BETWEEN LOCAL COMMUNITY AND CENTRAL STATE: FINANCING BASIC EDUCATION IN CHINA

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EAI Working Paper No. 148

ISSN 0219-1318
ISBN 978-981-08-2884-4

Date of Publication: 27 March 2009

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1. Introduction

In the late 1970s, basic education was largely funded by the central government of the majority of developing countries (Cummings and Riddell, 1994). Since then decentralization of financial responsibility, control and delivery has taken place to varying extents in many African, Asian and Latin American countries (Cuéllar-Marchelli 2001; de Guzman, 2007; Kristiansen and Pratikno, 2006; Prawda, 1993; Rondinelli, Nellis and Cheema, 1984; Therkildsen 2000).

The rationales, processes and consequences of decentralization have been extensively debated (McGinn, 1992; Lauglo, 1995). There were competing accounts of why decentralization has become an attractive alternative to central financing and control. Some argument emphasizes the extreme financial constraints as what compelled the central government to shift part of the financial burden to lower level governments and non-state sectors, while some others stress the merits of decentralization such as efficiency, quality, choice, and participation (Prawda, 1993).

Despite disagreements on the definition and interpretation of the key aspects of decentralization, a common starting point is that decentralization involves a shift of power and responsibility from central government to local governments, local communities, and the private sector. Much emphasis has been put on institutional changes that allow for a larger role of parents, schools, communities, civil society organizations, and local governments in financing and managing basic education. While this approach can offer valuable insights into the implementation of decentralization, in many cases it downplays or overlooks the role central government is playing in decentralization, and more importantly, the power of central government in reshaping the educational system in ways at odds with decentralization.

This article uses China as a case to highlight decentralization as a process embedded in the larger political structure, without claiming that the Chinese case can apply to other political and institutional settings. Since the early 1980s, China has been an integral part of the worldwide shift towards economic decentralization. Due to its tremendous scale, China underwent perhaps "the world's largest and most comprehensive experiment of decentralization in education." (Cheng, 1994, p.799). In the case of basic education, the lowest levels of government—villages and townships—shouldered much of the financial and managerial responsibility. What is intriguing about China is that since the mid-1990s, particularly the early 2000s, the central government has begun to move away from such an excessive decentralization, not back to the traditional pattern of central control and financing, but towards some

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limited form of recentralization that makes governments at the county, the provincial and the central level play a larger role in funding basic education.

China's shift from decentralization to some degree of recentralization helps shed light on the debates about the rationales, processes and consequences of decentralization. It shows that the central government remains in the driver's seat even while undergoing the most comprehensive experiment on decentralization. Instead of being constrained and weakened by decentralization, the central government is the driving force controlling the pace and direction of decentralization and shaping the institutional parameters for the implementation of decentralization. The shift from decentralization to recentralization is not the result of a redistribution of power in favor of the central government, but the result of the central decision to establish a more stable and sustained financing mechanism for rural education. The central government has its own agenda for national development, which prevails over and shapes the educational reform, whether in the form of decentralization or recentralization. This article will describe in detail China's shift from decentralization to some degree of recentralization in basic education and the rationale behind this shift. In addition, it will assess whether the shift produces the outcome expected by the central government—more equal distribution of educational resources between rural and urban areas and between the more developed coastal provinces and the underdeveloped inland provinces.

2. Decentralized Educational Financing

China's decentralization in education, which began in the early 1980s, was part of the larger economic and financial reform (World Bank, 1988, 1989). Prior to the reform, the central government acted as the sole agent in collecting revenues and allocating resources. The reform fundamentally changed the central-local relationship by devolving financial responsibilities from the central government to the provincial governments, in the form of fiscal contracts. In return, the provincial governments were granted the right to retain most of the revenues. The provincial governments followed a similar pattern and the same process was replicated down the administrative hierarchy at sub-provincial levels that include prefectures, counties, townships and villages.

Decentralization has profoundly changed the structure of education administration and financing. In the case of basic education, China largely operated a 6-3-3 system of primary and secondary schools with some variations. As a result of the reform, villages were primarily responsible for financing primary schools, township governments for junior secondary schools and county governments for senior secondary schools. As state appropriation was only responsible for paying teachers on the government payroll, other expenditures had to be covered by a variety of locally generated incomes (Cheng, 1994).

