

Leveling the Little Pagoda: The Impact of College Examinations, and Their Elimination, on Rural Education in China

JOEL ANDREAS

Introduction

The Problem: College Entrance Examinations and Rural Education in Developing Countries

In his classic article, “The Vocational School Fallacy in Development Planning,” Philip Foster argued that attempts in agrarian countries to promote rural development by using schools to impart practical rural-oriented knowledge are doomed to fail because villagers invariably see schools mainly as a means to escape from rural life and get modern-sector urban jobs.¹ Villagers quite rationally, therefore, seek to avoid being relegated to rural educational tracks when academic training provides the possibility of climbing the educational ladder out of the village. As a result, rural vocational middle schools are unpopular and face pressure to replace vocational with academic curricula to prepare students for college entrance examinations. Education planners would do well to accept the inevitable failure of efforts to develop rural-oriented curricula, Foster added, because such efforts are misguided in the first place—rural vocational education has been much less effective in aiding rural development than its creators had hoped. Rather than limit avenues of social mobility for ambitious rural youngsters by trying to impose rural curricula on them, he proposed, educators should improve the teaching of academic curricula in rural schools. These schools should concern themselves with imparting basic literacy and numeracy skills and general academic knowledge that rural youth need in a modernizing world, and leave vocational and technical training to private initiatives that better respond to market needs.

Even critics of the academic model of rural education championed by Foster have accepted the central premise of his argument: it is impossible

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¹ Philip Foster, “The Vocational School Fallacy in Development Planning,” in *Education and Economic Development*, ed. C. Arnold Anderson and Mary Jean Bowman (Chicago: Aldine Publishing, 1965), pp. 142–66.

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to develop rural-oriented curricula parallel to an academic track that holds out the possibility of delivering much higher rewards. They, however, have been less sanguine about the implications. In his famous diagnosis of what he called the “diploma disease,” Ronald Dore criticized the pathological subordination of education to its selective function.² Echoing Foster, he argued that in developing countries, where college entrance examinations act as gatekeepers to a relatively tiny number of privileged civil service and modern-sector urban jobs, the entire education system inevitably becomes oriented to the examinations. The result is rote learning of scholastic material that is of little intrinsic value even to those few who pass the examinations and worth even less to the great majority who do not. He concluded that a compulsive focus on college examinations stifles real learning and particularly devalues the practical application of knowledge, including that pertinent to rural development. Dore and others have also argued that, despite the meritocratic ideals of equal access and social mobility that underpin examination-governed education hierarchies, the rural majority are typically excluded or eliminated in the early stages of the competition. The scholastic nature of the uniform curricula, much of which has little relevance to rural life, compounds disadvantages faced by children from poorly educated rural families. Moreover, they argued, social pressures generated by examination competition aggravate tendencies to neglect basic education in favor of elite education.³

For several decades, these issues have figured centrally in arguments about how to develop rural education. A long-standing international debate over what has been called the relevance question has pitted advocates of special rural-oriented curricula against advocates of standard national (urban-oriented) curricula.⁴ Similar issues arise perennially in discussions about the efficacy of vocational education in general.⁵ While the debate has often been

² Ronald Dore, *The Diploma Disease: Education, Qualification and Development*, 2d ed. (London: Institute of Education, University of London, 1997). The first edition was published in 1976.

³ Ronald Dore and John Oxenham, “Education Reform and Selection for Employment—an Overview,” in *Education versus Qualifications?* ed. John Oxenham (London: George Alwin & Unwin, 1984), pp. 3–41. In his own work, Dore stressed the impact of examinations on education quality while Oxenham and others emphasized questions of social equality.

⁴ For reviews of the research and the arguments advanced in this debate, see Philip Foster and James Sheffield, eds., *Education and Rural Development*, World Yearbook of Education, 1974 (London: Evan Brothers, 1973); Kevin Lillis and Desmond Hogan, “Dilemmas of Diversification: Problems Associated with Vocational Education in Developing Countries,” *Comparative Education* 19, no. 1 (1983): 89–107; and Deiter Berstecher, ed., *Education and Rural Development: Issues for Planning and Research* (Paris: UNESCO, International Institute for Education Planning, 1985).

⁵ Foster’s critique of school-based vocational education has gained adherents among international lending agencies, including the World Bank, while many governments continue to develop such programs. See World Bank, *Priorities and Strategies for Education: A World Bank Sector Review* (Washington, D.C.: World Bank, 1995). The position supporting school-based vocational education is outlined by Paul Bennel and Jan Segerstrom, “Vocational Education and Training in Developing Countries: Has the World Bank Got It Right?” *International Journal of Educational Development* 18, no. 4 (1998): 271–97. Foster documented that the same issues have been debated for over a century.

heated, the truth of Foster's maxim—that rural vocational education is not viable because rural schools are seen mainly as a ladder out of the village—has only been further confirmed, as successive efforts to develop rural-oriented education have failed. The confirmation of this maxim, however, undermines the logic of Foster's broader conclusion—that rural-oriented education per se is ineffective in advancing rural development. Since it has been impossible to establish viable rural-oriented programs next to more attractive academic systems that potentially lead to urban professional and technical jobs, there has been little opportunity to actually evaluate the effectiveness of rural-oriented education. While Foster provided a cogent explanation for why rural-oriented education has failed, his explanation invites these questions: If the ladder out of the village did not pass through schools, would this facilitate the development of rural-oriented education? If the rural education system were relieved of its responsibility to select a small number of students for higher education through competitive examinations, would this allow it to be more inclusive of the rural majority?

These propositions underpinned radical education reforms carried out in the 1970s as part of the Chinese Cultural Revolution. Before 1966, children had competed in examinations to enter a hierarchy of increasingly selective college-preparatory schools, known in China as the little pagoda (*xiao baota*; see the appendix for a glossary of Chinese terms used through this article), which culminated in college entrance examinations. Then in 1966, the college examinations and the little pagoda system were suddenly eliminated, and Chinese authorities declared their intention to massively expand rural education and develop rural-oriented curricula. Education reformers around the world who supported the development of rural-oriented education were intrigued by this unprecedented experiment, hoping it might provide an antidote to the diploma disease. They were, however, soon disappointed. After the death of Mao Zedong in 1976, the new Chinese leadership denounced Cultural Revolution education policies for leading to a disastrous decline in education quality. College entrance examinations were restored and the hierarchy of selective college-preparatory schools was rebuilt. The unqualified condemnation of the Cultural Revolution education policies by Chinese authorities led Dore and others to be more reticent in suggesting practical alternatives, even as they have continued to criticize the harmful effects of examination-oriented education.⁶

There has, however, been little research on the actual impact of Cultural Revolution policies on the development of education in rural China. Only

⁶ Ronald Dore, "The Diploma Disease Revisited," *Institute of Development Studies Bulletin* 11, no. 2 (1980): 55–61. Jonathan Unger's conclusion that elimination of college examinations undermined the motivation of urban students reinforced the official condemnation of Cultural Revolution education policies. Unger's findings, which are discussed below, are presented concisely in "Severing the Links between Education and Careers: The Sobering Experience of China's Urban Schools," in Oxenham, ed., pp. 176–91.

in recent years, have a number of scholars begun to retrospectively examine rural education during the Cultural Revolution decade (1966–76). The picture that has emerged from these investigations has been more mixed than the blanket condemnation offered by Chinese authorities would suggest. In a wide-ranging but detailed account, Suzanne Pepper described the difficulties encountered in rapidly expanding village schools, and the uneven and generally low quality of education they provided, but stressed that radical policies made middle school education available to the majority of village youth for the first time.⁷ Dongping Han argued that during the Cultural Revolution decade rural middle schools provided basic education and practical training that played a critical role in China's remarkable rural economic development during the 1970s and 1980s.⁸

This study continues this research, focusing on the experiment that was at the heart of the Cultural Revolution—the abolition of college examinations. The aim is to sort out some of the main issues involved in this experiment, oriented by the arguments advanced by Foster and Dore, and provide evidence that bears on these issues drawn from field research in a single rural county. I assess the impact of the examination system before the Cultural Revolution, its elimination during the Cultural Revolution decade (1966–76), and its resurrection in the post-Mao reform era, on the development of rural education. In all three periods, I focus on two issues central to the relevancy debate: expanding rural education and developing rural-oriented curricula. I argue that while the examination system has provided a powerful incentive to study, it has also constrained the expansion of rural education and the development of rural-oriented curricula by promoting a narrow conception of education that focuses on preparing the most promising students for college examinations. The elimination of college examinations during the Cultural Revolution decade greatly disrupted the education system and engendered serious problems, including difficulties in reorienting student motivation. At the same time, it facilitated the rapid expansion of rural education and the development of rural-oriented curricula.

Research Site and Data

Lai Shui is a small county in Hebei Province not far from Beijing. I chose to carry out research in Lai Shui largely for reasons of convenience—because of personal connections and its location near Beijing. Nevertheless, Lai Shui was an attractive research site because it is neither particularly poor nor particularly rich. The county's economy remains largely agrarian, as Lai Shui has not shared in the industrial and commercial boom that has brought

⁷ Suzanne Pepper, *Radicalism and Education Reform in 20th Century China: The Search for an Ideal Development Model* (Cambridge: Cambridge University Press, 1996).

⁸ Dongping Han, *The Unknown Cultural Revolution: Education Reforms and Their Impact on China's Rural Development* (New York: Garland, 2000), and "Impact of the Cultural Revolution on Rural Education and Economic Development: The Case of Jimo County," *Modern China* (October 2000): 501–32.

wealth to many coastal areas.⁹ On the other hand, Lai Shui residents are better off than those in more remote and less developed areas of China. In terms of indicators of educational attainment, Hebei Province is in the middle group of Chinese provinces.¹⁰ Lai Shui County straddles the divide between the relatively prosperous plains and the less developed mountain areas of the province. The eastern part of the county is flat, while the western part is hilly and mountainous and considerably poorer. While a single county cannot possibly represent the great diversity of rural China, the tumultuous history of education in Lai Shui since 1949 has been broadly similar to that in other areas of rural China and educational trends in Lai Shui have followed the rural patterns manifested in national statistics. I was happy to do fieldwork in Lai Shui because it had a very ordinary record of educational and economic development. Lai Shui had achieved no particular distinction in either field, and residents considered their county backward compared to nearby counties because it was small, was not located on the main highway, and was burdened with a large mountainous area.

In 1990, over 315,000 people lived in Lai Shui, 93 percent of whom had agricultural household registrations.¹¹ The population had doubled since 1949. For most of the period covered in this study, the county was divided into 26 townships, each of which was composed of a number of administrative villages. During the era of collective agriculture (ca. 1957–79), the townships were organized as communes and the villages were production brigades. I have focused particular attention on schools in Bei Yi'an Township, my local base, which is in the most culturally and economically developed area of the county, as well as in the county town, the only semi-urban place in Lai Shui. This investigation has been limited to the education system. My principal sources were interviews with 31 current and former education officials, teachers, and students and official statistics and historical accounts produced by county and national education authorities.¹²

⁹ Although Lai Shui is located not far from the urban centers of Beijing and Tianjin, it is too far to develop a suburban agricultural economy (producing vegetables and other products for quick sale in urban markets) or to develop much in the way of small industries. In recent years, however, its proximity to these cities has facilitated migratory labor.

¹⁰ Ministry of Education, National Commission for UNESCO, *National Report for EFA [Education for All] Assessment*, (Beijing: Ministry of Education, National Commission for UNESCO, 2000), p. 46.

¹¹ Lai Shui County Local Gazetteer Editorial Committee, *Lai Shui xianzhi* (Lai Shui County gazetteer) (Beijing: Yan Shan Publishing House, 2000), p. 93.

¹² The interviews were conducted in 2000 and 2001. I spoke with most people individually, but also spoke with people in small groups. Interviews took place in individuals' homes as well as in schools and county and township education offices. Many people generously spoke with me at length on several occasions. With two exceptions, the wife and son of a former teacher, all 31 respondents were teachers, school leaders, and township and county education officials. Thus, mainly educators' voices are expressed here, and I have largely missed the perspectives of ordinary villagers. The data on which this study is based, therefore, suffer from the educator bias that affects many studies about education. All of the respondents were born in Lai Shui, and all but one grew up in villages and attended village schools. The names of respondents have been changed. When I cite a respondent, I refer to his or her status at the time to which the passage refers. I discussed the accuracy of education statistics with several

Examination-Oriented Education before the Cultural Revolution

The Little Pagoda System

Before the Cultural Revolution, the school system in Lai Shui County was entirely oriented by the college entrance examinations. The system was like a steeplechase, with a series of examination hurdles, starting in the fourth grade of primary school (see fig. 1). The final prize was as attractive as it was elusive: every year a few students would pass examinations that allowed them to attend colleges or specialized vocational schools in urban areas. After graduating from these schools, students were guaranteed placement in professional and technical jobs in the state sector. Under the prevailing household registration (*hukou*) system, this was the main way young people could leave their home village and gain the privileges of urban household registration and state-sector employment.¹³ The examination system encouraged education officials to focus on the development of a small number of high quality schools to prepare talented students for the college exams. This strategy was formalized in the early 1960s in the little pagoda system. The little pagoda policy was mandated from above, but its logic was fully appreciated by Lai Shui officials, who were concerned with training the county's most promising students to compete in the college examinations.

The little pagoda system created a hierarchy of increasingly selective schools, from the primary to the senior middle school levels, which were provided with higher levels of funding, better equipment, and more highly trained teachers. The county's best primary school, located in the county seat, could brag that about three quarters of its students went on to junior middle school,¹⁴ while only a tiny percentage of students from village primary schools passed the junior middle school entrance exams. Lai Shui No. 1 Middle School was the county's little pagoda school at the secondary level. Its junior middle school section recruited primary school graduates with the

individuals who were in charge of compiling statistics for the education portions of local gazetteers. These individuals, who had worked as teachers and education officials since the 1950s and 1960s, cautioned that the process of recording and compiling education statistics left much to be desired and the figures should be considered rough. During the early years of the Cultural Revolution, statistics were incomplete, they said, but statistics produced during the Cultural Revolution decade were not particularly inflated compared with other periods. There was more reason, they said, to be cautious about inflation in statistics of the 1990s, when officials were under great pressure to demonstrate progress in meeting specific targets for universalizing junior middle school education. In all periods, inclinations to inflate accomplishments were conditioned by the fact that one year's statistics would establish a baseline for the following year and failure to maintain an inflated tally would be seen as retrogression. This consideration tempered but also perpetuated the inflationary impulse.

