# PERSISTENT INEQUALITIES IN FUNDING FOR RURAL SCHOOLING IN CONTEMPORARY CHINA

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#### Abstract

Decentralization in post-Mao China has widened regional gaps in the provision of basic education. Reforms since 1994 have not reversed that trend. More recently, the government started centralized spending projects on rural education, which have significantly narrowed the urban-rural gap in education spending since 2001. However, interprovincial disparities remain large and growing.

Keywords: China, decentralization, education, funding, inequality

On March 15, 2006, Premier Wen Jiabao announced at the National People's Congress (NPC) that in two years all tuition and miscellaneous fees for compulsory education would be waived for rural students. The premier emphasized that the central government would share the spending responsibility for rural compulsory education with local governments:

To ensure the regular operation of the grassroots state and the need of rural compulsory education, from this year on the national finance will arrange for an expenditure of Y 103 billion (\$12 billion)<sup>1</sup> every year, including Y 78 billion (\$9.7 billion) of central fiscal transfer payments per year.<sup>2</sup>

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- 1. Note: All U.S. dollar figures in this article were converted from Chinese currency (yuan) figures using the nominal exchange rate for the respective time point in context.
- 2. Wen Jiabao, "Zhengfu Gongzuo Baogao" [Government work report], *Renmin Ribao* [People's Daily], March 16, 2006, p. 1.

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This latest development was described as an "important milestone in the development of our country's education," yet the recentralization of education spending can probably be more accurately seen as a necessary response to the negative consequences of fiscal and economic decentralization in the past two decades. Economic decentralization enabled some localities "to get rich first," while the regional gap in financial resources for local governments widened. Fiscal decentralization of government spending responsibilities further strained local state capacity in poor and rural areas, a situation that has not been alleviated by the tax sharing reform of 1994 despite large and growing central subsidies. Two other rural fiscal reforms in later years did not fundamentally change the situation and may have even decreased rural educational funding for nonsalary items. The decentralized system of providing basic education was in deep crisis in poor and rural areas and would lead to a vicious, self-reinforcing circle of poverty and lack of education. The situation can only be changed by a major effort on the part of the central government such as the one just announced by Premier Wen.

Classical theories on fiscal federalism hold that decentralization should improve overall government efficiency by matching the level of public service provision more closely with local preferences and cost conditions.<sup>3</sup> However, in practice central governments tend to be much more willing to give up spending responsibilities than financial resources in the form of tax revenues. In the ensuing vertical fiscal imbalance, some local governments simply do not have the necessary funds to provide even minimum levels of key public services, although they may possess the theoretical information advantage vis-à-vis governments at upper levels concerning local preferences and costs. Moreover, even a functioning intergovernmental fiscal transfer system may be motivated by political considerations and thus benefit disproportionately those localities that are politically important or sensitive.

## A Widening Regional Gap

In the Maoist era, the Chinese education system was highly centralized, compatible with the centrally planned command economy. In the view of two analysts, "Basic education was uniformly provided and managed by the state, and the government assumed almost all the funding for elementary and middle schools." Although central planning has often been blamed for gross economic

<sup>4.</sup> Pan Guangyi and Zhong Yuansheng, "Jiejue Yiwu Jiaoyu Jingfei de Cuowei Wenti Guanjian Zaiyu Wanshan Gonggong Caizheng Tizhi" [The key to solving the problem of dislocating funds for compulsory education is to improve the system of public finance], *Jiaoyu Fazhan Yanjiu* [Education Development Studies] (January 2003), Shanghai, pp. 15–17.



<sup>3.</sup> Wallace E. Oates, "An Essay on Fiscal Federalism," *Journal of Economic Literature* 37 (September 1999), pp. 1120–49.

inefficiency, the centralized system was actually quite successful in expanding opportunities for basic education to the vast majority of the Chinese people. Even during the chaotic Cultural Revolution (1966–76), primary school enrollment increased by half, junior middle school enrollment quadrupled, and senior middle school enrollment grew almost 14 times. Those official statistics may have overestimated actual educational progress, as the newly set up "joint middle schools" in rural villages were not strictly comparable to preexisting middle schools. There has been a long-running scholarly debate on the value of the Cultural Revolution's impact on rural education, but it is hard to deny that "especially in education, the dominant thrust of the 1970s was in the direction of a more egalitarian distribution of resources and outcomes."

Another indication of the expansion of education opportunities is the graduation rates for elementary and junior middle school students. In the short five years from 1970 to 1975, those two rates jumped from 71% to 91% and from 39% to 60%, respectively. Ironically, that was also the period when China was spending the least on education, i.e., from 1.2% to 1.8% of gross domestic product (GDP) or from 4.2% to 6.5% of total government expenditures, lower than any time before or after. Despite dramatically increased funding for education, both graduation rates fell in the post-Mao era and it was not until 1995 and 2004, respectively, that those rates recovered to their 1975 levels. 8 Although the education reform during the Cultural Revolution had various detrimental effects on the quality of basic education, class stratification, and society at large, the overall progress achieved in such a short period of time with only modest resources clearly demonstrated the potential of a centralized system of providing basic education. In a sense, the economic miracle in China over the past three decades has been mostly based on the growth of labor-intensive industries, which in turn have benefited enormously from the great leap forward of basic education in the Maoist era. Conversely, the paralysis of higher education during the chaotic Cultural Revolution delayed for decades China's transition to a knowledge-based economy.

