

Higher Education in the People's Republic of China: Historical Traditions, Recent Developments and Major Issues

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Introduction

It hardly needs stating that what China is and how it will develop is of major importance for all of us. China is not only a culture that has contributed in different ways over a long period to world cultures, but is today one of the most populous and potentially powerful countries in the world (Price, 1997). It is now experiencing rapid, profound socio-economic transformation. Against such a background, mass higher education system is beginning to emerge in China. With enormous recent increase in participation levels, China's higher education is moving fast to become one of the largest systems in the world. Its intake of students, for example, has just overtaken that of the United States to become the world number one in terms of sheer numbers of students.

As China's higher education system increases its size dramatically, the integration of China's higher education system into the world community is becoming important and urgent to both China and the world higher education circle (Yang, 2002). It is necessary to have a full understanding of the Chinese system. Beginning with an historical overview, this paper provides a detailed account of recent achievements, especially since the adoption of the Open Door policy,¹ and examines critically some tensions within the current process of the unprecedented expansion since 1999.

Historical Roots

Historically, China's higher education had evolved according to its own logic and never deviated from its developmental path until the 18th century, despite external influences. Higher education circles confined their dissemination of knowledge to the provincial level and persisted in disregarding knowledge about anything in the rest of the world. Over such a long historical process, a unique set of scholarly values arose in China.

There was no institution in Chinese tradition that could be called a university. Instead, the imperial examination system² and the academies or *shuyuan*³ were key elements of ancient Chinese higher learning. On the one hand there was the civil service examination system and its cognate institutions - the *Hanlin* Academy, the college for the sons of the emperor (*guozijian*), the institution of supreme learning (*taixue*), and the whole system of institutions at provisional, prefectural, and county levels that made possible a "ladder of success" through a series of examinations, culminating in the palace examination in the presence of the emperor himself. On the other hand, there were the *shuyuan*, scholarly societies or academies that were often financially

independent through bequests of land, and usually headed by one great scholar, who attracted disciples and colleagues through the virtuosity of his scholarship (Hayhoe, 1996, p. 10).

The 19th century saw the diffusion of the European model of the university throughout much of the world, under conditions of imperialism and colonialism, which might be understood as an integral part of the history of capitalism. As both a crucial gateway to the world and a means to social development, China's higher education could have taken the lead in introducing and assimilating advanced culture, science and technology in order to promote social and economic development. Yet, due to its exclusivity, Chinese higher education continued to train traditional Confucian scholars with little knowledge of the outside world. Although Western higher education models had already demonstrated their strength, China's communication with the West was thus intentionally hindered.

Chinese higher education within the period laid stress solely on the training of scholars with an encyclopaedic knowledge based on Confucian values, which in practice served only the aristocracy. The Confucian scholars acquired the cultivation that symbolized their social status. Although occasionally there were some exceptions, the civilian participation in ancient Chinese higher learning was much less than in the equivalent European model.

As China became enmeshed in the West-centred global historical process, officials who had had to deal with Westerners realized that the Chinese needed to acquire the weaponry of the West to ward off the West. In order to better learn Western science and technology, reformers suggested to "give up courtesy to the barbarians" and to invite Western instructors into Chinese institutions (Zheng, 1994, p. 19). Starting from the 1860s, Western style professional schools were founded to train technicians. Among them were many language schools, which trained translators from Western languages into Chinese.

One of these professional schools, *Beiyang Gongxue*, was established in 1895 and later became the first modern Chinese university (Chen, 1986). Reforms of traditional higher learning institutions were started thereafter. A number of modern institutions were also established. However, the impact of these institutions was minimal. The traditional examination system did not change its emphasis on Confucianism and continued to produce a conservative, backward-looking intelligentsia (Teng and Fairbank, 1961).

The "Great Reform" of 1898, however, placed much hope on education. Higher education became a major concern (Shu, 1981). Educational reform was indeed the most revolutionary in its effect on China. Emperor Guangxu decreed that a countrywide hierarchy of schools, topped by universities, be established to teach modern as well as classical subjects; that students be sent abroad for education; and that current affairs and other Western subjects be incorporated into the imperial examinations. By 1905, the traditional examination was finally abolished. Women's,

schools — normal and vocational were founded. More students were sent abroad for training, mainly to Japan, the United States and Europe. Education was the area in which the reforms succeeded most (Bastid, 1988, p. 89).

The 1911 revolution which soon followed was thus a product of reformist as well as revolutionary forces. A modern educational system was ostensibly established in such a context. The new republican government decreed a major reorganization to create an education system in 1912 more in tune with prevailing world trends. A foundation was laid to build a new higher education system. The classics were ordered to be eliminated from the curriculum. The new educational law stipulated length of terms for universities, classified branches of study as humanities, science, law, business, medicine, agriculture and engineering, and required that universities establish graduate schools, offer preparatory courses, and organize appraisal meetings.

In 1912, there was 1 university, 10 preparatory schools, 94 professional training colleges, 12 normal colleges, and 5 “others” (Pan and Liu, 1993, p. 803). Within this period, foreign missionaries played a significant role in higher education. By 1917, 80 percent of the student population was accommodated by missionary universities. By the 1922–23 academic year, there were 35 university-level institutions of higher education, 68 provincial training colleges, 8 normal colleges, and 14 “others” (Zhou, 1934, p. 225).