¹³ The other important route out of the village was through the military. For descriptions of the household registration system and contrasting views on its impact on the rural population, see Dongping Han, "The *Hukou* System and China's Rural Development," *Journal of Developing Areas* 33 (Spring 1999): 355–78; and Tiejun Cheng and Mark Selden, "The Origins and Social Consequences of China's *Hukou* System," *China Quarterly* 139 (September 1994): 644–88.

¹⁴ Bao'an Zhou, "Jianjie Lai Shui jiaoyu fazhan de jige lishi jieduan" (Brief summary of several historic periods in Lai Shui's educational development), in *Lai Shui wenshi ziliao* (Materials on Lai Shui's cultural history), ed. Guolan Zhang (Lai Shui, Hebei: Lai Shui County Committee, Cultural History Materials Committee, 1989), pp. 34–43, quote on p. 42.

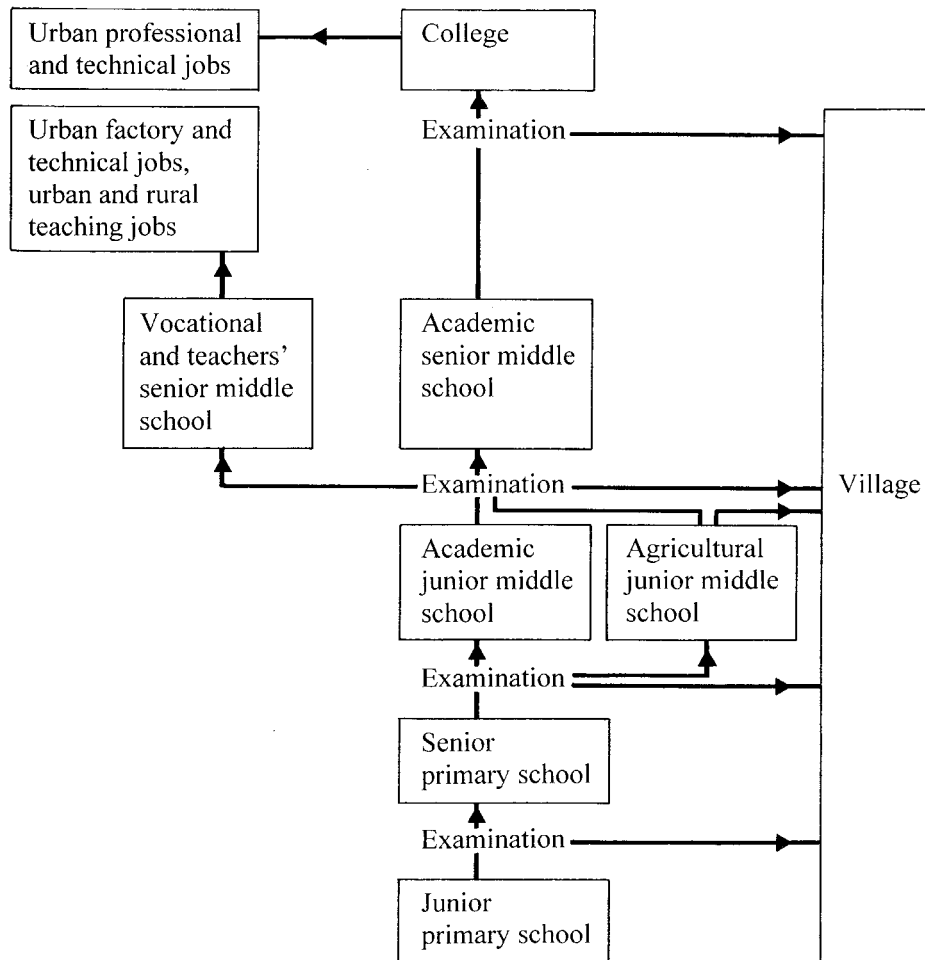


FIG. 1.—Rural education system on the eve of the Cultural Revolution (1966)

highest scores on unified county-wide entrance exams, and its graduates then had a great advantage in the competition to get into the senior middle school grades at the school, which capped the little pagoda. The little pagoda system further concentrated educational resources in the county seat, exacerbating the education gap between the county's only town and the villages.¹⁵

Impressive advances were made in expanding rural primary school education during the first decades of Communist power.¹⁶ By the eve of the

¹⁵ Several village primary schools, including Li Cun School in Bei Yi'an Commune, were also named as little pagoda schools, but they ranked below the county seat's Chengnei School.

¹⁶ Before 1949 there were less than 10 complete (6-year) primary schools in Lai Shui. Village primary schools, where they existed, usually only extended to the fourth grade and few students went beyond this level. Villagers who attended school in the 1930s and 1940s reported that only a minority of village boys, typically those from better off families, attended school. Female students were remembered as exceptional cases.

Cultural Revolution in 1966, junior (4-year) primary school education had become almost universal in Lai Shui County, even in the most remote mountain villages. County education officials also aimed to make senior (6-year) primary education universal, but limited financial resources and scarcity of teachers made it difficult to accomplish this goal. There were far fewer senior than junior primary schools; the senior primary school grades at Li Cun School in Bei Yi'an Commune, for instance, received students from four junior primary schools that served seven villages (see table 1). Fourth-grade graduates, therefore, faced tough entrance examinations to get into fifth grade and many had to walk a long distance to get to the nearest senior primary school. Villagers who attended senior primary school in Bei Yi'an in the mid-1960s recalled that many of their classmates did not continue on to fifth grade and that the proportion of girls in their classes dropped to about 40 percent.

The barriers to expanding middle school education in Lai Shui were even more formidable because county officials not only lacked the resources, but they also had no intention of widely expanding middle schools. The role of regular middle schools was to train a small number of especially talented students to be competitive in the national college examinations. Impetuous expansion, therefore, was seen as counterproductive. By 1966, Lai Shui had built only six regular junior middle schools (grades 7–9) and one senior middle school (grades 10–12).¹⁷ For most primary school graduates, the examination to get into junior middle school was an insurmountable barrier. In addition, since there were so few junior middle schools, most students had to live at school, driving up the cost. On the eve of the Cultural Revolution, while over 7,000 students entered Lai Shui primary schools annually, there were only 500–600 places in first-year regular junior middle school classes. Senior middle school education was even more exclusive. Lai Shui's only senior middle school had just two classes per grade, with a total of about 100 students. Of these, perhaps 30–40 would pass the college examinations (see table 2).

Junior middle school graduates with adequate examination scores could also opt to attend specialized vocational senior middle schools (*zhongzhuan*) instead of attending Lai Shui's academic middle school. In the 1950s and 1960s, the main type of specialized middle school to which Lai Shui children had access were those that trained primary school teachers. Because these schools—located in cities outside of Lai Shui County—guaranteed placement in state-sector jobs and urban household registration, admission was also a prized accomplishment. Students and teachers reported that the number of Lai Shui students who tested into specialized middle schools was also very small.

¹⁷ Before 1949, Lai Shui County did not have a middle school.

TABLE 1
SCHOOLS IN BEI YI'AN TOWNSHIP

A. ON THE EVE OF THE CULTURAL REVOLUTION (1966)			
Junior Middle School	Complete Primary Schools	Junior Primary Schools	Villages without Schools
Bei Yi'an Agricultural Middle School	Si Huangfu	Si Huangfu Cao Huangfu Liu Huangfu Wang Huangfu Li Huangfu	Dong Huangfu
	Bei Yi'an	Bei Yi'an Nan Yi'an Li Cun	Nan Zhuang Xin Jie
	Li Cun	Nie Cun Xia Zhuang Dong Yi'he Zhuang	Wen Xin Zhuang
B. AT THE END OF THE CULTURAL REVOLUTION DECADE (1976)			
Senior Middle School	Junior Middle Schools	Complete Primary Schools	
Bei Yi'an	Si Huangfu	Si Huangfu Dong Huangfu Cao Huangfu Liu Huangfu Wang Huangfu Li Huangfu	
	Bei Yi'an Nan Yi'an Li Cun	Bei Yi'an Nan Yi'an Li Cun Nan Zhuang Xin Jie	
	Nie Cun Xia Zhuang Dong Yi'he Zhuang	Nie Cun Xia Zhuang Dong Yi'he Zhuang Wen Xin Zhuang	
C. AFTER THE REFORM-ERA CONTRACTION (1991)			
Junior Middle Schools	Complete Primary Schools		
Bei Yi'an	Si Huangfu Dong Huangfu Cao Huangfu Liu Huangfu Wang Huangfu Li Huangfu Bei Yi'an Nan Yi'an Li Cun Nan Zhuang Xin Jie Nie Cun Xia Zhuang Dong Yi'he Zhuang Wen Xin Zhuang		

SOURCE.—Interviews with current and former Bei Yi'an school officials and teachers.

TABLE 2
NEW STUDENT ENROLLMENT AND SUCCESSFUL EXAMINATION CANDIDATES: LAI SHUI ON THE EVE OF
THE CULTURAL REVOLUTION

Level of School	Grades	Ages	Approximate New Student Enrollment	% New Primary School Enrollment
Junior primary school	1–4	7–10	7,000	100
Senior primary school	5–6	11–12		
Junior middle school	7–9	13–15	500–600	7–8.6
Senior middle school	10–12	16–18	100	1.4
Successful college entrance examination candidates			30–40	.4–.6

SOURCES.—New student enrollment is estimated based on data provided by Bao'an Zhou, "Jianjie Lai Shui jiaoyu fazhan de jige lishi jieduan" (Brief summary of several historic periods in Lai Shui's educational development), in *Lai Shui wenshi ziliao* (Materials on Lai Shui's cultural history), ed. Guolan Zhang (Lai Shui, Hebei: Lai Shui County Committee, Cultural History Materials Committee, 1989), pp. 34–43, data on p. 42. Zhou provided the following county-wide figures for total enrollment by school level in 1966: primary school, 42,702; junior middle school, 1,583; and senior middle school, 314. I divided total enrollment by the number of grades at each level to estimate the size of the entering class. This method underestimates the actual number of the entering students because it does not account for dropouts. The figures only include regular middle schools and do not include the 21 agricultural and vocational middle schools starting in 1963; no enrollment figures have been published for these schools. Data on successful college entrance examination candidates is based on interviews with current and former Lai Shui school officials and teachers.

Because the examination system provided a ladder out of the village (either to college or to specialized vocational schools), it supplied a powerful incentive for rural children to study even though students faced daunting odds.¹⁸ It was easy for teachers to use entrance examinations to inspire high levels of study discipline. The aim of study was tangible and precise—to successfully answer examination questions to get into the next level of school. This was especially true in middle schools, which were explicitly understood to be places to prepare to compete in the senior middle school and college examinations. The system also provided a clear goal for teachers and school leaders, whose abilities were evaluated in terms of how many of their students passed the examinations.

By the eve of the Cultural Revolution in 1966, rural parents had become accustomed to sending their children to at least a few years of school, so they would learn basic literacy and numeracy. Middle school education, however, was generally viewed as a route to college for a small minority of talented children. Even senior primary school classes were oriented mainly to preparing students to pass the junior middle school entrance examinations, the first hurdle in the college entrance steeplechase. This prize offered a powerful

¹⁸ Motivation to pass the examinations was not simply career-driven. Examination success also brought honor and status to the examinee and to his or her family, village, and school. A powerful reverence for education and examination success has its roots in centuries-old traditions connected with the imperial civil service examinations. See Benjamin Elman, "Political, Social and Cultural Reproduction via Civil Service Examinations in Late Imperial China," *Journal of Asian Studies* 50, no. 1 (February 1991): 7–28.

attraction, and the few students who passed the college examinations became heroic models for emulation. By the same token, however, as soon as it became clear that a student was unlikely to succeed in this competition, parents, teachers, and students alike saw little reason for him or her to continue in school.

The pressure of the examinations at every level required that all instruction be oriented to exam preparation. The content of the unified national college entrance examinations, which determined the content of examinations at lower levels, was exclusively academic and highly scholastic. Examination preparation involved memorizing a tremendous amount of material and was so time-consuming that there was no time for distractions. This precluded the inclusion of any kind of supplementary curricula, making it impossible to connect teaching with the practical realities of rural life or include any kind of vocational training. “You have to have the same curricula for city and village kids,” a Bei Yi’an school leader explained. “You have to have the same content; otherwise they couldn’t test into the university” (respondent no. 23).

The Failure of Agricultural Middle Schools

From the inception of Communist power in 1949, education policy was driven by competing tendencies to raise quality (*tigao*) and popularize (*puji*).¹⁹ While many education officials leaned toward raising quality and stressed the importance of identifying and training the most talented students, Mao Zedong and radical education reformers pressed to popularize education, expanding basic education in the countryside and developing rural-oriented curricula. This pressure resulted in the creation of agricultural middle schools (*nongye zhongxue*) in tens of thousands of villages during the Great Leap Forward (1958–60). In Lai Shui, newly organized communes in Bei Yi’an and three other areas built half-work/half-study agricultural junior middle schools. Students attended free of charge and, in addition to taking classes, they built small workshops and tilled land assigned to the schools. These schools soon folded, however, due to the economic collapse of the Great Leap Forward.

During the Socialist Education Movement (1963–66), another attempt was made to establish commune-run agricultural junior middle schools. This time, 20 communes in Lai Shui established such schools, and the county also set up a vocational junior middle school (*zhiye zhongxue*).²⁰ These schools enrolled students who did well on the junior middle school entrance exams, but not well enough to be accepted at the county’s six regular junior middle

¹⁹ Pepper traces alternating tendencies to raise quality and popularize education back to Communist base areas before 1949 (Pepper, *Radicalism* [n. 7 above], pp. 118–54).

²⁰ Lai Shui County Local Gazetteer Editorial Committee, p. 493.

TABLE 3
NEW STUDENT ENROLLMENT IN VOCATIONAL AND REGULAR MIDDLE SCHOOLS: CHINA, 1949–97

Year	Agricultural Middle Schools	Vocational Middle Schools	Specialized Middle Schools	All Vocational Middle Schools*	Regular Middle Schools	All Middle Schools
1949			98	98	412	510
1959	1,052		700	1,752	3,855	5,607
1961	297		167	464	2,665	3,129
1963	134	34	155	322	3,069	3,391
1965	2,251	814	208	3,273	3,457	6,730
1967			8	8	2,119	2,127
1971			213	213	15,562	15,775
1975			344	344	24,436	24,780
1977			366	366	33,608	33,974
1979			491	491	23,419	23,910
1983	436	320	478	1,235	15,769	17,004
1997	2,112		1,621	3,733	21,282	25,749

SOURCES.—National Education Commission, *Achievement of Education in China: Statistics, 1949–1983* (Beijing: Peoples Education Publishing House, 1984), pp. 26, 27, 208, 209; National Statistics Bureau, *China Population Statistics Yearbook 1998* (Beijing: China Statistics Publishing House, 1998), p. 369.

