

# **China's Rural Compulsory Education: Current Situation, Problems and Policy Alternatives**

*Wang Dwen*

*Institute of Population and Labor Economics, CASS*

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# China's Rural Compulsory Education: Current Situation, Problems and Policy Alternatives

*Wang Dewen*

*Institute of Population and Labor Economics, CASS*

**Abstract:** Since China made its transition from a planned economy to a market-oriented economy, rural education system has changed fundamentally and great progress has been achieved. However, the availability and affordability of rural compulsory education still face huge challenges. On top of the lists are issues such as difficulties in schooling, high dropout rates, inadequate investments and poor education quality in rural areas. Public investments in education have long-term impacts on rural human capital accumulation and rural development. From a long run point of view, efforts in three aspects need to be made to boost the development of rural compulsory education. Firstly, enhance the fiscal decentralization reform and strengthen legal system construction, ensuring public investments in rural compulsory education. Secondly, deepen education reform and improve the quality of rural compulsory education. Thirdly, further develop rural economy, making education more affordable to rural population.

**Key Words:** Rural Compulsory Education, Education System Reform, Fiscal Decentralization Reform, and Rural Development

China has made well-known achievements in rural reform and development. The introduction of household responsibility system has greatly increased incentives for farmers to produce food and rapidly improved agricultural productivity. From 1978 to 2001, the total value-added output of agriculture increased at an annual growth of 4.7 percent at constant price. In the mean time, per capita rural net income rose from 133.6 Yuan to 2366.4 Yuan, an annual increase of 7.3 percent at constant price. Rapid growth in rural income dramatically relieved rural poverty. Rural poverty incidence rate dropped from 30.7 per cent at the beginning reform to below 2 percent in 2001, and 200 million people were moved from poverty in only 23 years. China's rural development has now entered a stage of "becoming well-off".

With rural reform and economic growth, great changes have taken place in rural education. The establishment and development of compulsory education have fundamentally changed the underdeveloped status of rural education. The improved years of schooling and rapid decrease in illiteracy rate have not only promoted rural economic development but also fostered favorable conditions for rural labor mobility and urbanization. During China's economic transition, however, rural compulsory education still faces huge challenges. Children's schooling difficulties in poverty-stricken areas, high dropout rates, widened education disparity between urban and rural areas, and insufficient investments in rural education are among some of the most severe problems, which challenge the availability and affordability of rural compulsory education and hinder its healthy development.

This paper aims to analyze the main problems of rural compulsory education and their causes in China's economic transition. There are four sections. Section one gives an overview of education reform and the achievements of rural compulsory education. Section two analyzes the major challenges facing rural compulsory education. Section three investigates the impacts of fiscal decentralization reform on rural compulsory education. The final section discusses the role of government in rural compulsory education and puts forwards relevant policy recommendations.

## **I. Education Reform and the Achievements of Rural Compulsory Education**

Before initiating its reform and opening-up in 1978, China's basic education adopted a management mechanism characterized by "state-run, centrally-managed and solely funded by finance", which was in line with the highly centralized political and economic system in China at that time. After the destruction of the Cultural Revolution, China's basic education in rural areas was literally paralyzed.

Since the reform in 1978, China has carried out a thorough reform in education system to speed up the development of education and the implementation of the strategy of “revitalizing the nation through developing education”. In 1985, the central government staged out the Decisions on Reforming Educational System, which clearly assigned to local governments the responsibility of popularizing compulsory education and developing basic education by introducing a new system characterized by “central leadership, local responsibility and management at various levels”. The Compulsory Education Law in 1986 stipulated, in the legal form, the management system of compulsory education. Afterwards, a series of important laws and regulations, such as the Teacher Law in 1993 and Education Law in 1996 were promulgated to boost the development of China’s education cause.

According to the Compulsory Education Law, rural compulsory education comprises education in two phases, primary school education and junior secondary school education, the former equivalent to six-year primary school and the latter equivalent to three-year junior secondary school, the combination of which being what is usually referred to as “Nine-Year Compulsory Education”.

The reform of education system comprises three important aspects relevant to rural compulsory education. First, it clearly stipulates the responsibilities of governments at various levels in education, in other words, the administrative and financial rights of governments at various levels. Central government is responsible for planning national-wide policies and strategies as well as helping implement compulsory education in poverty-stricken areas. Provincial governments strengthen the overall management of compulsory education in its province, provide necessary financial support, supervise the progress and inspect the results of compulsory education at various cities and counties. County governments are responsible for making county-level overall planning of education and financing for basic education in the whole county. Township governments set up agencies, to carry out responsibilities assigned by upper level governments under the direct leadership of township governments and county education administrative departments, collect and manage educational funds. In addition, village is the rural grass-root governance organization. In the process of implementing rural compulsory education, villages take up the responsibilities of maintaining dangerously dilapidated school buildings, improving teaching facilities, improving teachers’ income, paying the salaries of teachers hired by local people, managing schools’ properties, defending schools rights and privileges, mobilizing children of school age to attend school and participating in the supervision of school administration (Xie Yang, 2002).