<sup>9.</sup> Jonathan Unger, Education under Mao: Class and Competition in Canton Schools, 1960–1980 (New York: Columbia University Press, 1982).



<sup>5.</sup> Han Dongping, "Impact of the Cultural Revolution on Rural Education and Economic Development: The Case of Jimo County," *Modern China* 27:1 (January 2001), p. 64.

<sup>6.</sup> Suzanne Pepper, Radicalism and Education Reform in 20th-Century China: The Search for an Ideal Development Model (Cambridge, UK: Cambridge University Press, 1996), p. 33.

<sup>7.</sup> Government of the People's Republic of China (PRC), Ministry of Finance (MOF), *Zhong-guo Caizheng Nianjian* [China fiscal yearbook] (Beijing: Zhongguo caizheng zazhishe, 2004), <a href="http://www.chinainfobank.com">http://www.chinainfobank.com</a>, accessed September 11, 2006.

<sup>8.</sup> PRC, State Statistical Bureau, *Zhongguo Tongji Nianjian* [China statistical yearbook] (Beijing: Zhongguo tongji chubanshe, 2005), <a href="http://www.stats.gov.cn/tjsj/ndsj/2005/indexch.htm">http://www.stats.gov.cn/tjsj/ndsj/2005/indexch.htm</a>, accessed September 11, 2006.

Counter to the policy of the Maoist era, Chinese education policy since then has started to emphasize quality over quantity and efficiency over fairness. In the ambitious drive to modernize China, higher education has received the most state attention, gradually becoming the focus around which the entire education system revolves. Soon after Mao died, a rehabilitated Deng Xiaoping became a prime mover in restoring the national college entrance exam in 1977. By 1979 total college enrollment had reached its pre-Cultural Revolution high of one million. Since then the number has grown more than 15-fold.

By contrast, from the mid-1970s to the mid-1990s the enrollment levels in elementary schools and junior and senior middle schools all fell. 10 The drop in numbers of school-age children because of the family planning policy explains part of that decline, although it does not explain the decrease in graduation rates for basic education. Moreover, a long-standing feature of educational policy in the PRC is that higher education enjoys a clear advantage in government funding over basic education. For instance, in 1993 total budgetary spending on 2.5 million college students amounted to over Y 4,000 (\$700) per student, while budgetary spending per elementary school student was a meager Y 162 (\$28), or less than one-half yuan (\$0.09) per day. That was a difference of over 25 times. In 1998, when the state guaranteed Y 1.6 billion (\$193 million) each for the country's two top universities, Beijing University and Tsinghua University, as part of the "985 Project," 11 total non-salary budgetary spending for all rural elementary schools in China combined was only Y 2.3 billion (\$278 million). 12 Some recent policy changes such as the phasing out of guaranteed stipends for all college students and the introduction of (rising) college tuition fees are designed to reduce the relative share of college-student expenses borne by the state, yet the gaps between higher and basic education persist.

Although basic education as a whole suffered from attention deficiency, apparently all regions do not feel the same squeeze, because of the unprecedented decentralization in the post-Mao era. Political, economic, and fiscal decentralization did not create a level playing ground for all localities to benefit from the new reform measures; the consequent economic disparity naturally translates into fiscal disparity. China's phenomenal economic growth in the past three decades has often been attributed in part to the delegation of economic and fiscal decision making to the local levels. Decentralization creates incentives for

<sup>12.</sup> PRC, MOE, Fiscal Department, *Zhongguo Jiaoyu Jingfei Tongji Nianjian* [China education funds statistical yearbook] (Beijing: Zhongguo tongji chubanshe, 1999), <a href="http://www.chinainfobank.com">http://www.chinainfobank.com</a>, accessed September 11, 2006.



<sup>10.</sup> PRC, State Statistical Bureau, Zhongguo Tongji Nianjian.

<sup>11.</sup> The "985 Project" is the informal name of the 21st Century Education Vitalization Plan put together by the Ministry of Education (MOE). The plan followed the announcement at the centennial of Beijing University on May 4, 1998, by then-President Jiang Zemin who said that Chinese universities should strive to become world-class universities.

local governments, firms, and individuals to increase economic output on their own initiative. Instead of a centrally planned command economy, in the words of Deng Xiaoping, "[S]ome regions and some people can get rich first and lead and help other regions and other people gradually to become rich together." <sup>13</sup>

However, decentralization also favors those places and people that are better able to take advantage of the "reform and opening up" policies, and income inequality among regions has grown significantly. For instance, from 1980 to 1993 the gap between the richest (excluding Beijing and Shanghai) and poorest provinces in net income per rural resident widened from 1.9:1 (Guangdong:Shaanxi) to 3.2:1 (Zhejiang:Gansu). The national urban-rural ratio in per capita net income also increased from 1.86 in 1985 to 3.23 in 2003. Recent studies based on two waves of nationwide household income surveys conducted in 1988 and 1995 show that while the aggregated Chinese official statistics may have overstated the rise in urban-rural gaps, income inequalities within rural and urban China, respectively, widened sharply between 1988 and 1995, as did the disparities between or within rich and poor provinces. Is

Economic disparity and decentralization gradually translated into a widening regional gap in the financial resources available to local governments. In 1982, except for the outlying cases<sup>16</sup> of the centrally administered municipalities and Liaoning Province, government revenues of all provinces were between Y 26 (\$14) and Y 110 (\$58) per capita. As for spending, except for the outlying cases of the centrally administered municipalities and Tibet, the per capita government expenditures of all provinces were between Y 31 (\$16) and Y 160 (\$85). In 1993, per capita revenues of all provinces ranged from Y 124 (\$22) to Y 529 (\$92) and per capita expenditures ranged from Y 122 (\$21) to Y 550 (\$95), excluding the outlying cases of the centrally administered municipalities and Tibet. During those 11 years, the regional gap had not narrowed. In provinces like Anhui and Henan, which in 1993 respectively spent Y 122 (\$21) and Y 165 (\$29) per capita for all government functions, providing sufficient public education became particularly challenging.<sup>17</sup>

Rising economic and fiscal disparities do not necessarily lead to a widening regional gap in the provision of public education. However, that was exactly

<sup>17.</sup> PRC, State Statistical Bureau, Zhongguo Tongji Nianjian.



