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## Higher Education Tuition and Fees in China: Implications and Impacts on Affordability and Educational Equity

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Students in China are being shouldered with more financial responsibility for their higher education. This shift impacts individuals across the economic spectrum in different ways. This paper assesses recent trends in China's higher education tuition and fees, and the implications on educational equity. Results document substantial increases in tuition and fees since 1996. China's policies have caused costs to rise to the point where they now exceed the abilities of many individuals to pay. As a consequence, many lower income families find it impossible to afford higher education without assistance. Recently, the government began increasing financial assistance to low-income families. This has resulted in some relative improvements. While progress has been noteworthy, it will be important for the Chinese government to continue reforming student subsidy programs and student loans policies in order to foster more equal access for capable students from all economic backgrounds.

Keywords: Chinese higher education, cost-sharing, tuition and fees, educational equity

China needs a system of higher education that will be accessible and affordable to its most capable young adults. In the past three decades, dramatic growth of China's higher education system has helped lead to unprecedented changes within society and tremendous expansions of economic opportunities. These major developments and achievements have received worldwide attention. From 1978 to 2009, the number of general higher education institutions increased from 598 to 2,305; while the number of full-time undergraduates and shortterm training students increased from 0.86 million to over 21.4 million (Bureau of China Statistics, 2010). This growth of higher education has been centrally important to China's economic development.

Since 1978, China's policies relating to higher education fee charging have undergone tremendous

change. Beginning in 1989, a few Chinese universities began to experiment with policies that required students to pay a portion of some tuition and fees; and by 1997, all higher education institutions were charging students some form of fees for their higher education (Dong &Wan, 2006; Zhong & Zhan, 2003). The result is that higher education in China is no longer without cost to students. College students in China now must pay substantial parts of, if not all of their tuition and fees.

In July of 1999, in an attempt to solve the mismatch between the strong demand for higher education and the deficiency of the supply, the Chinese State Department made another attempt to adjust the nation's economic and social development plan (The Working Group of "The reform of China's higher education", 1998). The policy changed from one of

steady, moderate expansion to one that more proactively developed higher education. As a result, it became clear that a wider base of support for higher education was needed. After considering various sources, the government strengthened policies related to the charging of fees. Since then, tuition and fees have increased annually. Officially, it is presumed that spreading the costs of higher education in China will lead to higher market efficiency and promote student learning. The actual impacts may, in fact, be much more far reaching.

There were two main motivations for implementing these changes in tuition policy. The first motivation was that the scale of China's planned higher education expansion exceeded the government's ability to finance it. Second, the Chinese government embraced the higher education cost-sharing theory (the so called cost compensation theory). This theory was first proposed by United States economists in the early 1970s. Since then, cost-sharing theory has become more widely accepted (Johnstone, 1986, 2004), and related policies were adopted in many countries throughout the world (Colclough, 1996). Policymakers in China agree that cost sharing is conducive to educational equity; that it fits the common sense that education is a kind of quasi-public product. The rationale was that those who will benefit most directly from higher education should pay for a substantial portion of it. Accordingly, in China the costs of higher education shifted from an entirely governmental burden to a shared governmental, societal, and individual burden to the point where students and their families now must cover increasing proportions of their higher

Table 1

*The Proportion of Higher Education Funds by Different Resources (Percentage)* 

2 00	0/
Government Appropriation (%)	Tuition & Fees (%)
80.3	13.7
78.3	14.8
65.0	13.3
62.5	17.0
58.2	21.1
54.2	24.2
50.6	26.3
47.9	28.8
45.5	30.4
42.8	31.1
42.9	29.2
44.0	33.7
47.6	33.7
· · · · · ·	Government Appropriation (%)   80.3   78.3   65.0   62.5   58.2   54.2   50.6   47.9   45.5   42.8   42.9   44.0   47.6

Data Source: Bureau of China Statistics (2010)

education costs through tuition and fees.

The new tuition policies have gone a long way towards reducing the Chinese higher education funding shortage. It has also led, however, to the emergence of many new problems that have aroused widespread concern throughout Chinese society. This paper uses official, publicly available statistical data to analyze what has happened to tuition and fees in Chinese higher education from 1996 to 2008. Tuition and fee trends are identified and their implications for Chinese society and for the higher education system are discussed. The hope is that this analysis and discussion will help foster equitable development of China's higher education system while remaining consistent with prudent application of cost sharing theory in China.