Second, it ensures the education investments by governments at various levels. In terms of sources of investments, Education Law, Compulsory Education Law and Teacher’s Law stipulate that education investments mainly come from government finance with other channels as supplements (See Table 1). As for investment growth, Education Law stipulates “Four Growths”, i.e., the growth of education investments from government appropriation should be higher than that of the growth of regular fiscal incomes, per capita expenditure of enrolled students should keep a continuous growth, and ensure the growth of teacher’s salaries and per capita public expenditure of students. Compulsory Education Law stipulates “Two Growths”, which correspond to the first two growths in Education Law. Teacher’s Law stipulates that teacher’s average salaries shouldn’t be lower or higher than that of government civil servants.

**Table 1. China's Relevant Stipulations of Education Investments and Managements in Educational Laws**

Items	Compulsory Education Law	Teacher's Law	Education Law
Published Times	April 12, 1986	October 31, 1993	March 18, 1995
Investment Objectives	Primary Education and Junior Secondary Education	Teachers	Preschool Education, Primary Education, Secondary Education, Higher education, Vocational Education and Adult's Education
Investment Sources	Governments appropriate funds for educational business spending and basic construction; donations and fundraising from society and personal endowments are encouraged	Public school teacher's salaries paid by government, other school teacher's salaries paid by share holders	Educational input is mainly from government appropriation with other sources as a supplement; set up special educational fund, and make effort to support compulsory education in poverty and minority areas; levy local educational surtax for education
Investment Growth	The growth of government appropriation should be higher than that of regular fiscal revenues; per capita educational expenditure of enrolled students should keep a certain growth	Teacher's salaries are no less or higher than those of government civil servants; school age allowances, Medicare, and pension subsidy should be supplied; improve teacher's living conditions	The growth of government appropriation should be higher than that of regular fiscal revenues; per capita educational expenditure of enrolled students should keep a certain growth; teacher's salaries and per capita public expenditure of students should keep a certain growth
Schoolhouse Construction and Tuition Fees	Townships and villages can collect money for running a school; free tuition fees; set up stipend for helping poor students; collecting incidental expenses permitted		Under the authorization of county governments, townships and villages can collect money for schoolhouse construction
Management	Local responsibilities and management at various levels; impose educational surtax in rural and urban areas for compulsory education; supply subsidies for impoverished regions	Education administrative authorities of State Council take over national works on teachers; Relevant authorities of State Council are responsible for related works within their functions; schools and other educational authorities by their owns manage teachers in terms of state regulations	Management at various levels and responsibilities by division; local governments are responsible for secondary education and below with the leadership of the State Council; the State council and governments of provinces, municipalities and cities directly under the central jurisdiction are responsible for higher education

Third, it popularizes compulsory education according to the plans step-by-step. In 1985, the Decisions on Reforming Educational System pointed out that the development of compulsory education in China could be divided into three regions. The first region comprised urban areas that cover ¼ of the total population, developed areas in coastal provinces and the developed inland areas. A considerable part of these regions had popularized junior secondary school, with the remaining parts focusing on popularizing junior secondary school by approximately 1990. The second region included moderately developed counties and rural areas accounting for half of the total population. Measures taken in this region included popularizing primary school education and at the same time popularizing secondary education or vocational education by approximately 1995. The third region covered underdeveloped areas accounting for ¼ of the total population. In this region, various efforts needed to be exerted to popularize basic education at different levels. The state would make effort to support education in this region. In 1993, the Guideline of China's Education Reform and Development further set out the two tangible goals to be realized by the end of 20<sup>th</sup> century, i.e., popularize compulsory education and eliminate illiteracy nationwide, lowering the illiteracy rate among youth to less than 5 percent.

After over a decade of development, China's compulsory education has made great achievements. Among the 9 developing countries with the biggest population in the world<sup>1</sup>, China is the first and only one that has accomplished "Nine-Year Compulsory Education". The years of compulsory education

<sup>1</sup>The 9 developing countries with the biggest population in the world: China, India, Indonesia, Pakistan, Bangladesh, Mexico, Brazil, Egypt and Nigeria.

in the other 8 countries range from 5 to 8 years. (Zhang Zhenzhu et., 2002) In 2000, 85 percent of the population was covered by compulsory education. By the end of 2001, 2573 counties (cities, regions, including county-level administrative units) had achieved “two goals”, with 90 percent of the population covered by compulsory education. With the expansion of compulsory education, China has made great improvements in primary school education and junior secondary school education. From 1986 to 2001, the enrollment rate of pre-school children rose from 96.4 percent to 99.1 percent, an increase of almost 3 percent, with an increased enrollment number of 8.7 million; the proportion of primary school graduates entering junior secondary school rose from 69.5 percent to 95.5 percent, an increase of 26 percent, with the number of students enrolling in junior secondary school increased to 8.86 million; the proportion of junior secondary school graduates entering senior secondary schools rose from 40.6 percent to 52.9 percent, an increase of 8.3 percent, with an increase of 6.75 million in primary school graduates (See Table 2).

**Table 2. Status of Compulsory Education in China, 1978-2001**

Year	Junior Secondary School Graduates		Primary School Graduates		Pre-school Children	
	Number (10 thousand)	Proportion Entering Senior Secondary Schools (%)	Number (10 thousand)	Proportion Entering Junior Secondary Schools (%)	Number (10 thousand)	Enrollment Rate (%)
1978	1692.6	40.9	2287.9	87.7	12131.3	95.5
1980	964.7	45.9	2053.3	75.9	12219.6	93.9
1985	998.3	41.7	1999.9	68.4	10362.3	96.0
1986	1057	40.6	2016.1	69.5	10067.5	96.4
1990	1109.1	40.6	1863.1	74.6	9740.7	97.8
1995	1244.3	48.3	1961.5	90.8	12375.4	98.5
1996	1297.8	48.8	1934.1	92.6	12876.5	98.8
2000	1633.5	51.1	2419.2	94.9	12445.3	99.1
2001	1731.5	52.9	2396.9	95.5	10673.5	99.1

Source: National Statistics Bureau, China Statistical Yearbook (2002), China Statistics Press, Beijing.