<sup>13.</sup> Deng Xiaoping, *Deng Xiaoping Wenxuan* [Selected works of Deng Xiaoping] 3 (Beijing: Renmin chubanshe, 1993), p. 149.

<sup>14.</sup> PRC, State Statistical Bureau, Zhongguo Tongji Nianjian.

<sup>15.</sup> Azizur Rahman Khan and Carl Riskin, *Inequality and Poverty in China in the Age of Globalization* (Oxford, UK: Oxford University Press, 2001), pp. 29–49; Carl Riskin, Zhao Renwei, and Li Shi, eds., *China's Retreat from Equality* (Armonk, New York: M. E. Sharpe, 2001), pp. 44–83.

<sup>16.</sup> In this paragraph, "outlying" is used in the statistical sense to describe unusually large or small values, compared to others.

what happened in the 1980s and early 1990s, because the provision of basic education was also decentralized. The state assigned responsibilities for nine-year compulsory education (six years of elementary school and three of junior middle school) to the sub-national governments in the party center's 1985 Decision on Reform of the Education System and the 1986 Compulsory Education Law. The 1985 Decision on Reform of the Education System "implements the principles of localities taking responsibility of basic education and of *fenji guanli* [separate level management]. . . . Each province, autonomous region, and centrally administered municipality shall decide how to divide the duty of separate management among the levels of province, city (prefecture), county, and township." <sup>18</sup>

Unsurprisingly, the provincial, city, and county governments also imitated the center in delegating spending responsibilities to their respective subordinate levels, and ultimately basic education became a major financial burden for the lowest township level governments and peasants. In the 1990s, the total funding for education in Xiangyang County of Hubei Province amounted to Y 1.37 billion (\$165 million) and only Y 1.5 million (\$181,000) was from central or provincial budgets. In a study of 26 counties across seven provinces, the State Research Center for Education Development found that 78% of the funding for compulsory education in 1998 came from the township governments and farmers while only 12% was from governments above the county level. Even that 12% was earmarked mostly to subsidize teachers' salaries, not used directly for the students or their schools. In contrast, from 1979 to 1983 Liu'an County of Anhui Province relied on the provincial level for over two-thirds of its basic education funding. In contrast, In the respective subordinate and peasants. In the 1990s, the total funding subscription of the provincial level for over two-thirds of its basic education funding.

The potential harm of inadequate basic education for poor and rural areas is hard to overlook. Education is often regarded as the ultimate equalizer, creating opportunities for better employment and income. In that sense, primary, secondary, and professional education systems are especially beneficial for poverty alleviation because they mostly educate local people and thus accumulate human capital for years to come. Besides, the sheer need for primary education (i.e., the number of school-age children) may be greater in the poorer regions

<sup>21.</sup> Ma Rong, "Shilun Woguo Nongcun Jichu Jiaoyu de Jingfei Wenti" [Tentative comments on the funding issues of elementary education in China's countryside], *Xibei Minzu Yanjiu* [Northwest Nationalities Study] (Lanzhou) 16:2 (Summer 1998), p. 20.



<sup>18.</sup> Central Committee of the Chinese Communist Party, *Guanyu Jiaoyu Tizhi Gaige de Jueding* [Decision on reform of the education system] (Beijing), May 27, 1985, Central Committee Document, no. 12 [1985], published in *Guangming Ribao* [Guangming Daily], May 29, 1985.

<sup>19.</sup> Chen Xiwen and Han Jun, "Wu Da Yinsu Daozhi Xianxiang Caizheng Weiji" [Five causes of county and township financial crisis], *Zhonghua Hezuo Shibao* [China Cooperation Times] (Beijing), January 20, 2004, p. Q02.

<sup>20.</sup> Pan and Zhong, "Jiejue Yiwu Jiaoyu Jingfei," p. 15.

because those areas tend to have higher than average fertility rates. In less-developed areas, especially those more dependent on agriculture or those lacking a social safety net, the incentive to have more children tends to be higher. Having more children means having more people to work the fields when they grow up and also increases the chance of having a boy, who by custom does not move away after getting married and thus helps provide social security for his aging parents later in life. Moreover, poorer regions tend to have a much higher proportion of minority nationality residents, who are not subject to the stringent family planning policies the state has implemented since the late 1970s.