NOTE.—Unit: 1,000 students; data in this table include both junior and senior middle schools.

* Data for all vocational middle schools—agricultural middle schools (*nongye zhongxue*), vocational middle schools (*zhiye zhongxue*), and specialized middle schools (*zhongdeng zhuanye xuexiao*)—include students at both the junior and senior level. Specialized middle schools also recruit graduates from regular senior middle schools. In the 1980s, most vocational schools were senior middle schools. For most years only combined statistics were published for agricultural and vocational middle schools.

schools. Unlike the specialized vocational schools, the agricultural and the rural vocational schools did not provide job assignments in the state sector and urban registration. In addition to teaching academic courses, the agricultural and rural vocational schools were intended to provide students with practical skills needed to develop rural communities. Nationwide, new student enrollment in agricultural middle schools climbed from 133,721 in 1963 to 2,250,952 in 1965; by that time, students in these new village schools made up about one third of all middle school students (see table 3).

Agricultural middle schools were the first attempt to develop rural middle school education in China as a mass, as opposed to an elite, endeavor. They were intended to create a parallel rural-oriented system outside of the regular examination-oriented system. During the Cultural Revolution, Mao Zedong's radical followers would denounce this two-track approach as a mechanism of class reproduction that provided college preparation for a few and vocational training for the masses, and they would attribute the entire system to President Liu Shaoqi and others accused of "taking the capitalist road." Nevertheless, it is clear that Mao initially countenanced this two-track approach. It is also clear that the effort to develop two-tracks had already failed before it was criticized during the Cultural Revolution.²¹ The agricultural and rural vocational middle schools in Lai Shui never actually developed agri-

²¹ Jonathan Unger, *Education under Mao: Class and Competition in Canton Schools, 1960–1980* (New York: Columbia University Press, 1982), pp. 48–59.

cultural or other vocational curricula. Instead, students studied the same textbooks used in regular junior middle schools to prepare for the senior middle school entrance examinations. Administrators and teachers were determined to increase Lai Shui's success in the college examinations, and parents and students continued to aim their sights on the ladder out of the village that the examinations represented. "People wanted the [regular] junior middle school curriculum," explained a leader of the county-run rural vocational middle school. "They didn't like the idea that some students were supposed to go to college, while others were supposed to remain in the village" (respondent no. 28).²² Thus, these schools were not able to escape the pull of the examination system and simply became an inferior appendage of the system.

The failure of the agricultural middle schools led radical education reformers in China to come to the same conclusion as Philip Foster had: it was not possible to develop a popular rural-oriented system of village schools alongside the examination-oriented little pagoda system. The failure of this strategy was evident by 1966, when Mao decided to take the much more radical step of eliminating the examination system altogether.

Making Schools "Face the Village" during the Cultural Revolution

During the Cultural Revolution decade (1966–76), Mao Zedong initiated policies that overhauled the entire education system according to radical social leveling principles. The system was sharply curtailed at the top and massively expanded at the bottom, especially in rural areas. College examinations and the little pagoda system of college preparatory schools were eliminated. After colleges and universities were reopened in the early 1970s, college examinations were replaced by a recommendation system to select "worker-peasant-soldier students." As noted above, before the Cultural Revolution, peasant mobility had been sharply limited by the household registration system and state job allocation, making the examination system the main route out of the village. Now the examination route was also blocked. Village youth continued to go to the city to attend college (probably in larger numbers than before because of the class preferences accorded by "worker-peasant-soldier" recruitment policies), but now the production brigade, instead of the examination, became the gatekeeper, as it had the power to recommend middle school graduates for higher education.²³

Middle school graduates were required to work in production at least 2 years before being eligible for recommendation. Quotas were given to village

²² In her account of the failure of agricultural middle schools, Pepper wrote that teachers from around China reported similar attitudes (Pepper, *Radicalism*, pp. 305–12). Also see Unger, *Education under Mao*, pp. 53–59.

²³ Production brigades also recommended village youth for urban factory employment and military service.

production brigades and, in theory, college students were to be recommended by the masses, approved by the local leadership, and reviewed by college representatives. College representatives administered “cultural tests” that, depending on prevailing policy, varied in nature, difficulty, and weight in the final selection decision. Despite efforts to promote rank-and-file participation in the process, production brigade and commune cadres typically played the key role in recommending students. As a result, the recommendation system enhanced the dependence of villagers on village leaders and was plagued by corruption.²⁴ Because recommendation took place outside the school system, it falls outside the scope of this study. Instead, I analyze the impact that the replacement of college examinations by recommendation had on rural education.

An explicit aim of this change was to free schools to develop educative functions that had been hampered by the obsessive focus on entrance examinations. Rural-oriented curricula, which had previously been relegated to an inferior branch of the school system and were little developed even there, now were integrated into the mainstream of rural education. All rural students, including the most talented, were to complete the rural-oriented curricula in middle school and then return to their own villages (see fig. 2). Since selection for higher education occurred in the village, not in the education system, rural schools would no longer function as a ladder out of the village and would no longer focus on preparing a small number of talented students to compete in the college examinations. Instead, all rural schools were to face the village (*mianxiang nongcun*) and produce a new generation of educated peasants to modernize rural China.

Cultural Revolution reforms were designed to rapidly equalize educational attainment. All children were to attend 9 years of school: 5 years of primary school, 2 years of junior middle school, and 2 years of senior middle school.²⁵ Thus, primary and secondary education was compressed from 12 to 9 years, but participation was to be greatly expanded. The shape was to change from a pyramid into a box. The goal was a system that required no entrance examinations because all students were expected to complete senior middle school, and all schools exclusively served local districts and were

²⁴ Recommendation practices evolved over time and varied greatly by locality; the impact of the system on villages, workplaces, and universities has been little studied. See Mobo Gao, *Gao Village: Rural Life in Modern China* (London: Hurst & Co., 1999), pp. 107–14; Suzanne Pepper “Education and Revolution: The ‘Chinese Model’ Revisited,” *Asian Survey* 18, no. 9 (1978): 847–90, and *Radicalism*, pp. 455–65; Jonathan Unger, *Education under Mao*, pp. 191–200; Gordon White, “Higher Education and Social Redistribution in a Socialist Society: The Chinese Case,” *World Development* 9, no. 2 (1981): 149–66; and Quanhua Zhou, “*Wenhua da geming*” zhong de “*jiaoyu geming*” (“Education Revolution” in the “Great Cultural Revolution”) (Guangzhou: Guangdong Education Publishing House, 1999), pp. 179–94.

²⁵ Lai Shui and many other rural counties adopted a 9-year system. School systems in other areas provided a total of 10 years of education, either by maintaining 6 years of primary school (instead of 5), or by maintaining 3 years of junior or senior middle school (instead of 2).

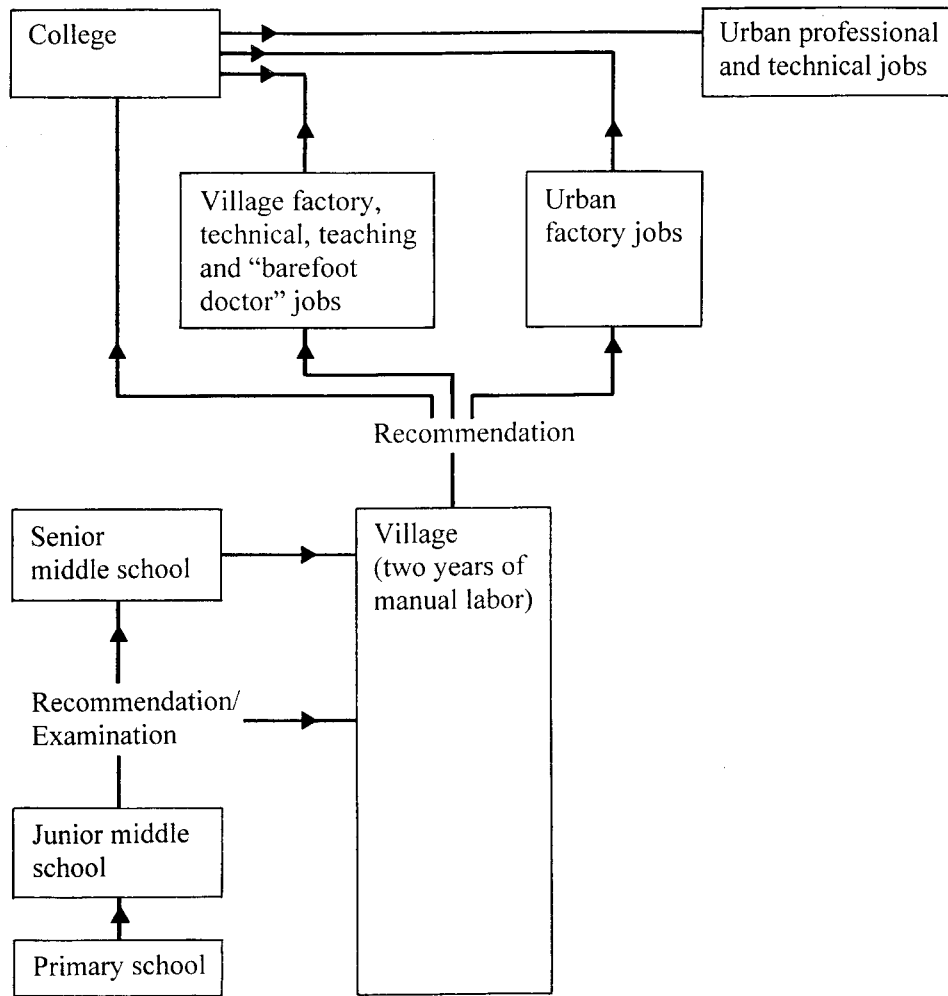


FIG. 2.—Rural education system at the end of the Cultural Revolution (1976)

nominally equal. In the following sections, I examine the actual results of Cultural Revolution education policies in Lai Shui County.

Rapid Expansion of Rural Middle Schools

Lai Shui moved toward the goal of making 9 years of schooling universal in deliberate steps, relying largely on village and commune resources. First, village junior primary schools typically added a grade to become complete 5-year primary schools, and the examination to enter fifth grade was eliminated. As a result, almost all children completed primary school. The examinations to enter junior middle school were also eliminated, and all primary school graduates were expected to go on to middle school. To make

places for them, the larger village primary schools added two junior middle school grades, dubbed putting on a hat (*dai maozi*). Villagers who attended Bei Yi'an Commune junior middle schools in the mid-1970s reported that virtually all children in their villages attended.²⁶ They remembered that boys and girls attended in equal numbers, an indication that junior middle school attendance was approaching universality.²⁷

Lai Shui No. 1 Middle School, previously the county's only senior middle school, was greatly enlarged, and the 7 county-run junior middle schools were all converted into senior middle schools. All became district schools that recruited only local students. In addition, every commune was expected to build a senior middle school once it had accumulated the teachers to do so. In 1970, Wang Cun became the first commune in Lai Shui to build a senior middle school. After a nationwide push to expand senior middle school education, Bei Yi'an and other communes also built senior middle schools.

Since there were not enough places in senior middle schools for all junior middle school graduates, a combination of examinations and recommendation was used to select students to go on to senior middle school.²⁸ By the end of the Cultural Revolution decade, according to students and teachers, all junior middle school graduates in Wang Cun Commune who wanted to attend senior middle school were able to do so, as were the great majority in Bei Yi'an. In less developed areas, there were fewer places in senior middle schools. Nevertheless, it was clear that Lai Shui County had taken major steps toward universalizing 9-year education. While the years of middle schooling were cut from six to four, the number of children attending regular middle schools had grown by more than 10 times, from 1,897 in 1966 to 21,931 in 1977.²⁹

²⁶ Former students' estimates of attendance rates were usually more precise than were those of teachers and school officials. Former students often could remember how many of the children in their village age cohort attended school and how many of their fellow villagers and fellow classmates went on to higher grades.

²⁷ One student specifically recalled that it was clear there were as many girls as boys when they were lined up boy-girl-boy-girl (to keep them from talking).

²⁸ Junior middle school graduates could attend either the senior middle school run by their commune or the county-run senior middle school in the district to which their commune belonged. Communes decided how to select students to send on to senior middle school. Bei Yi'an Commune always used entrance examinations, but in some years production brigade leaders would first select a pool of students to take the examinations. Slots were distributed to villages to make sure every village would have graduates. Preference was given to students of poor and lower middle peasant family origin and to students from families that had never had a family member attend senior middle school. Students from families with problematic histories (e.g., members had been deemed landlords, rich peasants, Guomindang government officials, counterrevolutionaries, or criminals) were typically excluded.

²⁹ Bao'an Zhou (n. 14 above), p. 42; Lai Shui County Local Gazetteer Editorial Committee (n. 11 above), p. 495. The 1966 figure does not include the 20 commune-run agricultural middle schools and the county-run vocational junior middle school. No enrollment figures have been published for these schools. A nearby county reported that 1939 students were enrolled in 19 agricultural middle schools in 1965 (Baoding City Local Gazetteer Editorial Committee, *Baoding shi zhi* [Baoding City Gazetteer], [Beijing: Local Gazetteer Publishing House, 1999], p. 81).

RURAL EDUCATION IN CHINA

The rapid expansion of middle school education in Lai Shui County during the Cultural Revolution decade was consistent with national patterns. According to National Education Commission statistics, between 1965 and 1977, the number of students entering the first year of junior middle schools located in county towns increased almost 250 percent, while the number entering village junior middle schools increased nearly 20-fold. The number of students entering county town senior middle schools increased more than sixfold while the number entering village senior middle schools increased more than 150-fold (see table 4). It is impossible to calculate specific attendance rates for rural areas because age cohort data do not distinguish between rural and urban residence. Combined urban and rural data, however, show that between 1966 and 1976, the proportion of the corresponding age cohort that graduated from primary school increased from 47 to 99 percent while the proportion that graduated from junior middle school grew from 11 to 77 percent, and the proportion that graduated from senior middle school grew from less than 3 to 36 percent (see table 5).