The development of China's rural compulsory education has dramatically improved the underdeveloped status of rural education and increased the educational opportunities for rural population. According to population census as shown in Table 3, among every 100 thousand population, the number of persons with primary education and junior secondary education increased by 7255 persons from 1982 to 1990, and by 9261 persons from 1990 to 2000. The increase in the number of people with primary education and junior secondary education from 1990 to 2000 was mainly attributed to the development of rural compulsory education. From 1990 to 2000, the number of persons with primary education and junior secondary education among every 100 thousand people increased by 14037 persons, 12074 persons more than the urban areas. The development of rural compulsory education has rapidly cut rural illiteracy rates and narrowed the educational gap between urban and rural areas, which contributed to the fairness of education. From 1982 to 2000, the illiteracy rates of rural population aged 15 and above dropped from 37.74 percent to 11.55 percent, a decrease of 25 percent, two times the decline in urban areas.

**Table 3. Numbers of Population with Various Education Attainment Per 100 Thousand and Illiteracy Rates, 1982-2000**

	National			Urban Areas			Rural Areas		
	1982	1990	2000	1982	1990	2000	1982	1990	2000
<b>Number of Population Per 100 Thousand</b>									
Primary School	35396	37057	35701		26582	23546		40926	42558
Junior Secondary school	17750	23344	33961		30344	35342		20797	33202
Senior Secondary/Secondary Technical School	6627	8039	11146		18077	21083		4357	5302
Junior College and Above	601	1422	3611		4859	8769		164	484

#### **Illiteracy Rate among Population Aged 15 and above**

(%)	33.14	22.21	9.08	17.63	11.97	5.22	37.74	26.23	11.55
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Source: National Statistics Bureau, Population Census in 1982 (1986), Population Census in 1990 (1993), Population Census in 2000 (2002), China Statistics Press, Beijing.

## **II. Major Challenges Facing Rural Compulsory Education**

With rural reform and development, the persistent crises of financing and managing rural compulsory education have exerted negative shocks on its development. Shifting the financial and managerial responsibilities to townships and villages, and subsidizing urban education, worsened rural education in the 1980s. Throughout the entire 1990s, rural compulsory education was always one of the hottest topics at the People's Congress and the Chinese People's Political Consultative Conference each year (Susan Pepper, 2000). The problems are mainly in the following aspects:

### **2.1 Schooling Difficulties and High Dropout Rates**

China's rural compulsory education is not really a free one. With the increase in tuition and miscellaneous expenses, a number of rural families cannot afford to send their children to primary school or junior secondary school. In West China, 522 counties had yet to implement "nine-year compulsory education" by the end of 2001, which means that a significant amount of rural children have difficulties in schooling. Especially in recent years, in order to ease the burden of education inputs on local finances, many rural areas cut back on the number of teachers by merging village primary schools and township junior secondary schools, thereby reducing investments in infrastructure constructions such as school buildings and the payment of teacher's salary, which has to some extent made schools farther away from rural students. In remote mountainous areas, this could have been one of the factors contributing to the dropouts of rural students.

As rural compulsory education expanded, the enrollment rate of preschool children went up, and reached 99.1 percent in 2001, with urban areas about 1 per cent higher than rural areas (See Table 4). Because the base of preschool children is huge, the absolute number of children who should go to school but not reached 1.14 million persons in 2001, including 0.13 million in urban areas and 1.01 million in rural areas. In 2001, the national average dropout rate of primary school students was 0.27 percent, with the western provinces having higher dropout rates than the national average. For an instance, the dropout rate of primary school students in Tibet was almost 3 percent, and that of Qinghai, Guizhou and Gansu higher than 1 percent.

**Table 4. Comparison of Enrollment Rate of Preschool Age Children, 1994-2000**

	Numbers of Preschool children (10 Thousand Persons)		Enrollment Rates (%)	
	1994	2001	1994	2001
National	11949.6	10673.5	98.4	99.1
Urban Areas	3474.7	3370.5	98.9	99.6
Rural Areas	8474.9	7303.0	97.7	98.8

Sources: The Department of Development and Planning, Ministry of Education, China Education Statistical Yearbooks (1994, 2001), People Education Press, Beijing.

Compared with primary school students, the dropout rate of junior secondary school students is much higher. Since 1995, the national dropout rate of junior secondary school students has always been above 3 percent. In 2001, the dropout rate was 3.12 percent, totaling 2 million in person. Most of them are located in Central and West China, especially the rural areas. For example, the dropout rates in Tibet, Anhui, Guangxi, and Gansu are more than 3 percent.

