comprehensive universities and colleges, and HEIs previously administered by central ministries were relegated to co-administration between central ministries and provincial authorities. As a result, only a few elite universities remain under the direct administration of the MOE (Yu et al. 2012).

The establishment of private higher education was permitted during the 1980s, and encouraged by the government after 1992 to respond to enrollment pressures. The Private Education Promotion Law (*Minban Jiaoyu Cuijinfa*) was issued in 2002 to regulate the private higher education sector. This law recognizes that private HEIs serve the public interest, gives these institutions the same legal status as public institutions and guarantees their autonomy (Min 2004). Private HEIs, owned by a private entity, initially served as a supplement to public institutions to satisfy the demand for higher education, and contributed largely to vocationally-oriented programs. Private HEIs have a significant market share in *Zhuanke* and *Benke* education and primarily award students undergraduate degrees; only 5 private HEIs have been granted authorization to develop masters programs. Private HEIs have relatively more autonomy to offer courses and programs in the fields that address urgent socioeconomic needs, such as business, finance, transportation, environmental sciences, civil engineering, law, etc. Local governments monitor and supervise quality issues in this sector.

Higher education expansion and restructuring in the 1990s produced a large quantity of highly skilled workers and to some extent served the skill demands of economic development. However, the government realized the country's relatively weak competitiveness in terms of knowledge creation and innovation required overall quality improvement. It was in this context that Project 211 was implemented in 1995 and Project 985 in 1998 by the Ministry of Education and the Ministry of Finance. These projects provide extra block funding to selected universities to build academic excellence in Chinese higher education. Initially, 109 universities were selected in the Project 211 and 39 universities in the Project 985. These universities form the group of top institutions in the Chinese system. In 2015, twenty-years after implementation, the government released an "Overall Plan on Development of World-Class Universities and World-Class Disciplines" (*Tongchou tuijin shijieyiliudaxue he yiliuxueke jianshe zongtifang'an*), also called the "World-Class 2.0 Plan," to continue to reinforce the development of academic excellence. This new project is still in its early stages of selecting universities and research centers.

Chinese higher education's rapid expansion and development have been the focus of heated debate. Critics target issues such as whether the Chinese higher education system is adequately funded by the government, whether education quality is compromised by rapid expansion, and whether the system is diversified enough to cater to societal demands as well as individual needs. Other essential issues and concerns include equal access to education opportunities mainly in terms of ethnic origins, and graduate employment.

TYPES OF HEIS IN THE DIFFERENTIATED HIGHER EDUCATION SYSTEM

The classification of the Chinese postsecondary sector is controversial and an ongoing research topic in China, involving various stakeholders in the debate. However, there is still no agreed approach on how to classify the Chinese HEIs (He et al. 2016). Different researchers tend to use different indicators and approaches to classify institutions, in terms of ownership, administration, function, education standard, funding schemes, research capacity, etc. To some extent, the most commonly used classification approaches are based on administration and types of education provided as well as status in the scheme of building elite research universities.

Table 1: The current Chinese higher education system overview: 2014

<i>Types of HEIs</i>	<i>Number of HEIs</i>	<i>Affiliation</i>			<i>Total number of students studying</i>	<i>Total number of new student enrolled</i>	<i>The number of full-time faculty</i>
		<i>National HEIs</i>	<i>Local HEIs</i>	<i>Private /Minban</i>			
Institutions providing postgraduate education:	788	284	499	5	1,847,689	621,323	na
– Regular HEIs	571	107	459	5	1,822,821	613,152	na
– Research Institutions	217	177	40	–	24,868	8,171	na
Regular HEIs:	2,529	113	1,689	727	15,476,999	7,213,987	1,534,510
– offering both Benke and Zhuanke education	1,202	110	672	420	15,410,653	3,834,152	1,091,654
– offering only Zhuanke education	1,327	3	1,017	307	10,066,346	3,379,835	438,300
Adult HEIs	295	13	281	1	6,531,212	2,656,040	31,538
Others non-government HEIs	799	–	–	799	6,314,472	2,061,852	12,083

Source: MOE (2015).

