

Expansion of Chinese Higher Education Since 1998: Its Causes and Outcomes

Yinmei Wan

The University of Michigan
U.S.A

This paper examines an important development in Chinese higher education in the late 1990s and early 2000s, namely, its radical expansion of enrollment starting from 1998. After a brief review of the related literature on educational expansion, the paper analyzes the higher education expansion in China in detail. The paper argues that a variety of factors have led to the enrollment expansion, including the expectation to stimulate domestic consumption and to ease the immediate pressure on the labor market, the high public interest in and demand for higher education in Chinese society, and the political will of the Chinese government to develop higher education. The outcomes of the enrollment expansion are also examined. The paper argues that the expected short term impact of enrollment expansion on Chinese economy is not warranted by reality. Enrollment expansion has also put pressures on Chinese higher education to further reform its structure, curricula, and administration. More importantly, enrollment expansion has brought the issue of equity to the front.

Key Words: Educational development, Chinese higher education, expansion, educational administration

During the last half of the twentieth century, higher education has expanded in most advanced societies and in many developing ones. China is no exception to this trend. Faced with the challenge to adapt to the needs of a market economy, an unprecedented expansion in opportunities for higher education has been taking place in China since 1998. During the period from 1998 to 2004, the enrollment of new regular undergraduate students¹ on average grew by about 26.9% annually², increasing from 1.08 million in 1998 to 4.47 million in 2004. As a result the total enrollment of regular undergraduate students in Chinese higher education increased from 3.41 millions in 1998 to 13.33 million in 2004. The enrollment of adult students also increased from 2.82 million to 4.20 million during the same period³.

The rapid expansion of higher education in China,

however, has aroused debates about its efficiency, efficacy and equity. There are concerns about the possible declining of the quality of higher education if the expansion is not accompanied by substantial increase in investment in higher education. The pressure of enrollment increase on the labor market has also caused worries and anxieties. Complaints about how difficult it is to find a job have been circulating⁴. Moreover, expansion is accompanied by rising college tuition, which may deny many students from low income families the opportunity to receive a higher education. Despite these and other concerns, higher education in China has expanded on a huge scale and will probably continue to grow.

It is not surprising that the expansion of higher education in China since 1998 has attracted wide attention from the public and the media. The scholarly research on this topic, however, seems to be inadequate. With a few exceptions (e.g., Yang et al., 2006; Zhuo, 2004), discussions about its causes, process, and outcomes tend to be too general and often lack empirical evidence. This paper is an attempt to examine this significant development in Chinese higher education. It will address two questions: (1) how and why did higher education

Yinmei Wan, Center for the Study of Higher and Postsecondary Education, University of Michigan, Ann Arbor, USA.

Correspondence concerning this article should be addressed to Yinmei Wan, 1559 Fairway Dr., APT.301, Naperville, IL, USA. E-mail: ywan@umich.edu.

expansion take place? And 2) what was its impact on Chinese higher education and the Chinese society in general? Answers to these questions will have important policy implications for the development of higher education in the future. In this paper, I will first briefly review the major theories on educational expansion from different disciplinary perspectives. Some commonly held assumptions about the consequences of educational expansion are also noted. The Chinese experience will then be analyzed in detail.

Theoretical Underpinnings of Educational Expansion

An Overview

Educational expansion has been analyzed and interpreted from a variety of disciplinary perspectives. Archer (1982) and Craig (1981) have reviewed some commonly known theories about educational expansion, including consumption theory, human capital theory, social control theory, and political integration theory⁵. Assuming that education does not expand automatically, these theories try to pose certain hypothesis about why education expands. Consumption theory treats education as a normal good, the demand for which rises with real income, which in turn results in educational expansion (Fishlow, 1966). Human capital theory argues that education expands in response to an increasing market for skilled workers. Social control theorists assert that education develops in response to the demands of an emergent, hierarchically ordered industrial system. Education is seen as particularly suited both to the development of a docile and industrious working class and to the maintenance of ruling class hegemony (Bourdieu & Passeron, 1977; Bowles & Gintis, 1976). The political integration theory argues that political elites expand education as a means of integration with national political cultures or as a means of creating such cultures (Benavot, 1996; Meyer, 1977). Although the proponents of these different theories have had limited success in convincing each other, the economic and sociological perspectives have dominated the discussion of educational expansion in the last half of the twentieth century.

The Economic Approach: Educational Expansion as an Economic Necessity

Since the seminal efforts of Mincer (1958) and Becker (1964) to study education using the tools of economic theory

and econometrics, the economic approach to educational expansion has gained ground and it has become increasingly common to see expansion discussed along the lines of individual and social rate of return. The basic question posed by educational economists is how education influences some variables of interest like wages or national output and economic growth. One such answer is provided by proponents of human capital theory that justifies educational expansion as an economic necessity from both micro- and macroeconomic perspectives. At the micro level, proponents of this theory emphasize the correlation between education and individual income. Through education individuals acquire competences and skills which increase their productivity, which leads to a higher wage. At the macro level, education results in higher national output and contributes to economic growth. Human capital theory has been facing challenges from the screening or signaling hypothesis which argues that level of education has no direct relation with productivity but rather is only a signal to an employer about abilities of potential employees (Arrow, 1973; Spence, 1973). Despite these criticisms, large investments in human capital have repeatedly been presented as a major source of economic strength.

Human capital theorist also present education at all levels as a means of achieving greater equity in the distribution of the wealth it helps to create. They argue that education can not only increase wages but can also equalize them. This is where human capital theory meets the strongest opposition from scholars who study educational expansion from the sociological perspectives.