However, universities developed in a rather lopsided fashion nation-wide. For instance, there were 638 students of law, 376 students of engineering, but only 74 students of science. In addition, 11 industrial colleges of industry, agriculture, medicine, and business were also established with a population of 4,000 strong students, while law schools numbered 32 with at least 8,000 students (Gao, 1992, p. 227). Students still strongly regarded becoming an official as the only purpose for getting an education.

The lack of central government from 1911 to 1927 provided Chinese higher education with the possibility of vigorous experimentation. The period, as Hayhoe argues (1996, p. 43), saw the first real effort to establish a “university” in the sense of the defining values of autonomy and academic freedom. Within the period, a tremendous range of new higher education institutions also developed and flourished. Different strands of China’s own evolving traditions linked up with various foreign influences, with America replacing Japan as the most favoured source of influence. Chinese scholars who returned from Western countries and Japan played a key role in the development of higher education. Educational thought gradually matured, with eclectic foreign influences, particularly from America and Europe.

The Japanese invasion in 1937 inflicted heavy losses on China’s higher education. By 1936, China had had 108 higher education institutions, of which 91 were damaged significantly from July 1937 to August 1938. Students decreased to 25.6 percent from 41,922 in 1936 to 31,188 during

1937. With constant bombing by Japanese fighters, many institutions could not maintain order. They were forced to move to remote mountainous districts, and sustained great losses of finance, personnel and library collections.

Nevertheless, in the regions that were not occupied by the Japanese troops, higher education even grew during these years. By the end of the Anti-Japanese War (1937–45), there were 141 higher institutions, with an enrolment of 83,498 students. The development during this period was much imbalanced among disciplines, with the biggest growth in education and commerce. The numbers of students in natural and social sciences dropped dramatically.

From 1912 to 1949, the university continued to go through a process of adaptation and indigenization that might be compared to the development of American universities in the 19th century. During this period, the Chinese university developed into a mature institution, which achieved a balance between its Chinese identity and its ability to link up to a world community of universities.

The Chinese Communist Party (CCP) came into power and founded the People's Republic of China (PRC) in October 1949. Western policies to isolate the newborn communist China led to the leaning to the Soviet Union. The first national higher education conference held in June 1950 demanded attention be paid to the socialist Soviet model, the dominant slogan in China until the mid-1950s was "learn from the Soviet Union." Mao Ze-dong announced in the summer of 1949 that the CCP must "lean to one side" (Mao, 1991, pp. 472–73). Russians replaced departing Americans and Europeans, some 700 Soviet "experts" serving in Chinese higher learning institutions in the early 1950s. From 1952, the Chinese higher education system simulated Soviet administration, teaching methods, textbooks, and even classroom design. The experience of other countries, especially those of the West, was rejected.

Based on Russian experience and advice, the First Five-Year Plan (1953–57) focused on the development of heavy industry. Plans to reform institutions of higher education so as to emphasize technical education were finalized in 1951 (*People's Daily*, September 24, 1952, p. 2). To ensure that the restructured system performed the function intended, it was reinforced within unified sets of plans for student enrolment, job assignment, and curriculum content.

The Eighth National CCP Congress in 1956 again emphasized the role of higher education in national reconstruction. It required universities and colleges to absorb the latest technology developments in the world and send teachers and students abroad for study. This conference, however, was followed by an assessment of educational achievement since the founding of the PRC, which concluded that (in the context of the Cold War) higher education should be geared to the tit-for-tat struggle between classes and lines (socialism and capitalism). Bourgeois educational views

were bitterly criticized (Schram, 1974). From the Great Leap Forward (1958–66) to the end of the 1970s, expertise was not given a wide edge over political understanding.

Whichever way one looks at the Great Proletarian Cultural Revolution (1966–76), with hindsight it must be seen as a terribly costly failure, per-haps partly because of its passionate rejection of foreign influence. Higher education was devastated along with the fortunes of a generation of teachers and students. Institutional administration was paralysed and classes suspended. Maoists eliminated age limits and entrance examinations for universities and colleges, reduced the number of school years needed for graduation, and eliminated the examination-based grading system. As time passed, it became increasingly obvious that this egalitarian approach to education would not produce the high-quality technicians and scientists China needed for its modernization program. The closing down of universities for some years in that period also left a gap in the educated class that is still proving to be a handicap in China's efforts to modernize.

When Deng Xiao-ping and the “pragmatist” faction reversed Maoist policies in late 1976 and set China on a more rational, economic-oriented path to modernization, one of the first tasks undertaken was restoration of the educational system (Reed, 1988). Although Deng's reform agenda was officially inaugurated at the Third Plenum of the Eleventh Central Committee held in December 1978, changes in the education sector had preceded it. By that time, almost all the decisions necessary to recreate the regular education system in its pre-1966 state had already been announced, and implementation was well under way (Pepper, 1990). Entrance examinations to colleges and universities were re-introduced, and professional standards and expertise were made respectable again. These post-Maoist changes in educational policy saw the re-emergence of the old “regular” system with its residues of foreign models (Hayhoe, 1984).

The Structure of Chinese Higher Education

The overall structure of Chinese higher education has changed significantly within the past 50 years. China's post-secondary higher education institutions can generally be divided into two sectors: regular (1,396 institutions) and adult (607 institutions) higher education. The regular sector is the mainstream including 4-year university (*benke*) (629 institutions) and 3-year specialised college (*zhuanke*) (767 institutions) programs, leading to a Bachelor's degree and diploma respectively.