According to Chinese official statistics, the sources of educational fund fall into one of two broad categories: government and non-government sources. Non-government sources include social donations and user-fees. Government sources can be divided into budgetary and non-budgetary sources. The budgetary source is essentially state appropriation. Non-budgetary sources include mainly *educational surcharges*, but they also include the spending of state-owned enterprises on

enterprise-operated schools, and tax break and reduction given to school-operated enterprises.[1]

Educational surcharges make up the overwhelming bulk of government non-budgetary sources. There are three types of educational surcharges. The first is urban educational surcharges (*chengshi jiaoyu fujiafei*), levied at product, business and value-added taxes. The rate was initially 1 percent in 1986, but increased to 2 percent in 1990 and 3 percent in 1992. The second is rural educational surcharges (*nongcun jiaoyu shiye fujiafei*), levied at farming households, and township and village enterprises. The third one—local educational surcharges (*difang jiaoyu fujiafei*)—was collected from 1995 by some local governments from luxurious activities such as tourism and restaurants. It is a trivial source relative to the first two (Zhang, 1999).

Although educational surcharges are collected by local governments and are therefore classified by official statistics as government non-budgetary expenditures, they are essentially local community generated resources. For this reason, some researchers see them as non-state contributions in the same category as donations, school-generated incomes, and user-fees (Cheng, 1994). In poor areas it is often the case in the 1990s that farming households, through educational surcharges and other contributions, supported the operation of local schools. In some cases, local governments were so financially dependent on farming households for funding basic education that they overcharged educational surcharges and tuition fees, which became a significant source of "peasant burden" and social grievances.

China began to publish systematic data on educational financing from 1997. Based on the China Educational Finance Statistical Yearbook, I calculated the share of different sources for primary education from 1997 to 2005. Table 1 shows that in 1997, government budget made up about half of total spending, non-budgetary government expenditure contributed nearly a quarter, followed by tuition fees and social donations, each of which contributed nearly 10%. It appears that government sources accounted for about three quarters of total spending on primary education in 1997. However, China's definition of government expenditure is broader than the international practice with the inclusion of educational surcharges as part of government expenditures, which conceals the large role played by local communities in funding primary education (Zhang, 1999).

China's shift towards decentralization has global parallels. For developing countries facing severe financial constraints in the expansion of educational opportunities, decentralizing financial responsibilities and diversifying financial resources have become an attractive policy alternative. However, China differs from many other developing countries in two important aspects. First, China drastically overhauled its tax system in favor of the central government in 1994. The new system reversed the declining ratio of central to local government revenues (Herschler, 1995; Wang, 1997). In the new fiscal structure, the rationale for still leaving the financial responsibility to local governments and communities became less tenable.

[1] There were large variations across provinces/localities in terms of the funding pattern. For instance, donations were much more important in Guangdong than in other provinces. The importance of educational surcharges also varied considerably across provinces. See Cheng (1994, p.802).

Table 1 Different Sources as a % of Total Spending on China's Primary Education: 1997-2005

Year	Government Sources		Non-Government Sources			Other sources
	Budgetary	Non-budgetary	Non-public school	Social donation	Tuition fees	
1997	53.4	23.0	1.4	9.4	9.2	3.7
1998	55.6	20.6	1.6	6.4	9.6	6.3
1999	59.1	18.5	1.7	4.4	9.3	7.0
2000	62.1	16.4	1.9	3.4	9.2	7.0
2001	67.2	13.2	2.0	2.8	8.4	6.5
2002	72.3	8.1	2.2	2.3	8.0	7.2
2003	73.5	7.1	2.7	1.6	8.2	7.0
2004	74.9	6.7	2.5	1.4	8.0	6.4
2005	76.0	6.2	2.7	1.3	7.5	6.3

Source: Author's calculation based on *China Educational Finance Statistics Yearbook 1998-2006*.