#### Data and Analysis The Growth Trends of Tuition and Fees

Data from the China Statistical Yearbooks from 1996 to 2010 (Bureau of China Statistics, 1996 through 2010) were used to seek a better understanding of how higher education has come to be financed. In order to better understand tuition and fee trends, we compare the annual proportions of higher education funds from two main resources: 1) government appropriations for

education; and 2) tuition & fees (the amounts that college students and their families are required to pay) (See Table 1).

Table 1 shows unprecedented decreases in the proportion of higher education funds from government appropriations, but remarkable increases in the proportion of tuition and fees. During this period, the share of government appropriation for education in total funds dramatically declined. In 1996, the ratio of governmental appropriations to total funds was 80.3%. By 2008, this ratio decreased to 47.6%; less than half of the total funding. Growth of tuition and fees, amount of however, has also been dramatic. In 1996, the ratio of tuition and fees to the total higher education funds was only 13.7%. By 2008, this ratio increased to about one-third of the total amount of funding. Tuition and fees in China have increased to the point where the amount of total education funds that individuals now assume has reached or exceeded the level in some developed countries. In 1990, for example, personal tuition and fees only accounted for 24.3% of the cost of American higher education (Wang, 2000).

According to Table 2, total higher education expenditures and government appropriations for education were maintained at almost stable annual growth rates. The average annual growth rate of the total higher education funds was 24%. The average annual growth rate for government educational appropriations, however, only averaged 19%. In contrast, the average annual growth rate of tuition and fees was as high as 34%. These figures reveal two conspicuous trends: 1) the growth rate of tuition and fees was significantly higher than it was for governmental sources; 2) during this period, China's steady growth in total funds available to higher education was achieved primarily through rapid increases in tuition and fees.

### The Growth of Per Capita Tuition and Fees

In 1999, the policy of "The Enrollment Expansion" began to be implemented throughout China's mainland (The Working Group of "The reform of China's higher education", 1998). Since then, the student enrollment in higher institutions increased rapidly. As the gross rate of higher education enrollment grew from 8.3% in 1996 to 26.5% in 2010, China's higher education entered the popularization stage. According to some economists' and educators', adequate per capita funding for higher education can ensure better teaching, more learning, an increase in the overall quality of higher education, and more purposeful development of higher institutions generally (Wang, 2006). Therefore, because the growth of the total amount of tuition and fees may have been largely due to the increases in student numbers, per capita tuition and fees may not have actually risen as much as it may seem. For these reasons it is necessary for us to examine per capita higher education funding.

Table 3, based on the *China Statistical Yearbook* (Bureau of China Statistics, 2010), shows growth trends of the average value of various factors in higher education funding from 1996 to 2003. During the entire period, total per capita higher education funding maintained steady growth, with an average annual growth rate of 6%. Starting in 1999, when *The Enrollment Expansion* policy was implemented, average annual growth rates of per capita higher education funds dramatically decreased, due to the sharp increase of enrollment of higher education in

Table 2

Year	Total Funds (%)	Government Appropriation (%)	Tuition & Fees (%)
1996	19.5	16.5	29.7
1997	40.7	16.7	26.3
1998	29.0	24.2	65.2
1999	28.9	19.9	59.5
2000	27.7	19.1	46.6
2001	27.5	18.9	38.3
2002	17.9	11.8	29.5
2003	21.4	15.4	28.1
2004	19.7	12.5	22.3
2005	15.2	15.5	8.3
2006	23.7	26.9	42.6
2007	15.9	25.4	15.9
2008	19.5	16.5	29.7

The Annual Growth Rate of China's Higher Education Funds

Data Source: Bureau of China Statistics (2010)

Table 3

Year	Per Capita Total Funds (%)	Government Appropriation (%)	Per Capita Tuition & Fees (%)
1997	13.7	10.8	23.5
1998	31.0	8.7	17.6
1999	7.6	3.6	37.8
2000	-5.3	-11.9	17.2
2001	-1.2	-7.9	13.4
2002	1.5	-5.4	10.1
2003	-3.9	-8.9	5.5
2004	0.9	-4.1	6.5
2005	2.2	-4.0	4.4
2006	3.5	3.7	-2.7
2007	14.1	17.1	31.6
2008	8.0	16.9	8.1

The Growth Trend of Per Capita Various Factors in Higher Education Funds in China

Data Source: Bureau of China Statistics (2010)

China. This downward turning situation had not improved until 2007. During the same period, the average annual growth rates of per capita government appropriations were actually negative from 1996 to 2007; its average annual growth rate was -2%, though it had a period of growth in the years before 1999.