The adult sector includes 2- and 4-year diploma programs of study. Students in the regular sector are overwhelmingly full time, while students in the adult sector are usually part-time. The adult sector includes 2- and 4-year diploma programs of study (45 TV, 357 workers', 3 peasants', 97 management training, 103 educational training, 2 correspondence institutions, and some university-run programs, and others). A substantial proportion of adult higher education is offered by regular higher education institutions (Du and Xiong, 1999, pp. 108–09, 188-89).

The Chinese higher education system has long been highly centralized, with education provided by the central and local governments respectively under their direct administration. It has been viewed as a disadvantage of the system that the state undertook too much responsibility and the schools lacked flexibility and autonomy to provide education according to societal needs. The central departments and local governments provided education separately. The structure of education was segmented with overlapped disciplines and very low efficiency of institutional operation. Therefore, structural reform has been the core of China's higher education reforms in recent decades.

At the same time, in line with international practice, significant progress in implementing the reform agenda is also seen in other aspects of the higher education sector. The costs of higher education are increasingly shared with students and families via tuition and fees. Means-tested grants and student loans are now available, and are on the Chinese higher education policy agenda. Private sector institutions continue to grow where they are not prohibited by the law. Cost-effective, market-responsive learning is widely occurring in most institutions. The financing of universities is taking into account measurable output indicators, and the government is devolving expenditure authority to the universities, and entrepreneurship is growing fast within every university at the institutional, departmental, and individual faculty levels.

The reform and development of higher education in the last two decades has resulted in significant achievements. A higher education system which encompasses basically all branches of learning, combines both degree and non-degree education and integrates diploma, undergraduate and graduate education has taken shape. In 1998, there were, altogether, 1,984 higher education institutions, among which 1,022 and 962 were regular and adult higher education institutions, with a total enrolment of 3,408,700. The total number of graduate students was 198,885.

Currently, Chinese higher education is provided by institutions of various types including general universities (natural and social sciences and humani-ties), technical universities, specialized institutions (medicine, agriculture, foreign languages, etc.) and teacher-training colleges. Graduate schools, attached to 4-year colleges, universities and national scientific research institutions with the authorization of the Ministry of Education, are responsible for the management and organization of graduate education. The State Council and the Ministry of Education are responsible for policy-making, development planning, reforms and the direction of higher education at the national level.

The Chinese system comprises 4-year undergraduate programs in universities or colleges, which lead to a Bachelor's degree, while study at medical colleges and some polytechnic institutes requires 2 years. Students can obtain a Master's degree after 2-3 years of successful study and completion of a dissertation. Students are required to study courses in the first half of the study term. They can only enter the dissertation preparation stage if they have completed all required courses

and obtained the required minimum of credits. Doctoral degree requirements can be completed in a minimum of 3 years. A dissertation must be presented proving that the candidate possesses the ability to undertake independent research and has made a significant contribution to the field.

Until 1955 no graduate study facilities were available, and students mostly went to the former Soviet Union for graduate studies. In 1955 the qualification of Associate Doctor was established, but few were awarded. Graduate study was not re-instituted until 1978 after the Cultural Revolution. Since 1982, the Chinese government has instituted a number of educational development programs to raise academic standards and has introduced a wide range of research courses in universities. Graduate schools, attached to 408 universities and 320 research institute are responsible for the management and organization of graduate education.

One important part of the present Chinese higher education is the non-formal system. Non-formal studies are often offered by radio and television universities, whose courses are accredited by the Ministry of Education. The Central Broadcasting and Television University (CBTVU) in Beijing, for example, offers numerous 3-year courses, including mathematics, physics, engineering and electronics, management and agriculture, and Chinese language. Graduates are granted a diploma. There are about 50 provincial television-based universities nationwide working closely with the CBTVU.

There are some other forms of non-formal higher education. Spare-time colleges have been established by factories and trade unions to offer 4-year courses in various fields and/or short advanced courses. Some universities offer special classes to enable students to make up any deficiency in their secondary education, normally for 2–4 years. There are also evening schools and advanced training programs for adults attached to regular universities and colleges. Diplomas or certificates are awarded on the basis of completion of required courses and passing the examinations.

Major Strategies for Recent Expansion

Since 1999, the current expansion of higher education in China is unprecedented in magnitude. Trends towards mass higher education have emerged in China. Since the establishment of the PRC, its higher education has expanded considerably. In 2002, a total of 5,428,187 first-year students studied in post-secondary education, with 3,204,976 in regular higher education institutions. The number of enrolled students in Chinese regular and adult higher learning institutions (14,625,204) in 2002 was 125 times that (117,000) in 1949.

From 1999 to 2001, graduate students increased by 97.7 percent to 194,000, undergraduate students increased by 105 percent to 2,745,000, and students enrolled in 3-year specialized colleges increased by 76.6 percent to 2,775,000. The goal set in the Action Plan to Vitalize Education in the

21st century (*Mianxiang Ershiyi Shiji Jiaoyu Zhenxing Jihua*) issued by the Ministry of Education in 1999 to achieve a gross enrolment ratio of 11 percent was overachieved (Ministry of Education, 1999, p. 4). With the current rate of 19 percent increase, China has been well ahead of the target goal to achieve a gross enrolment ratio of 15 percent by 2010 (Levin and Xu, 2005). Those who had received examination-based self-study higher education increased from 147 in 1984 to 488,900 in 2000,⁴ totalling 3,320,000. Numbers of applicants for these examinations in 2000 reached the enormous figure of 13,691,300 (*China Education Daily*, February 29, 2001, p. 1).