Second, as a large and diverse country, China's unprecedented economic growth has been accompanied by a sharp increase in regional disparities. Although decentralization has been effective in mobilizing resources from diversified sources for basic education, it has nonetheless made equity an increasingly salient issue. Over time decentralized educational financing has increased the spending gap between urban and rural areas, and between the more developed coastal region and the rest of the country (Heckman, 2005; Tsang and Ding, 2005). Local governments in poor areas have a much narrower revenue base than their counterparts in the urban areas and the coastal region (Adams and Hannum, 2005). In the case of educational surcharges, rural township governments collect much lower rates from a much smaller base—1.5-2 percent of the net income of farmers—as opposed to 3 percent of product, business and value added taxes in the urban areas. Moreover, collecting educational surcharges is often difficult, either because of lack of incentives to collect on the part of local tax bureaus, or because of resistance from poor farmers. A National People's Congress report estimated that in 1998, urban governments were able to collect only 60 percent of what should be collected, whereas rural governments could collect up to 50 percent, but it could be as low as 20 percent in some poor counties (Peng, 2000).

3. A Bigger Role for the Central Government

The central government set a goal in the early 1990s to basically achieve nine-year compulsory education nationwide by 2000.[2] Policymakers were aware that China's educational development was uneven and therefore the plan for different regions should be different. The 1993 *Guideline for China's Educational Reform and Development* divided China into three regions. The first region, also known as the eastern region, was home to 31 percent of the national population in 1995, and was economically and educationally more developed than the rest of the country. The

[2] The goal was to achieve universal compulsory education in the eastern region and the central region, which are home to 85% of the national population. Nationwide the enrolment rate should reach 99% for primary education and 85% for junior secondary education.

three centrally administered municipalities—Beijing, Tianjin and Shanghai—had already universalized nine-year education by 1994; other provinces were expected to do so by 1997. The second region, or the central region, was home to 53 percent of the national population. Primary education had been universalized, and by 2000 junior secondary education was expected to become universal. The third region, or the western region, was economically least developed and home to many minority ethnic groups. The 1993 Guideline expected that poor areas in the region should universalize five- or six-year primary education by 2000 while the extremely poor areas should universalize three- or four-year primary education (China Education Yearbook 1996, p.133).

Given the problem of decentralized financing and the negative effect of the 1994 tax reform on local fiscal capacity, central policymakers realized that poor areas needed financial help from the central government if China were to universalize nine-year compulsory education by 2000. In 1995 the central government initiated the "Compulsory Education Project in Poor Areas" to increase expenditures on compulsory education in poor areas. This five-year project focused on the central region in the 1995-1997 period, and shifted to the western region in the 1998-2000 period. It was described as the largest project in the history of the People's Republic of China with a total investment of 12.5 billion *yuan*, 3.9 billion of which came from the central government, 5.9 billion from provincial and sub-provincial governments, and the rest from non-government sources.[3]

China announced in 2000 that the goal of universalizing nine-year compulsory education was basically achieved. Nonetheless the central government saw a need to consolidate its implementation in poor areas. It set a new target in 2001 to increase enrolment rate to 90 percent for junior secondary education and 60 percent for senior secondary education in the next five years. For poor areas, which accounted for 15 percent of the national population and had yet to universalize the nine-year education, their priority was to universalize primary education and actively promote junior secondary education. For this purpose, the Ministry of Education and the Ministry of Finance initiated the second "Compulsory Education Project in Poor Areas" in December 2000. All the 522 county-level jurisdictions that fell short of universalizing the nine-year compulsory education by 2000 were to benefit from this project. Most of them—up to 90 percent—were located in the western region. The central government provided 5 billion *yuan* for the project, and required provinces in the central region to match the central fund at the ratio of 1:1, and provinces in the western region to match at the ratio of 0.5:1 or even lower.[4]

The central government also initiated a number of projects to renovate dilapidated school buildings in rural areas, to build rural boarding schools in the western region, and to exempt students from tuition fees and textbook fees and provide accommodation subsidies for needy students. The general pattern shows that the contribution from the central government has increased over time as a share of total spending, and most of the increased financial transfer from the central government went to poor areas in the central and western regions.

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[3] China Education Yearbook 2001, p.272.

[4] China Education Yearbook 2002, p.327.