Besides the desirable social consequence of closing interregional gaps, a strong case can be made for more centralized provision of basic education in China from an economics perspective. As a public service, basic education provided by poor regions has significant positive externalities or social benefits for more affluent areas in a country with a large mobile labor force. Therefore, under a decentralized funding scheme, public education in less developed regions will be undersupplied as those local governments have less incentive to invest in education whose benefits spill over elsewhere. In less-developed inland areas, people who have received some education are far more likely to go to other places in search of better economic opportunities; therefore, the coastal and urban industrial centers are in effect the main beneficiaries of basic education provided by rural governments elsewhere. A study in central Hubei Province showed that the "overwhelming majority" of migrant workers from the prefecture-level city of Jingmen had received at least nine years of education. In comparison, the average length of education for a rural adult in Jingmen was less than eight years, according to the 2000 census, and the Jingmen rural survey team reported that one in five of these had completed only elementary school. Eighty-three percent of those migrant workers work outside the prefecture and almost three-quarters work in other provinces, mostly "in the economically advanced provinces of the southeast coast."22

#### Reforms since 1994

In the first decade and a half of the reform era, decentralization helped to produce economic growth. But poor regions and rural areas are doubly disadvantaged in their capacity to develop their economy and provide adequate public education. For instance in 1993, the total non-salary budgetary spending for elementary education in Anhui and Hubei Provinces was Y 3 (\$0.52) per student for the whole year. By contrast, the same indicator for Tibet and Shanghai was Y 155 (\$27) and Y 144 (\$25), respectively. The urban-rural divide was less

<sup>22.</sup> Government of Jingmen City, Hubei Province, October 9, 2003, *Guanyu Woshi Nongcun Laodongli Zhuanyi de Diaocha Baogao* [Investigation report on the migration of our city's rural labor forces], <a href="http://www.jm.gov.cn/show.asp?id=356">http://www.jm.gov.cn/show.asp?id=356</a>>.



dramatic yet still wide. Excluding teacher salaries, total per-student educational funding for rural elementary schools and rural junior middle schools in 1993 was Y 12 (\$2) and Y 33 (\$5.70), respectively, far below the respective national levels of Y 17 (\$3) and Y 50 (\$8.70).<sup>23</sup>

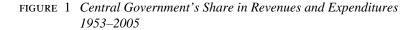
That gross disparity caught the attention of the media, scholars, and policy makers in China. Since then several important changes have been made in both intergovernmental fiscal relations and the provision of rural compulsory education. First, the 1994 tax sharing reform dramatically recentralized revenue collection, allowing the central government to redistribute financial resources to poor regions. In 2001 the Chinese government tried to reverse the trend of decentralization in rural education spending by implementing the *yi xian wei zhu* [county governments taking primary responsibility] system. In addition, as early as 2000 the central government started experimenting with a rural "taxfor-fee" reform that abolished the rural "educational surcharge" in some provinces that culminated in elimination of the agricultural tax in 2006.

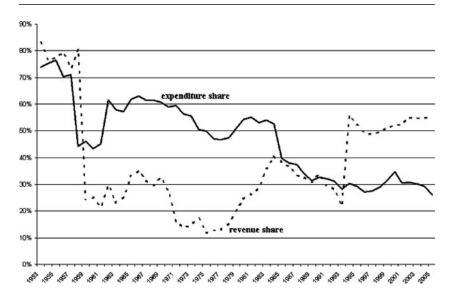
In this section, I argue that none of these reforms alleviates the problems of regional inequality and rural inadequacy in providing basic education. In the short term, the reforms may even have worsened the situation. Specifically, the tax sharing reform installed an initially highly political—rather than redistributive—intergovernmental transfer scheme that especially disadvantaged non-minority poor counties. The system of "county governments taking primary responsibility" was implemented mainly to ensure the salary payment of teachers, while non-salary spending on compulsory education still relies on local farmers. The "tax-for-fee" reform substantially reduced funding for compulsory education in rural areas. All three reforms were initiated to tackle imminent issues of political importance, namely the erosion of central revenue capacity, the salary arrears of rural teachers, and the financial burden on farmers. A long-term proactive goal of reducing inequality in basic education was not prioritized until later when the inadequacy of the previous reforms to fund education became much clearer.

In 1994 the Chinese government implemented the tax sharing reform, which established separate local and national tax bureaus at the provincial, city/prefecture, county, and township levels. As a response to the decline in central government revenues in previous years, the reform stipulated that three-quarters of value-added tax and all *xiaofeishui* [excise tax] be turned over to the central treasury. Immediately, central revenues increased by almost Y 200 billion (\$23 billion) from 1993 to 1994, while local revenues actually decreased by more than Y 100 billion (\$12 billion). As Figure 1 shows, the 1994 reform raised the central government's share of total revenues to a level unprecedented since 1959.

<sup>23.</sup> PRC, MOE, State Statistical Bureau, and MOF, *Quanguo Jiaoyu Jingfei Zhixing Qing-kuang Tongji Gonggao* [Statistical report on the national implementation of education funding], <a href="http://www.edu.cn/20020227/3021282.shtml">http://www.edu.cn/20020227/3021282.shtml</a>, accessed September 11, 2006.







SOURCES: PRC, MOF, Zhongguo Caizheng Nianjian (2005), <a href="http://www.chinainfobank.com">http://www.chinainfobank.com</a>, accessed September 11, 2006; idem, "Guanyu 2005 Nian Zhongyang he Difang Yusuan Zhixing Qingkuang yu 2006 Nian Zhongyang he Difang Yusuan Caoan de Baogao" [Report on the implementation of central and local budgets for 2005 and on the draft central and local budgets for 2006], Renmin Ribao [People's Daily], March 18, 2006, p. 7.