## 2.2 Low Education Quality

Low quality of rural compulsory education is also one of the reasons contributing to the dropouts of rural primary school and junior secondary school students. Jiang Zhongyi and Fen He (2002) categorized the reasons that caused rural dropouts based on 195 rural household questionnaires. Their findings demonstrated that children's unwillingness to go to school ranks the first and accounts for 48 percent; incapability of paying tuition fees ranks the second and accounts for 32.8 percent; the remaining three reasons are no difference between going to school or not, family needs, and no need for further schooling, accounting for 9.6 percent, 6.6 percent and 2.5 percent, respectively. Both lack of capability to catch up with study progress, and unfavorable family environments and low education quality are the main factors that made students unwilling to go to school. Households rationally made the choice of schooling time for their children. If their kids have good grades and hopefully can make it to high schools, parents would like to have them go to junior secondary schools. Otherwise parents would stop children's study after their graduation from primary schools.

There is a wide gap in teacher's quality between urban and rural areas. Table 5 compares the qualification of full-time teachers responsible for compulsory education between urban and rural areas. In 2001, the proportions of qualified primary school teachers in both urban and rural areas were above 96 percent, with a mere difference of less than 3 percent, but the proportion of primary school teachers having junior college degrees and above in urban areas was much higher than that of rural areas, with a difference of more than 20 percent. Bigger difference exists in the quality of junior secondary school teachers between urban and rural areas. The proportion of qualified junior secondary school teachers in urban areas is above 92 percent, but that of rural areas is below 85 percent, with a difference of 8 percent. The proportion of junior secondary school teachers having university degrees and above in urban areas more than doubled that of rural areas. The quality of rural teachers also differs tremendously from region to region. East China beats Central and West China in all of the indicators such as proportions of qualified primary school and junior secondary school teachers.

**Table 5. Comparison of Full-Time Teachers' Qualification between Urban and Rural Areas, 2001**

	National Average	East Region	Central Region	West Region
Proportion of Qualified Primary School Teachers (%)	96.81	98.25	97.32	94.40
Urban Areas	98.26	98.74	98.27	97.41
Rural Areas	96.04	97.91	96.87	93.10
Proportions of Primary School Teachers with Junior College Degrees and Above	27.40	32.47	27.31	21.18
Urban Areas	40.94	44.38	41.36	34.20
Rural Areas	20.25	24.20	20.67	15.58
Proportion of Qualified Junior Secondary School Teachers (%)	88.81	90.96	88.45	86.03
Urban Areas	92.32	93.34	92.36	90.47
Rural Areas	84.74	87.44	84.71	81.40
Proportions of Junior Secondary School Teachers with University Degrees and Above	16.95	19.85	15.56	13.04
Urban Areas	23.51	26.15	23.39	18.95
Rural Areas	9.35	10.50	10.07	6.88

Sources: The Department of Development and Planning, Ministry of Education, China Education Statistical Yearbook (2001), People Education Press, Beijing.

Lots of schools in central and western regions have to hire substitute teachers to address the shortage of full-time teachers required by daily education, because low salary and poor teaching facilities in those regions cannot attract full-time teachers. According to statistics, 705 thousand substitute teachers were hired in 2001 by primary schools and junior secondary schools nation wide, making up 6.6 percent of the total number of teachers in China. Among them, rural substitute teachers were 580 thousand, making up 9.6 percent of the total number of teachers in rural areas and 82.3 percent of the total number of substitute teachers. The majority of substitute teachers concentrated in central and western regions. For example, the proportions of substitute teachers in primary school teachers were above 20 percent in Guangxi, Tibet and Shaanxi provinces and above 10 percent in Shanxi, Hubei, Guizhou, Yunnan and Gansu provinces.

The student-teacher ratio is another indicator of education quality showing the gap between urban and rural areas. According to the trend as shown in Table 7, from 1996 to 2001, the number of primary school students taught by one teacher has been on the decrease in both urban and rural areas, which helps to improve the quality of primary school education. However, the number of junior secondary school students taught by one teacher has been on the increase, which was perhaps caused by the adjustments and merging of junior secondary schools. The numbers of primary school and junior secondary school students taught by one teacher in rural areas were both greater than those of urban areas. In 2001, each rural primary school teacher taught 3 more students than his urban counterpart and each rural junior secondary school teacher taught 2 more students than his urban counterpart.

**Table 6. Student-teacher Ratios in Urban and Rural Primary and Junior Secondary Schools, 1996-2001**

Year	Primary Schools			Secondary Schools		
	National Average	Urban Areas	Rural Areas	National Average	Urban Areas	Rural Areas
1996	23.7	21.4	24.9	16.6	15.3	18.0
1997	24.2	21.9	25.4	16.8	15.3	18.4
1998	24.0	21.8	22.9	17.0	15.6	18.7
1999	23.1	21.2	24.2	17.6	16.2	19.4
2000	22.2	20.7	23.1	18.4	17.0	20.1
2001	21.6	19.7	22.7	18.7	17.9	19.9

Note: Secondary schools include junior secondary schools and senior secondary schools.

Source: National Statistics Bureau, China Statistics Year Book (1996-2002), China Statistics Press, Beijing.

### 2.3 Unreasonable Input Structure and Insufficient Investments in Compulsory Education

Rural compulsory education plays an important role in China's basic education. Due to the low urbanization level, more than 60 percent of Chinese population still lives in rural areas. In 2001, the

number of rural primary school students accounts for 68.6 percent of the total number of primary school students in the nation; the number of rural junior secondary school students makes up above 48.5 percent of the total number of junior secondary school students in the nation; the number of rural compulsory students accounts for 61.8 percent of the total number of compulsory students in the nation. Rural compulsory education should be the major part of China's education investments.