The issue, of course, is how large the central transfer is relative to total spending on compulsory education. No systematic data is available to disaggregate government expenditures on primary and junior secondary education by different levels of government. The best guess is that until recently the central transfer has been small in relative terms. The situation is likely to change remarkably after 2005 as the central government tripled the spending on all levels of education from about 50 billion *yuan* in 2006 to over 150 billion in 2008. It is not entirely clear, however, how much has been allocated to compulsory education.

4. Shifting Financial Responsibility from Township to County Governments

In addition to fixed-term projects, China began to shift the responsibility of financing compulsory education from township to county governments in 2001. This education-finance reform gave county governments greater responsibility in managing local educational development, allocating educational resources, and appointing school principals. In the new structure, county governments are responsible for financing schools within their jurisdiction, at or above the level set by the provincial governments in accordance with the national guideline. In case county governments fall below the specified level, the central and provincial governments are required to increase financial transfer to make up the shortfall. In particular, the provincial governments are responsible for making up any shortfall in paying school teachers.[5]

The shift was part of a larger reorganization of the local government, whereby the county became the primary unit of the local government and the role of prefecture—between the county and the province—was diminished. It was also related to the financial reform that sought to reduce surcharges on farming households, which became a major financial source for social services provided by local governments in poor areas (Bernstein and Lu, 2003). As protests against these excessive "peasant burdens" throughout the countryside were perceived as a political threat, the central government decided to reduce surcharges on farming households to the point that agricultural tax and educational surcharges were abolished altogether in 2006. In connection to this reform, the central government increased financial transfer to make up for the loss of educational surcharges, and made county governments financially responsible for schools within their jurisdiction.

Official documents emphasize the 2001 reform as a profound institutional change for rural education. Prior to this reform, teachers not on the government payroll were primarily paid out of educational surcharges, the recurrent non-personnel expenditures mainly came from fees paid by student families, and capital investment—mainly construction and renovation of school buildings—largely relied on funds raised from farming households.[6] The 2001 reform shifted a large part of the financial responsibility from farmers to county governments, from educational surcharges to public finance (Chen, 2006).[7] While the funding arrangements and

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[5] See "Guowuyuan guanyu jichu jiaoyu gaige yu fazhan de jueding" [The decision of the State Council regarding the reform and development of basic education], issued on May 29, 2001.

[6] The government may provide a small subsidy to attract donations from local population.

[7] It should be noted that the reform has substantially increased the financial burden of county governments. For instance, teachers not on the government payroll—*minban* teachers and *daike*

responsibilities between different levels of government are likely to vary widely across the country, nationwide there was a clear shift from educational surcharges and non-government resources to government budgets in funding basic education. As Table 1 shows, between 1997 and 2005, the share of government non-budgetary sources—made up primarily by educational surcharges—in total spending on primary education declined 17 percentage points from 23 percent to about 6 percent. Another source—social donation—is also primarily derived from local communities through persuasive or coercive measures by local governments on enterprises, organizations and individuals within their jurisdiction. Its share declined eight percentage points from 1997 to 2005.

In 2006 China decided to move a step further by establishing an expense guarantee system for rural education. For the first time the financial responsibility between the central and lower levels of government is specified, which varies across the three regions and also depends on the category of expense. For personnel expenditures, which make up a larger share of total spending, the responsibility falls on provincial and sub-provincial governments; for capital spending such as the renovation of school buildings, the central government shares the cost equally with lower levels of government in the central and western regions, but leaves it entirely to local governments in the eastern region. In providing free textbooks to poor students, the central government covers all the cost in the central and western regions without extending help to the eastern region (Chen, 2006).

In a nutshell, the central government has profoundly reshaped basic education since the mid 1990s. There has been a decisive shift from decentralization towards some kind of partnership between different levels of government. County governments have replaced township governments in the funding and managing of basic education. Meanwhile the central and provincial governments have a larger role to play, particularly in poor areas where county governments fail to spend at a level specified in the national guidelines issued by the provincial governments.

5. Analysis of Temporal Changes in the Rural-Urban Gap

Past studies have linked fiscal decentralization to growing disparities in educational attainment and health status along the rural/urban and inland/coastal dimensions (UNDP, 2000; West and Wong, 1995; Zhang and Kanbur, 2005). Research on financial inequality in education has also documented the same pattern in the 1990s. One of the most rigorous studies, based on county-level data, found a large degree of inequality in spending on primary and junior secondary education nationwide in 1999 (Tsang and Ding, 2005). The same study also found that the spending gap increased between urban and rural areas, and between the coastal region and the rest of the country between 1997 and 1999.