In contrast, per capita tuition and fees continued to increase, except in 2006, when the growth rate of per capita tuition and fees was uncommonly negative. However, it significantly increased to 31.6% in 2007. From 1996 to 2008, per capita tuition and fees steadily increased with an average annual growth rates as high as 14.4%. The dramatic increase of per capita tuition and fees, just as the increases in total tuition and fees, is the primary reason to help China's per capita higher education funds steady growth, even when considering the rapid enrollment.

Both total tuition and fees analyses and the tuition and fees per capita analyses indicate that higher education cost-sharing was quick to be realized in China. However, China is still a developing country. According to the China Statistical Yearbook (Bureau of China Statistics, 2010), per capita GDP and per capita income in China is still far below the world's average level. With the reality of increasingly more substantial levels of higher education tuition and fees in China, a series of new questions have become relevant. Among the most important are: Can most Chinese students and their families afford the growing cost for higher education? What is the impact of the incremental tuition and fees on educational equity? What are the appropriate policies or measures that the government should adopt to

help those poor students accomplish their educational goals?

Life-cycle model. To answer the first question, an estimate was made of China's urban and rural residents' paying ability for higher education by applying publicly available data. The ability of resident students to pay for their higher education depends not only on their income, but also on their accumulated wealth (Heckman, 1976). Cha and Ding (2006) set up a new model to estimate students' and families' ability to pay for higher education based on the life-cycle model: they reported that paying for higher education is one of the chief aims of Chinese families' savings plans. Under normal circumstances, families will primarily use their savings to pay for their child's education. The model assumes that families typically do their best to support the higher education needs of their child. Hence, student/family paying ability for a four-year undergraduate student's tuition and fees can be presented as follows:

(Model I)  
$$X = \frac{nW}{4} + n(R - C)$$

(Where X is student/family paying ability for higher education; n is the number of people in a family; W is annual per capita saving; R is annual per capita net income; C is the per capita balance of saving deposits).

**Improved life-cycle model.** Cha and Ding's 2006 theoretical model is helpful for examining the paying ability of the students and their families for higher education expenditures. In China, however, there are huge differences in the economic situations and social

structure between the rural and urban areas. If students come from different areas, the methods of calculation will be different. For example, most of China's colleges and universities are located in urban areas, so the annual average consumption of a student could be thought as approximating the annual per capita consumption expenditure of city households, even though calculating the paying ability of students from rural areas. The consumption of others in rural Chinese families still resembles the average level of the rural residents. Using Model I for reference, then, two new models can be derived to evaluate the different paying ability of rural students and urban students based on their different backgrounds. In Model II, the capacity of rural students and their families to pay for higher education would be:

(Model II)  
$$X_r = \frac{nW}{4} + nR_r - C_u - (n-1)C_r$$

(Where  $R_r$  is annual per capita net income of rural households;  $C_u$  is annual per capita consumption expenditure of city household;  $C_r$  is annual per capita expenditure of rural household.)

In Model III, the capacity of urban students and their families to pay for higher education would be:

(Model III)  
$$X_u = \frac{nW}{4} + n(R_u - C_u)$$

(Where  $R_u$  is annual per capita disposable income of city household;  $C_u$  is annual per capita consumption expenditure of city household.)

The structure of Chinese family has been relatively stable in the most recent ten year period. In 2008, the average number of people in urban families was 2.91; in rural families the number was 4.01. So, to facilitate the calculation, 3 was used as the reference value of the number of people in urban families while 4 was used as the reference value of the number of people in urban families without considering the impact of the years.

According to Models II and III, the estimated values for rural and urban students paying ability for higher education were presented in Table 4. Results indicate that the per capita tuition and fees exceed both urban and rural residents' average paying ability for higher education, in general. In fact, these estimated values of the rural students' paying ability for higher education are probably overly optimistic. Restricted by statistics, the data used to substitute per capita balance of saving deposit is the statistical average for all urban and rural residents in Model II and III. However, some studies have demonstrated that in China, the wealth gap between urban and rural residents is large and widening (Huang, 2006). According to some assessments, in 1999, the per capita saving deposit balance of rural residents was only 1,600 Yuan while that of urban residents was 11,570 Yuan (Bureau of China Statistics, 2010).