In recent years, with the expansion of compulsory education and adjustment in the direction of education development, China's education investments and resource allocation have been more and more channeled to higher education and non-compulsory education. Table 4 shows that as the total expenditures in education doubled from 226.2 billion Yuan in 1996 to 426.0 billion Yuan in 2001, its share in GDP went up to 4.83 percent from 3.33 percent at the same time. In terms of the allocation of education resources, the growth of investments in higher education is significantly faster than that in secondary education and primary education. From 1995 to 2001, inputs to higher education increased more than three-folds, while less than two-folds to secondary education and primary education. The different growth caused the composition of investments highly biased towards higher education. From 1996 to 2001, the proportion of higher education in the total expenditures rose from 16.3 percent to 27.7 percent, an increase of about 11.5 percent, whereas the proportions of both secondary education and primary education dropped by 6 percent or so.

**Table 7. Total Education Expenditures and Their Composition, 1996-2001**

	Total Expenditures (100 million Yuan)						Composition (%)					
	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001
Higher Education	368	436	598	765	983	1184	16.3	17.2	20.3	22.8	25.5	27.8
Secondary Education	994	1105	1239	1379	1540	1608	43.9	43.7	42.0	41.2	40.0	37.8
Primary Education	802	878	968	1050	1145	1259	35.4	34.7	32.8	31.3	29.7	29.6
Other Education	98	113	143	156	181	208	4.3	4.4	4.9	4.7	4.7	4.9
Total	2262	2532	2949	3349	3849	4260	100.0	100.0	100.0	100.0	100.0	100.0
Compulsory Education	1277	1388	1429	1546	1695	1857	100.0	100.0	100.0	100.0	100.0	100.0
Rural Areas	734	785	812	862	920	1092	57.5	56.6	56.8	55.8	54.3	58.8
Urban Areas	543	603	617	684	775	765	42.5	43.4	43.2	44.2	45.7	41.2

Note: (1) Higher education refers to regular institutions of higher education and institutions of higher education for adults; secondary education refers to specialized secondary schools, technical schools, regular secondary schools and vocational schools; primary education refers to primary schools, special education schools and kindergartens. (2) The expenditures of compulsory education in this table only cover junior secondary schools and regular primary schools.

Sources: The Department of Finance of the Ministry of Education, The Department of Population, Society, Science and Technology of the National Statistical Bureau, China Educational Finance Statistical Yearbooks (1997-2002), China Statistics Press, Beijing.

The shortage of education investments caused the difficulties to meet the requirements for developing rural compulsory education. In 2001, the total expenditure of compulsory education was 169.5 billion Yuan, of which only 58.8 percent was used in rural compulsory education, whereas the number of rural students covered by compulsory education made up about 62 percent of the total number of students, the mismatch leading to a big disparity in per capita student expenditure between urban and rural areas.

Table 8 compares per capita student expenditures between urban and rural areas. In 1996, per capita expenditures of urban primary school students was 466.4 Yuan, 1.6 times that of rural primary school students. By 2001, per capita expenditures of urban primary school students went up to 971.5 Yuan, 1.7 times that of rural primary school students, leaving a widened gap. The difference in per capita expenditures of junior secondary school students between urban and rural areas is even bigger. In 1996, per capita expenditures of junior secondary school students in urban areas was 1267.1 Yuan, 1.5 times that of rural junior secondary school students. By 2001, per capita expenditures of junior secondary school students rose to 1708.4 Yuan, soaring to 1.93 times that of rural junior secondary school students. The budgetary funds contributed to narrowing the gap of per capita expenditures

between urban and rural students, but inputs from extra-budgetary investments and other sources expanded the gap.

**Table 8. Per Capita Student Expenditures between Urban and Rural Compulsory Education (Yuan), 1996-2001**

	1996				2001			
	National Yuan	Urban Yuan	Rural Yuan	Urban/ Rural= 1	National Yuan	Urban Yuan	Rural Yuan	Urban/Ru ral Rural=1
Per Capita Expenditures in Primary Schools	550.0	466.4	741.9	1.6	971.5	797.6	1351.3	1.7
Per Capita Expenditures in Junior secondary schools	1037.9	863.0	1267.1	1.5	1371.2	1013.7	1708.4	1.7
Within Budget								
Per Capita Expenditures in Primary Schools	310.1	253.5	440.2	1.7	658.4	558.4	877.1	1.6
Per Capita Expenditures in Junior secondary schools	568.5	447.0	727.7	1.6	838.8	666.7	1001.0	1.5

Sources: Sources: The Department of Finance of the Ministry of Education, The Department of Population, Society, Science and Technology of the National Statistical Bureau, China Educational Finance Statistical Yearbooks (1997, 2002), China Statistics Press, Beijing.

Per capita student expenditures differs even more drastically in rural areas. In 2001, Shanghai's per capita expenditures of students in rural primary schools was 3604 Yuan, the highest in the nation, 8.9 times that of Henan province (472 Yuan), the lowest in the nation. Shanghai's per capita expenditures of students in rural junior secondary schools was 4047 Yuan, the highest in the nation, 6.7 times that of Guizhou (604 Yuan), the lowest in the nation. Because of insufficient education investments and debts accumulated in the course of meeting education goals, many regions have encountered problems in the construction of rural schoolhouses and payment for teachers' salaries.