The Sociological Perspective on Educational Expansion

Two notions have been important in the sociological debate about educational expansion: democratization and reproduction. Some regard higher education as a source of personal and social liberation (Scott, 1995). This argument has been used to justify expansion of higher education as an effective instrument in equalizing life and social chances for individuals. The reproduction school of thought, on the other hand, argues that all societies tend to reproduce their constitutive structures, most notably their class structure (Bourdieu & Passeron, 1977; Bowles & Gintis, 1976). They therefore hold that whatever the degree of expansion in formal education and whatever its cause and impetus, the dominant class would always manage to influence and re-stratify the system in order to preserve their social advantages. Raftery and Hout (1993) offer the most

compelling argument to this effect in their theory of Maximally Maintained Inequality (MMI). They argue that inequality between any two social strata in the odds of attaining a given level of education persist unless the odds of its attainment by the advantaged group have reached saturation. Before such saturation is reached, the advantaged group will be better equipped to take advantage of any new and attractive educational expansion and the gaps will either persist or expand. Only once the privileged group has reached saturation with regard to a given level of education, would further expansion of that level contribute to the reduction of inequality between strata.

The Outcomes of Educational Expansion

Despite the debate on educational expansion from different disciplinary fields, among governments and development agencies worldwide, educational expansion is considered to be able to facilitate numerous favorable changes for individuals and nations. Hannum and Buchman (2003) note some most commonly held assumptions about the consequences of educational expansion for economic and social development: 1) educational expansion is essential to national economic development, as better-educated citizens are more productive; 2) educational expansion narrows social inequalities within nations by promoting social mobility; 3) educational expansion contributes to the development of a more democratic society, as more educated people are able to make more informed political decisions.

Most countries expanded their higher education based on the assumptions about these and other beneficial effects of expansion outlined above. Yet empirical evidence does not provide consistent support for these assumptions. It is beyond the scope of this paper to provide a comprehensive review of empirical studies on the outcomes of educational expansion, yet it is safe to say that considerable controversies exist about the effects of educational expansion on economic growth, social and economic inequality, and political democratization⁶. In China, as will be revealed in the next part of this paper, the policy of expanding higher education was also made based on similar assumptions about its outcomes. In many ways, it is still too early to draw conclusions about the outcomes of the expansion because such a large scale of expansion is sure to have long-term effects.

The Expansion of Higher Education in China

The Context

The expansion of higher education in the late 1990s reflected the commitment and determination of the Chinese government to achieve mass higher education in China. Martin Trow's (1972) classification of three stages of higher education development (elite, mass and universal higher education) is widely accepted by education researchers and policy makers in China. According to Trow's classification, the most important indicator of the different development stages is Gross Enrollment Rate (GER), which refers to the percentage of the 18–22 age group enrolling fulltime in higher education. The cutoff point between elite and mass higher education is 15%, and that between mass and universal education is 50%. In China, GER before 1997 had been consistently lower than 7%, which was far lower than the 15% criterion for mass higher education. Since the reforms began in the 1980s, there has been general consensus among scholars and policy makers that China should expand its higher education system to meet the demand of social and economic development. However, opinions differ about what the appropriate pace of enrollment increase should be.

Proponents of rapid expansion argued that higher education enrollment should keep up with the levels of economic development and China had lagged far behind in higher education development compared with other countries (Li & Min, 2001). They also pointed out that Chinese higher education had failed to meet the vast increase in demand for higher education in Chinese society since the beginning of the reforms in the late 1980s. The average level of higher education in China in 1997 was far below the average level of developing countries. It was even lower than that in Vietnam and Thailand (Li & Min, 2001). Given the high growth rate of the Chinese economy, the lamentable situation of higher education was considered to be abnormal and detrimental to economic growth. Rapid growth was therefore desirable in order to better serve economic development and to meet social demands.

Opponents of rapid expansion, however, argued that the expansion of higher education was constrained by the availability of state resources and the employment opportunities of higher education graduates in the labor market (Liu, 1998). In light of this line of understanding, higher education in China should grow at a rate warranted by the level of economic development of the country. Thus many argued for a steady and moderate increase in higher

education instead of rapid expansion (Ji, 1998; Zhou, 1998).

The conflict between these two schools of thought has to some degree led to the fluctuation in the governments' policies concerning the goals and pace of the development of higher education in China in the 1980s and 1990s, as is also shown in Appendix A. For example, a government document issued in 1993 called for a rapid increase in the scale of higher education, while another document in 1996 emphasized an appropriate rate of increase⁷. However, in general, higher education policies before 1997 favored steady and moderate increases because of financial constraints and the institutional limitations of the entire education system. It was against this background that the large scale expansion took place in the late 1990s. Why did it happen then?

The Economic Explanation

The most often discussed reasons for expansion seem to be economic ones. Yet as will be shown later in this paper, the combined influences of a variety of factors have helped shape the policy. Mr. Lanqing Li, who was vice premier in charge of education at the time when the decision was made, noted in his book (2003) four major reasons for the expansion: 1) The need for more talented personnel to sustain the rapid development of Chinese economy; 2) The public demand for higher education is increasing and the government has the obligation to meet their demand; 3) enrollment expansion can postpone employment of high school graduates and increase educational consumption, which is an important means to stimulate domestic consumption and promote growth in related industries; 4) enrollment expansion will reduce the pressure on high schools, discouraging test-oriented teaching and learning and promoting all-around education (Suzhi Jiaoyu) in elementary and secondary schools.