In urban areas as well, gaps of wealth should not be ignored. It should be noted that all of the data presented in Table 4 were based on averages. The number of students in a family was hypothesized to be 1. If calculations assumed there were some significant portions of families with two or more children who may accept higher education in a family at the same time, then the estimated value would be even lower than the reported results. Hence, it can be assumed that the above methods of calculation cover up, to a degree, gaps of wealth. The conclusion, therefore, is that tuition and fees in China already outstrip the ability of many families to pay for higher education, especially in Chinese rural areas or the low-income communities in urban areas.

## The Impact of Rising Tuition and Fees on Educational Equity

In China most educational resources are located in urban areas. Under current admission systems, the sole criterion for admission to major higher institutions is a student's score in the national entrance examination. According to a recent survey, there are large differences in actual admission scores between the students from different economic strata. The average score of the students who come from rural areas is about 20 points higher than for those that come from urban areas. It can be assumed that high-priced and rising tuition and fees has likely prohibited many outstanding students with low socioeconomic status (SES) from accepting higher education opportunities (Chung & Lu, 1999).

In 1960, while it was recognized that increasing student payments for higher education standards would be beneficial for reducing higher education funding shortages, it was also recognized that doing so was viewed as an unfavorable way to achieve educational equity and the objectives of social welfare (Johnson, 1960). Several other empirical studies (Hoenack & Weiler, 1975; Rose & Sorensen, 1992) have come to similar conclusions. That said, in China, higher education tuition and fees are already beyond the means of significant numbers of lower income students (Chung & Lu, 2003).

The negative impacts of rising tuition and fees on educational equity have been mainly documented in two areas: 1) relatively fewer high ability lower income students admitted, and; 2) more high ability lower income students choosing lower status universities and majors. Some studies have predicted that the growth of tuition and fees would impact the social demand for higher education. For example, one empirical study demonstrates that the price flexibility of the American students' demand for higher education was -0.62, which means if tuition Table 4

The Estimated Value of the Rural and Urban Resident	ts' Paving Ability for Higher Education (1996-2008) (Units: Yuan)

Year	Per Capita Tuition and Fees	Estimated Value	
		Rural Residents	Urban Residents
1996	1477	-2582	294
1997	1824	-1765	584
1998	2145	-938	1063
1999	2956	-421	1411
2000	3464	-1118	1374
2001	3928	-771	2128
2002	4324	-608	2391
2003	4562	298	3425
2004	4857	4268	4196
2005	5071	4944	5247
2006	4932	5870	6649
2007	6489	5809	7375
2008	7017	8464	10138

Data Source: Bureau of China Statistics (2010)

and fees increased 10%, the enrollment of students in the higher institutions would drop 6.2% (Leslie & Brinkman, 1988). In China, the social demand for higher education is extremely strong (Altbach, 1992, 2007; Johnstone, 2004; Mok, 2000). Even though tuition and fees have increased to some extent, total enrollment in higher education institutions has still increased dramatically. However, the growth of tuition and fees may have serious undesirable impacts on those students who are from low SES families. This is because the price flexibility of tuition and fees for lower-income students was higher than that of students from higher income families (Gertler & Glewwe, 1990). Probably because of lower paying ability, in China the proportion of rural students in the college population is remarkably decreasing. In the 1980s, this proportion was about 30%. By 2004 it had declined to 19.2%, even though the rural population accounted for 58.2% of China's total population (Wu, 2004).

While students from low-income families have access to higher education, they are still subject to inequities when they choose a college or major within the institution. Under cost sharing policies, tuition and fees have become a very important factor effecting students choice of college and major. Students from lower-income families tend to choose majors like agriculture, teacher education, forestry, geology in less highly ranked higher institutions. Students from high SES families tend to choose higher ranked institutions and are more likely to major in foreign languages, the arts, economics, law and the medical sciences (Chung & Lu, 1999). This indicates that regardless of where they matriculate, students from low-income families may be disadvantaged in the labor market when they graduate. As a result, the rate of return from their higher education would be expected to be lower than that of students from more wealthy, middle class families.