### III. Impacts of Fiscal Decentralization Reform on Rural Compulsory Education

The progress made by China's rural compulsory education was a result of economic growth and economic reform. Education reform and fiscal decentralization reform created institutional environments, and the growth of farmers' income laid down material bases for the development of rural compulsory education. In the course of economic transition, the mismatches of various reform measures and slow growth of farmers' income also posed challenges to rural compulsory education.

In 1994, China started to implement the fiscal decentralization reform. Its objective is to turn around the situation of low central government revenues in total revenues and its weakened control power caused by the financial contracted system dated back to mid 1980s. Based on the principle of combining administrative rights with financial rights, the fiscal decentralization reform defines the expenditure scopes of finances at various levels according to the divisions of administrative rights between the central government and local governments, adopts two sets of taxation systems to collect central and local taxes, establish budget system at various levels, and sets up tax-return and expenditure transfer systems between the central government and local governments to ensure the balance between government's revenues and expenditures at various levels.

The result of fiscal decentralization reform indeed witnessed the rapid growth of central government revenues. From 1993 to 2001, it jumped from 95.8 billion Yuan to 858.3 billion Yuan, a sharp annual growth of 36.8 percent, while local government revenues increased from 339.1 billion Yuan to 780.3 billion Yuan with a moderate annual growth of 12.6 percent. The pattern of financial allocation between the central government and local governments changed fundamentally. The ratio of central

government revenue before fiscal decentralization reform was about one-fifth of the total revenues, but reached half of the total revenues after this reform.

**Table 9. Total Revenue and Ratios of Central and Local Governments, 1978-2001**

Year	Total Revenue (100 Million Yuan)			Ratio (%)	
	Total	Central Government	Local Government	Central Government	Local Government
1978	1132	176	956	15.5	84.5
1980	1160	284	875	24.5	75.5
1985	2005	770	1235	38.4	61.6
1986	2122	778	1344	36.7	63.3
1990	2937	992	1945	33.8	66.2
1993	4349	958	3391	22.0	78.0
1994	5218	2907	2312	55.7	44.3
1995	6242	3257	2986	52.2	47.8
1998	9876	4892	4984	49.5	50.5
1999	11444	5849	5595	51.1	48.9
2000	13395	6889	6506	52.2	47.8
2001	16386	8583	7803	52.4	47.6

Source: National Statistics Bureau, China Statistics Year Book ( 1996-2002 ), China Statistics Press, Beijing

Under the new financial framework, the financial relationship between central government, provinces, cities, counties and townships forms an upward concentration of revenues, leaving township the weakest in financial power. In terms of the financial relationship between counties and central government, county government should deliver 75 percent of value-added taxes and 100 percent of consumption taxes to the central government, and the latter subsidizes the former with a certain tax-return and supplements for the increase in salaries. The central government takes most of the increases in local value-added taxes and consumption taxes, which results in the decreasing ratios of the tax increases going to local governments. For example, the delivery of value-added taxes and consumption taxes to the central government in Xiangyang County, Hubei Province, increased 1.5 times from 1994 to 2000, but the amount of tax-return from the central government only increased by 34.2 percent, the net delivery went up from 15.2 million Yuan in 1994 to 49.4 million Yuan in 2000, 2.2 times that in 1994. In terms of the financial relationship between counties, cities and provinces, provincial governments and city governments further takes away revenues from county governments through participating in the sharing of common revenues and local fixed taxes. For Example, among 30 percent of increases in value-added taxed and consumption taxes in Henan province, provincial government shares 15 percent, city government 5 percent, and county government 10 percent. In terms of the financial relationship between counties and townships, tax categories were defined between them, but the concentration of revenues from township governments to county governments caused the financial shortage at township level (Han Jun, 2002).

According to Education Law and Compulsory Education Law, higher education falls into the responsibility of the central and provincial governments and rural compulsory education is the responsibility of county and township governments. Because upper governments have bigger power than lower governments in terms of the allocation of financial resources, township governments are the weakest in financial power. Under the principle of education is funded by government at the same level, local governments allocate far more funds to higher education and urban compulsory education than rural compulsory education.

With the upward concentration of financial resources and urban biased allocation, there is a tendency to transfer the social burdens like education and health to a lower level. Central and provincial governments haven't taken enough responsibilities to develop compulsory education. Investments in rural compulsory education come less from provincial governments, whereas most of them from township revenues and farmers' input. From 1990 to 2000, education expenditures in Xiangyang County, Hubei Province totaled 1366.6 million Yuan, of which government appropriation was 554.6 million Yuan, making up 40.58 percent. Among government appropriation, townships invested 469.2 million Yuan, and accounted for 34.3 percent of total expenditures; county government invested 85.4 million Yuan (6.25 percent), provincial government special appropriation only 1.5 million Yuan (just 0.1 percent). Under the situation of inadequate financial input, rural educational surtax, education funds collected by villages, tuitions and miscellaneous fees collected by primary and junior secondary schools have become the major input channels. The combination of the three accounted for about 40 percent of total education funds (Xie Yang, 2002) and played an important role in ensuring the operation of rural compulsory education, maintaining dangerously dilapidated school buildings and safeguarding basic teaching facilities.