Premier Li's statement can be viewed as the official explanation as to why the government decided to expand higher education. The first reason he mentioned reflects the central role of economic development in the policy making of the Chinese government in the 1990s. Education was regarded as important to economic growth yet the needs of economic development clearly preceded the needs of education itself. The making of education policies was therefore subject to economic reasoning. Yang (2002) refers to this line of thought as "economic ideology of education". In the eyes of the general public, Li's third reason seems to be the most direct driving force for higher education expansion. According to Wei and Li (2000) and many other online discussions, the first and foremost advocate of this policy is

Min Tang, then an economist of the Asian Development Bank Mission in China, who was said to have written a letter to Premier Zhu Rongji proposing enrollment expansion (See also Tang & Zuo, 1999). Tang believed that doubling higher education enrollment in the next three years would not only encourage families to spend their huge savings on higher education but also stimulate investment in service, construction and other related industries and would eventually increase consumption by about 100 billion *yuan RMB*⁸, which amounts to 0.5% of the GDP. Education has always been one of the primary motives for family saving in China. Tang believed that Chinese families would be willing and able to pay for the expansion of higher education. Another potential benefit of enrollment expansion Tang suggested was that it would postpone the employment of high school graduates, which would alleviate the employment pressure on the labor market that had already been much strained by the large number of laid-off workers from state-owned enterprises (SOEs). A number of Chinese economists also shared similar thoughts with Tang (e.g., see Wei, 1999).

China in 1999 had just survived the Asian financial crisis and was still struggling with its aftermath. Apparently, the proposal of Tang and his supporters seemed very attractive to the policy makers in the central government and their suggestion was adopted and soon put into practice. A timetable for achieving mass higher education was then laid out, aiming at achieving a GER of 15% by the year 2010 (MOE, 1999). The plan was later adjusted so as to realize the goal of 15% GER by 2005. In early 1999, Ministry of Education initially proposed a 20% increase in enrollment for that year. The plan was soon revised and the final plan set the target at an increase rate of 47%. Chinese higher education then began to stride forward at an unprecedented speed.

Political Discourses for Expanding Higher Education

In China developing higher education is a government responsibility and it has always been an important part of the development agenda of the government. The government has played a central role in the making of education policies. The spread of schooling throughout the post-1949 era was due largely to nation-building efforts by political leaders seeking to establish China as a modern nation-state. Higher education development in China was characterized by fluctuations and occasional abnormality from the 1950s to the 1970s (Huang, 2001; Hayhoe, 1995). For example, political reasons led to the first large-scale expansion of higher education during the Great Leap Forward period in the late 1950s, when the central

government in 1958 aspired to achieve universal access to higher education in 15 years. While in 1956 higher education enrollments were 185,000, the enrollment declined dramatically to 106,000 the next year. The expansion began in 1958 and by 1960 the enrollment had increased to 323,000. The expansion proved to be so unsustainable that the enrollment dropped to 169,000 in 1961 and to 107,000 in 1962. During the Cultural Revolution, higher education barely functioned. Although higher education began to experience steady increases after 1978, it has remained to be dominated by political influences, as was shown by the sharp decrease in enrollment after in 1985 and 1989 as a result of large scale student demonstrations and protests for democratic reform in China⁹.

The expansion since 1998 was also essentially a result of state planning and was controlled by the government. It was a typical case of government intervention in higher education in China, reflecting the government's social and economic development strategy. As has been mentioned in the previous paragraphs, economic growth has been at the center of the government agenda since the early 1990s. By 1998, the Chinese government had decided upon a national policy to develop the country through advancement of science and technology (Li, 1996). Higher education, as the most important means of generating and transmitting advanced knowledge, was set as one of the priorities of national development. Considering the low participation rate in higher education, the government felt the need for another great leap forward. The political rhetoric for expanding higher education was clearly articulated by then Minister of Education, Ms. Zhili Chen, who supported a "non-conventional" and "proactive" development of higher education so as to reduce the gap between China and the developed countries and to develop China's competitive advantages in the 21st century (Huang, 2001). Of course the plan to expand higher education rapidly was not pure political idiosyncrasy. It appeared to have been designed with appropriate attention directed to, and sensitivity shown for, the political, cultural, and social considerations involved. It reflected a convergence of the government's strategies of social and economic development faced with increasing competition and the strong public interest in higher education in China.

Public Interest in Higher Education

An important ingredient in the public interest in higher education in China is the traditional role of education in creating a meritocratic society. Higher education in China has

been regarded as having acted as a powerful mechanism for upward mobility, regardless of social systems and regimes, allowing the talented to thrive irrespective of their social origins. In China, the demand for higher education has always been much higher than the supply. Not surprisingly enrollment expansion would be welcomed by the public since it would mean greater opportunities to higher education.

There is a general consensus that higher education simultaneously improves individual lives and enriches wider society, indicating a substantial overlap between private and public interests in higher education. Just as individuals with better education tend to achieve greater success in the labor market, so economies with higher enrollment rates and years of schooling appear to be more dynamic, competitive in global markets, and successful in terms of higher income per capita. The examples of East Asian countries are constantly used by Chinese economists to illustrate this point. From 1991 to 1995, East Asia experienced faster growth per year than did Latin America (Inter-American Development Bank, 1998). It is in the interests of a much wider set of policymakers, as well as the business community in China, to become more actively involved in national debates about the reform and future of education systems.

In the 1990s, another powerful argument in China for a public interest in higher education is the value of a well-developed system for science and technology to China's aspiration to achieve economic power. This is of increasing importance within the emerging knowledge economy, allowing a country to compete in the increasingly globalized and integrated world.