At the same time, spending responsibilities remained highly decentralized and thus the 1994 reform also started the second sustained period of vertical fiscal imbalance in the history of the PRC. The central government's share of total expenditures hovered above 50% in the early 1980s but has been fluctuating between 27% and 34% since 1988. In other words, the four levels of subnational governments (province, city/prefecture, county, and township) account for about 70% of the total expenditures in China while receiving less than half of the total revenues. In 2005 the sub-national governments' total revenues were Y 1.5 trillion (\$186 billion) while their expenditures amounted to Y 2.5 trillion (\$310 billion). On the other hand, the central government received Y 1.7 trillion (\$211 billion) while directly spending only Y 0.9 trillion (\$112 billion). The Budget Law of 1994 forbids local governments from issuing bonds or even showing a deficit in their budgets, let alone filing for bankruptcy. Local

<sup>24.</sup> PRC, MOF, "Guanyu 2005 Nian Zhongyang."



governments in economically well-off regions can probably draw on local enterprises or off-budget revenues, but subsidies from the upper levels are the only way out for those localities that lack a solid income base. The fiscal reform of 1994 entailed a massive amount of subsidies to local governments. Various central subsidies to local governments decreased from Y 59 billion (\$12 billion) in 1990 to Y 54 billion (\$9.4 billion) in 1993 before more than quadrupling to Y 239 billion (\$28 billion) in 1994. Since then total subsidies have more than quadrupled again, surpassing Y 1 trillion (\$121 billion) in 2004, not much less than the total local government revenues of that year, Y 1.2 trillion (\$145 billion). In other words, Chinese sub-national governments in general rely nearly as much on central subsidies as on their own-source budgetary income.

Rather than serving progressively redistributive purposes, at the aggregate level massive transfers seem biased toward richer counties. The primary concern of the fiscal reformers in 1994 was to appease the "vested interests of the localities" in order to win local support for those drastic reform measures, <sup>26</sup> which therefore in effect institutionalized the pre-1994 regional fiscal discrepancies. From 1994 to 2000, most of the central fiscal transfers to localities were in the form of tax return subsidies, whose amount was a function of the base revenues of local governments in 1993 and annual growth afterward. Obviously, both parameters in the calculation put richer counties at an advantage. From 1994 to 2001, the proportion of tax return subsidies to total central fiscal transfers decreased gradually from 75.4% to 45.1%, which is still quite substantial and mostly does not favor poor counties. On the other hand, earmarked subsidies increased their share of the total central fiscal transfers from 15.1% in 1994 to 30.9% in 2000 before decreasing somewhat to 26.4% in 2001. Those are central subsidies restricted to certain policy uses; it is not clear whether poor counties are the main recipients of earmarked subsidies. In 1997, 11.85% of all earmarked subsidies were used to assist poor regions.<sup>27</sup> The category that most clearly favors poorer counties is the transition-period transfer payment subsidies, but these only constituted 0.8% of all central subsidies in 1994. Even after the increase after 1997, the proportion was still only 2.7% in 2001.

Tax sharing reform and subsequent intergovernmental subsidies did not fundamentally alleviate the fiscal strain on needy local governments, so it is not clear how introducing "county governments taking primary responsibility" could help decrease the disparity in education spending. In 2001 when the State Council promulgated its Decision on Reform and Development of Basic Education, the main goal was to reduce salary arrears of rural teachers by shifting

<sup>27.</sup> Ibid., p. 95.



<sup>25.</sup> PRC, MOF, Zhongguo Caizheng Nianjian.

<sup>26.</sup> PRC, NPC, Standing Committee, Research Office of the Budget Committee, *Zhongwai Zhuanjia Lun Caizheng Zhuanyi Zhifu* [Chinese and foreign experts on fiscal transfer payments] (Beijing: Zhongguo caizheng jingji chubanshe, 2002), p. 14.

their payroll from the township governments to the county level. However, in poor areas the county-level governments are not necessarily in better financial health than their subordinate township governments.

More importantly, because the experimentation with the rural "tax-for-fee" reform also started at around the same time, funding for rural compulsory education may paradoxically have become more difficult to obtain: both reforms significantly institutionalized local governments' budgets for education. Township governments can no longer resort to various legal or illegal levies on farmers to fill in the gap in education spending. The 1985 Decision on Reform of the Education System and 1986 Compulsory Education Law allowed local governments to collect a *jiaoyu fujia* [educational surcharge] for compulsory education. That surcharge, while highly dependent on local economic conditions, became a major source of educational funding. For example, Nanyang Prefecture of Henan Province collected Y 454 million (\$53 million) in educational surcharges from 1989 through 1994, accounting for over 30% of all educational funding in those years.<sup>28</sup> Another important funding source for rural compulsory education used to be the so-called *jiaoyu jizi* [educational fund collection] from local peasants. In 2000, this revenue source accounted for Y 13 million (\$1.6 million) out of the Y 17 million (\$2.1 million) spent on rural education in Yuanba district of Guangyuan city in Sichuan Province.<sup>29</sup>

The "tax-for-fee" reform abolished both the *jiaoyu fujia* and the *jiaoyu jizi*; in principle the reform should replace these two major rural education funding sources with intergovernmental transfers. Moreover, the system of "county governments taking primary responsibility" means that the funds for teacher salaries—the main category of educational spending—must come from official regularized budgetary channels. Local governments can no longer use off-budget income or various extractions from peasants or students to pay their teachers. As a result of both reforms, rural educational funds may actually decrease, especially in the poor areas that are not favored by the intergovernmental transfer scheme. In 2000, Anhui was the first province to experiment with the rural "tax-for-fee" reform; the province's total income for rural compulsory education decreased from Y 4 billion (\$483 million) in 1999 to Y 3.8 billion (\$459 million) in 2000. <sup>30</sup> When the reform was implemented in Hubei and Sichuan

<sup>30.</sup> Zhang Mougui, "Nongcun Shuifei Gaige Yingxiang Nongcun Yiwu Jiaoyu de Shenceng Fenxi" [Deep analysis of the impact of rural tax-for-fee reform on rural compulsory education], in *Studia Sinica* 3:12 (December 2002), <a href="http://www.nows.com/c">http://www.nows.com/c</a>, accessed September 11, 2006.