It remains to be seen, however, whether the pattern continues in the new millennium. There is good reason to believe that this trend may have been reversed, although to a still unknown extent. The 2001 reform introduced some degree of recentralization where the central government has shown more commitment to

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teachers—used to be paid out of educational surcharges. However, since 2005, many counties have been paying them out of non-education budgets in order to avoid the problem of late or non-payment of salaries to rural teachers. See Robinson and Yi (2008).

funding compulsory education in the central and western regions. Replacing educational surcharges and tuition fees with government budgets/subsidies ensures school funding because some local families had been unable to pay educational surcharges and/or tuition fees previously. Meanwhile the increasing transfer of funds from the central government to poor areas can help reduce the rural-urban gap and the regional disparities. Therefore one possible outcome is that schools in poor, rural areas have a higher level of funding on a more regular basis than before.

To examine temporal changes in the rural-urban gap, I use official data from China Educational Finance Statistical Yearbook (CEFSY thereafter). It was first published in 1997, and was updated every year. CEFSY reports per student spending by level of education for every province. For primary and junior secondary education, CEFSY reports the spending data of the rural sector for each of the 31 provinces. Although county-level data may be more desirable, this paper uses the provincial-level data for two reasons.[8] First, the provincial-level data are readily available, and serve the analytical purpose of this paper reasonably well. Second, so far there is no county-level data for analyzing the temporal pattern beyond 2000. For the per student spending data, CEFSY reports the amount of total spending and government budgetary expenditure. The discrepancy between total spending and government budgetary expenditure reflects the contribution of tuition fees as well as local communities in the form of educational surcharges and social donations. Both total spending and government budgetary expenditure are analyzed in this paper.

A number of statistics are available to measure the extent of inequality in income, consumption or educational expenditures, but the Theil index has an additional advantage of allowing for breaking down the inequality into two groups: between groups and within groups, a feature that fits well with my research purpose. The Theil index is a special case of the Generalized Entropy (GE) index and takes the form of:

$$T = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{x_i}{\overline{x}} \cdot \ln\frac{x_i}{\overline{x}}\right)$$

where N is the number of units (provinces in this study), x_i is per student spending of the i^{th} unit, and $\overline{x}$ is the mean spending of all units. The index gives equal weights across the distribution, and its value ranges from zero to infinity with higher values indicating higher levels of inequality. If the population can be disaggregated into subgroups, the Theil index can be further divided into within-group inequality and between-group inequality:

$$T = \sum_{k=1}^{m} s_k T_k + \sum_{k=1}^{m} s_k \ln\frac{\overline{x}_k}{\overline{x}}.$$

where s_k is the spending share of the group k, T_k is the Theil index for the k^{th} group, and $\overline{x}_k$ is the mean spending of that group.

[8] Tsang and Ding (2005) show that there are considerable inequalities between counties, which are concealed in the provincial-level data.

The Theil index for per student spending on primary education weighted by provincial student numbers is presented in Table 3. Results show that the between group inequality—the rural-urban gap—is a small component of total inequality, compared with the within-group inequality, both for total spending and for government budgetary expenditure.

Table 2 Rural-Urban Inequality in Per Student Spending on Primary Education: 1997-2005

Year	Per student total spending			Per student budgetary expenditure		
	Theil	Within-group inequality	Between-group inequality	Theil	Within-group inequality	Between-group inequality
1997	0.096	0.068	0.028	0.137	0.099	0.038
1998	0.102	0.070	0.032	0.134	0.097	0.036
1999	0.112	0.077	0.035	0.127	0.094	0.033
2000	0.117	0.081	0.036	0.121	0.091	0.030
2001	0.117	0.078	0.039	0.112	0.082	0.030
2002	0.114	0.080	0.035	0.096	0.075	0.022
2003	0.126	0.088	0.038	0.105	0.082	0.022
2004	0.121	0.091	0.030	0.100	0.083	0.019
2005	0.109	0.083	0.025	0.073	0.062	0.010

Data source: *China Educational Finance Statistical Yearbook*: 1998-2006.