To the extent that expansion of higher education would meet these public expectations, the proposed program to expand higher education rapidly gained sufficient political and popular support to be implemented. Yet whether it will be sustained will depend much upon its actual outcomes in terms of economic growth and social development.

Effects on Economic Growth

Various studies have claimed to show that economic growth cannot take place without an educated workforce, but the exact nature of the causal link between the two remains undetermined. Economic growth may have taken place because of rising education in certain countries such as Germany and Japan, but until a clear methodology can demonstrate that education precedes any economic development, it is equally plausible to suggest that nations which have experienced fast economic growth and increased

wealth have consequently been able to invest more in education (Kindleberger, 1964).

Chinese scholars generally agreed on the long-term benefits of higher education expansion. In a longer perspective, with the rapid introduction and development of new techniques and technologies, combined with competitive pressures arising from increasingly globalized and integrated economies, it was argued that expansion of higher education would help boost future rates of economic growth.

However, no consensus exists about the short-term effects of enrollment expansion on economic growth. If higher education institutions enrolled 2 million new students each year as Tang suggested, most students attending the college entrance exams would be able to secure admission into colleges. However, Tang's calculation and other similar calculations failed to take into account the huge amount of new investment needed for the expansion. Tang's plan would require huge amounts of investment in infrastructure in higher education institutions. Who would then pay for this? It would be unrealistic to expect the government to pay the full cost within a short period of time. If students were to pay for this, it would be a heavy burden for their families. The data collected by Ministry of Education in 1996 suggested that even at the tuition level of about 1,000 yuan RMB a year, the financial situation of 25% of students in regular higher education institutions was identified as "poor" or "very poor" and they were identified as being in need of financial support for their education (Huang, 2001). Another study done by the Institute of Higher Education Research at Beijing University showed that in 1996 the educational expenses accounted for more than 70% of the total family expenditure among the lowest 20% (in terms of family income) of urban families and over 60% for families between the lowest 20% and 40% (Wei & Li, 2000). These data suggested that Tang and his supporters might have been too optimistic about the abilities of students and their families to pay for the costs of higher education. Charging tuition of 10,000 yuan RMB as Tang proposed would not be a realistic option. In fact even in the year 2003, five years after the expansion, the tuition of most institutions are still substantially lower than 10,000 yuan RMB, with most institutions charging from 4,000 to 6,000 yuan RMB annually.

These analyses cast serious doubt on the short-term effects of higher education expansion as claimed by its supporters. Ironically, no serious study has been done to evaluate the actual effect of higher education expansion on domestic consumption in particular or economic growth in general. In fact few people talk about it any more. Even Tang

(2006) himself in his latest article on the achievement of higher education expansion failed to mention this.

Effects on the Labor Market

One of the arguments of the opponents of the expansion is that rapid enrollment growth may constitute an enormous burden on the labor market (Liu, 1998). It should be noted that the Chinese economy has been involved in tremendous structural adjustments in the 1990s. As a result of these adjustments, particularly the reform of state owned enterprises (SOEs) starting from 1998, millions of workers were laid off. At the same time a huge agricultural population was pouring into cities to look for jobs.

In this general labor market context, enrollment expansion no doubt postponed the employment of high school graduates by 2 to 4 years. However, the number of college graduates increased from 1.15 million in 2001, to 1.45 million in 2002, 2.12 million in 2003, and about 2.5 million in 2004. Such a huge number of university graduates entering the labor market has generated anxieties and worries among students and their parents. In addition, 2-year college graduates face more challenges than 4-year college students, and graduates from the less popular majors such as literature, history, and agriculture have more difficulty in securing a job. The situation of employment also varies according to the type of institutions. Students from elite national key universities are more likely to find a job than their peers in non-key universities (Yang, 2006).

However, some argue that the tension in the labor market is not caused by an oversupply of college graduates. Rather the internal problems that have long troubled Chinese higher education have contributed to the tension (Tang, 2006; Yue & Ding, 2003). For one thing the distribution of college enrollment is concentrated in economically developed areas and most college students want to stay in big cities after graduation. Consequently while the underdeveloped regions experience serious shortages of qualified technical and professional workers, the supply of graduates exceeds demand tremendously in major cities. For another, Chinese colleges and universities have been blamed for failing to provide their students with proper preparations for their career and life after graduation. Therefore Tang and others argue that rather than reducing enrollment, it is more important to reform the structure of higher education and to improve its teaching so that higher education will better fit the needs of the economy.

However, before any such adjustment can be effectively

done, college unemployment is going to become one of the major challenges to Chinese society. Families will soon find themselves facing a dilemma of letting their teenagers become unemployed right after high school, or delaying such unemployment by paying extra tuition to colleges. The year 2003 saw the first flow of four-year graduates into the job market as a result of the expansion. The number of students graduating from regular higher education institutions was 2.12 million, a 46.2% increase from the previous year. Even in Shanghai, with its strong economy and the relatively lower increase of college graduates (the number of college graduates in Shanghai only increased by 31% from 2002), the job placement units within higher education institutions felt enormous pressures (Gu, 2003). For students who graduated from the less prestigious institutions, the job market in 2003 was all the more chilly. For example, in 2002 Suren University in Zhejiang graduated over 700 students and more than 500 students found a job when they graduated in July. In 2003 the number of graduates was 2100 while the available job positions did not increase. The situation got worse in the year 2004. The government, therefore, has been struggling hard to find ways to meet the challenges cause by such a radical expansion.