<sup>28.</sup> Government of Nanyang City, He'nan Province, *Jiaoyu Jingfei* [Education funding], <a href="http://www.nynews.gov.cn/renwen/jiaoyu/j6e.htm">http://www.nynews.gov.cn/renwen/jiaoyu/j6e.htm</a>, accessed May 25, 2005.

<sup>29.</sup> Zhu Mingxi and Ye Zirong, "Kunrao Nongcun Shuifei Gaige De Sange Zhuyao Wenti" [The three main problems that plague rural tax-for-fee reform], *Caijing Kexue* [Finance and Economics] (Chengdu) 195:6 (November/December 2002), p. 110.

Provinces, their funding for compulsory education decreased, respectively, by Y 1.4 billion (\$169 million) and Y 1.2 billion (\$145 million).<sup>31</sup>

The three reforms since 1994 have profoundly affected local spending on compulsory education. Although the measures can be regarded as piecemeal efforts in response to imminent problems of political significance, in the long term the reforms also represent major steps in the institutionalization of local public finance. Potentially, these measures may significantly regularize sources of government funding. As part of the "growing pains" in institutionalizing Chinese local government finance, in the short term the reforms may have exacerbated the difficulties in rural funding for compulsory education in poor areas. At minimum, these reforms themselves certainly did not help to narrow the regional gap in human infrastructure or in the potential for economic development. As regional educational inequality deteriorated despite (or even because of) the reforms, since 2001 the Chinese government has resorted to recentralization of rural educational spending as the only solution to the problem.

In 2001 the central government started the second, much more ambitious phase of the "national project on compulsory education in poor areas" with Y 5 billion (\$604 million) of central funds. It also began the second phase of the "project on repairing dangerous buildings in rural elementary and middle schools" with another Y 6 billion (\$725 million) of central funds. In 2004 the central government decided to spend Y 10 billion (\$1.2 billion) to universalize nine-year compulsory education and to eliminate young and prime-age (i.e., between the ages of 15 and 50) illiteracy. In 2005 the central government decided to fund the purchase of textbooks for poor students in China's central and western regions. Although some of these central spending projects still require significant local matching funds, the amount and resolution of the central government's commitment to rural compulsory education since 2001 is certainly unprecedented in the reform era. The latest announcement by Premier Wen at the NPC suggests that recentralization of rural education will probably accelerate in the future, although Beijing does not seem ready yet to take up the largest single item in compulsory education expenditures, teacher salaries.

### Evidence from Aggregate Data

The Chinese MOE, the State Statistical Bureau, and the MOF have published major indicators of educational funding for each of the provinces and for the nation as a whole every year since 1993. Analysis of this data set will give us a clear idea of the temporal trend over the years of regional disparity in compulsory education funding in terms of both rural-urban divide and cross-provincial

<sup>31.</sup> Ren Yuling, "Nongcun Yiwu Jiaoyu 'Yi Xian Wei Zhu' Gou Ma?" [Is it enough to "let counties take primary responsibility" of rural compulsory education?], *Renmin Ribao*, April 15, 2004, p. 13.



TABLE 1 National and Rural Budgetary Spending Per Student, 1993–2005 (in RMB Yuan)

	Budgetary Spending Per Student								
	Elementary Schools				Junior Middle Schools				
	Total		Non-Salary		Total		Non-Salary		
Year	National	Rural	National	Rural	National	Rural	National	Rural	
1993	163	145	17	12	316	267	50	33	
1994	236	199	18	11	450	367	51	30	
1995	266	219	23	14	492	393	66	39	
1996	303	249	28	18	549	435	82	48	
1997	334	275	34	22	591	468	93	59	
1998	371	306	34	23	611	478	80	47	
1999	415	346	36	24	640	509	77	44	
2000	492	413	37	24	680	534	74	39	
2001	645	551	45	28	817	656	83	45	
2002	813	708	60	43	961	796	104	67	
2003	932	810	83	61	1,052	872	127	85	
2004	1,129	1,014	117	95	1,246	1,074	165	126	
2005	1,327	1,205	167	142	1,498	1,315	233	193	

SOURCE: PRC, MOE, State Statistical Bureau, and MOF, *Quanguo Jiaoyu Jingfei Zhixing Qingkuang Tongji Gonggao* [Statistical report on the national implementation of education funding] (Beijing: China Education and Research Network, 2007), <a href="http://www.edu.cn/jiao\_yu\_jing\_fei\_497">http://www.edu.cn/jiao\_yu\_jing\_fei\_497</a>, accessed February 1, 2007.

variation. Table 1 compares the national level of spending with that for rural schools. Apparently budgetary spending on compulsory education grew rapidly over the period specified, especially after 2001. However, substantial differences existed all along between national and rural statistics. Budgetary spending per student in the rural areas lagged behind the national level, and the disparity did not seem to narrow over the years. Budgetary spending per elementary school student in the countryside changed only slightly from 88.9% of the national level in 1993 to 90.8% in 2005. The percentage even dropped to around 82% in the late 1990s. Likewise, budgetary spending per junior middle school student in the rural areas changed only slightly from 84.5% of the national level in 1993 to 87.8% 12 years later, and the percentages actually decreased in the late 1990s.