The principal practical obstacle to expanding village education had always

TABLE 4
NEW STUDENT ENROLLMENT IN REGULAR MIDDLE SCHOOLS: CHINA, 1949–97

Year	Junior Middle School				Senior Middle School			
	Village	County Town	Urban	Total	Village	County Town	Urban	Total
1949				341				71
1951				806				91
1953				818				161
1955				1,282				221
1957				2,170				323
1959				3,183				656
1961				2,218				447
1963	937	734	964	2,635	30	213	191	434
1965	1,018	701	1,279	2,998	44	224	191	459
1967				1,983				136
1969				10,234				1,036
1971	9,443	874	2,032	12,349	2,121	547	545	3,213
1973	8,033	1,148	2,209	11,390	2,146	939	1,435	4,520
1975	13,911	1,688	2,506	18,105	3,578	1,102	1,651	6,331
1977	19,556	1,728	2,393	23,677	6,660	1,452	1,819	9,931
1979	14,173	1,439	1,666	17,278	2,964	1,304	1,873	6,141
1981	10,755	1,495	1,877	14,127	1,358	1,019	901	3,278
1983	9,706	1,661	1,804	13,171	871	929	798	2,598
1985	9,469	2,125	1,900	13,494	723	1,072	80	2,575
1987	9,709	2,295	1,939	13,943	704	1,126	722	2,552
1989	8,858	2,258	1,977	13,093	608	1,080	733	2,421
1997	10,638	4,643	2,775	18,056	481	1,550	1,193	3,226

SOURCES.—National Education Commission, *Achievement of Education in China: Statistics, 1949–1983* (Beijing: People's Education Press, 1984), pp. 185, 198, *Achievement of Education in China: Statistics, 1980–1985* (Beijing: People's Education Press, 1986), p. 72, *Achievement of Education in China: Statistics, 1986–1990* (Beijing: People's Education Press, 1991), p. 67; and National Education Commission, *Education Statistics Yearbook of China: 1997* (Beijing: People's Education Press, 1998), p. 46. These figures do not include vocational and specialized middle schools because figures provided for vocational and specialized schools have not consistently distinguished between junior and senior levels and between urban and rural schools (see table 3 for new enrollment in vocational and specialized schools).

NOTE.—Unit: 1,000 students.

TABLE 5
PRIMARY AND SECONDARY SCHOOL GRADUATES: CHINA, 1950–84

Year	Primary School			Junior Middle School			Senior Middle School		
	12-Year-Old Age Cohort	Graduates	% Age Cohort	14/15-Year-Old Age Cohort	Graduates	% Age Cohort	16/18-Year-Old Age Cohort	Graduates	% Age Cohort
1950	10,074	783	7.8	11,239	234	2.1	9,127	62	.7
1952	10,388	1,490	14.3	9,894	185	1.8	10,459	36	.3
1954	11,299	3,325	30.8	10,271	576	5.6	10,060	68	.7
1956	11,104	4,051	36.5	11,050	785	7.1	10,074	154	1.5
1958	12,602	6,063	48.1	10,781	1,116	10.4	10,388	197	1.9
1960	14,030	7,340	52.3	11,346	1,422	12.5	11,299	288	2.5
1962	16,704	5,590	33.5	13,694	1,584	11.6	11,104	441	4.0
1964	17,840	5,674	31.8	14,445	1,386	9.6	12,602	367	2.9
1966	19,212	9,005	46.9	15,382	1,620	10.5	14,030	280	2.1
1968	18,678	14,282	76.5	18,339	5,190	28.3	16,704	794	4.8
1970	20,396	16,525	81.0	18,678	6,189	33.1	19,212	676	3.5
1972	14,306	14,149	98.9	20,396	10,355	50.8	18,678	2,159	11.6
1974	15,621	15,210	97.4	14,306	10,606	74.1	20,396	4,179	20.5
1976	25,131	24,895	99.1	15,621	12,060	77.2	14,306	5,172	36.2
1978	25,687	22,879	89.1	25,131	16,266	64.7	15,621	6,827	43.7
1980	24,538	20,533	83.7	25,687	9,648	37.6	25,131	6,162	24.5
1982	26,487	20,869	78.8	24,538	10,322	42.1	25,687	3,106	12.1
1984	25,222	19,995	79.3	26,487	9,504	35.9	24,538	1,898	7.7

SOURCES.—Data on graduates was compiled in National Education Commission, *Achievement of Education in China: Statistics, 1949–1983* (Beijing: People's Education Press, 1984), pp. 183, 213, and *Achievement of Education in China: Statistics, 1980–1985* (Beijing: People's Education Press, 1986), p. 6. This table does not include students who graduated from vocational and specialized middle schools because published statistics do not consistently distinguish these schools by level (junior and senior). See table 3 for new enrollment in vocational and specialized schools. Age cohort population data is taken from the 1953, 1964, and 1982 censuses (National Statistics Bureau, *China Population Statistics Yearbook—1993* (Beijing: China Statistics Publishing House, 1993), pp. 48–49).

NOTE.—Unit: 1,000 people. I used data from the census conducted nearest to the target year of school attendance, avoiding data for ages 1–3 because of relatively high infant mortality. I did not attempt to adjust the population data for mortality; the data are relatively inexact in any case (the number of people counted decreased between censuses for some age cohorts and increased for others). Because the length of schooling was cut during the Cultural Revolution, starting in 1970, I changed the corresponding age cohort for junior middle school graduates from 15 to 14, and changed the senior middle school graduates' age cohort from 18 to 16. The length of schooling was gradually increased in the 1980s. Year-to-year fluctuations in graduation rates in this table are in part an artifact of using population and graduation data that are not entirely commensurable. Those who graduated in a particular year were not necessarily members of the corresponding age cohort, for several reasons. First, children were required to be age 7 (by the Western method of calculating age) by September in order to enter primary school. For this reason, school grade cohorts were made up of children born between September and September, while census population cohorts were not. Second, children were held back and returned to school after dropping out, further combining age cohorts in the graduation data. Third, regional variation in the length of primary and middle schooling confounds comparison between age cohort and graduation data.

been a shortage of qualified teachers, and this problem became acute during the ambitious expansion of the Cultural Revolution decade.³⁰ The rural teacher shortage was addressed in two ways. First, primary school teachers across the country were required to return to the village of their origin. Village youth had always made up a large proportion of students at teachers' schools, and after graduation many had been assigned to urban schools. As a result of this directive, many teachers from primary schools in cities and county towns went to teach in village primary and middle schools. Second, village leaders selected young villagers who had finished middle school to serve as *minban* teachers, that is, teachers in community-run schools.³¹ The number of educated villagers who qualified to serve as *minban* teachers increased steadily during the early 1970s, as educated youth (*zhishi qingnian*) entered the village. Some were sent from cities down to the villages (*xia xiang*), but most were village youth who were now required to return to their villages (*huixiang*) after graduation from middle school.

Finding qualified teachers for the new village middle schools was especially difficult. The county could provide very few teachers, so most had to be promoted from among the ranks of senior primary school teachers. The teachers who had returned to villages from city schools generally had more education, and many were assigned to these new junior middle school positions. As senior middle schools were developed, teachers were typically promoted from the ranks of junior middle school teachers. When Bei Yi'an Commune built a senior middle school in 1976, its five-person teaching staff included one graduate of a 2-year teaching college, one regular senior middle school graduate, one senior middle teachers' school graduate, and one person who had only graduated from a regular junior middle school. Certainly, the level of formal education of rural teachers at all levels declined substantially as a result of the rapid expansion of rural schools.

Development of Rural-Oriented Curricula

Freed from the task of college examination preparation, rural schools were to develop practical curricula to support an intensified push for rural modernization.³² Starting in the mid-1960s, after China recovered from the disastrous collapse of the Great Leap Forward, village production brigades

³⁰ The problems were exacerbated by the fact that the children born in the baby boom after the post-Great Leap Forward famine years (1960, 1961, and 1962) were now entering school. The primary and junior middle school age cohorts during the 1970s were larger than at any time before or since. Moreover, factional fighting during the Cultural Revolution had closed middle schools and teachers' training schools for a number of years, temporarily interrupting the supply of new teachers.

³¹ *Minban* teachers did not receive a county salary but rather work points from village production brigades (like other villagers) along with a small cash subsidy from the county.

³² Middle schools in Lai Shui were closed during the first 2 years of the Cultural Revolution, which were marked by factional fighting. They reopened in 1968, but the academic content of courses was very limited until 1970. The general and vocational curricula described in this article were put in place starting in 1970.

once again enforced an intensive capital accumulation regime that sharply limited consumption and concentrated material resources and labor for programs of rural development. Electricity was extended to Lai Shui villages, and mechanization, irrigation, and chemical fertilizer were introduced in the county for the first time on a large scale, transforming an agricultural economy that had previously depended almost completely on human and animal labor, rain, and natural manure. As a result, grain production in Lai Shui improved significantly.³³ Communes and villages also built small enterprises designed to support agricultural modernization, mainly chemical fertilizer plants and farm machinery manufacturing and repair facilities.³⁴ At the same time, production brigades established medical clinics in every village, in addition to the new primary and middle schools. All of these endeavors required trained personnel.

While Cultural Revolution–era rural education policies were carried out under the banner of rural development, the new practical orientation of curricula was also promoted as part of an explicit effort to undermine the status of intellectuals relative to workers and peasants. Education policies were supposed to help narrow the differences between mental and manual labor, and between intellectuals and workers and peasants. In line with this goal, they denigrated purely theoretical knowledge, the domain of intellectuals, and stressed the value practical knowledge.³⁵

General education courses remained the staple of middle school education; specifically vocational courses were not offered until senior middle school (grades 8 and 9). General education courses in both junior and senior middle school included math, language, politics, history, music, physical education, and English.³⁶ In a significant manifestation of the vocational bent that minimized study of basic theory, science courses were consolidated into two practical courses, “agricultural knowledge” and “industrial knowledge.” Textbooks were designed to teach scientific principles using practical examples. Communes and villages provided their middle schools with land for agricultural experimentation. Most schools simply used the land to grow

³³ By the end of the collective era in 1979, grain production was double that of the best years of the precollective era (Lai Shui County Local Gazetteer Editorial Committee, pp. 130–31). Although the Communists’ intensive accumulation regime and rapid population growth continued to sharply constrain consumption, villagers in the plains area of Lai Shui, where agriculture was more readily modernized, reported that the previously intractable problem of hunger was solved in the early 1970s.

³⁴ Lai Shui communes and production brigades began building small industrial enterprises in 1964 and by 1977 there were 520 enterprises employing 3,393 people. Initially, these enterprises were largely limited to endeavors that supported agricultural modernization. During the post-Mao reform era, township enterprises were allowed to produce consumer goods and market restrictions were eased. They expanded rapidly and by 1989 there were 6,728 enterprises employing 42,889 people (Lai Shui County Local Gazetteer Editorial Committee, pp. 117–19, 186–87).

³⁵ For general expositions of the Cultural Revolution education program, see Hung Yung, “Education in China Today,” *China Reconstructs* (May 1975), pp. 2–5; and Chu Yen, “Why the University Enrolling System Should Be Reformed,” *Peking Review* no. 38 (September 21, 1973), pp. 19–21.

³⁶ English-language courses were eliminated during the ascent of Leftist policies in 1974.

crops for economic purposes—to provide food for teachers and generate income to buy books and supplies, and pay students' tuition. A few, however, actually organized students to conduct experiments, using new seeds and methods. One afternoon a week, students attended "labor class," in which they worked on the school's farm or in nearby factories or village production brigades.

Senior middle schools developed distinct models of vocational education. Lai Shui No. 1 Middle School provided all senior middle school students with a common general education program for one and a half years and then divided them into small groups for 6 months of specialized training in tractor operation and repair, bookkeeping, orchard care, medicine (to train "barefoot doctors" to serve in village clinics), and veterinary medicine. The senior middle school run by Wang Cun Commune organized a successful school-run chemical fertilizer factory, and the most important part of its vocational program revolved around the factory. Students at the Bei Yi'an Commune Senior Middle School chose between regular and vocational programs. The commune party secretary convinced the commune leadership to build the school near the site that Bei Yi'an was developing into a center for commune-run enterprises, including an agricultural machinery and auto repair shop and a veterinary clinic. Students in the vocational program spent 6 months studying general courses and then divided into groups to go to the enterprises to learn specific vocational skills.

Villages selected young people to participate in postsecondary education. According to the rhetoric of the day, these students were supposed to come from the communes and return to the communes (*shelai, shechu*). In practice, many of those who attended 3-year university programs—like their pre-Cultural Revolution counterparts—never returned to the commune. Much of postsecondary education, however, was organized as in-service training of various kinds. Village teachers, barefoot doctors, production brigade technicians, and commune factory workers were selected for short-term training in their fields. They then returned to their original villages.

Most of the young Lai Shui villagers who had been selected to serve as barefoot doctors in the new village clinics established in the early 1970s had precious little formal training. Some were the children of traditional Chinese medicine doctors and had learned from their fathers as apprentices while others had received a little training in senior middle school. In 1975, 100 practicing barefoot doctors were selected from around the county to participate in an 18-month training program. They were taught Chinese and Western medicine by five of the county hospital's best doctors, who were assigned full time to the project. After 1 year of course work, the students did a 6-month internship in the county hospital and then returned to their village clinics. They formed the first generation of formally trained medical workers at the village level. Village schools in Lai Shui also sent *minban* teachers to

similar training programs in a nearby county. Larger counties in the area set up agricultural universities (*nongye daxue*) that provided training in farm machinery maintenance, construction, irrigation, veterinary medicine, and so on. Participants were selected by their communes and returned to work in their communes after completing their course work.

Philip Foster advanced a number of general criticisms of school-based vocational programs that must be taken into account in considering the rural-oriented education strategy adopted in China during the Cultural Revolution. It is difficult, he wrote, to coordinate effectively between school-based vocational programs and the actual needs of enterprises. As a result, vocational programs often provide students with obsolete skills, or train them for jobs that do not yet exist (except, perhaps, in planners' schemes), and even when graduates' skills are needed, for a variety of reasons they often do not end up in the appropriate jobs. Because this study has been limited to schools, I am not in a position to fully evaluate to what extent these problems afflicted rural-oriented vocational education in Lai Shui County. During the collective era, however, conditions existed that mitigated such problems. The communes and production brigades had created positions for bookkeepers, teachers, barefoot doctors, farm machinery operators and mechanics, veterinarians, agricultural specialists (to introduce new seeds and crops, chemical fertilizer, irrigation, larger scale animal husbandry, orchards, plant disease treatments, etc.), electricians, and factory machinery operators and technicians. Although middle school graduates might eventually have saturated these positions, there is no indication that this happened. On the contrary, there seems to have been a severe shortage of adequately trained personnel to fill these positions and agricultural specialization, small-scale rural industrial enterprises, schools, and clinics were continuing to develop, creating an ever greater demand for young people with training in these vocations.