#### Improving Affordability for China's Low-Income Families

The increase of residents' income for rural or urban disadvantaged families obviously is not simple for the Chinese government to achieve in a short time. In such a case, the financial assistance for helping lowincome students to complete postsecondary education is an effective means for the government. Such an approach requires the government and society to provide adequate financial aid to highly capable students from low-income families. In fact, many countries have adopted similar "high-charging and high financial support" policies to assist with the development of their higher education systems. Since the 1990s, most American universities have gradually raised tuition and fees. As a result, many forms of financial aid have been provided. These have included waivers of tuition and fees, fellowships, and scholarships for over 30% of needy students (Chung & Lu, 2003). Such measures were intended to help balance competing demands of educational development and equity of access to higher education.

Because of the imperfections in current subsidy systems, however, China's higher education remains in a "high-charging and low subsidizing" mode. The government has been trying to improve financial assistance by increasing the scope and the amount of needs-based subsidies by engaging in some overcharging of tuition and fees. As a result, it appears that China's higher education policy is slowly transitioning to a policy of "higher-charging and higher financial support." In this reform procession, a student loan system is thought of as a promising measure to improve students' financial situations while in school. To enhance the effectiveness of student loan program, countermeasures put forward by Albrecht and Ziderman (1991) were thought to be valuable: (1) more effectively identify the needy recipients for loans; (2) reducing the debt burden of students with the reduction of the subsidy (such as raising interest rates, but using the students' future income to help repay their loans) and; (3) designing even more effective recovery mechanisms to reduce the risks/costs to a minimum, such as Australia has done by recovering student loans through the tax or social security system (Albrecht & Ziderman, 1991).

Nevertheless, debate continues in China about how to best structure student loan and subsidy programs to maximize access to higher education for academically talented students in relatively affordable ways so that educational equity will also be achieved. Low-income families will likely be willing to continue accepting, perhaps out of necessity, universities that have lower tuition and fees even though they would prefer to have their children have access to more prestigious universities through more substantial educational grant and scholarship programs.

It is likely that student loans and other subsidy programs will become more a part of China's solution to educational inequality, particularly for middle income families who are capable of making meaningful financial contributions to the education of their children. Without more loans and more grant programs, however, lower income students will continue to have less access to higher quality higher education and, as a result, will tend toward lower paying jobs. Without even greater advances in these areas, the loser will be society which needs the best and brightest to help address the huge challenges that China's recent transformation and development are posing.

### Conclusion

Based on the foregoing analyses, it appears that China's rising tuition and fees have already exceeded many families' ability to pay. It also appears that the effects may be particularly hard on most of rural families and some lower SES communities in urban areas. The net effects can be presumed to be largely negative on educational equity. How to ameliorate these likely adverse effects of the recent changes in tuition and fee policies, and how to improve the low-income families' ability to pay for higher education remain perplexing questions.

A number of conclusions are inescapable from this study. First, despite the fact that the "high-charging and high subsidy" policy remains controversial, the Chinese government is considering re-intensifying it as a means to improve access to higher education opportunities. Second, in the past 15 years the contribution of tuition and fees accounting to total higher education funding has increased rapidly, reaching a peak of 33.7% in 2008. The same period witnessed the proportion of government appropriation for higher education declining gradually to less than half; indicating that the higher education cost sharing policies are having substantial impacts in China. Third, rapidly rising tuition and fees have increased the burden on rural and lower SES urban students and their families. Fourth, the current situation of having higher education tuition and fees beyond many students' and/or families' ability to pay, which is likely to have negatively impacted educational equity. These impacts on students have resulted from lowincome students selecting different admission opportunities and different choices of college and majors. Finally, the Chinese government is attempting to reform student assistance and loan policies to accelerate attainment of the goal of increasing the likelihood that low-income families' can afford higher education.

Based on the life cycle theory, a new method was used to calculate the students' abilities to pay for higher education in China. Models were used to estimate the ability of rural and urban students and their families' abilities to pay for higher education. The analysis indicated that the current high-priced tuition and fees have resulted in a situation where costs of higher education exceed the ability of many low SES Chinese families' abilities to pay, even families that use their entire savings to pay for their child's higher education. If China's system of higher education is to meet its goals, then a more comprehensive system of student financial assistance will be critical.