Effects on Higher Education: Restructuring and Reorganization

The rapid growth of higher education has caused enormous financial constraints on the higher education institutions, particularly the lower level institutions, which have absorbed the largest share of the enrollment increase yet received no significant increase in resource allocation (Yang, 2006). There have wide spread worries that the quality of education in these institutions will decline. This has led to an increasing emphasis on the need to improve efficiency and effectiveness by better utilization of resources.

Enrollment expansion to a large degree helped to speed up many of the reform efforts that the Chinese government had initiated since the 1980s. One of the major themes of reform in higher education since the 1980s is to decentralize higher education by increasing the decision-making power of individual institutions, provincial and local governments. Major structural changes took place in two major forms. First, regulatory control and financing of higher education was modified and, second, the system was reorganized through institutional mergers. The overall goal of structural reforms was to rationalize the education system and to improve its performance.

The financing of higher education went through a

dramatic change. The revenue sources of higher education institutions were diversified so that higher education institutions now receive financing and other provisions from different sources, namely, from national, provincial, or local governments. Most institutions also generate their own incomes through various entrepreneurial activities. Of the total of about 1,400 higher education institutions, only 111 are now under the direct supervision of the MOE (In 1999 that number was 248). The rest are supervised and funded by provincial or municipal governments. A comprehensive funding formula has been devised for budgetary purposes.

A cost-sharing system is also gradually taking shape in Chinese higher education. The theory of individual and social return of higher education was used to justify this (Li & Min, 2001, Li 2003). College education used to be virtually free in China. Since the early 1990s, a selected number of colleges and universities were allowed to charge moderate tuition and fees. By 1997 nearly all higher education institutions began to charge tuition and accommodation fees. Since the expansion, the share of government contributions has continued to decline and the dependence on institutional sources (including tuition) has grown significantly to offset this.

This financing arrangement, reducing the share of government responsibility while simultaneously substantially increasing aggregate enrollments, will have a direct and dramatic impact on the teaching capacity and capability of individual institutions, and might inadvertently exert a negative impact on the effectiveness of the higher education programs. In addition, the Chinese government made a series of policies in which targeted resource allocations was made to key universities and key disciplines for special project funding and other preferential treatment (for example, Project 211¹⁰ and the Project 985¹¹). These effects, combined with the already existing locational advantages and disadvantages of individual institutions, pose the greatest challenge to equitable quality enhancement and financing efficiency for the coming years.

The 1990s also witnessed an important reorganization of Chinese higher education – the merger wave. Higher education in China in the late 1980s and early 1990s was characterized by small size institutions with an average enrollment of only 1922 in 1988 (Min, 1991), low student-staff ratio (5.3:1 in 1988 according to China Education Yearbook, 1989), and low unit costs. This had put serious financial constraints on higher education. Moreover, Chinese higher education then still retained many characteristics of the Soviet system. Particularly, the college curriculum was still divided along narrow specialization. By the 1990s it was

generally realized that students prepared by such a narrow curriculum lacked flexibility and would have a hard time adapting to the changing world. Since 1992, the government had made a series of efforts to restructure the Chinese higher education system. Mergers were the most important means of restructuring. According to the latest statistics published by the Ministry of Education, there had been 424 mergers during the period from 1990 to March 2005 (<http://www.moe.edu.cn/edoas/website18/info11206.htm>). The peak of restructuring, however, came after 1998. For example, in the short period from 1999 to March 2001 alone, forty mergers were completed in which 104 colleges and universities were reorganized into 40 institutions. These mergers have involved nearly all types of higher education institutions, from the most prestigious national universities like Beijing University and Qinghua University, to small local colleges at the bottom of the higher education hierarchy of the country.

The expansion of public higher education in the late 1990s also drove the rapid growth of private higher education. While there were 1095 private higher education institutions in 1998, enrolling 1.2 million students, by 2004, there were 1415 private institutions in China with an enrollment of 2.45 million, accounting for about 12% of the total higher education system¹². These private institutions are run either by local communities, private investors, business corporations, or foreign corporations. Some even seek to cooperate with public institutions by becoming the affiliated college of certain public universities¹³.

Private higher education, however, remains marginal to the mainstream public sector. It generally suffers from uneven academic standards and quality. Quite a number of private educational institutions also suffer from inconsistent funding. The graduates of private institutions often complain about the discrimination against them in the labor market and in other aspects of society. For most students, going to private institutions is still a “lesser” choice, it being assumed that they were unable to be admitted to the desired public institution.

Great structural changes have been taking place in higher education in China since 1998 as a result of the expansion of enrollment. It should be noted, however, that the government is very cautious in the process of loosening control on higher education. Mok (2001) actually argues that the state’s role as a regulator and overall service coordinator has been strengthened rather than weakened under the policy of decentralization. The strategy of privatization or marketization is also highly instrumental, intended to improve administrative efficiency and effectiveness, rather

than to make a fundamental shift of value orientation (Mok & Chen, 1998).

The Equity Issue

Hayhoe (1995) commented that issues of economic efficiency dominated discussions in the contemporary Chinese literature on reform, with little serious consideration of equity issues. In the previous analysis of the reasons why enrollment expansion took place, it is evident that equity issues were not articulated as concerns when the decision to expand higher education was made. However, equity has become an increasingly important issue since then.

Although higher education expansion increases college access to high school graduates, a more important question is whose access has been increased. According to a study done by the Higher Education Research Institute at Beijing University of Science and Technology, students from urban areas accounted for a larger share of the enrollment increase than their rural counterparts. For example, in 1999 the increase in the number of urban students who registered for college entrance exams is four times more than the increase of rural students. This situation was not improved until 2002.