The central question, of course, is whether the rural-urban gap has declined over time. For government budgetary expenditure, the trend is very clear: the rural-urban gap has been on the decline since 1997. While this finding is not surprising given policy changes since 1995, it is nonetheless surprising to see how rapid the rural-urban gap has declined. From 1997 to 2005, the gap became 74 percent smaller. Partly because of the declining rural-urban gap, the total inequality in the distribution of government budgetary expenditure declined substantially over time, about 47 percent from 1997 to 2005. The declining rural-urban gap accounts for 44 percent of the change, while inequalities within rural and urban areas account for the rest.

Another key question is whether the declining rural-urban gap in budgetary expenditure has led to a decline in the rural-urban gap in total spending. In the 1990s, the distribution of budgetary expenditure and total spending moved in opposite directions. The rural-urban gap in budgetary expenditure was on the decline, but the rural-urban gap in total spending was on the rise. The diverging trend was reversed after 2001. The rural-urban gap in total spending began to decline, suggesting that policy changes since 2001 were more effective in reducing the spending gap between rural and urban areas. The overall pattern is clear: The rural-urban gap in budgetary expenditure declined earlier and to a larger extent than the rural-urban gap in total spending, suggesting that policy changes in the last decade have played an equalizing role in the distribution of financial inputs between rural and urban areas.

Another important finding is that the year of 2005 witnessed a remarkable reduction of inequalities in spending on primary education. For both per student budgetary expenditure and total spending, the distribution was much more equal within rural and urban areas, and between rural and urban areas.

Table 3 presents the results for junior secondary education. As in primary education, the rural-urban gap is a small component of the overall inequality in either total spending or budgetary expenditure. Similarly, the rural-urban gap in per student budgetary expenditure declined more quickly and to a larger extent than that in per student total spending, also suggesting that government policies helped reduce the rural-urban gap. However, unlike in primary education where the decline began in as early as 1997, the decline in the rural-urban gap in budgetary expenditure did not start until 2001 for junior secondary education. Again, the year of 2005 is remarkable in the country's reduction of inequality in spending on junior secondary education.

Table 3 Rural-Urban Inequality in Per Student Spending on Junior Secondary Education: 1997-2005

Year	Per student total spending			Per student budgetary expenditure		
	Theil	Within-group inequality	Between-group inequality	Theil	Within-group inequality	Between-group inequality
1997	0.071	0.049	0.022	0.106	0.074	0.032
1998	0.084	0.053	0.031	0.106	0.071	0.035
1999	0.104	0.065	0.038	0.103	0.071	0.032
2000	0.119	0.072	0.047	0.111	0.076	0.035
2001	0.114	0.081	0.033	0.099	0.078	0.021
2002	0.118	0.086	0.032	0.092	0.076	0.016
2003	0.139	0.102	0.037	0.110	0.092	0.018
2004	0.143	0.108	0.035	0.115	0.098	0.018
2005	0.129	0.103	0.026	0.110	0.098	0.013

Data source: *China Educational Finance Statistical Yearbook*: 1998-2006.

One question of intense interest is whether junior secondary education followed the same trend as primary education. As primary education enrolment had reached 99 percent nationwide by 2000, it seems reasonable to expect the government to put more emphasis on junior secondary education when it sought to consolidate compulsory education in the early 2000s. If this is the case, the inequality in budgetary expenditure should decline to a larger extent for junior secondary education than for primary education in the new millennium. However, for per student budgetary expenditure, both components of total inequality—the rural-urban gap and the inequality between rural and urban areas—declined more rapidly for primary education than for junior secondary education, suggesting that the priority of the government was still on primary education in the early 2000s.

6. Analysis of Temporal Changes in Regional Disparities

China's policy changes since the mid-1990s clearly have a regional dimension.[9] The financial transfer from the central government mainly went to the economically least developed western region. Poor areas in the central region also received financial help. Meanwhile, provinces in the more developed eastern region relied on their own resources to fund compulsory education.