NATIONAL AND LOCAL HEIS

Chinese HEIs can be classified as public institutions (*Gongban*) and non-public institutions (*Minban*). The key difference is that public HEIs receive general funding from the government and collect tuition fees from students while non-public institutions largely depend on tuition fees as the primary source of income. Non-public sector institutions will be analyzed in detail at the end of this section.

Most public HEIs in China are administered and funded by a government body either at a central (national) or a provincial level; accordingly, institutions can be divided into national/central HEIs and local HEIs. National HEIs are those under the direct administration of the MOE and other central ministries, funded by both national and local governments. Local HEIs refer to institutions administered and funded by provincial and municipal authorities. In addition to government funding, all public HEIs receive income from research, tuition fees, university-run enterprises, and donations from both individuals and social organizations.

Since 1998, as part of the restructuring reform, a large number of institutions previously affiliated with the central ministries have been transferred to provincial governments, that led to a reduced number of national HEIs. In 1998, the numbers of national and provincial (local) HEIs are 277 and 855 respectively. That compares with 2529 regular HEIs of which 113 institutions are national HEIs and 1689 are local in 2014. Local HEIs have enrolled more than 80% of the total undergraduate student population, and thus are considered the major force in the unprecedented expansion of the Chinese higher education system (Yu et al. 2012).

REGULAR HEIS AND ADULT HEIS

In terms of qualification levels, HEIs can be classified as institutions providing graduate education, regular HEIs, or adult HEIs and other non-government HEIs, according to MOE's statistics. Postgraduate education is provided at both universities and research institutes, such as the Chinese Academy of Sciences. The term regular HEIs refers to universities and colleges offering degree education at both undergraduate and postgraduate levels and those that are admitting students through the National Unified Admission Process (*Tongzhao*), also known as *gaokao*. Regular HEIs can be both public and non-public institutions. Adult HEIs provide advanced degree education, in-service vocational training, preparatory courses for national college-level examinations for self-taught learners (*Zikao*), distance and virtual education. Generally, two-thirds of the higher education student population in China study at regular HEIs, while the rest enroll at adult HEIs and other non-government HEIs (MOE 1996-2015).

The pathways to enrollment are different for regular HEIs and adult HEIs. At the undergraduate level, the "National Unified Examination for Admission to Regular HEIs" enables secondary school graduates to apply to enter postsecondary studies di-

rectly. Gaokao is largely considered a fair system and with some success for achieving social equity (Yu et al. 2012), as academic scores are the only criteria considered for postsecondary enrollment. However, due to socioeconomic and educational imbalances among different regions in China, students from poor and rural regions are at a distinct disadvantage. Other enrollment pathways: National Examinations for Admission to Adult Higher Education Institutions (*Chengren gaokao*), National Self-Study Examinations for Higher Education (*Zixue kaoshi*) or other diploma tests, are designed for adults who have left school but wish to reenroll to attend higher education.

THE ELITE UNIVERSITY SECTOR

Projects 211 and 985 primarily intend to enhance the research capacity and international competitiveness of Chinese universities in the global higher education market. In addition to the extra resources, these selected universities have also benefited from an improved reputation and subsequently, better applications from both prospective students and faculty members (Wang 2012). It is argued that Projects 211 and 985 have provided a solid base to develop an elite university sector. Further, the 985 universities generally enjoy higher status than the 211 universities. Therefore, a hierarchy of HEIs has been created, from C9 universities (considered the “Chinese Ivy League”), 985 universities 211 universities to the rest HEIs.

Project 985 has thus far provided additional resources to 39 carefully selected universities, with funds from both the central and local governments. The policy document identified 9 of the selected universities (C9) as being at the top of the list and designated to be developed into “world-class” universities. The remaining 30 institutions are expected to develop a slightly lower status of “international repute”. All 39 selected universities are among the 109 selected institutions in Project 211. As a result, the rest of the Project 211 universities form a group of key universities in China, leaving the remaining HEIs in the system with relatively lower status.

NON-PUBLIC SECTOR: PRIVATE HEIS AND INDEPENDENT COLLEGES

Non-public institutions receive almost no funding support from the government, and mainly rely on student tuition fees. This non-public sector consists of private and independent colleges, and is a significant provider of higher education in Mainland China due to the enrollment they absorb. Independent colleges are required to be affiliated with a public institution but remain dependent on private funding. This will be discussed later in this section.