In the 1980s, only 2-3 percent of school-leavers in China went to university. Today the figure is 19. The expansion at the doctoral level is even faster than for undergraduates: in 1999-2003, nearly 12 times as many doctorates were awarded as in 1982-89. The number of new doctoral students jumped from 14,500 in 1998 to 48,740 in 2003. Enrolments of full-time university students totalled 1,080,000 in 1998 and exceeded 20,000,000 in 2004.

Currently, there are heated debates in China in relation to the appropriate approaches to a rapid higher education expansion. Issues including the structure, financing, expansion and regional balance in higher education are open to question. Other issues such as the relationship between higher education expansion, economic growth, and funding sources for higher education are also contested. At a more fundamental level, the arguments are in diametric contradiction to each other. Some key issues identified by the Chinese are reported and analysed below, together with suggestions about potential strategies.

Shifting towards Vocationism

Mass higher education aims primarily at training professional personnel to meet societal demands. The vocational function of higher education has introduced mass and universal higher education into society, at the same time draws elite higher education institutions closer to practical needs, and thus has strengthened the adaptability of the whole higher education sector. The service function of mass and universal higher education institutions caters for the rising social demand for higher education opportunities on the one hand, and protects teaching and research usually conducted in research universities at higher levels. The shift toward vocationalism and mass forms in higher education echo each other to demonstrate the demand of new modes of economic production in what is referred to as the “knowledge society”.

China’s secondary school graduates who do not score highly enough to gain admission to a 4-year, degree-granting university may opt to enter a variety of other post-secondary education institutions. Non-university post-secondary institutions in China are a new type of regular institutions. They resemble American community colleges to some extent. Such institutions include workers’ colleges, upper-level specialized colleges (*dazhuan*) and vocational–technical colleges

(*gaodeng zhiye jishu xueyuan*). Most have a two/three-year program designed to be terminal in nature, leading to a diploma.

China's post-secondary vocational–technical education did not start to take root until the early 1980s when many localities established their post-secondary institutions to train skilled professionals, technicians and managers badly needed by regional economies at the intermediate level and in the localities.⁵ Before the 1980s, neither the national nor the provincial institutions would consider the need for these types of jobs.

The non-university institutions possess some unique features that differ from other Chinese higher education institutions. They are locally administrated and primarily financed at the city level, with comprehensive curricula and short-cycle programs that are vocational–technical in nature. Their programs are closely linked to local industry and business needs and include optometry, tourism, horticulture, industrial arts and crafts, commodity inspection and maintenance, and nursing, to name only a few.

Knowledge of a particular field and demonstrated applied skill in the field are the required dual qualifications for faculty members at these institutions. Most of the institutions have found it difficult to recruit sufficient qualified full-time faculty, and therefore employ many part-time members.

The funding sources for these institutions are various. Annual appropriation from the city governments based on student head count is the major one, together with tuition and fees. Other non-regular financial supports come from business sectors, overseas Chinese and international organizations. They also depend on individuals for donations of books, facilities and other teaching-related materials. Most recently, funds generated from providing training services to local enterprises are a growing source of support.

China's Tenth Five-Year Plan (2001–05) attached greater importance to the high-tech industry. Within a wider pattern of global economic competition that emphasises the management of the interaction between information technology, knowledge production, human resources, and institutions, China's vocational–technical education has a particularly significant role to play. China's authorities now place great value on it and require that vocational and adult education be further developed to train a large number of junior- and middle-level professional and skilled workers (*Guangming Daily*, February 25, 1999, p. 3).

However, although well known for their emphasis on education, Chinese parents and students generally view vocational–technical colleges as a second choice to universities. Compared to the traditional elite higher education, post-secondary vocational–technical education often meets frosty reception in the upsurge of university enrolment expansion. The present situation is that while the government hankers for expansion in the vocational–technical part of post-secondary

education, response from the society has been cold. Overall, post-secondary vocational–technical education oriented to societal demands walks haltingly on its way to growth.

Diversifying Post-Secondary Education System

A diversified system has proved to be a necessary approach to strengthening the shift from elite to mass higher education. It is a practical option necessarily determined by China's national conditions. Although China's higher education is only in the initial stage of mass higher education, most of the education models and ideas originated in industrialized nations have already been introduced into China. As a latecomer massification of higher education, China can select from a wide range of successful practices in other nations, shorten its exploratory period, and create its own model to achieve mass higher education. A diversified post-secondary education system should be based squarely on the current condition of China.

To achieve this, first, China's mass higher education targets directly socio-economic needs. Chinese universities are increasingly required to be relevant. As the entire post-secondary education system becomes more diversified, Chinese higher institutions themselves become more differentiated, with the inclusion of new faculties and departments representing subjects formerly excluded from traditional universities, preparing students for new or semi-professions. At present China has 1,000 strong vocational–technical institutions at junior secondary, diploma and undergraduate levels, with an intake of some 4 million students.

Various sub-sectors and institutions of different types in higher education system identify their dissimilar locations and orientations. By performing their particular tasks they foster their unique sectoral and institutional characteristics: research-intensive universities tie themselves in with high-tech enterprises; provincial teaching universities partner regional trades in varying industrial collaborative projects in the light of local conditions; vocational–technical institutions work closely with enterprises to provide the much-needed training to produce skilled technicians to support technological and industrial development.