Since communes and production brigades ran middle schools and, at the same time, were responsible for agricultural production, the fledgling industrial enterprises, and the provision of medical care, they were in an advantageous position to microcoordinate training with actual technical needs (as Foster advocated). The vocational programs in the commune-run senior middle schools in Wang Cun and Bei Yi'an (the two I learned about) were both closely connected with the commune-run enterprises and, by all accounts, were very successful. Zhou Jianzhong, a teacher in the Bei Yi'an Commune Senior Middle School, proudly reported that many of his students went on to work in the enterprises where they had been trained, some of them becoming backbone technicians and managers. With their help, these enterprises did quite well during the 1970s, 1980s, and early 1990s. Moreover, during the Cultural Revolution decade, tertiary education was moving in the direction of providing mostly in-service training programs for people already

on the job. This form of technical education, favored by Foster, fit well with the recommendation system that replaced examinations.

Dongping Han has argued that the development of rural education during the Cultural Revolution decade made possible the modernization of agriculture and the development of small-scale rural industry in the 1970s and 1980s. Both the expansion of basic education, which taught literacy and numeracy, and the practical orientation of rural curricula, he wrote, provided young villagers with skills necessary for rural development. Although his research was limited to his own county, he was intimately familiar with both education and economic development there, and his argument seems entirely credible.

Reorienting Study Goals

Based on interviews with teachers and students who had taught and studied in urban middle schools during the Cultural Revolution decade, Jonathan Unger found that elimination of college entrance examinations led students to lose interest in their studies.³⁷ He concluded that education had to be linked to career opportunities in order to motivate students. His conclusion was all the more credible because he was a critic of the examination system and had gone to China hoping to find an antidote for the diploma disease. There is no doubt that the phenomenon Unger described was widespread in schools during the Cultural Revolution decade. Teachers and students in Lai Shui middle schools also reported similar attitudes. There were, however, important differences in Lai Shui, which led to greater interest in study.³⁸ A key difference was that education in rural areas was much more directly connected with future work than it was urban areas.

Like their urban counterparts, teachers in Lai Shui faced a difficult challenge in reorienting study goals after college examinations were eliminated. Previously, lessons had been intimately connected to the examinations, which had provided a direct route out of the village. Now, the direct connection between education and leaving the village was cut. Although middle school graduates, and particularly senior middle school graduates, were in a better position to be recommended for urban factory jobs or as worker-peasant-soldier university students, academic qualifications were less important than work performance, political qualifications, and personal relations, and performance in school was quite remote from the recommendation process. At the same time, however, middle school education was more directly linked with much more numerous local opportunities for advancement. With a senior middle school education, and especially with vocational training, stu-

³⁷ Unger, *Education under Mao* (n. 22 above).

³⁸ Pepper, who interviewed teachers from both urban and rural middle schools, noted that urban teachers complained more about disruptive students than did their rural counterparts (*Radicalism* [n. 7 above], pp. 411, 474–77).

dents were in a position to get those jobs in the communes and village production brigades that required greater education—bookkeeper, village teacher, barefoot doctor, veterinarian, tractor driver/mechanic, electrician, skilled worker in brigade and commune enterprises, and so on. There were, therefore, instrumental reasons for studying, although these were different than in the past.

Both teachers and students, who had long associated study with the examination ladder, had to adjust to the new face-the-village orientation of rural schools. When Li Shudong first entered Lai Shui No. 1 Middle School in 1972, he still hoped the course work would provide a ticket to get into college. Li was from a relatively educated family in a Bei Yi'an village, he had always done well in school, and he had dreamed about going to college since primary school. That year, moderate education officials had announced that, as part of an effort to raise academic standards, youth recommended to attend college would have to take a set of examinations. Anticipating the examinations, Li was excited about studying. The examinations were scuttled, however, in the summer of 1973, after Leftist opponents were successful in promoting as a hero a student candidate who had turned in a blank exam sheet with a protest note denouncing the examinations as unfair.³⁹ Li was greatly disheartened. He echoed the view of many others, students and teachers alike, saying the blank exam incident encouraged the idea that “studying is of no use” (*dushu wuyong*): “That blank exam sheet meant studying didn’t matter for going to the university.” After that, he recalled, he did not study as hard. “In any case, you were going back to the village,” he explained. “Whether you studied hard or you didn’t, the result was the same” (respondent no. 2).

In spite of his disappointment, however, Li subsequently adjusted to the more local objectives and content of the middle school system. In the end, “I still deeply understood the importance of studying,” he said. “We all played, but I still studied.” He and other students, he reported, appreciated the vocational training.

We students completely supported this training. It was learning that had more practical meaning. The purpose was to face the village. We were definitely all going back to the village. The aim was to train some knowledgeable people for the village, who could go back to the village and use their knowledge. . . . [These courses] were definitely good for the villages. Soon the villages started to develop and there were small tractors. When they broke, you had the ability to fix them. After that, you had people who knew more about planting trees and fighting pests, about irrigation and distributing fertilizer, so it definitely was advantageous. (Respondent no. 2)

³⁹ For accounts of the blank exam sheet affair, see Quanhua Zhou (n. 24 above), pp. 269–72; and Theodore Hsi-en Chen, *Chinese Education since 1949: Academic and Revolutionary Models* (New York: Pergamon, 1981), pp. 121–29.

The study environment in Lai Shui varied greatly from school to school. In some schools morale was low among both teachers and students; students came to school late, had little enthusiasm for study, and left early. The atmosphere in a particular school, several respondents noted, depended greatly on the conscientiousness and ability of school leaders and teachers. “If the teachers were conscientious,” concluded one teacher who had worked in both successful and unsuccessful schools during the early 1970s, “then the students were conscientious” (respondent no. 3).⁴⁰

Cultural Revolution education reforms brought about striking differences in the classroom atmosphere in Lai Shui No. 1 Senior Middle School. Previously, less than 2 percent of Lai Shui children made it to senior middle school; those who did were very diligent students determined to pass the college examinations. In the early 1970s, a far broader spectrum of children were attending senior middle school. Huang Shunan, a teacher at the school, described the change in her classroom:

Before the Cultural Revolution there weren’t any students who didn’t study hard. All of them were very conscientious. They wanted to study hard, to find a way out [of the village]. There weren’t any who didn’t want to study—that started during the Cultural Revolution. After the college examinations were restored [in 1977] this kind of thing disappeared. . . . Before they restored the examinations, some students studied hard, but a small number didn’t study hard or do their homework. They still wanted to play. If five or six students in a class were like this, it hurt the whole class. Some classes were easier to manage than others. Some were pretty chaotic. (Respondent no. 8)

When I asked Huang how teachers motivated students to study without the goal of passing the college examinations, she said they used patriotic and communist ideals about serving the country and their villages, ideals that still had motivating force: “We had to try to get them to study hard, to study some useful things. To study some things useful for people in the villages, some local knowledge. Then thinking just about your own interests, there was very little of that, you thought about the needs of the country. Today you think about yourself more. Then it was about making revolution. There weren’t college examinations, so the thinking was—go back to the village and work, become a tractor mechanic or take care of equipment” (respondent no. 8).

In describing students’ motivations during the Cultural Revolution decade, however, Huang easily integrated lofty ideals about serving the people with goals of personal advancement.

Then students did study hard. [Even though there were no college examinations] they could still do other skilled work (*rencai gongzuo*). Even if you till the land, you still need to have culture, otherwise you won’t be able to plant well. Then students

⁴⁰ Pepper’s rural respondents also stressed that school leadership was particularly important in the success of schools during the Cultural Revolution decade (*Radicalism*, pp. 430, 477).

wanted to serve the country. . . . There wasn't any particular goal, there were no examinations to get into college, so they just wanted to gain some knowledge in order to have some culture and make it so you stood out a little in the future. You could get a job, or in the village you could be a tractor mechanic. In your life you could have more opportunities. If you study some knowledge, you are stronger. (Respondent no. 8)

Huang recalled that most students, including many of those who were not very interested in academic lessons, were interested in vocational subjects: "The students were very interested in studying useful things. Many students really liked studying these things. We studied 'three machines and one pump'—electrical motors, diesel engines, tractors, and water pumps. In the village if you want to water fields, you can use a diesel engine or an electrical motor to run a water pump. You can use tractors to turn over the soil and to pull loads, so students were very interested" (respondent no. 8).

I interviewed teachers and students who taught and studied at three senior middle schools, Lai Shui No. 1, Wang Cun, and Bei Yi'an, and all of them reported a high degree of enthusiasm for vocational courses. The senior middle school run by Wang Cun commune, the first commune-run middle school in Lai Shui, was particularly admired for its vocational classes, its experimental farm, and its initiative in establishing a school-run chemical fertilizer factory. The success of rural vocational programs in Lai Shui senior middle schools during the Cultural Revolution decade stands in sharp contrast to the abject failure of such programs before and after the Cultural Revolution decade, and it demonstrates that it is not impossible to organize such programs.⁴¹

As noted previously, specifically vocational courses did not begin until the senior middle school level. Some junior middle schools maintained high levels of study discipline by using time-tested methods of motivating students, such as posting name lists ranked by test results in the classroom. This was especially useful in junior middle schools because students still faced examinations to enter senior middle school. Nevertheless, the ultimate goal of secondary education had changed from passing the college examinations to more local career opportunities, and the content of even the general courses was more closely linked to these local occupations. Rural middle school education was thus tied to future work, but the link was not mediated by college exams.

Regular urban middle schools, in contrast, never developed serious vocational programs. The result was that urban secondary education was, indeed, severed from future work opportunities. One reason for the lack of vocational education, it can be surmised, was that many urban graduates were to be sent down to the countryside after graduation and schools did not want

⁴¹ Pepper's respondents also described successful vocational programs at commune-run middle schools during the Cultural Revolution decade (*Radicalism*, pp. 310–12, 477).

to create alternate urban-bound and rural-bound tracks. In any case, the preferred model for urban technical education involved recruiting workers who were already on the job for short and long term training programs. Unger found that workers in these urban vocational programs, unlike urban middle school students, studied enthusiastically, a finding that was corroborated in interviews I conducted with teachers and students who had studied and taught at an urban industrial extension school (which recruited industrial workers) during the Cultural Revolution decade. Unger also contrasted the general malaise in urban middle schools during the Cultural Revolution decade with the high levels of study discipline among students in specialized vocational middle schools before the Cultural Revolution. These students were not allowed to take the college examinations, but were guaranteed professional and technical jobs in the state sector. The enthusiasm for vocational study among Lai Shui middle school students offers further support for Unger's contention that connections between education and future work opportunities are critical to student motivation, but does not support the idea that students will not study without inspiration from a college entrance examination system.

Popular Support for Village Middle Schools

In Lai Shui villages, the education revolution that accompanied the Cultural Revolution is remembered for disrupting the education system, but it is also remembered as a period of mass mobilization to build village schools. Rural teachers were in the peculiar position of being both the objects and the agents of this revolution. On the one hand, the Cultural Revolution brought sharp attacks on rural intellectuals. Because a large proportion of the teaching staff had come from old, educated elite village families, they had long been suspect, and during the Cultural Revolution those who came from "bad" family backgrounds (landlords, rich peasants, Guomindang officials, etc.) and/or had been deemed to be Rightists were subject to renewed attacks.⁴² Veteran teachers were further criticized for carrying out the revisionist education line before the Cultural Revolution. On the other hand, rural teachers were called on to play a vanguard role in the Cultural Revolution campaign to rapidly expand education in the countryside. Many teachers felt a strong responsibility to develop rural education. In 1975, teachers and students helped the Bei Yi'an Commune construction brigade build their new senior middle school during the day and attended classes at night. The teachers recruited to work at the school not only helped build the school and teach, but they also had to develop new senior middle school academic

⁴² The Guomindang, or Nationalist Party, ruled China before the 1949 Revolution. During the 1957 Anti-Rightist movement, 208 Lai Shui residents were labeled Rightists, typically for having questioned Communist leadership or policies. Of these, 23 were cadres, and the remaining 185 were teachers (Lai Shui County Local Gazetteer Editorial Committee, p. 483). One teacher estimated that almost one third of the teaching staff were deemed to have made Rightist errors of varying degrees of severity.

and vocational curricula. One teacher, Zhou Jianzhong, recalled the feeling among the teachers: “We worked very hard that first year of the school; we wanted to build up the school. We lived at the school. We lived a very simple life. Our homes were very close, but we were too busy to go home. . . . Intellectuals wanted to help build up the country; we were very willing to work to help the country” (respondent no. 6).

Zhou was enthusiastic despite (and perhaps also because of) the fact that he lived under the shadow of his father’s past as a Guomindang official. The principal of the new Bei Yi’an Commune Senior Middle School, who was tremendously dedicated to the project, had also undoubtedly suffered because of his rich peasant family origin. The tension felt by teachers, as objects and agents of the rural education revolution, was captured by Zhou: “Teachers were very conscientious. We didn’t dare not be conscientious (*bu gan bu renzhen*)” (respondent no. 6).

Zhou reported that there was strong support among Bei Yi’an villagers to build the commune-run senior middle school in 1975, and on this point there was universal agreement. Meetings were held in villages to discuss the pros and cons of building the school and then to mobilize for construction. Village support was critical, because village production brigades had to provide the labor and materials. “Everything had to come from within the commune. . . . This was the concept—every village contributed labor, bricks, lumber—that’s how they built the school. . . . People’s initiative was very high. They all wanted their children go to school. They could only go to school if they had a school. . . . So, among the people there was a lot of enthusiasm for building the school” (respondent no. 6).

Wang Lingquan, a teacher at the new school who was charged with handling the logistics of construction, recalled that there was pressure from both above and below to build the school: “Bei Yi’an didn’t really have the money to build a senior middle school. The main reason to build it was that we had so many junior middle school graduates—they had nowhere to go on to school. The people in the commune pushed for it, and those above us also pushed for it. So even though we didn’t have the conditions, we built it anyway. . . . The people strongly supported it—they were building classrooms for their children” (respondent no. 18). It is appropriate to note that villagers supported the school despite the fact that at that time there were no college entrance examinations for which the school could prepare students. In fact, it was the restoration of the examinations 2 years later that ultimately led to the school’s demise.