The same study also notes an emerging gap, that is, the uneven distribution of students from different social classes in the higher education system. The research finds out that in key national universities, students from families with more cultural, economic, and social capital are squeezing out students from rural or disadvantaged families and the latter tend to concentrate in provincial or local institutions with less resources and of lower quality. For example, in Beijing Normal University, rural students accounted for 30.9% of the 1998 cohort, while they only accounted for 22.3% of the 2002 cohort. Gaps also exist with regard to the distribution of students by majors and the number of students who pursue graduate studies. Students from the more advantaged classes are more likely to study those popular majors that are in high demand and charge higher tuition. They are also more likely to pursue graduate studies. Ironically, due to the admission system of Chinese higher education¹⁴, the average admission score of students from disadvantaged groups are higher than their counterparts from well-off families.

The findings above seem to resonate with the argument Raftery and Hout (1993) made using their theory of Maximally Maintained Inequality. The students from the advantaged group are better equipped to take advantage of the enrollment expansion. The expansion in a sense has widened the gaps between the disadvantaged and the advantaged

groups in terms of access to higher education, the types and quality of education they receive, and the gaps are likely to persist or expand in their career and future life. In this sense, enrollment expansion does not serve to narrow social and economic disparities as the human capital theory would argue. Rather, it tends to expand the disparities between classes and socio-economic groups.

A possible explanation for the increasing gaps is that the expansion was not accompanied by any effective measures to help students from disadvantaged groups to overcome their disadvantages in terms of financial resources, poor elementary and secondary schooling. Since the enrollment expansion tuition and fees in most institutions have soared so high, it has constituted a great burden for families of average income in cities and most rural families. Although the government offered financial aid and loans to students from low-income families, the financial aid system is still very primitive. Because of the high risks involved in lending without a good credit system the national banks are generally unwilling to provide loans to students. It is therefore very difficult for needy students to acquire enough loans. Students who manage to obtain loans from the banks face enormous repayment pressures because they are required to pay off the loans immediately after graduation. It is obvious that such a financial aid system can hardly meet the financial needs of students. As a result each year there are a considerable number of students who have to give up the opportunity to go to college due to financial difficulties¹⁵.

Conclusion

This paper shows that a number of political, social and economic factors helped to shape the rapid expansion of higher education in China starting from 1998.

Economic growth is the central theme in China since the 1990s. Educational policies, without exception, were made to serve this central need. The economic approach dominates the debates about higher education expansion. Both opponents and proponents of expansion acknowledge the positive correlation between higher education and economic growth. However, they differ on the proper time and pace that enrollment should increase. The most talked about justification for the expansion was that it would contribute to the economic growth by stimulating domestic consumption. However, no credible study has been conducted by economists to evaluate the short term effect of enrollment on Chinese economy. My analysis shows the expected short term

economic benefit seems to be more than the reality can warrant.

The theory about the social and individual rate of return of higher education is also used to justify the cost-sharing system that has been part of Chinese higher education since the late 1990s. After the expansion, cost-sharing has been established as an irreversible fact in Chinese higher education. This has caused fundamental changes in the relationship between the state and higher education institutions, and between students and their institutions.

Cost-sharing has changed the rules of access to higher education. While in the past, high test scores are the only requirement for college admission, the family financial situation has now become an important factor that affects student choice. As a result, the issue of equity has been brought to the surface. As is shown in my analysis, enrollment expansion has widened the gaps between students from the advantaged and the disadvantaged groups in terms of access to higher education, types and the quality of higher education they receive, and opportunities for graduate education, and these disparities will continue to have an impact on their future life. This finding is contrary to the claim of the human capital theorists and others who regard educational expansion as a way to equalizing life and social opportunities.

The most direct result of the expansion is that millions of young people, who otherwise would not have the opportunity, have received higher education. It has to some extent broken the bottle-neck that had existed between secondary and tertiary education and relaxed the pressure on elementary and secondary schools. Higher education itself also has had to readjust its structure and adapt it to the rapidly growing enrollment.

Among the various challenges the expansion has brought, the issue of equity may be the most important one. Without adequate attention to this issue, expansion would only benefit one section of the population at greater costs to others. For the government, the most pressing challenges may be establishing an effective system to provide financial support to needy students and providing employment opportunities. Higher education institutions should also be encouraged to find innovative solutions to support students from needy families. Institutions should also try all means to provide career support to their graduates. Efforts should also be made to engage the private and other social forces to participate in this process.

References

- Archer, M. S. (1982). Introduction: Theorizing about the expansion of educational systems. In M. S. Archer (Ed.), *The sociology of educational expansion: Take-off, growth and inflation in educational systems*. Beverly Hills: Sage.
- Arrow, K. J. (1973). Higher education as a filter. *Journal of Public Economics*, 2(July), 193-216.
- Becker, G. S. (1964). *Human capital*. New York: National Bureau of Economic Research.
- Benavot, A. (1996). Education and political democratization: Cross-national and longitudinal findings. *Comparative Education Review*, 40(4), 377-403.
- Bourdieu, P., & Passeron, J. C. (1977). *Reproduction in education, society, and culture*. Beverly Hills: Sage.
- Bowles, S., & Gintis, H. (1976). *Schooling in capitalist America: Educational reform and the contradictions of economic life*. New York: Basic.
- Cao, R. (2006). Kuozhao yu jiuze (Enrollment expansion and employment). Retrieved from <http://www.cc.org.cn>.
- Craig, J. E. (1981). The expansion of education. *Review of Research in Education*, 9(1), 151-206.
- Fishlow, A. (1966). The common school revival: fact or fancy. In H. Rosovsky (Ed.), *Industrialization in two systems*. New York: Wiley.
- Gu, C. (2003, Jan. 17). Xingfen de kuozhao rujin hanqi biren (The excitement of expansion and the chilly job market). *Huadong Xinwen (East China News)*.
- Hannum, E., & Buchmann, C. (2003). *The consequences of global educational expansion: Social science perspectives*. Cambridge, MA: The American Academy of Arts and Sciences.
- Hayhoe, R. (1995). An Asian multiversity? Comparative reflections on the transition to mass higher education in East Asia. *Comparative Education Review*, 39 (3), 299-321.
- Hu, R., & Chen, G. (2002). *Chinese education development through non-government schooling, restructuring and*