Those numbers indicate the failure of the 1994 reform to narrow the gap between urban and rural areas in educational funding despite the general increase in the absolute value of both measures. Indeed, if the reform had any effect it



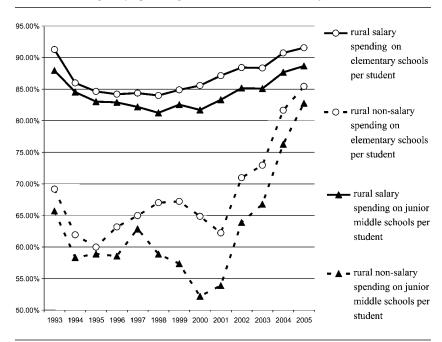


FIGURE 2 Budgetary Spending Per Rural Student as % of the National Level

SOURCE: Ibid. to Table 1.

appears to be in the opposite direction: the rural-urban divide actually widened until the late 1990s. However, a closer examination of the table reveals that non-salary spending in the rural areas was quickly catching up with the national level after 2001. The pattern becomes much clearer in Figure 2, which shows rural spending as percentages of the national levels for both salary and non-salary items.

A general observation is that the urban-rural divide seems to be much more serious in non-salary spending than in salary spending. Despite dramatic changes over time, the former percentages are always significantly lower than the latter ones, indicating a much wider discrepancy between the rural and national levels in non-salary spending than in salary spending. According to Pan and Zhong, teacher salaries can rely to some degree on various subsidies from the governments above the county level, while non-salary spending has to be mostly funded by township governments and farmers and therefore lags further behind that in urban areas. <sup>32</sup> Despite a general advantage over non-salary spending,

<sup>32.</sup> Pan and Zhong, "Jiejue Yiwu Jiaoyu Jingfei," p. 15.



TABLE 2 Variance of Budgetary Spending Per Student across Provinces, 1993–2005

	Budgetary Spending Per Student							
	Elementary Schools				Junior Middle Schools			
	Total		Non-Salary		Total		Non-Salary	
Year	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)
1993	215	(120)	31	(38)	411	(261)	88	(125)
1994	300	(165)	32	(42)	572	(365)	86	(116)
1995	344	(217)	41	(53)	604	(327)	101	(109)
1996	406	(282)	51	(76)	736	(587)	137	(188)
1997	447	(332)	62	(96)	776	(572)	161	(234)
1998	509	(358)	67	(94)	807	(599)	156	(250)
1999	567	(425)	75	(106)	867	(678)	162	(262)
2000	670	(512)	75	(109)	890	(606)	133	(187)
2001	884	(663)	87	(151)	1,062	(682)	142	(208)
2002	1,087	(793)	114	(191)	1,235	(828)	180	(261)
2003	1,251	(965)	152	(250)	1,359	(996)	221	(324)
2004	1,516	(1,206)	202	(321)	1,608	(1,252)	267	(390)
2005	1,796	(1,406)	280	(363)	1,962	(1,529)	371	(443)

SOURCE: Ibid. to Figure 2.

NOTE: S.D. = Standard Deviation.

rural education spending on salary items clearly suffered in the 1990s, showing a gradual decline for both elementary and junior middle schools.

The 2001 reform to shift the responsibility for paying teachers from the township to the county government started to slowly reverse the temporal trend, but in 2005 the urban-rural gap in salary spending was still almost as serious as in 1993. In contrast, rural non-salary spending showed a dramatic jump after 2001. Apparently, all the billions of yuan of central funds for various national projects on compulsory education have been mostly spent on non-salary items, significantly narrowing the lag of backward rural areas in that respect. All in all, while the system of "county governments taking the primary responsibility [of paying teachers]" was not very successful in significantly raising the rural spending level on salary items relative to the national level, the recentralization of rural education spending since 2001 has greatly decreased the urban-rural gap in non-salary spending.

For a country as large and diverse as China, obviously the urban-rural divide captures only one dimension of the regional disparities. Variance across provinces can also be enormous, and I shall look at the changes in provincial variance over time. Table 2 shows the averages and standard deviations across



1.8 coefficient of variance of non-salary spending on elementary schools per 1.6 student coefficient of variance of non-salary spending on 1.2 junior middle schools per student 1 coefficient of variance of salary spending on 0.8 elementary schools per student 0.6 coefficient of variance of salary spending on junior middle schools per student

FIGURE 3 Coefficient of Variance across Provinces in Spending Per Student

SOURCE: Ibid. to Table 2.

provinces in budgetary spending on compulsory education per student, both including and excluding salaries for teachers, from 1993 through 2005.