Secondly, China's higher education system remains somewhat segmented. Transfer between the different institutional levels is limited, hampering the aspirations of learners and affecting equity, as well as linkages with the public sectors, and regional development. However, a diversified higher education system has begun to take shape in China, with a wide range of post-secondary institutions from public to private institutes covering regular, adult, television and radio institutions, and examination-based self-study higher education. A coherent linkage between them still needs to be strengthened. In 2000, for example, while public universities had to raise entrance ranks to sift out large number of candidates, many vocational–technical and private institutions could hardly find sufficient number of applicants.

There exists a so-called “malposition” phenomenon: while institutions at lower levels strive to reach university status and even deliver postgraduate education to heighten their social reputation, universities, including some prestigious ones, exploit their brand effect to offer programs at lower levels to attract tuition and fees from students. China needs to pay special attention to societal practical demands and individual students’ development, remove obstacles to the linkage between various sub-sectors in higher education, and give graduates from vocational–technical institutions opportunities to further their studies if they wish. Such measures can benefit the development of vocational–technical institutions by increasing their student numbers and by strengthening their contributions to local needs.

Transforming Modes of Governance

In a global policy context that higher education has become a tool for achieving an integrated global system along market lines (Ball, 1998), due to the influence of supranational organizations including the World Bank and with China’s recent entry into the WTO, market ideologies are becoming popular in the Chinese higher education circles, regarded either as correct or as inevitable. Proponents of such ideologies believe that no government is able to pay fully for the transition from elite to mass and from mass to near universal higher education, so that for quality to be maintained institutions are going to have to generate an increasing amount of resources either from students or from other private sources.

For China, a developing country still restricted strongly by the lingering impact of longstanding “socialist” public ownership, one practical approach to mass higher education is to diversify its channels for resources. Private institutions are bound to play a significant role. Based on historical lessons and practical conditions, China started to transform from elite to mass higher education in the late 1950s with fixed targets and clearly defined plans. The motive force was socialist construction, in which the state was almost the single provider of funding. China’s previous experience in the 1950s and 1960s admonishes us of the insolvency of the state alone to bear this task. One major reason for the relatively smooth development in the 1980s and 1990s is the diversification of resource channels via donation from society, enterprises, public institutions, and individuals. Universities are increasingly urged to cooperate with the private sector, and respond to market needs. The private sector is becoming increasingly evident in China both within and without higher education. The burden of funding higher education is being shifted more and more to the shoulders of the individual. Non-governmental funding sources are becoming crucial. Private institutions are resurging like bamboo shoots after a spring rain, as it is often referred to in China.

In consideration of future goals and current conditions, China has adopted some specific approaches to mass forms of higher education. Their long-term repercussions, however, remain to be seen. First, individuals and enterprises are encouraged more to establish post-secondary institutions. At present, when a private institution is founded, it is hard to attend to each and every aspect of a matter. It is the responsibility of the Chinese governments at various levels to give support to improve the institution's operation. To achieve this, some specific policies and regulations are called for. With the newly issued Higher Education Law (*Gaodeng Jiaoyu Fa*), China has made a good start in this regard.

Second, within one single institution, it is now possible to operate on a basis of one university two systems. A private institution can be built up with affiliation to a public university. By so doing, the parent university can be directly involved in the quality assurance at its affiliated private institution, while graduates from the institution can be conferred qualifications by the parent university. By 2000, there had been more than 10 such institutions scattered in Guangdong, Jiangsu and Zhejiang, with Shichuan and Fujian following suit closely.

Third, education shares are being tried out. The stock market is closely associated with the free market economy. Education shares have been reported as an effective way to raise education funds. Some private institutions are operated as businesses. According to a few publications in China, this can improve teachers' morale and help maintain the stable development of these institutions. One typical example is Hualian University at Guangzhou, which successfully solved its funding problems and has financially benefited its shareholders (Xie, 2001, p. 186). In 1998, Zhejiang formulated a policy to specifically allow funds to be raised by means of education shares.

Giving Efficiency the Highest Priority

Disparities in receiving higher education between different geographical areas and social classes are evident in China's massification process. At present, while 30–40 percent of the age cohorts in major cities has an opportunity to receive higher education, the percentage in remote areas is between 3 and 5 percent. Disparities between urban and rural areas and between the rich and the poor have historically been a longstanding issue in China. The gap has been further widened since the late 1970s when China opened itself to the world and exploited the coastal east.

Correspondingly, higher education development has been imbalanced. This was further fuelled by two factors: first, education reforms have been aimed at devolution and decentralization. With regional economic development, higher education development was linked closely to the regional economic situation, and therefore widened the gap between different regional higher education systems. For example, while the proportion of students grew rapidly in Beijing, Shanghai and Tianjing from 1978 to 2000, the difference between these major centres and the

remote areas including Tibet, Ganshu, Qinghai, Ningxia and Guizhou, is widening even more strikingly than that of 1931.

Second, the move towards marketization has increased the capacity of local governments in exercising their influence on higher education development, especially via financing. The funding for every student differs considerably from region to region. Those in more affluent areas such as Shanghai and Guangdong are often three times more than that in the inland provinces (Xie, 2001, p. 215). This has contributed greatly to imbalanced regional higher education development.

Nationwide, higher education will develop far more vigorously in the thriving export-oriented coastal zones than that in the interior. In consideration of the great variation across provinces according to available human, financial and material resources, the central government will not try to restrain the rapid higher education growth in the east, while giving special regard to the development in the west, a strategic plan commonly referred to as “efficiency claims precedence and fairness is to be taken into consideration also” (*xiaoli youxian jianggu gongping*).