**Table 10. Sources of Education Expenditures in Rural Compulsory Education**

	Xiangyang County, Hubei Province	Taihe County, Jiangxi Province	Yanling County, Henan Province
	1990-2000	2000	2000
Government Budgetary Appropriation at various levels	40.58	58.9	58
Township Government	34.33	13.2	9.2
County Government	6.25	45.7	48.3
Provincial Government or above	0.1		
Rural Educational Surtax	11.6	11.6	17.4
Funds Collected by Villages	20.8		
Tuitions and Miscellaneous Fees Collected by Schools	14.5		12.6
Proportions in Total Education Expenditures	87.48	70.5	88

Source: Xie Yang, 2002. "China's Rural Compulsory Education and Investment System Reform," the Development Research Center of State Council, Research Report.

Education expenditure accounts for approximately 50 percent of total financial expenditures at county level, and 75 percent at township level. Investments in rural compulsory education have become more and more of a burden to township government finance. The majority of township governments have encountered severe deficits and debts. Payment of rural teachers' salaries makes up the majority of rural education expenditures, accounting for 65 percent of the total. Due to the financial difficulties of county and township finance, many places cannot pay salaries to teachers on time or have to lend money or take loans to pay salaries. The proportions of education funds used for improving teaching facilities and maintaining dangerously dilapidated school buildings are very low. As an effort to cut back on education expenditure, many regions merged rural primary and junior secondary schools together in recent years, which may result in the difficulties of schooling for rural children.

With the expansion of rural compulsory education, the responsibilities fall more and more on governments at township and village levels. Input at such a low level has not only deprived the financially weak township governments of the capability to develop rural economy, but also added to the education burden on farmers. The heavier educational expenditure burden once became one of the factors that threaten the stability of rural society.

Since the mid-1980s, the income gap between urban and rural areas has been widened. The real ratio of urban income to rural income went up to 2.12:1 in 2001 from 1.53:1 in 1985. In addition to the

slowdown growth of farmers' income and the widening income gap, farmers' education expenditures have continuously increased, becoming one of major issues of farmers' burden, which is obviously not conducive to the healthy development of rural compulsory education.

With the income growth for urban and rural residents, the expenditure in food and clothes keep decreasing, which means households can afford more in human capital investments, and the expenditures in education, culture and health care keep increasing. In 2001, the proportion of urban households' expenditures in recreation, education and culture ranked the second among all expenditures, accounting for 13 percent of the total. The proportion of rural households' expenditures in recreation, education and culture services ranked the third among all expenditures, accounting for 11.06 percent of the total. From 1985 to 2001, per capita urban households' expenditures in recreation, education and culture services climbed by less than 5 percent, whereas that of rural households climbed by 7 percent. The government education investments and subsidies for urban residents are the major factors contributing to the difference between the proportions of urban and rural education expenditures.

**Table 11. Composition of Per Capita Annual Living Expenditures of Urban and Rural Households (%), 1985-2001**

Year	1985	1990	1995	2000	2001
<b>Urban Residents</b>					
Food	52.25	54.25	49.92	39.18	37.94
Clothing	14.56	13.36	13.55	10.01	10.05
Household Facilities, Articles and Services	8.6	10.14	8.39	8.79	8.27
Medicine and Medicare Services	2.48	2.01	3.11	6.36	6.47
Transport, Post and Communication Services	2.14	1.20	4.83	7.9	8.61
Recreation, Education and Cultural Services	8.17	11.12	8.84	12.56	13.0
Housing	4.79	6.98	7.07	10.01	10.32
Miscellaneous Commodities and Services	7.01	0.94	4.28	5.17	5.35
<b>Rural Residents</b>					
Food	57.79	58.80	58.62	49.13	47.71
Clothing	9.69	7.77	6.85	5.75	5.67
Household Facilities, Articles and Services	18.23	17.34	13.91	15.47	16.03
Medicine and Medicare Services	5.10	5.29	5.23	4.52	4.42
Transport, Post and Communication Services	2.42	3.25	3.24	5.24	5.55
Recreation, Education and Cultural Services	1.76	1.44	2.58	5.58	6.32
Housing	3.89	5.37	7.81	11.18	11.06
Miscellaneous Commodities and Services	1.12	0.74	1.76	3.14	3.24

Source: National Statistics Bureau, China Statistics Year Book ( 2002 ), China Statistics Press, Beijing.

In June 2001, the State Council promulgated Decisions on the Reform of Basic Education and Development, pointing out that county governments assume the most responsibilities for developing rural compulsory education, requiring the management of compulsory education based on each county, pledging the accomplishment of two major shifts: the shifting of education input from farmers to governments, and the shifting of government responsibilities from township governments to county governments, which may contribute to the improvement of the current situation. But just by shifting the responsibilities to county governments cannot fundamentally solve the inadequate input in rural compulsory education. In central and western areas and poverty-stricken areas, many county governments have difficulties in paying salaries, let alone increasing education funds.