- innovation. Shanghai: Shanghai Academy of Educational Sciences.
- Huang, Z. (2001). Cong guoji gaodeng jiaoyu dazonghua kan woguo gaoxiao kuozhao zhengce (Understanding the expansion of higher education in China from the perspective of mass higher education internationally). *Zhongguo Jiaoyu Zhengce Pinglun (Review of Chinese Educational Policy)*, Retrieved from www.edu.cn.
- Inter-American Development Bank. (1998). *Facing up to inequality in Latin America: Economic and social progress in Latin America, 1998-1999 report*. Washington, D. C.
- Ji, B. (1998) Zhongguo gaodeng jiaoyu fazhan he gaige de liangge wenti (Two issues in the development and reform of higher education in China). *Gaodeng Jiaoyu Yanjiu (Higher Education Research)*, 3.
- Li, L (2003). *Li Lanqing jiaoyu fangtanlu (Interviews on education with Li Lanqing)*. Beijing: People's Education Press.
- Li, Peng (1996). Report on the outline of the Ninth Five-Year Plan for national economic and social development and the long-range objectives to the year 2010. *Beijing Review* 39(15): i-xv.
- Li, W.& Min, W. (2001). An analysis of the current and potential scale of Chinese Higher Education. *Journal of Higher Education (Chinese)*, 22 (2), 27-31.
- Liu, X. (1998). Buying mangmu kuoda woguo gaodeng jiaoyu guimo (China should not expand its higher education scale blindly). *Gaodeng Jiaoyu Yanjiu (Higher Education Research)*, 1.
- Meyer, J. W. (1977). The effects of education as an institution. *American Journal of Sociology*, 63(1), 55-77.
- Mincer, K. (1958). Investment in human capital and personal income distribution. *Journal of Political Economy*, 66(4), 283-302.
- Min, W. (1991). Higher education finance in China: Current constraints and strategies for the 1990s. *Higher Education*, 21(2), 151-161.
- Ministry of Education (1999). *Mianxiang Ershiyi Shiji Jiaoyu Zhenxing Xingdong Jihua (The Action Plan to Vitalize Education in the 21st Century)*.
- Mok, K. H. (2001). From state control to governance: Decentralization and higher education in Guangdong, China. *International Review of Education*, 47, 123-149.
- Mok, K. H., & Chen, D. (1998). Privatization or quasi-marketization. In M. Agelasto & B. Adamson (Eds.), *Higher education in Post-Mao China*. Hong Kong: Hong Kong University Press.
- Raftery, A. E., & Hout, M. (1993). Maximally maintained inequality: Expansion, reform, and opportunity in Irish Education, 1921-75. *Sociology of Education*, 66(1), 41-62.
- Scott, P. (1995). *The meaning of mass higher education*. Buckingham: Society for Research into Higher Education and Open University Press.
- Spence, D. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(August), 335-374.
- Tang, M. (Feb. 6, 2006) Kuozhao Kuo Cuo Le Ma? (Was enrollment expansion a mistake?). Retrieved from <http://finance.sina.com.cn>.
- The World Bank. (1997). *China Higher Education Reform*. Washington, D. C.: The World Bank.
- Trow, M. (1972). *Technical report : Carnegie Commission national survey of higher education*. Ann Arbor: Inter-university Consortium for Political and Social Research.
- Wei, J. (1999, May 24). Jiaoyu shi ge da chanye (Education as a huge industry). *Beijing Evening*, p. A4.
- Wei, X., & Li, W. (2000). *Zhongguo gaodeng jiaoyu xuqiu yu guimo sudu yanjiu baogao (Report on the demand, supply, scale and growth speed of higher education in China)*. Beijing: Institute of Higher Education Research, Beijing University.
- Wen, X. (2001). Gaoxiao kuozhao zongheng tan (Reflections on higher education enrollment expansion). Retrieved from <http://www.qdedu.gov.cn/jiaoyuguanli/lwjc/article/Article1661.htm>
- Yang, D. et al. (2006). *Gaodeng jiaoyu ruxue jihui: Gaishan zhong de chaju (Higher education opportunities: Gaps persist despite improvement)*. Beijing: Higher Education Research Institute, Beijing University of Science and Technology.
- Yang, R. (2002). Lost opportunities in the massification of higher education in China. *International Higher Education: Center for International Higher Education*, Boston College.
- Yan, F. (2001). *A distinctive private higher education mode in China's transitional economy-- Tangible and intangible interaction between private sector and public sector*. Paper presented at the 2001 Annual Conference of the Association for the Study of Higher Education, Virginia.
- Yue, J. & Ding, X. (2003). Daxue jiuye de jingji fenxi (An economic analysis of university graduate employment). *Xinxi Daokan (Information Guide)*, 32
- Zhang, L. (2000). Enrollment expansion: Challenges and

- problems faced by higher education institutions. *Jilin Educational Science: Higher Education Research*, (1), 44-46.
- Zheng, Z. (2006). Tang Min xiansheng, Kuozhao meiyoucuo ma? (Mr. Tang Min, Isn't enrollment expansion a mistake? *Nanfeng Chuang*, retrieved from <http://www.sina.com.cn>.
- Zhou, Y. (June, 1998). Woguo gaodeng jiaoyu fazhan de huigu yu qianzhan (A review of higher education development in our country and a look at its future). *The Academic Journal of Hebei Normal University*.
- Zhuo, X. (2004). Kuozhao yilai putong gaoxiao banxue guimo yu banxue ziyuan guanxi de shizheng yanjiu (An empirical study on the relationship between higher education scale and resources since the enrollment expansion). *Beida Jiaoyu Jingji Yanjiu (Economics of Education Research, Beida)*, 2 (3), 1-12.