Restoration of the Examination System in the Post-Mao Era

Contraction of Middle School Education

The leadership that came to power after Mao Zedong’s death in 1976 reversed the educational policies of the Cultural Revolution, which they ar-

gued had ruined the quality of Chinese education. College examinations were restored in 1977, and resources were once again concentrated on developing a small number of high-quality college-preparatory schools. National education officials decided that secondary education, especially in rural areas, had been expanded too rapidly, stretching limited resources so that standards could not be maintained.⁴³

Soon after college examinations were restored, Lai Shui County education officials received instructions from provincial authorities to pare down the number of secondary schools and focus on developing a few high-quality key-point (*zhongdian*) schools. Within a few years, the senior middle schools established by Bei Yi'an and other communes were all closed. Wang Cun Commune's widely admired senior middle school made a valiant effort to avoid the axe by proving that it could produce students who were competitive in the college entrance examinations. In the first years after the examinations were restored, Wang Cun students actually did better than Lai Shui No. 1 Middle School students, despite the fact that the latter, as the county key-point senior middle school, could recruit students with the highest examination scores from the entire county. Nevertheless, to the disappointment of its leaders and teachers, in 1982 Wang Cun was instructed to stop recruiting senior middle school students. Most of the village junior middle schools were also closed or merged. Once again, the examination competition provided a powerful incentive to comply with the policy to close middle schools. A county education official explained the logic:

The quality of the teaching staff at the commune senior middle schools was poor and they also lacked equipment. They were eliminated in order to concentrate forces to run one good key-point middle school, a county senior middle school. The scores [on the college examinations] of those schools were not good, so we closed them. We set our sights on the college examinations. We took the better teachers from the other schools and sent them to Lai Shui No. 1 Middle School. We gave it the best equipment; if there was any left we gave it to the other schools.

⁴³ For accounts of the contraction of middle school education and the renewed emphasis on elite college-preparatory schools see Borge Bakken, "Backward Reform in Chinese Education," *Australian Journal of Chinese Affairs* (January–July 1988): 127–63; Jing Lin, *Education in Post-Mao China* (Westport, Conn.: Praeger, 1993); Lynne Paine, "Making Schools Modern: Paradoxes of Educational Reform," in *Zouping in Transition: The Process of Reform in Rural Northern China*, ed. Andrew Walder (Cambridge, Mass.: Harvard University Press, 1998); Suzanne Pepper, *China's Education Reform in the 1980s: Policies, Issues, and Historical Perspectives* (Berkeley: University of California at Berkeley Institute of East Asian Studies, 1990), and *China's Universities: Post-Mao Enrollment Policies and Their Impact on the Structure of Secondary Education* (Ann Arbor: University of Michigan Center for Chinese Studies, 1984); Stanley Rosen, "Recentralization, Decentralization, and Rationalization: Deng Xiaoping's Bifurcated Educational Policy," *Modern China* (July 1985): 301–46; Stanley Rosen, "Restoring Key Secondary Schools in Post-Mao China: The Politics of Competition and Educational Quality," in *Policy Implementation in Post-Mao China*, ed. David Lampton (Berkeley: University of California Press, 1987); Stig Thøgersen, *Secondary Education in China after Mao: Reform and Social Conflict* (Aarhus, Denmark: Aarhus University Press, 1990). Suzanne Pepper also put together an excellent collection of documents that explain the aims of the contraction and reorganization of the Chinese school system; see Pepper, ed., "Rural Education (I)," *Chinese Education and Society* 27, no. 5 (September–October 1994).

The aim was to produce more talented students who could pass the college examinations (*duo chu yidian gaokao rencai*). (Respondent no. 12)

County officials, he said, were under great pressure to improve the county's dismal results on the college examinations: "There was no other choice. Other places had better conditions than we did. Every year after the college examinations they would rank all the counties . . . based on how many students passed the examinations. So in those conditions, you had to do it that way. . . . The goal was to increase the number of students testing into college" (respondent no. 12).

Teachers and school leaders had previously embraced the Cultural Revolution goal of universalizing middle school education, and it was not easy to give up this goal. Wang Huaiyin, a former middle school leader in Bei Yi'an, said if it had been up to him, he would not necessarily have closed the schools. "We eliminated the schools following the spirit from above," he said. "It wasn't our decision; we didn't have the power to decide" (respondent no. 12). Nevertheless, Wang could appreciate the arguments for merger. He explained the pros and cons of closing and merging village junior middle schools this way: "Merger had its advantages. Students [in the one remaining commune junior middle school] had a chance to test into Lai Shui No. 1 Senior Middle School. Previously, those from weaker schools didn't have a chance. Having a junior middle school in every village also had advantages for the students—that way they could all go to school. It was possible to make junior middle school attendance universal. The disadvantages are that the teaching force was limited and quality declined. So there were advantages and disadvantages" (respondent no. 12).

Wang's explanation presents very clearly the contrary logics of the popularizing and key-point strategies. While the popularizing strategy demanded the dispersal of resources (and, in the absence of examination competition, could tolerate the resulting decline in quality), examination competition required the concentration of resources in elite schools to make it possible for at least some to compete successfully.

The restoration of the college examinations had fundamentally changed the purpose of education. In 1975, when Bei Yi'an Commune leaders had called meetings to win support for building a senior middle school, the explicit goal was to educate youth to help modernize the commune. They had, by all accounts, won enthusiastic support for the school. By the time the school was downgraded to a junior middle school in 1979, it had dropped its vocational program that had been linked with the commune enterprises, and its best teacher had been transferred to the key-point middle school in the county seat. The main aim of attending middle schools had once again become to prepare for the college exams, and the Bei Yi'an school was struggling, with little success, to produce competitive exam candidates. Under these conditions, the key-point logic had become compelling and was widely

accepted by parents, students, teachers, and school leaders: What is the point in having a senior middle school if it is unable to train students to succeed in the college examinations?

Although the terminology changed, the new key-point school system reproduced the little pagoda of the early 1960s. This time, no primary-level key-point schools were designated, but students attending the county-supported primary school in the county town, including most cadres' children, had certainly lost none of the advantages their predecessors had enjoyed before the Cultural Revolution. As in the early 1960s, primary school graduates competed in county-wide examinations to determine who could attend junior middle schools (ranked by quality) and junior middle school graduates competed in examinations to win admission to senior middle school (also ranked by quality). To supplement their income, middle schools typically admitted some students whose examination scores fell short of the standard, but charged them higher tuition. In the key-point spirit, Lai Shui No. 1 Senior Middle School cut the number of classes per grade from seven to four. At the same time, it added two classes for graduates who failed to pass the college examinations, so they could remain in school another year to prepare to take the examinations again.

Education officials scoured the county's schools to identify the best teachers at all levels and transferred them to the key-point schools. Several of Bei Yi'an's backbone middle school teachers returned to schools in the county town. As the education hierarchy was reestablished and personal mobility increased, the more qualified teachers also moved up the hierarchy. While the key-point schools in the county town recruited the more qualified teachers from the villages, they also lost their most qualified teachers, who found jobs in the city. A teacher at Lai Shui No. 1 Middle School reported that almost all the teachers from outside the county (who had been assigned to Lai Shui after graduating from teachers' schools) left in the early and mid-1980s. Nevertheless, Lai Shui was slowly able to increase the formal training of its teachers, both by hiring new graduates of secondary and tertiary teachers' schools and by sending *minban* teachers to receive further training.

Between 1977 and 1981, the number of middle schools in Lai Shui was cut from 121 to 28, and the number of students entering regular middle schools fell from 11,280 to 4,118 (see table 6). The contraction of middle school education in Lai Shui County is illustrated in the contraction of the Bei Yi'an Commune school system (see table 1). The new senior middle school built by Bei Yi'an Commune was downgraded into a junior middle school, and all of the other junior middle schools were eventually closed. Lai Shui's experience, once again, was consistent with national statistical trends. Countrywide, the number of students entering rural junior middle schools fell by nearly half between 1977 and 1983 while the number entering rural senior middle schools declined by almost 80 percent (see table 4).

TABLE 6
PRIMARY AND REGULAR MIDDLE SCHOOL STUDENTS AND SUCCESSFUL EXAMINATION CANDIDATES:
LAI SHUI COUNTY, 1977–89

Year	New Primary School Student Enrollment	New Middle School Student Enrollment*	Middle School Graduates**	Successful College Entrance Examination Candidates†
1977	8,566	11,280	7,311	
1978	9,738	9,757	8,694	1
1979	8,348	7,051	7,436	10
1980	7,056	5,572	3,729	22
1981	6,672	4,118	3,948	22
1982	6,178	4,271	3,413	21
1983	6,462	5,480	5,396	74
1984		4,354	3,926	64
1985	6,709	4,310	2,491	41
1986	6,089	3,979	2,710	42
1987	6,029	3,903	2,635	11
1988	6,625	3,614	2,805	36
1989	7,181	1,333	2,720	15

SOURCE.—Lai Shui County Local Gazetteer Editorial Committee, *Lai Shui xianzhi* (Lai Shui County gazetteer) (Beijing: Yan Shan Publishing House, 2000), pp. 492–95.

NOTE.—These figures do not include vocational middle schools. Enrollment figures for these schools have not been published. The drop in the number of entering and graduating regular middle school students in 1984 is probably largely the result of the conversion of three middle schools into agricultural schools.

* Junior and senior middle school combined.

** Junior and senior middle school combined.

† Figures in this column only include graduates of Lai Shui No. 1 Middle School. Very few students from other senior middle schools in Lai Shui pass the college entrance examinations.

Combined urban and rural data show that between 1976 and 1984 the proportion of the corresponding age cohort that graduated from junior middle school dropped from 77 to 36 percent, while the proportion that graduated from senior middle school dropped from 36 to 8 percent (see table 5). The general trends indicated in these school-generated statistics, including the sharp rise in educational attainment during the Cultural Revolution decade and the fall in middle school attendance rates during the early reform years, have been corroborated by analyses of life history surveys and of educational attainment responses in the 1990 population census.⁴⁴

During the 1980s, the Lai Shui school system stabilized into a pyramid shape similar to that of the 1960s although middle school attendance did not return to the tiny proportions of the pre-Cultural Revolution period. Between 1983 and 1989, the length of primary school was expanded to 6 years, junior middle school to 3 years and senior middle school to 3 years, restoring the pre-Cultural Revolution system. During the last half of the

⁴⁴ Emily Hannum, "Political Change and the Urban-Rural Gap in Basic Education in China, 1949–1990," *Comparative Education Review* (May 1999): 193–211; John Knight and Li Shi, "Educational Attainment and the Rural-Urban Divide in China," *Oxford Bulletin of Economics and Statistics* (February 1996): 83–117; Jingming Liu, "Jiaoyu zhidu he jiaoyu huode de daiji yinxiang" (The inter-generational influence of the education system and education attainment), in *Shengming de licheng: zhongda shehui shijian yu zhongguo ren de shengming guiji* (Life course: Major social events and Chinese people's life paths), ed. Qiang Li (Hangzhou: Zhejiang People's Publishing House, 1999).

1980s, about 6,500 children entered the first year of primary school per year, about 3,000 entered the first year of junior middle school, about 500 entered the first year of senior middle school, and an average of about 30 graduates passed the college examinations (see table 6).⁴⁵ Almost all of these passed with scores that allowed them to attend 3-year vocational colleges (*dazhuan*) but not regular universities (*daxue*).

By 1984, the sharp contraction of village schools was halted, and in 1986 national education authorities reestablished the goal of universalizing junior middle school education. This effort was slow getting started and made little headway for more than a decade in both Lai Shui and rural China as a whole. Nevertheless, during the 1990s there was real progress, aided greatly by population control policies that steadily cut the number of school entrants. While schools had previously struggled to provide teachers and classrooms for an ever-growing student population, now capacity exceeded demand as the size of age cohorts declined steadily. In 1997, the junior middle school examinations were eliminated. Junior middle school attendance increased and in December 1999 the Hebei Provincial Education Commission awarded Lai Shui County a bronze plaque confirming that it had “basically accomplished universal junior middle school education.”

By the official definition, however, universal only means that almost all children enter middle school. In fact, many children in Lai Shui still do not make it through junior middle school. Li Yuzhong, a student who graduated from Bei Yi’an Junior Middle School in the summer of 2000, named 16 students in his class of 37 who had dropped out before graduating. Li said the dropout rate in his class was not unusual, and when I related this to teachers and education officials, they were not surprised. Thus, in Bei Yi’an Township—located in one of the economically better off and culturally more developed areas of Lai Shui County—perhaps 40 percent of students drop out of junior middle school. Students and teachers cited several factors that lead students to drop out, but they all agreed the key reason is poor grades.⁴⁶ Once it has become clear that a student will not be able to compete successfully in the senior middle school and college examinations, teachers, parents, and students feel there is no point in continuing to study.

⁴⁵ Lai Shui County Local Gazetteer Editorial Committee (n. 11 above), pp. 492–95. The *Gazetteer* provides one figure for students entering both levels of regular middle schools. I have estimated the number of students entering senior middle schools based on the number of classes in these schools, and subtracted this number from the total to arrive at an estimate for the number of students entering junior middle schools. The *Gazetteer* only provides the number of students from Lai Shui No. 1 Middle School who passed the college examinations. Education officials said few students from other county senior middle schools pass the examinations.

⁴⁶ For discussion of the dropout problem, see Thogersen, *Secondary Education in China*, pp. 60–69. Pepper also put together an excellent collection of documents and press reports that discuss the dropout problem and related concerns about rural education; see Pepper, ed., “Rural Education (II),” *Chinese Education and Society* 29, no. 1 (January–February 1996).

Elimination of Rural-Oriented Curricula

The sudden restoration of college examinations in the summer of 1977 caught Lai Shui education officials, teachers, and students by surprise. Middle school leaders and teachers quickly tossed out the Cultural Revolution-era “industrial knowledge” and “agricultural knowledge” textbooks and vocational courses and did their best to reconstruct the examination-oriented lessons from the pre-Cultural Revolution era. At first, they had to create their own teaching materials because new textbooks were not yet available. Thus, practically overnight the rural-oriented curricula of the Cultural Revolution decade completely disappeared from the school system. A new effort was made, however, to develop vocational branches that diverged from the central academic axis of the school system. While Chinese education authorities were concerned first and foremost with rebuilding the college-preparatory system, they also believed rural-oriented curricula were needed for rural development, and that for the great majority of village children the college examination competition was an exercise in futility. They, therefore, tried once again to develop agricultural middle schools.