To assess the distributional effect of such policy changes, Table 4 presents the Theil Index for primary education. The temporal pattern of the regional disparity resembles that of the rural-urban gap in many ways. First, the between group inequality—the regional disparity—is a small component of total inequality relative to the within group inequality. Second, the regional disparity in per student budgetary expenditure declined more rapidly in the early 2000s than in the late 1990s. From 1997 to 2005, the regional disparity in per student budgetary expenditure declined 41 percent. Third, the year of 2005 was also a milestone in the reduction of regional disparities in both budgetary expenditure and total spending.

Table 4 Regional Inequalities in Per Student Spending on Primary Education: 1997-2005

Year	Per student total spending			Per student budgetary expenditure		
	Theil	Within-group inequality	Between-group inequality	Theil	Within-group inequality	Between-group inequality
1997	0.081	0.048	0.033	0.115	0.076	0.039
1998	0.084	0.047	0.037	0.112	0.071	0.041
1999	0.093	0.048	0.045	0.108	0.070	0.038
2000	0.099	0.050	0.049	0.104	0.068	0.036
2001	0.099	0.052	0.046	0.095	0.063	0.032
2002	0.099	0.053	0.046	0.086	0.058	0.028
2003	0.111	0.057	0.054	0.096	0.060	0.036
2004	0.109	0.059	0.050	0.093	0.059	0.034
2005	0.099	0.057	0.042	0.066	0.043	0.023

Data source: *China Educational Finance Statistical Yearbook*: 1998-2006.

However, the regional disparity also differs from the rural-urban gap in important ways. First, the regional disparity is a considerably larger component of the total inequality than the rural-urban gap. Second, the regional disparity declined more slowly than the rural-urban gap. From 1997 to 2005, the regional disparity declined 41 percent, compared to 74 percent for the rural-urban gap. Third, except for 2005, the regional disparity in total spending has been on the rise since 1997, whereas the

[9] China's 31 provincial-level units are economically and educationally grouped into three regions. The eastern region includes Beijing, Tianjin, Shanghai, Jilin, Liaoning, Jiangsu, Zhejiang, Shandong and Guangdong; the central region includes Hebei, Shanxi, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, Hunan, Hainan, Chongqing, Sichuan and Shaanxi; and the western region includes Inner Mongolia, Guangxi, Guizhou, Yunnan, Tibet, Gansu, Qinghai, Ningxia and Xinjiang.

rural-urban gap has been declining after 2001, suggesting that policy changes in the last decade have been more effective in addressing the rural-urban gap than the regional disparities.

Table 5 presents the results for junior secondary education. As in primary education, the regional disparity is also a small component of total inequality. It was also true that the regional disparity was larger in budgetary expenditure than total spending in the late 1990s, but was smaller since the turn of the century. The year of 2005 is remarkable as well for the reduction of regional disparities in junior secondary education.

Table 5 Regional Inequalities in Per Student Spending on Junior Secondary Education: 1997-2005

Year	Per student total spending			Per student budgetary expenditure		
	Theil	Within-group inequality	Between-group inequality	Theil	Within-group inequality	Between-group inequality
1997	0.058	0.039	0.019	0.089	0.064	0.025
1998	0.066	0.039	0.026	0.086	0.054	0.031
1999	0.082	0.043	0.038	0.086	0.053	0.033
2000	0.093	0.047	0.046	0.091	0.053	0.039
2001	0.092	0.048	0.044	0.086	0.053	0.033
2002	0.099	0.051	0.048	0.083	0.049	0.035
2003	0.119	0.056	0.063	0.104	0.056	0.048
2004	0.127	0.060	0.067	0.111	0.060	0.052
2005	0.119	0.056	0.062	0.108	0.060	0.048

Data source: *China Educational Finance Statistical Yearbook*: 1998-2006.

However, the most surprising finding is that the regional disparity in either budgetary expenditure or total spending has been increasing rather than decreasing since 1997 for junior secondary education. This pattern is in sharp contrast to the declining rural-urban gap, and diverges from the declining regional disparity in budgetary expenditure for primary education. The regional disparity in budgetary expenditure more than doubled from 1995 to 2004. Its share in total inequality increased from 28 percent to 47 percent. The turning point did not come until 2005. In part because of the rise in regional disparity in budgetary expenditure, a major source of total spending, the regional disparity in total spending more than tripled between 1997 and 2004, and its share in the overall inequality increased from 33 percent to 53 percent.