Dilemmas and Directions

Looking into the future, a series of paradoxical movements have been demonstrated within China’s present rapid expansion of higher education.

Opportunities Lost in the Massification of Higher Education

The expansion of higher education scale has greatly relaxed the long-standing gap between social demand and higher education supply. Many Chinese people, especially those in affluent areas such as major cities and coastal areas, benefit much from such a rapid growth in higher education. In Beijing, higher education participation rate in 2001 was about 70 percent of senior secondary school graduates (*China Education Daily*, March 24, 2001, p. 1). Jiangsu Province’s gross enrolment ratio was 15 percent by the first half of 2001. Meanwhile, the groups that are located at the bottom of social resource distribution with the lowest living standards are obviously losing their opportunities in this massive expansion of higher education.

First are the enrolled students from poor families. Such students occupied at least 10 percent of the total national university student population in less developed and 50 percent in some underdeveloped areas. In teacher-training institutions, their proportion is often much larger. As China’s transformation from the planned to a market economy, the workers laid-off from the previous state-owned enterprises and some people from remote areas are much disadvantaged. They have no way to save money for their child’s education and it is hard for them to borrow. In such cases, assistance from universities, although vital, cannot suffice. Yet, within a globalized context of increasing competition, corporate managerialism, efficiency, and accountability in higher

education worldwide (Tierney, 1999), “efficiency” has been given the highest priority in China. University students from poor families will continue to be a knotty issue well into the coming years.

The second are the opportunities for receiving higher education in less developed regions. With rising inequalities, it is not surprising that higher education development is poor quantitatively and qualitatively in China’s less developed areas. Despite recent spectacular economic development, 6.7 percent of the Chinese still live in poverty. They can be found in most parts of the country, concentrating more in far west, where agricultural economy still dominates. Within such underdeveloped regional economies, the best possible local investments in education are often not good enough.

University fee policy, then, does not favour those living in remote areas with little money. As higher education is getting more and more expensive, the gap of higher education opportunities between the poor and the developed areas is rapidly widening. Rising tuition fees have substantially increased the difficulties of poorer families in sending their children to universities. The widening regional gap most affects impoverished areas, which are often minority regions.

Regional imbalance becomes even more serious as the market economy further settles in China. Nonetheless, social justice issues are not the first priority of the current strategy for higher education development (Price, 1997). Such a policy orientation seems to be justified in an international context that central governments devolve authority to lower levels in the hierarchy to “pass the buck” (Bray and Borevskaya, 2001).

To make the situation in poorer areas worse, China is still practicing a discriminative university student admission policy, which gives preferences to students from major cities (*China Education Daily*, March 9, 2002, p. 1). Top institutions adopt a quota system and admission requirements that favour local students. Such a quota system has existed in China for many years. Nowadays, as academic qualifications become more important in China’s job market, this discriminative admission policy further widens the gap of receiving higher education in different regions (*South China Morning Post*, August 8, 2001, p. 3).

Scholarly Advancement within a Marginalised Range

China was once an ancient giant in world science and technology. In the contemporary international knowledge system, however, China has been much marginalized. The overall picture of China’s research strength in the system is mixed, a “giant periphery” as Altbach (1998, pp. 189–197) has referred to. To catch up with the world’s levels, China has officially defined its target to build up world-class universities. Towards this end, Chinese governments at different levels have taken various administrative and financial initiatives.

The “211 Project” is the Chinese government’s endeavour aimed at strengthening about 100 institutions of higher education and key disciplinary areas as a national priority for the 21st century. Primarily aiming at training high-level professional manpower to implement the national strategy for social and economic development, the project consists of three major components for development: the overall institutional capacity, key disciplinary areas, and public service systems of higher education (*China Education Daily*, December 7, 2001, pp. 2–3). The project is mainly oriented to economic development, with focus almost exclusively on research-intensive universities. So far, 98 institutions of higher learning nationwide have gone through sector preliminary examination as scheduled. Most recently China has initiated its 985 Project to invest even more focally on 9 institutions.

Another move that deserves our special attention is to improve the levels of internationalization in the humanities and social sciences issued in June 1999 by the Ministry of Education. The plan includes a selection of about 100 leading research centres in the country, chosen for their relevance to economic and social development and to higher education reform. The plan has yielded intense competition among universities, which is welcomed by the Chinese government, echoing the global paradigm shift in public management, as manifested by a more individualistic, competitive, and entrepreneurial approach (Robertson and Dale, 2000). It also echoes an international trend in educational restructuring: ongoing devolution in finance and administration with increasing central government influence in curricula.

Within the past two decades, China has had a great leap forward to a substantial role in the hierarchy of international scientific powers, competitive with Spain, Switzerland, and Sweden by the late 1990s (Zhong, 1998, pp. 61–62). In 2001, there were altogether 1,399,776 sci-tech theses published in the world. Among them, 49,678 were produced by scientists from mainland China, an increase by 7.6 percent ranking the world 8th (*People’s Daily*, February 1, 2002, p. 1). With their edge is in the quality of its students, Chinese universities draw from a huge gene pool. However, Chinese universities are lagging behind some of their Asian counterparts, not to mention how they compare to world leading universities in industrialized countries. Catching up with the world cutting-edges in science and technology remains an arduous task, and arguably, except for a few special cases, a far dream in present China.