In 1983, a county-run senior middle school in Lai Shui was converted into an “agricultural technology” school, and in 1984 two township (former commune) junior middle schools, including the former senior middle school in Bei Yi’an, were converted into agricultural junior middle schools. An extra year of schooling was added to the agricultural junior middle school program specifically for vocational training. Just as before the Cultural Revolution, however, these schools, despite explicit central mandates, never developed vocational curricula; they continued to use the same examination-oriented textbooks used in regular middle schools. The name “agricultural” simply came to indicate a lower-quality regular middle school. School leaders at the agricultural junior middle schools used the extra year exclusively to further prepare students for the senior middle school examinations. “The leaders of those schools were smart,” noted a retired teacher. “By getting the extra year, they could raise their examination pass rates” (respondent no. 29). Once college examinations had been reestablished, parents and students understandably wanted at least a shot at them, no matter how slim their chances. After a few years, therefore, the effort to develop agricultural junior middle schools was abandoned, and these schools once again became regular junior middle schools. The agricultural senior middle school survived, but it focuses on preparing students for the college examinations.⁴⁷

As agricultural middle schools in Lai Shui and elsewhere were failing, He Dongchang, vice-minister of the National Education Commission, cited two factors that made the development of rural vocational education difficult. First, “one-sided pursuit of promotion rates” had led to the elimination of

⁴⁷ For discussion of the failure of agricultural middle schools in the 1980s, see Pepper, *China’s Education Reform*, pp. 102–11; Rosen, “Recentralization,” pp. 301–46; and Paine, pp. 232–35.

courses not connected to the examinations and, second, decollectivization had eliminated specialized jobs in the agricultural sector.⁴⁸

While efforts to build agricultural middle schools failed, nonagricultural specialized vocational schools were more successful. The goal set in the mid-1980s by national education officials was for half of all senior middle school students to study vocations instead of preparing for the college examinations.⁴⁹ Junior middle school graduates in Lai Shui with adequate examination scores could attend a growing variety of specialized senior middle schools in nearby cities; nevertheless, teacher's schools remained by far the most important type of specialized middle school to which they had access.⁵⁰ Because these schools provided another route to state-sector jobs, they were able to resist the pull of the college examinations. In fact, during the 1980s and early 1990s, many students whose examination scores were high enough to get into Lai Shui No. 1 Senior Middle School chose instead to go to specialized schools. This was preferable to the college-preparatory route, they decided, where the chances for success were slim.

In the 1990s, as free market practices began to enter the education realm, private vocational schools were established, and both private and public vocational schools raised tuitions and fees. Despite the higher tuitions, those schools that could place students in jobs were still attractive. After the mid-1990s, however, state job allocation policies were ended, and most schools could no longer find jobs for their graduates, greatly eroding their popularity. Today many vocational middle schools cannot even fill their classrooms. A student about to graduate from Bei Yi'an Junior Middle School in the spring of 2000 told me about the prospects he and his fellow graduates faced: "Very few students get into [academic] senior middle school, only a handful. The others are not very eager to go to a specialized vocational middle school. Specialized vocational middle schools are just a way for those who run them to make money. That's true for both private and public schools—there's not much difference between them. Students must pay a lot of money to enter—sometimes 10,000 yuan [about US\$1,200]. That's a lot of money for a peasant family to come up with. And they usually can't find a job for you afterwards" (respondent no. 5). Although countrywide the proportion of senior middle

⁴⁸ He Dongchang, "Rural Education Should Primarily Serve Local Construction," *Chinese Education and Society* (January–February 1996), pp. 11–23.

⁴⁹ The section of the 1985 education reform resolution that sets forth the aims of developing vocational education was translated in *Chinese Education and Society* 24, no. 3 (Fall 1991): 8–15. The problems encountered by vocational education programs are discussed in Thøgersen, *Secondary Education in China*, pp. 94–110; Leslie Nai-kwai Lo, "The Changing Educational System: Dilemma of Disparity," *China Review* (1993), pp. 22.20–22.25; Paine, pp. 232–35; Jin Yang, "General or Vocational: The Tough Choice in the Chinese Education Policy," *International Journal of Educational Development* 18, no. 4 (1998): 289–304; and Stig Thøgersen, "Learning in Lijiazhuang: Education, Skills, and Careers in Twentieth Century Rural China," in *Education, Culture and Identity in Twentieth Century China*, ed. Glen Peterson, Ruth Hayhoe, and Yongling Lu (Ann Arbor: University of Michigan Press, 2001), pp. 238–64.

⁵⁰ Graduates of academic senior middle schools may also test into specialized senior middle schools. They study for 2 years while junior middle school graduates study for 4 years.

school students attending vocational schools of some type has surpassed 50 percent,⁵¹ meeting the goals of education officials, the increase in attendance masks the underlying decline in vocational education since the end of state job allocation. Like agricultural schools, nonagricultural vocational schools that cannot place students in jobs are increasingly pressed to drop vocational courses and concentrate on examination preparation.

The increasing pull of the examination system can also be seen in another trend: the proliferation of private academic schools.⁵² In Lai Shui, a private college-preparatory school was established in 1998. Built by a clan from Li Cun village that made a fortune in the construction business, the school recruits students from the entire county who fail to test into Lai Shui No. 1 Middle School. The students live at school and are only allowed to return home twice a month for a total of 4 days, so they have more time to study. “It’s a closed school,” explained a teacher at Bei Yi’an Junior Middle School. “If they didn’t do it that way, their examination pass rate (*shengxue lu*) would not be high and no one would go there” (respondent no. 26). The school is housed in an impressive new four-story building in a walled compound just outside of Bei Yi’an. The building was constructed to house and educate far more than the 400 or so middle school students the school has recruited to date, and it intends to expand to include primary school grades. Bei Yi’an teachers noted, however, that its future is riding on how the first class of graduates does on the college examinations.

Producing Talented Test-Takers

The restoration of college examinations in 1977 reintroduced a powerful kind of study discipline in Lai Shui middle schools, and this discipline has only increased over time. Most students at Lai Shui No. 1 Middle School live at school and spend almost all their waking hours preparing for examinations. In the end, several dozen succeed every year. About 100 students who fail spend another year at school preparing for the next year’s examinations. Some spend several more years preparing before they succeed or give up.

I asked teachers to compare students’ motivation and the study atmosphere during and after the Cultural Revolution decade. The initial perspective of my question, originating in my experience in the relatively relaxed atmosphere of U.S. secondary schools, was simple—more diligence in study is necessarily a good thing. My perspective changed as I became more familiar with the study atmosphere in Chinese middle schools. A teacher at Bei Yi’an Middle School told me:

When I started attending junior middle school in 1971, the study atmosphere was

⁵¹ Ministry of Education, *Educational Statistics Yearbook of China, 1996* (Beijing: People’s Education Publishing House, 1997), pp. 44, 56, 67.

⁵² For an analysis of the resurgence of private education of various types across China, see Jing Lin, *Social Transformation and Private Education in China* (Westport, Conn.: Praeger, 1999).

not as intense as it is today. The competition was not as intense. But I think it was intense enough. Students still wanted to do better than their classmates. But today it's too extreme. Everything is about grades, about examinations, about struggling for higher scores. You should let students study in a relaxed atmosphere. Today the teaching method is "force-feeding the duck" (*tian yazi*) [refers to fattening up ducks before slaughter]. Everything is very tense. Every junior middle school in the county is ranked. They list all of them, ranked by their students' rate of advancing to the next level (*shengxue lu*). Some homeroom teachers list the kids in their class by scores. It's not good for the students' mental health. There's too much pressure. (Respondent no. 26)

After the college examinations were restored in 1977, they once again dictated curricula and teaching methods. Despite recurrent efforts by Chinese education reformers to promote methods and content not tied to the examinations, parents and students do not want to be placed at a competitive disadvantage by any diversion from examination preparation, a view shared by teachers and school leaders, all of whom are judged by the pass rate of the students under their supervision. After the examinations were restored, not only were agricultural and other vocational courses quickly eliminated from Lai Shui middle schools, musical and theater troupes were as well. Today, in fact, there is little time even for mandated academic courses if the content of these courses is not featured in the entrance examinations. The courses that remain are taught with the potential examination questions in mind.

Although I spent little time examining teaching methods and materials, I did learn a little about English language instruction. Hoping to return some of the good will I had been shown, I offered to teach classes of spoken English at some of the rural junior middle schools I visited. This gave me an opportunity to observe how English was taught and to examine the textbooks used. I found most study involved memorizing fine points of English grammar. The reason was clear—these points could be easily tested and were the main staple of the English section of the senior middle school examinations. Most students, who were all struggling to commit to memory arcane details of English grammar, could neither understand nor put together a simple English sentence. Although most school leaders, teachers, and students were delighted to have a native speaker teach a class (a rare privilege typically limited to the best urban schools), at one school my offer to teach was politely turned down by a pragmatic principal. The students do not have time, he explained, because every class period is scheduled with materials to prepare for the English section of the entrance examination. English, he said apologetically, is taught as a test-taking tool, not as a language.

The harmful impact of the examination system on teaching and learning is widely recognized in China, and recurring efforts have been launched to mitigate the resulting problems. While I was conducting this research, education authorities were promoting a recurrent campaign to "reduce the

study burden” (*jianfu*) on students. A related campaign to promote “quality education” (*suzhi jiaoyu*) involved efforts to enhance curricula with art, music, vocational, practical living, and other courses, to change teaching methods that rely on simple memorization, to encourage student creativity and problem-solving ability, and to break down the isolation of students from society.⁵³ While Lai Shui educators acknowledged the virtue of these reform goals, they readily confided that they hold out little hope for success because of the unrelenting pressures of examination competition. This is particularly true in rural areas like Lai Shui, where a lack of resources places schools and students at a disadvantage in competing with their urban counterparts and forces them to particularly concentrate time and resources on examination preparation.⁵⁴

Organizing education around college examinations has inspired high levels of motivation and discipline among rural middle school students, but it has also produced an inevitable by-product: once students feel they have no hope of passing (and the chances of even the most successful students are slim), study loses all meaning. The examination system, thus, tends to polarize students. Students who are doing well are inspired to higher levels of diligence, while those who are not doing well tend to give up and eventually drop out. This differential impact was felt soon after the examinations were restored in 1977. Zhang Fuzhai, a Bei Yi’an school leader, first told me that the restoration of the examinations inspired students’ enthusiasm: “We were hoping they would restore college examinations. After the examinations were restored, those of bad family origin [landlord, rich peasant, Guomindang official, Rightist, etc.] could test in. You could rely on your own education, on your own knowledge. If you had the ability, you could test into college; if you didn’t have the qualifications, you couldn’t. That was the advantage. So, it increased students’ enthusiasm” (respondent no. 22). When I asked about the students who were not doing as well in school, however, Zhang recalled that the restoration of the examinations had the opposite effect on them: “There were some who gave up on themselves as hopeless. They didn’t have confidence in themselves, so their enthusiasm dropped. So some students’ enthusiasm increased, while other students’ enthusiasm fell. After they gave up on themselves, they didn’t study hard anymore” (respondent no. 22).

Students who are not doing well in school can hardly be blamed for wanting out of the extremely stressful environment created by examinations

⁵³ Earlier efforts to mitigate the harmful effects of examination-oriented education are recounted in Heidi Ross, “The ‘Crisis’ in Chinese Secondary Schooling,” in *Chinese Education: Problems, Policies, and Prospects*, ed. Irving Epstein (New York: Garland Publishing, 1991), pp. 66–108.

⁵⁴ For a detailed examination of this problem, see Andrew Kipnis, “The Disturbing Educational Discipline of Peasants,” *China Journal*, no. 46 (July 2001), pp. 1–24. Kipnis argues that to the extent that the “quality education” campaign actually changes university recruitment criteria and practices, village students will be placed at an even greater competitive disadvantage.

and the tedium imposed by memorizing examination-oriented material. The examination system has had a similar impact on the motivations and attitudes of teachers. Teachers in the best schools, whose students are more likely to do well, feel a great deal of pressure to increase the pass rate of their students and many are highly motivated, while many teachers in village schools, whose students have little chance, suffer from low morale. Because teachers have to be concerned about the pass rate, they naturally tend to focus their attention on the more successful students and ignore those who do not seem to have much chance. This tendency is reinforced by the widespread practice of giving bonuses based on pass rates. Li Shudong, a former Bei Yi'an middle school teacher, described the impact this has had on teachers' attitudes toward their students:

Previously the relations between teachers and students had been very good. The teachers all cared about (*guanxin*) the students. They took responsibility for the students. Today, if you don't do well in school, if your scores aren't good, the teacher just ignores you. They won't help you. That started in the 80s. After that, if your students' scores were good, if more of your students tested into the next level of school, they would give teachers a bonus. So you're partial towards the students who do better, you don't want to spend a lot of energy on those who don't do so well. They abandon the bad students. . . . Before they didn't have this kind of bonus, so teachers took responsibility for all of the students. (Respondent no. 2)

While Li attributed teachers' lack of attention to students who are not doing well to examination-related bonuses, he also said that today's teachers in general lacked a "sense of responsibility" toward students. Current teachers widely echoed Li's concerns, describing a general malaise among teachers in Lai Shui. Many of the older teachers contrasted this to the sense of mission they had in the prereform era. They cited many causes, including a disintegration of rural communities and a general erosion of ethics (*daode*) that have accompanied economic reforms, as well as more immediate problems, including irregular pay. The low morale of village teachers aggravates the problems engendered by examination-oriented education.

Discussion

The Impact of the Examination System on Rural Education

Because the examination system provides a ladder out of the village and holds out the promise of professional and technical jobs, it has supplied a powerful incentive to study in Lai Shui, as in the rest of rural China. It has spurred the development of rural education, encouraged parents to send their children to school, and inspired remarkable levels of study discipline. As Dore argued, however, orienting education to life-determining examinations has carried a high price: the selective function has overwhelmed and reordered the educational functions of the school system. The experience

of Lai Shui County illustrates the symptoms of what Dore called the diploma disease in aggravated form. Curricula at all levels have been defined by the scholastic content of the college examinations. Teaching methods have been made to conform to the needs of examination preparation and the development of test-taking skills, the most valuable of which is the ability to memorize large quantities of data. Children spend much of their childhood memorizing information that has little practical use outside of taking the examinations.