Received November 10, 2005
Revision received April 27, 2006
Accepted June 1, 2006

Appendix A

Table 1. *Enrollment in Higher Education in China*

Year	Number of Regular Higher Education Institutions (RHEIs)	Number of Adult Education Institutions (AEIs)	New enrollment of regular undergrad students (million)	Percentage increase from the previous year	New enrollment of adult students (million)	Percentage increase from the previous year	Total enrollment of regular students (million)	Total Enrollment of adult students (million)	Average enrollment of RHEIs	Student-Faculty Ratio (RHEIs)
2004	1731	505	4.47	17.0%	2.21		13.33	4.20	7704	16.22:1
2003	1552	558	3.82	19.0%			11.09	5.59	7143	17.0:1
2002	1396	607	3.21	19.8%	2.22	13.3%	9.03	5.60	6471	19.0:1
2001	1225	686	2.68	21.3%	1.96	25.6%	7.19	4.56	5870	18.2:1
2000	1041	772	2.21	38.1%	1.56	34.5%	5.56	3.54	5289	16.3:1
1999	1071	871	1.60	48.1%	1.16	16.0%	4.13	3.05	3815	13.4:1
1998	1022	962	1.08	8.0%	1.00	0.0%	3.41	2.82	3315	11.6:1
1997	1020	1107	1.00	3.1%	1.00	6.4%	3.17	2.87	3122	9.8:1
1996	1032	1138	0.97	4.3%	0.94	3.3%	3.02	2.66	2927	9.6:1
1995	1054	1156	0.93	3.3%	0.91	-10.8%	2.91	2.57	2757	8.9:1
1994	1080	1172	0.90	-2.2%	1.02	18.6%	2.80	2.35	2591	8.7:1
1993	1065	1183	0.92	22.7%	0.86	45.8%	2.53	1.86	2381	6.5:1
1992	1053	1198	0.75	21.0%	0.59	25.5%	2.18	1.48	2074	
1991	1064		0.62	1.6%	0.47	2.2%	2.04	1.47	1901	
1990	1075		0.61	2.0%	0.46		2.06	1.56	6471	
1989			0.60	-10.9%						
1988			0.67	8.6%						5.3:1
1987			0.62	7.9%						
1986			0.57	-7.6%						
1985			0.62							
1980			0.28							
1978			0.40							

Note. All the data were collected by the National Statistics Bureau of China, retrieved from <http://www.edu.cn>

Notes

1. In this paper, except when clearly indicated, all the enrollment data are about public higher education. In China, there are two types of public higher education institutions: regular higher education institutions and adult education institutions. Regular students are those who enroll in a regular institution and attend school full-time. Adult students can enroll in either regular institutions part-time or in an adult education institution. All the data were collected by the National Statistics Bureau of China, retrieved from <http://www.edu.cn>.
2. See Appendix A for information about the enrollment growth of higher education from 1990 to 2004.
3. The adult student enrollment decreased in 2004. The enrollment in 2002 and 2003 was 5.60 and 5.59 respectively.
4. For example, recently stories about how hard it is for students to find jobs have been spread widely through the Chinese media. The stories about students who returned from overseas and could not find a position were also widely circulated on the Internet.
5. For a more detailed review of these and other theories on educational expansion, see Craig 1981.
6. For a detailed review of empirical evidence, see Hannum and Buchman, 2003.
7. See the “An Outline of the Chinese Educational Reform and Development”, February, 1993, and “The Ninth Five-Year Plan for Education and Layout for the Year 2010”, retrieved from the Ministry of Education website: <http://www.edu.cn>.
8. 1 American Dollar \approx 8 yuan RMB
9. The higher education enrollment declined sharply in 1989. There were slight increase in 1990 and 1991, but the enrollment was still below the pre-1989 level. New students in a number of universities were required to attend military training for one year before beginning their academic work. This requirement was not abolished only until recently.
10. Project 211 is the Chinese government's new endeavor aimed at strengthening about 100 institutions of higher education and key disciplinary areas as a national priority for the 21st century. It was proposed in 1993 and put into operation in 1994
11. Project 985 is the Chinese government's plan to build world class universities in the 21st century by concentrating fundings on some top universities in China. The project started formally in 1999.
12. See Educational Statistics Gazette 2004, retrieved from <http://www.edu.cn>. The percentage is the author's own calculation.
13. The government only officially recognized half of the private institutions. See (Yan, 2001).
14. The college admission system in China has been criticized by many as unfair. Under this system, students from different provinces can be admitted to the same institution with different scores. A student in Beijing, for example, can enter Beijing University with 500 scores, while a student from Sichuan

Province may have to have 650 scores to enter Beijing University.

15. There is no existing statistics about the number of students who dropped out of colleges or did not go to college due to financial difficulties. But at the beginning of each school year, the media were full of disheartening stories about the financial difficulties of college students.