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The amount of education spending per student averaged across provinces has risen rapidly, especially since 2001. Average budgetary spending per elementary school student grew by more than eightfold in 12 years and average budgetary spending per junior middle school student has nearly quintupled. As a result, the former almost caught up with the latter figure in 2004, although if we exclude teacher salaries then there were still quite substantial differences between elementary schools and junior middle schools. More importantly, the variance across provinces in education funding also increased dramatically over time and may even exceed growth in average spending levels. To get a sense of how the provincial variance in funding for basic education changed over time, taking into account the generally rising levels of average funding for all provinces, I calculated the coefficients of variance by dividing the standard deviation by the mean for each year. The values are shown in Figure 3. The coefficient of variance for all but one of the four indicators increased over the 12-year period, from 46%–70%, from 121%–129%, from 45%–70%, and from 143%–119%, respectively. The smaller coefficients of variance in salary



spending confirm the pattern shown in Figure 2 that salary spending suffers less from regional disparity because it is cushioned by subsidies from upper levels of government. However, the fact that all but one of the four statistics increased during the 12-year period shows that in general regional variance has widened over time despite the reform measures since 1994 and the recentralization of rural education spending since 2001. Admittedly, the rural area as a whole since 2001 has started to receive unprecedented state attention and to catch up with the national average, but some provinces seem to have gained much more than others. According to the minister of education, most of the central government's spending projects on rural compulsory education since 2001 have been definitely biased in favor of the minority regions in the west.<sup>33</sup> In 2005 the non-salary spending on elementary schools per student in Tibet (Y 394 [\$49]), Qinghai (Y 377 [\$47]), and Xinjiang (Y 288 [\$36]) was much higher than the national level of Y 167 (\$21). Neighboring western provinces without large concentrations of minority nationalities lagged far behind: Sichuan (Y 133 \$[16]), Gansu (Y 121 [\$15]), and Shaanxi (Y 105 [\$13]).

Finally, I shall look at county-level data for 1996 through 2001 from various issues of the China Education Funds Yearbook. Unfortunately, more recent issues of this yearbook stopped publishing county-level educational funding figures, but the data for those six years should still give us a sense of the change over time in the variance across all counties in China. Another advantage of this county-level data is that it specifically reports budgetary spending on elementary school education per student in the rural areas in each county, giving us a clearer idea of the inter-county variance within Chinese rural regions. Table 3 lists the mean and standard deviation of such spending across counties for each of the six years. Again, the pattern is that non-salary spending shows more regional disparity than total spending, even down at the county level. Obviously budgetary spending on rural elementary school students has increased greatly over time, yet the variance across counties also grew rapidly. The jump in 2001 in rural spending on elementary school students is especially noticeable, but at the same time the standard deviation also rose dramatically. In general, the coefficient of variance in 2001 of budgetary spending on rural elementary education per student was higher than in any of the previous five years, suggesting a widening gap across counties. The coefficient of variance of non-salary spending was more volatile over time, and the inter-county disparity did not seem to have narrowed much from 1996 to 2001. Although they are a shorter time series, the county-level data confirm the above conclusion that regional variance in education funding did not shrink over time. A closer look at the county-level data also reveals that minority counties led the pack in rural education spending.

<sup>33.</sup> Dong Hongliang, "Zhongdian Duidai Jiakuai Fazhan" [Emphatically deal with and accelerate the development], *Renmin Ribao*, June 16, 2005, p. 13.



TABLE 3 Variance of Budgetary Spending Per Rural Student across Counties, 1996–2001 (in RMB Yuan)

В	Budgetary S <sub>I</sub>	pending o	n Rural I	Elementai	ry Educatio	n Per Sti	udent
	То			Non-Salary			
			Coefficier of Variand				Coefficient of Variance
Mean	(S.D.)	N	(%)	Mean	(S.D.)	N	(%)
329.61	(290.08)	1,701	88	28.56	(61.03)	1,634	214

1997 356.61 (291.42)1,843 33.73 (58.56)1,766 174 42.50 1998 406.54 (339.16)1,890 83 (88.43)1,697 208 1999 461.92 (422.83)1,900 92 47.95 (115.39)1,652 241 2000 559.41 (475.45)1,965 85 54.71 223 (121.97)1,659 2001 783.36 (717.87)1,966 92 55.53 (113.30)1,709 204

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SOURCE: PRC, MOE, Fiscal Department, Zhongguo Jiaoyu Jingfei Tongji Nianjian (1997-2002).

Of the hundred counties with the most non-salary spending per rural elementary school student in 2001, two-thirds were minority nationality counties even though only 32% of all counties in the data set were minority counties.

#### Conclusion

This paper focuses on regional inequality in educational spending in China. It specifically examines the impact of the reforms since 1994 and of the recentralization of rural educational spending since 2001. Decentralized provision of public education has failed to narrow the wide regional disparity in education funding. Although the reforms in rural government finance and education funding after 1994 significantly institutionalized budgetary spending and the intergovernmental transfer system, in the short term the reforms failed adequately to help rural education in the poor areas. Since 2001 the Chinese government has taken up an ambitious recentralization of spending on rural compulsory education. This has dramatically decreased the urban-rural gap in non-salary spending, but the gap itself—and especially the inter-provincial disparity in salary spending—has not improved much. The next step may be for the central government to take charge of the payroll of rural teachers, which has been suggested by various scholars.<sup>34</sup> But in light of the findings of this study, that may not significantly help the non-minority poor areas.

<sup>34.</sup> Zhang, "Nongcun Shuifei Gaige"; Hu Guo, "Zhengxie Weiyuan Guanzhu Nongcun Yiwu Jiaoyu" [Members of Political Consultative Conference concerned with rural compulsory education], ibid., April 2, 2004, p. 13.



Year

1996

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