Financial Stringency with Heavy Investments

While investment on China’s higher education still relies heavily on national funds, diversification via donations from society, enterprises, public institutions, and individuals is being encouraged. Universities are increasingly urged to cooperate with the private sector, and respond to market needs. Students are required to pay their tuition fees. Universities are asked to raise funds from

various income producing sources, and to generate their revenues. The professoriate is seen as a means to raise income for academic institutions. The need for universities to operate profit-making enterprises is increasing.

Unlike many countries, however, China is now investing heavily on higher education in one sense. This has taken two forms: one is through national key programs, as shown by the above-mentioned “211 Project” and the plan to build up key research centres in the humanities and social sciences. There are some other governmental initiatives including the 863 High-Tech Programs and the National Natural Sciences Fund. Many ministerial and provincial/city governments also have their projects and grants to promote research and development. A substantial proportion of such resource goes to universities. The other form is its highly discriminative policy of focusing its investment on a handful of elite universities. Such special allotments are generally confined hierarchically to the prestigious universities, and geographically to those institutions in affluent coastal areas.

It is now a common practice for many universities to pay selected professors extra stipends every month, with those setting up laboratories getting more. Universities often have to be in partnership with the business world to offer better welfare for their members, for instance, building apartment units for teachers and students. All of this requires resources. The government wants universities to shoulder half of their budget. The gap will have to be filled by private-sector endowments, consultancies and commercial spin-offs. Such a task is only achievable for the more prestigious universities as they have a strong research capacity to attract investment from the industry.

The story of provincial universities, which form the mainstay of China’s higher education, is totally different. One direct effect of the massive enrolment increment is the huge gap between student demands and the actual operating conditions in many universities. The continuous increase of student numbers for more than a decade has put great pressure for funding. Yet funding increase lags far behind, leaving most Chinese universities with overloading operation. Student dormitories are often dark and worn down by years. Many universities have daily problems with water, gas, and electricity facilities, let alone other demands such as library collection, laboratory facilities, and the Internet access. Under such scenario, education quality has to be compromised.

Another effect is the increasing differentiation within higher education sector. First is among different universities. Another form of internal differentiation is the regional differences. A further element of differentiation is across disciplines.

Concluding Remarks

Within the past 50 years, especially since the late 1990s, China's higher education has grown dramatically, with pushes from below and pulls from above. This trend toward the mass higher education is neither a simple continuity of its unique traditional higher learning, nor a whole-sale transplant of foreign experience.

Higher learning in China has traditionally been the privilege of the elite. Only rarely was it successfully used by the few talented with lower middle- and working-class origins to gain infiltration into high society. In this regard, the ongoing expansion of higher education in China is historically significant in providing increasing Chinese population with access to education at an unprecedented level and therefore with more life choices.

It is then necessarily appropriate to set Chinese practice in the international context. Chinese higher education institutions are on the horns of a dilemma: while they are playing a crucial role in China's economic and social development, they still find themselves at a disadvantage in the international knowledge network. The problems of looking outward and inward at the same time are substantial, particularly when combined with immense pressures to contribute directly to national development and to participate in the international system (Altbach, 1998). Such a predicament is felt on a daily basis, especially by China's major universities within the preliminary stage of massification of higher education.

The current expansion policy has shifted Chinese higher education from elite to mass stage. This is closely connected to economic and political settlements. The policy has been greatly influenced by a neo-liberal economic settlement, globalisation, and the demands of Chinese citizens. While it has provided more chances for students to go to university, at the same time, it continues to disadvantage students from lower socioeconomic family backgrounds, making it even harder for them to get access to higher education and limiting their social mobility.

References

- Altbach, P.G. (1998). *Comparative Higher Education: Knowledge, the University and Development*. Comparative Education Research Centre, The University of Hong Kong.
- Ball, S.J. (1998). Big politics/small world: An introduction to international perspectives in education policy. *Comparative Education* 34(2): 119–130.
- Bastid, M. (1988). *Educational Reform in Early Twentieth-Century China* (English edition translated by P. Bailey). Centre for Chinese Studies, University of Michigan.
- Bray, M., and Borevskaya, N. (2001). Financing education in transitional societies: Lessons from Russia and China. *Comparative Education* 37(3): 345–365.
- Chen, Xue-xun (1986). *Zhongguo Jindai Jiaoyushi Jiaoxue Cankao Ziliao* (Teaching Reference Materials on Chinese Modern History of Education). Beijing: People's Education Publishing House.
- China Education Daily* (2001). December 7: 2–3.
- China Education Daily* (2002). March 9: 1.