This study has also provided further confirmation of Foster and Dore's axiom: when rural schools serve as a ladder out of the village and advancement up the ladder is regulated by highly competitive scholastic examinations, it is not possible to introduce practical rural-oriented curricula. This has been clearly evident in the regular academic schools in Lai Shui, where there is no time for distractions from examination preparation. It is also evident in the abject failure of agricultural middle schools, both before and after the Cultural Revolution decade. Villagers do not want to be relegated to what is quite naturally considered an inferior rural track as long as the academic track provides a chance, no matter how slim, of making it into urban colleges and specialized vocational schools.

While the examination system has provided a powerful motivation to study, it has also narrowed participation. On the one hand, educators are inclined to focus on a small number of promising students, a strategy I have called the key-point approach. Education officials funnel resources to elite schools and neglect others while teachers focus on students who seem most likely to succeed in the examination competition. On the other hand, since the main purpose of attending school is seen as passing the examinations (and curricula are exclusively oriented to this goal), once failure appears inevitable, parents and students see no purpose in continuing. The examination system, thus, provides strong incentives both to study hard and to drop out, and as students climb the education ladder the polarizing impact increases rung by rung. Pressures from above and below make examination performance the key indicator of success or failure for educational officials, school leaders, teachers, and students alike, reinforcing key-point strategies and pushing less successful students out of school. These examination-oriented strategies helped keep middle school education an elite enterprise before Cultural Revolution, contributed to its sharp contraction after the restoration of the college examinations in 1977, and continue to restrict its inclusiveness today. As a result, children in Bei Yi'an today on average do not attend school much longer than their parents did a quarter century ago, at the close of the Cultural Revolution decade.

The restoration of the examination system in 1977 did not cause the contraction of rural middle school education and the elimination of rural-oriented curricula. The restoration of the examinations, the rebuilding of

the little pagoda, the closing of village middle schools, and the curricula reform were all distinct components of a comprehensive program to raise the quality of education, each of which was quite deliberate. The intimate connections between all four components, however, are unmistakable. The reinforcing nature of these connections became even more evident when post-Mao reformers embarked on more modest campaigns to promote rural curricula and expand rural middle school education and, just as in the 1960s, ran into obstacles imposed by the examination system and the strategies it engendered.

The Impact of Eliminating the Examinations on Rural Education

The elimination of college examinations during the Cultural Revolution decade severely disrupted the Chinese education system and engendered serious problems for which there were no easy remedies. The recommendation system that replaced examinations certainly does not provide an alternative model that China could implement today. Even during the pre-reform era, which is remembered as a period of relative moral rectitude in part because the Communist Party enjoyed a much higher degree of control over its cadres, the recommendation system was plagued by corruption. In today's conditions of unrestrained nepotism and purchase of favors, any attempt to implement a similar system would be ludicrous. This study, however, challenges the official judgment advanced by Chinese education authorities that Cultural Revolution education reforms led to unmitigated disaster. It offers evidence that while the elimination of the college examinations created serious problems, it also facilitated the expansion of rural education and the development of rural-oriented curricula.

The examination system was eliminated, in part, because radical Chinese leaders had concluded that it presented an obstacle to expanding rural education and developing rural-oriented curricula. It only became possible to build rural-oriented village middle schools after the college examinations were eliminated. As a result, middle school—for the first time—became part of the education program in which all village children were expected to participate. The goal of education changed from selecting the best students to bringing all village children into school. Within a few years, middle school education was fundamentally transformed from an elite into a mass undertaking. As Philip Foster would say, it became customary in the village to attend middle school. The extension of middle school education to the village survived the demise of radical popularizing policies in 1977 and stands as an enduring legacy of the Cultural Revolution decade. Although many village middle schools were closed in the early years of the post-Mao reform period, rural secondary education would never again be simply an elite enterprise.

The elimination of the examinations created conditions under which it was possible to develop curricula directly relevant to rural needs. For the

first and only time, practical rural-oriented curricula could be included as a central element in the mainstream of the rural school system, not as an inferior alternative for less successful students. All students, including those who under the examination system would have tested into college-preparatory schools, studied rural-oriented practical curricula and returned to the village. Lai Shui schools faced a difficult challenge in reorienting study goals after the elimination of the examination system. In the absence of examinations—and the ladder out of the village they represented—students had to be convinced to study because of the practical value of the knowledge imparted by schools. Mastering course material and success in school was now linked only indirectly and weakly to exiting the village via recommendation; it was, however, much more directly and strongly linked to local career opportunities. This facilitated for better or worse a change in emphasis from academic to applied knowledge, which was reflected in students' interests. The success of vocational programs in Lai Shui middle schools supports Unger's conclusion that it is necessary to tie education to future work opportunities in order to inspire interest in study, but it also shows that this need not be accomplished by tying study to college entrance examinations.

The results of this effort to reorient study goals were uneven. While some Lai Shui schools were quite successful, others clearly had difficulty replacing the study discipline that examinations had induced. Lai Shui's experience indicates that while it is possible to implement an education model that does not rely on college examinations to motivate students, success becomes more dependent on the conscientiousness and ability of school leaders and teachers. At least this seems to be true in a period of transition, such as the Cultural Revolution decade.

The Resilience of the Diploma Disease

Decades of contention and compromise between the key-point strategy, which focused on preparing especially talented students for college examinations, and the popularizing strategy, which focused on developing mass rural-oriented education, have produced a rural education system that neither strategy intended: mass education oriented to preparing for the college examinations. The efforts to build agricultural middle schools in the 1960s and the 1980s were attempts to craft a compromise that preserved the original intentions of both strategies by creating a two-track system. In the 1960s, education officials, who were concerned first and foremost with raising quality through reinforcing little pagoda schools, built agricultural middle schools in response to Mao Zedong's pressure to popularize rural education. In the 1980s, they revived the idea as they tried to figure out what to do with the village middle schools that had been established as part of the popularizing policies of the Cultural Revolution. In both periods, the inclination was to try to accommodate mass village education in a separate rural-oriented system

insulated from the college-preparatory system. These officials supported the rural-oriented goals of the agricultural middle schools and wanted them to succeed. In both periods, however, it proved impossible to insulate the rural-oriented system from the examination-oriented system, and the former ended up not as a separate track, but as an inferior appendage of the latter. The resulting system has aggravated another problem highlighted by both Dore and Foster: as more and more rural young people are drawn into the college examination steeplechase, the chances of success are steadily diminished. This trend is clearly visible in Lai Shui, where more children enter middle school, only to be more certainly doomed to failure in the examination contest that once again has come to define the purpose of education.

The adaptive resiliency of the diploma disease has been demonstrated by the fact that it has not only survived the tremendous social transformation in China over the last quarter century, but flourishes under market reforms just as it did under socialist planning. During the first 4 decades of communist power, household registration and state job allocation upped the ante in the examination competition by closing off other routes out of the village. Today, market reforms have greatly eased the limits imposed by household registration and have eliminated state job allocation; as a result, there are more varied routes out of the village. Nevertheless, the symptoms of diploma disease grip schools in rural China as never before. As rural existence becomes more insecure, class and regional polarization increase, and the rural/urban divide becomes more profound, the stakes in the examination competition have been driven to unprecedented heights.

In a recent contribution to the relevancy debate, Stig Thogersen, a scholar who is as well-informed about the problems of education in rural China as anyone, took national education officials in China to task for promoting the idea of rural-oriented education and for criticizing rural schools for emphasizing examination preparation. These hand-wringing officials, he argued, were repeating the mistakes of past Chinese education reformers and those in other developing countries by failing to appreciate the rational aspirations of villagers and the nature of their expectations of schools. Villagers, he found, do not expect schools to impart practical knowledge, but only to serve as a “giant sorting machine.” Practical skills, he wrote, have traditionally been learned informally, and that is still what villagers expect.⁵⁵

The problem with Thogersen’s argument (and with Foster’s argument, which he essentially reproduced) is not that he failed to accurately portray the expectations of villagers, for he cannot be faulted on that count. The problem is that he has elevated the examination system—and villagers’ accommodation to it—to the status of a natural force, which can be denied no more than gravity. The same kind of arguments could have been made—

⁵⁵ Thogersen, “Learning in Lijiazhuang.”

and undoubtedly were—about traditional rural *sishu* schools, in which students memorized Confucian classics required for the imperial civil service examinations. These schools, and the examinations for which they were tailored, certainly seemed to be an immutable fact of existence—until they were abolished in 1905.

The diploma disease is not a naturally occurring pathology, but rather is induced by the convergence of a particular set of social structures, including sharply unequal rural and urban conditions and a system of social selection based on academic examinations. As Kevin Lillis and Desmond Hogan pointed out, the key to explaining the success or failure of vocational programs in developing countries lies in analyzing the social context.⁵⁶ This study has confirmed this by examining China's dramatic experience. The fledgling success of rural-oriented education during the Cultural Revolution decade indicates that the failure of agricultural middle schools before and after the Cultural Revolution decade was not caused by an innate disdain for practical education among villagers, but rather by the competition of the examination system. The examination system is so entrenched in China today that any effort to bring about education reform that did not take its predictable impact into account would be naive. It would be equally misguided, however, to confuse the impact of the examination system with the innate inclinations of the rural population or the inherent limitations of rural education.

The problems at the heart of the relevance debate defy easy solutions. On the one hand, efforts to mitigate symptoms of the diploma disease while maintaining the examination system have invariably been undermined by strategies and practices engendered by the system. This is not to say that such efforts should not be undertaken. On the contrary, the serious problems engendered by examination-oriented education require countermeasures. Such measures, however, must be designed and implemented with an understanding of the ingrained nature of the problems and the reasons for their resilience.

On the other hand, the elimination of the examination system during the Cultural Revolution decade remedied the underlying cause of the disease, but also produced powerful adverse side effects. Too often, however, the Cultural Revolution experiment has been dismissed out of hand, with little concrete investigation into the interrelated but distinct phenomena it produced, and too often attention has not extended beyond the harmful effects on urban education, and particularly on elite urban schools. As educators and others continue to seek to understand the problems afflicting rural education, much can be learned by seriously investigating the results, both positive and negative, of this unique experiment.

This has been a modest study, with narrow thematic and geographic

⁵⁶ Lillis and Hogan (n. 4 above).

limits. To gain a more thorough understanding of the impact of Cultural Revolution education reforms on rural areas, the research agenda would need to include investigation of the operation of the recommendation system, the effectiveness of curricula and teaching methods in preparing graduates for work, the impact of education reforms on rural development, and the attitudes of villagers toward rural-oriented schools. While many phenomena were undoubtedly common to much of rural China, it would also be necessary to look for indications of geographic variation.

Sorting Out Questions of Education Quality

In this article, I have evaluated the impact of eliminating college entrance examinations in terms of goals set by those who initiated the experiment: expanding rural education and developing rural-oriented curricula. While this is an appropriate way to analyze the results of an experiment, it does not directly address the main argument raised by Chinese education authorities: that elimination of entrance examinations led to a disastrous decline in education quality. In the final paragraphs of this article, I will sort out and comment on some of the issues involved in the discussion of quality.

When educators lament the damage done to education quality by Cultural Revolution policies, they refer to a very clear model of quality education: that obtained in key-point (little pagoda) schools. These schools set the standard of quality that was subsequently undermined by the Cultural Revolution; they were appointed with the best equipment, staffed by the most capable and qualified leaders and teachers, and populated by students selected through highly competitive examinations. By the same token, the campaign to restore quality after Cultural Revolution policies were reversed, involved the restoration of entrance examinations, examination-oriented curricula, and key-point schools. In this conception of quality, the high quality of a particular school is unambiguously expressed in the rate that its graduates pass examinations and go on to the highest quality schools at the next level. Below I will, first, discuss how raising quality might be perceived differently from distinct points in the education hierarchy and, then, I will discuss the meaning of quality education.

Cultural Revolution policies redistributed educational resources by leveling the little pagoda system. Viewed from the top, leveling means decline; viewed from the bottom, it means more resources. It can be argued, justifiably, that the quality of little pagoda schools declined greatly after they were converted into district schools. But did children who had the opportunity to attend newly built village middle schools, most of whom would not otherwise have gone to middle school, experience a decline in education quality? Rapid expansion during the Cultural Revolution certainly did severely stretch resources, especially in terms of trained teachers. The post-1977 decision to retrench in order to shore up quality, however, only makes sense in terms

of the key-point logic. From the point of view of the majority of village children, who failed to test into the middle schools that survived retrenchment, it is hard to conclude that the quality of education improved. If the key-point logic had not prevailed, strategies to improve quality might have focused on gradually increasing the level of teacher training, rather than shutting down schools

During the Cultural Revolution, Mao Zedong challenged the definition of quality that focused on the ability of students to memorize facts to be regurgitated at examination time. Today, ironically, many of the criticisms of examination-oriented education raised during the Cultural Revolution are widely accepted in Chinese education circles. Current efforts to promote students' creativity, problem-solving ability, and interest in the intrinsic value of knowledge, and to reduce students' homework burden and their isolation from society directly echo ideas promoted during the Cultural Revolution although this is seldom acknowledged. Today, however, there is little danger that the rhetoric of pedagogical reform will actually challenge the hold of examination-oriented education and provoke the profound disruption that this entailed during the Cultural Revolution decade. Moreover, the egalitarian ethos of the Cultural Revolution is completely foreign to the current campaign to promote quality education, in which peasant children and village schools are seen as the least amenable to improvement.

Appendix
Glossary of Chinese Terms

bu gan bu renzhen 不敢不认真
dai maozi 戴帽子
daode 道德
daxue 大学
dazhuan 大专
duochu yidian gaokao rencai 多出一点高考人才
dushu wuyong 读书无用
guanxin 关心
huixiang 回乡
hukou 户口
jianfu 减负
mianxiang nongcun 面向农村
minban 民办
nongye daxue 农业大学
nongye zhongxue 农业中学
puji 普及
rencai gongzuo 人才工作
shelai shechu 社来社出
shengxue lu 升学率
sishu 私塾
suzhi jiaoyu 素质教育
tian yazi 填鸭子
tigao 提高
xia xiang 下乡
xiao baota 小宝塔
zhishi qingnian 知识青年
zhiye zhongxue 职业中学
zhongdian 重点
zhongzhuan 中专