#### **IV. Roles of Government in Rural Compulsory Education**

Education is human capital investment, which not only brings about personal gains but also social

benefits. Hossain (1996) showed that primary education has greater social benefits in China. As shown in Table 11, with a private rate of returns to education of 18 percent and a social rate of returns to education of 14.4 percent, primary education brings about the highest return rate. Secondary education has the second highest social return rate, which is 11.3 percent. Higher education lags behind with a social rate of returns to education of 11.3 percent. The cross-country empirical studies also supported the conclusion that primary education has greater social benefits (Psacharopoulos and Patrinos, 2002). Education investments contribute to the realization of fairness and efficiency. Investments in primary education in particular can improve the productivity and income of poverty population, fostering favorable conditions to narrow the gap between urban and rural areas. The nature of education determines that higher education have more feasibility to utilize market resources. Therefore, the policy priority of education investments is primary education and compulsory education, followed by secondary education and higher education. That is not to say, investments to secondary education and higher education are not important. The key issue is to keep a balance between three stage educations (Global Joint Task Force, 2000).

**Table 12. Rates of Return to Education (%)**

Per Capita Income Group	Mean Per Capita US\$	Social Rate of Return			Private Rate of Return		
		Primary	Secondary	Higher	Primary	Secondary	Higher
China	1930	14.4	12.9	11.3	18	13.4	15.2
Higher Income (\$9,266 or more)	22,530	13.4	10.3	9.5	25.6	12.2	12.4
Low Income (\$755 or less)	363	21.3	15.7	11.2	25.8	19.9	26
Middle Income (to \$9,265)	2,996	18.8	12.9	11.3	27.4	18	19.3
World	7,669	18.9	13.1	10.8	26.6	17	19

Note: Per Capita GDP in China is on PPP method in 1993.

Sources: Shaikh I. Hossain, 1996. "Making an Equitable and Efficient Education: The Chinese Experience," *China: Social Sector Expenditure Review*, World Bank. George Psacharopoulos and Harry Anthony Patrinos, 2002. "Returns to Investment in Education: A Further Update," *World Bank Policy Research Working Paper 2881*, September 2002.

International experiences show that at the beginning of implementing compulsory education at the end of 19<sup>th</sup> century, developed countries such as the United States, France, Germany and Japan once assigned the responsibilities of compulsory education to lower level of local governments, which imposed a heavy burden to local governments, even impoverished local governments for a long time and so hindered the popularization of compulsory education. Later on, these countries adjusted the internal mechanism of public investments by putting more responsibilities to central government and higher level of local governments so as to ensure the actual needs and balanced development of compulsory education and create equal opportunities for each child of school age to receive compulsory education, through the redistribution of governmental public resources.

Public funds allocated by the government in developed countries usually accounted for 85 to 90 percent of the total investments in compulsory education, which reflects the principle that compulsory education should be run by the government. In terms of funding, three basic models of making public investments in compulsory education are adopted by developed countries (as shown in Table 13): Centralized model where education input comes mainly from central government or federation, such as France, New Zealand and Portugal; relatively centralized model where education input comes mainly from central government and states or provinces, such as US, Germany, Japan, Canada and Australia; decentralized model where education input comes from cities and townships, counties, school districts and local governments, such as UK and Denmark. The construction of schoolhouses and payment for teachers' salaries are included in central government's budget, or the budget of state or provinces, or shared by budgets at various levels, to ensure inputs in compulsory education.

**Table 13. Composition of Public Funding of Primary and Secondary Education in Developed Countries (%), 1993**

	Before Financial Transfer			After Financial Transfer		
	Central/Federal Governments	Provincial/State Governments	City/County/School District	Central/Federal Governments	Provincial/State Governments	City/County/School District
United States	7.9	47.7	44.3	0.8	0.9	98.3
Canada	3.5	63.9	32.6	2.5	7.7	89.8
Germany	3.5	76.9	19.6	2.8	72.9	24.2
Japan	24.1	75.9				
Australia	25	75.1		5.6	94.5	
England	7.5		92.5	4.4		95.6
Denmark	31.6	11.3	57.1	34.8	11.3	53.9
France	75.7	11.3	13	74.4	12.7	13
New Zealand	100			100		
Portugal	100			100		

Source: Gao Rufeng, 2001. "International Comparison and Policy Recommendations of Compulsory Education," *Education Research*, No.5.

Based on the international experiences, China could choose the relatively centralized model to finance education funds, and deepen reforms and develop rural economy to promote the cause of rural compulsory education.

**---Enhance the reform of financial system and strengthen legal construction to ensure investments in rural compulsory education.** Adjust the structure of education expenditures for primary education, secondary education and higher education, and implement the priority policy of investing in compulsory education. Rural primary and secondary school teachers' salaries should be shared by the central government, provincial governments, city governments and country governments, and managed by county governments, to reduce the burden on township finance. Increase inter-regional expenditure transfer and provide totally free compulsory education for impoverished areas. Strengthen the legislation of education investments like drafting and announcing education investment law, to enable the growth of education expenditures by means of legal tools and increase the ratio of government expenditures in compulsory education from current 60 percent to 90 percent. Along with rural tax reform, set up a certain ratio of tax revenues for education.

**---Deepen education reform and improve the quality and effectiveness of rural compulsory education.** Reform personal system and teachers' salary system through constructing teachers' contracting system and teaching quality monitoring mechanism. Construct the assessment system of the performance of education inputs, and take the outcome as the important reference to appoint or remove principals and cadres at education management sectors. Take effective measures to stimulate teachers to go to work at poverty-stricken regions, to overcome the shortage of full-time quantified teachers in those regions.

**---Promote rural reform and rural economic development and increase rural income.** Increase investments in rural infrastructure, speed up the reforms of rural land, finance, tax systems, and enhance the urbanization level to increase rural household income and their affordability to education expenditures.

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