Increasing the affordability of higher education in China means that net tuition and fees would need to begin declining more so that the majority of families would become more able to afford it. If that were to happen, then low-income families would not have to pay as much. Such an approach could make lower income students more economically capable of accessing higher education. Similar studies in China, however, have shown that the low-charging policy will not significantly improve educational equity by itself (Cha & Ding, 2006; Chung & Lu, 1999, 2003; Mok, 2000; Zhong & Zhan, 2003). The admirable goals of increasing the quality of China's higher education, and making it more equally accessible to all able students, must be undertaken carefully so as not to bring excessive financial burdens to the government (Cha & Ding, 2006) upon which higher education so heavily relies. In addition, it is important that those who can afford higher education and benefit from it

should pay a fair share of the costs. Progress to date has been somewhat less than optimal because the scope of the financial assistance is quite narrow; only a relative few needy students are being helped. We therefore recommend that China consider expanding programs that offer more ability-based tuition and fee waivers, scholarships, work-study opportunities, and fellowships, to high ability but lower income students.

References

- Albrecht, D., & Ziderman, A. (1991). Deferred cost recovery for higher education: Student loan Programs in developing countries (*World Bank Discussion Paper*). Washington, D. C.: The World Bank.
- Altbach, P.G. (1992). Patterns in higher education development: Toward the year 2000. In R.F. Arnove, P.G. Altbach, & G.P. Kelly (Eds) *Emergent Issues in Education: Comparative perspectives*. Albany, NY: State University of New York Press.
- Altbach, P.G., & Knight, J. (2007). The internationalization of higher education: Motivations and realities. *Journal of Studies in International Education*, 11 (3-4), 290-305.
- Bureau of China Statistics. (2010). *China statistics yearbook (1996-2010)* (China). Beijing: China Statistics Press.
- Cha, X., & Ding, S. (2006). Can low tuition policy improve education fairness and social welfare? *Tsinghua Journal of Education* (China), 27(1), 65-70.
- Chung, Y., & Lu, G. (1999). The affecting factors in students choosing college under fee charging system. *Journal of Higher Education* (China), *2*, 31-39.
- Chung, Y., & Lu, G. (2003). The equity effects of cost recovery in higher education. *Peking University Education Review* (China), 1(2), 52-64.
- Colclough, C. (1996). Education and the market: Which parts of the neoliberal solution are correct? *World Development*, 24(4), 589-610.
- Dong, H., & Wan, X. (2006). The Research of Current Cost-sharing System in Higher Education in China, *China Education Science Study* (China), 4(6), 25-26.
- Gertler, P., & Glewwe, P. (1990). The willingness to pay for education in developing countries: Evidence from rural Peru. Journal of Public Economics, 42(3), 251-275.
- Heckman, J.J. (1976). A life-cycle model of earnings, learning, and consumption. Journal of Political Economy, 84(4): 11-44.
- Hoenack, S.A., & Weiler, W.C. (1975), Cost-related tuition policies and university enrollments. Journal of Human Resources, *10*(3), 332–360.

- Huang, L. (2006). The statistical analysis of the income gap between urban and rural in China. *Statistics and Decision* (China), 21, 107-108.
- Johnson, E.L. (1960). Is the low-tuition principle outmoded? *The Review of Economics and Statistics*, (3), 44-47.
- Johnstone, D.B. (1986). Sharing the costs of higher education: Student financial assistance in United Kingdom, the Federal Republic of Germany, France, Sweden, and the United States. New York: College Board.
- Mok, K.H. (2000) Marketizing higher education in post-Mao China. International Journal of Educational Development, 20(2), 109-126.
- Rose, D.C., & Sorensen, R.L. (1992). High tuition, financial aid and cross-subsidization: Do needy students really benefit? *Southern Economic Journal*, 59(1): 66–76.
- The Working Group of "The reform of China's higher education". (1998). *The reform of China's higher education*. Beijing: Finance and Economic Press.
- Wang, S. (2000). Concise guide to economics of education. Beijing: Higher Education Press.
- Wang, Y. (2006). Changes in funding source of higher education in China: An analysis of the relationship between government funding and student tuition and fees, *Tsinghua Journal of Education* (China), 27(5), 42-48.
- Wu, S. (2004). The comparative analysis of the students' cost about attending school and getting employment between public and private universities, *Education and Economics* (China), 2, 6-10.
- Zhong, Y., & Zhan, S. (2003). On charging fees in public higher education from an equality perspective application of cost-recovery theory in mainland China. *Journal of Higher Education* (China), 24(6), 28-33.

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