- Du, Z.-R., and Xiong, Q.-N. (eds.) (1999). *Zhonghua Renmin Gongheguo Jiaoyu Zhidu* (Educational System in the People's Republic of China). Hong Kong: Shenghuo-Dushu-Xinzhì Book Store.
- Gao, Qi (1992). *Zhongguo Gaodeng Jiaoyu Sixiang Shi* (A History of Chinese Higher Education Thoughts). Beijing: People's Education Publishing House.
- Guangming Daily* (1999). February 25: 3.
- Hayhoe, R. (ed.) (1984). *Contemporary Chinese Education*. London: Croom Helm.
- Hayhoe, R. (1996). *China's Universities 1895–1995: A Century of Cultural Conflict*. New York: Garland.
- Levin, H.M. and Xu, Z.Y. (2005). Issues in the Expansion of Higher Education in the People's Republic of China. *The China Review* 5(1): 33-59.
- Liu, H.-F. (ed.) (2001). *Gaodeng Jiaoyu Zixue Kaoshi Bijiao Yanjiu* (A Comparative Study of Examination-Based Self-Study Higher Education). Fuzhou: Fujian Education Publishing House.
- Mao, Z.-D. (1991). *Mao Ze-dong Xuanji* (Selected Works of Mao Ze-dong) (Vol. 4). Beijing: People's Publishing House.
- Pan, M.-Y. and Liu, H.-F. (1993). *Zhongguo Jindai Gaodeng Jiaoyushi Ziliao Huibian* (A Documentary Collection of Modern History of Chinese Higher Education). Shanghai: Shanghai Education Press.
- People's Daily* (2002). February 1: 1.
- Pepper, S. (1990). *China's Education Reform in the 1980s: Policies, Issues, and Historical Perspectives*. Institute of East Asian Studies, University of California, Berkeley.
- Price, R.F. (1997). *Social justice and education in China*. In T.J. Scrase (ed.), *Social Justice and Third World Education* (pp. 163–180). New York and London: Garland Publishing, Inc.
- Reed, L.A. (1988). *Education in the People's Republic of China and U.S.–China Educational Exchanges*. Washington, D.C.: National Association for Foreign Student Affairs.
- Robertson, R., and Dale, R. (2000). Competitive contractualism: A new social settlement in New Zealand education. In D. Coulby, R. Cowen, and C. Jones (eds.), *World Yearbook of Education: Education in Times of Transition* (pp. 116–131). London: Kogan Page.
- Shu, X.-C. (1981). *Zhongguo Jindai Jiaoyushi Ziliao* (Materials of Chinese Modern History of Education). Beijing: People's Education Publishing House.
- South China Morning Post* (2001). August 8: 3.
- Teng, S., and Fairbank, J.K. (eds.) (1961). *China's Response to the West*. Cambridge, Massachusetts: Harvard University Press.
- Xie, Zuo-xu (2001). *Zhongguo Gaodeng Jiaoyu Dazhonghua Fazhan Daolu de Yanjiu* (A Study of Chinese Path to Mass Higher Education). Fuzhou: Fujian Education Publishing House.
- Yang, R. (2002) *Third Delight: The Internationalization of Higher Education in China*. New York: Routledge.
- Zheng, D.-Y. (1994). *Zhongguo Gaodeng Jiaoyushi* (History of Chinese Higher Education) (Vol. I). Shanghai: East China Normal University Press.
- Zhong, W.-H. (1998). Chinese scholars and the world community. In M. Agelasto, and B. Adamson (eds.), *Higher Education in Post-Mao China* (59–77). Hong Kong: Hong Kong University Press.
- Zhongguo Jiaoyu Nianjian Editorial Committee (ed.) (1984). *Zhongguo Jiaoyu Nianjian, 1949–1981* (China Education Yearbook: 1949–1981). Beijing: The Encyclopedia of China Publishing House.
- Zhou, Y.-T. (1934). *Zhongguo Xiandai Jiaoyushi* (History of Modern Chinese Education). Beijing: Beneficial Friends Publishing Company.

¹ After being closed to international intercourse for decades, China adopted its policy of opening to the outside world at the Third Plenary Session of the Eleventh Central Committee of the Communist Party of China held in December 1978.

² The imperial examination system began to take form around 400 C.E. and reached its full institutional development in the Tang dynasty (618–907 C.E.). During the Song (960–1279 C.E.), it crystallized into patterns that were to last right up to 1911. For more information, see Ruth Hayhoe (1996) *China's Universities 1885–1995*, p. 10.

³ The academies or *shuyuan* took their definitive forms in the Song dynasty, as what had been originally libraries or centres for scholarly discussion developed into academies that provided a structured learning environment separate from, yet interacting with, state institutions associated with the civil service examination system. See also Ruth Hayhoe (1996) *China's Universities 1885–1995*, p. 11 for more information.

⁴ Examination-based self-study higher education in China is the result of some special socio-historical circumstances. After the open and reform policy was adopted in late 1970s, regular higher education institutions could not supply the huge societal demand for more professionals. The State Council approved an application by the Ministry of Education to experiment with examination-based self-study higher education policy in January 1981. By 1985, all provinces had established their examination-based self-study higher education systems. By passing examinations set by the national government, candidates can obtain corresponding educational qualifications. The examinations cover many specialized areas, and are at diploma and Bachelor's degree levels. All Chinese citizens are eligible to apply. After more than 20 years practice, examination-based self-study higher education has been proved a much-needed countermeasure in meeting the development needs in the rapid expansion of China's higher education. From 1988 to 1997, for example, applicants totalled 53,000,000. Among them 1,730,000 succeeded, covering 425 specialized fields. For more discussions on examination-based self-study higher education in China, see Liu Hai-feng (ed.), (2001) *Gaodeng Jiaoyu Zixue Kaoshi Bijiao Yanjiu*. However, with increasing quality control difficulties and recent expansion of regular higher education, China is planning to abolish such practice.

⁵ The contemporary cities in China are ranked in three kinds according to their administrative levels: the county level, the prefecture level and the province/autonomous region level. The size of the cities at the prefecture level is medium. These cities play a significant role in regional development. They are thus called *zongxing chengshi* (central cities). In the 1980s of the last century, many new types of post-secondary institutions emerged in these cities, particularly in more developed provinces such as Guangdong. The institutions are under the jurisdiction of the local city governments.