Private HEIs are owned by a private entity. At the beginning of the university expansion, private colleges were mostly vocationally oriented, and mainly contributed as *Zhuanke* program providers with only a few institutions approved to offer *Benke* education. As higher education expansion deepened, private colleges were upgraded

and approved to enroll *Benke* students. Furthermore, since 2012 a few private colleges have been approved to develop masters courses. In 2014, 420 out of 727 private colleges provided both *Benke* education and *Zhuanke* education, and five private institutions were granted authority to provide a masters course (MOE 2015). Generally speaking, private HEIs usually enroll students who failed to enroll in public institutions; therefore, these institutions have a lower status in spite of their legal parity. Due to limited resources, generally low public regard and sometimes poor benefits (including low salaries, very basic housing, support for healthcare, and other compensation), it is relatively difficult for private HEIs to recruit high quality professors. Usually, private HEIs recruit retired professors and young academics as the full-time faculty, along with a significant number of part-time professors. Weak faculty quality leads to poor teaching and research performance, which has led to heated debate in China.

As part of the private sector, a growing number of full-scale international branch campuses have been set up in China during the past decade; however, these special institutions are viewed quite differently from other private institution in the Chinese system. The MOE requires foreign institutions to partner with local Chinese universities. Students applying to these universities are required to sit the *gaokao* and have interviews with the universities. Graduates receive degrees from the foreign institutions that are recognized both in China and in the home country. Due to the reputation and quality of both partner universities, full-scale international branch campuses are so far seen as situated in the top-tier of Chinese higher education by providing western-style (liberal arts) education, attracting highly qualified students and faculty as well as creating opportunities for research production.

Since 2000, independent colleges must be affiliated with a public institution although they still depend on private funding from student tuition payments. By being able to utilize the teaching and infrastructure resources of a public institution, high quality private institutions can be established within a relatively short period of time, with minimum state support (Pan 2014). Also, when recruiting students, independent colleges benefit from the prestige of the affiliated public universities but have significantly lower admission standards (Yu et al. 2012).

THE ROLE OF RESEARCH UNIVERSITIES IN A DIFFERENTIATED SYSTEM

Since the late 1990s, the Chinese government has emphasized developing research universities and academic excellence. In the Chinese system, these selected top universities funded by Projects 211 and 985 are considered to be research universities, that have well established infrastructure for teaching and research, high quality talent as well as good governance, compared to the other teaching-oriented HEIs in the system.

With the previous twenty-year development, national initiatives have enabled these selected institutions to improve their research performance and to narrow the gap with

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leading universities in the world (Wang and Cheng 2014). These selected universities have played an increasingly critical role both in higher education and in the socio-economic reform in China, and have consolidated and strengthened their dominant position in Chinese higher education. For example, the 39 selected universities in the Project 985 comprise only 2% of all Chinese universities, but account for nearly half of the national research output.

However, critics point out that these national initiatives have exacerbated a gap in the development of universities. These Project 985 universities have naturally formed an elite sector within Chinese higher education while the majority of China's higher education institutions are forced into second or third-class status without the possibility of competing for comparable resources. Hence, China's investment in research capacity and excellence has been criticized as starving the bottom and feeding the top (Altbach and Wang 2012). It may lead to possible danger in that the HEIs in China are becoming homogeneous and isomorphic. Meanwhile, as part of the university classification discussion, a growing number of voices call for a more diversified higher education system to serve increasingly diversified educational needs from both the society and individuals (Pan and Xiao 2008; Ma 2014). One of the issues under discussion is that the MOE has encouraged the development of a number of local HEIs into universities of applied sciences and offering "application-oriented *Benke*," to deliver programs required for local socioeconomic development and to prepare graduates with practical knowledge for suitable employment.

NOTE

¹ These HEIs includes Peiyang University (founded in 1895, now Tianjin University), Nanyang Public School (founded in 1896, now Shanghai Jiao Tong University), Imperial Capital University (founded in 1898, now Peking University), and Tsinghua College (founded in 1911, now as Tsinghua University).

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