7. Discussion and Conclusion

China's policy changes since the mid-1990s, particularly after 2001, represent a shift from over-decentralization that transferred much of the financial burden to township governments and local communities. One rationale for the shift from over-decentralization to some degree of recentralization is to reduce the rural-urban gap

and the regional disparities in spending on compulsory education. This paper analyzes the official data from 1997 to 2005, and finds that the shift has led to a more equal distribution of spending on primary and junior secondary education between rural and urban areas, and to a lesser extent between different regions.

Another important finding is that inequalities in per student total spending have begun to decline nationwide around 2003 or 2004. The drop was particularly remarkable in 2005. The trend is likely to continue in light of China's effort to establish an expense guarantee system for nine-year compulsory education starting from 2006. To a large extent the declining inequalities in per student total spending are due to the narrowing rural-urban gap and the declining regional disparities. Both dimensions of inequality have begun to decline around 2003 or 2004.

A major driving force behind the declining inequalities in total spending is the declining inequalities in budgetary expenditure. This paper finds that the inequalities in budgetary expenditure declined earlier and to a larger extent than the inequalities in total spending, suggesting that China's policy changes in the past decade have played an equalizing role in distributing financial resources across localities for primary and junior secondary education.

Within this general pattern, however, there are considerable variations. First, the inequalities in total spending and budgetary expenditure declined much more rapidly in the 2000s than in the late 1990s. In fact, the inequalities were generally on the rise in the late 1990s. The rural-urban gap and the regional disparity in either total spending or budgetary expenditure followed a similar temporal pattern, suggesting that the fixed-term projects initiated by the central government in the late 1990s were not effective in reducing the spending gap along the rural/urban and the regional dimensions. The limited recentralization—to the intermediate levels of government rather than the central government—in the 2000s probably accounted more for the declining inequalities.

Second, the rural-urban gap declined more rapidly than the regional disparity, suggesting that China's education-finance reforms have been more effective in tackling the rural-urban gap than the regional disparity. The rural-urban divide was previously sustained by the decentralized financing that segregated rural townships (*xiang*) from urbanized towns (*zhen*). As financial responsibility shifted from the township-level to the county-level governments, the rural-urban divide within the county became less salient. The county governments were obliged to fund schools within their jurisdiction, regardless of rural or urban status. This change allowed schools in poor townships to access county-wide rather than township-wide resources, leading to the reduction of the rural-urban gap within the county. But because recentralization was largely confined to the county level, its effect on the regional disparities was much more limited. The central government has yet to formulate more effective policies and/or provide larger financial transfers to deal with region-based inequalities.

Third, inequalities in spending on primary education declined much more rapidly than junior secondary education. It seems that China has yet to shift its priority to junior secondary education despite the announced universalization of nine-year compulsory education by 2000. This is evidenced in the government spending

on primary education versus junior secondary education. For primary education, government expenditures—including both budgetary and non-budgetary expenditures—increased from 76.5 to 82.2 percent of total spending between 1997 and 2005; for junior secondary, the share of government expenditures surprisingly declined from 75.4 to 72.3 percent in the same period.[10]

To summarize, China's concern for the funding problem prompted the central government to decentralize and diversify educational financing in the early 1980s. By the mid-1990s, however, the equity problem had become more salient. Decentralization has led to large spending gaps between rural and urban areas and between the coastal region and the rest of the country. The central government made a commitment in the early 1990s to universalize nine-year compulsory education by 2000, a difficult goal to meet in a decentralized structure. The central government therefore reshaped the educational system from the mid-1990s, shifting from over-decentralization to some degree of recentralization. The central government remained in the driver's seat throughout the decentralization and recentralization process. From the equity perspective, some degree of recentralization has clearly worked in China. The shift from over-reliance on township governments and local communities to a larger role by the central, provincial and county governments has reduced the rural-urban gap and the regional disparities in spending on basic education. It will be interesting to see whether the shift from decentralization to some degree of recentralization can lead to a reduction in other dimensions of inequality such as quality, completion rates, and progression rates. It will also be interesting to see how county governments, whose budgets may have already been over-stretched against many unfunded central mandates, fund basic education.

[10] Calculated based on *China Educational Finance Statistical Yearbook* 1998 and 2006.

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