School consolidation in Rural Sichuan: Quality vs. Equality[1]

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Introduction

In the year 2000, Yanyuan County, a poor, mountainous minority area in southwestern Sichuan, consolidated its elementary school system. The county closed 90 percent of village primary schools and expanded "key-point" schools located in townships and county-towns. Consolidation was meant to reallocate education resources in response to greater financial pressure on the local government and a rising number of failing village primary schools.

This study looks at the recent consolidation and its impact on the provision of education in rural areas. We examine the situation of local education both through aggregate data and through comparison of five elementary schools. Each field site is differentiated not only by administrative level (county, township, or village) but also by its position in the county's economic structure, using a model loosely based on G. William Skinner's model of hierarchical regional space (HRS) (Skinner, Henderson, and Yuan 2000).

Yanyuan County has had many triumphs in recent years: enrollment has reached record highs (from 25,057 primary students in 1990 to 40,352 in 2003), and there is now one teacher for every twenty students. However, the aggregate time-series data do not reveal how educational benefits are distributed within the county. Government data use the term "rural" to blanket agricultural regions at the sub-county level, thereby hiding emerging disparities among townships and villages. We find that within Yanyuan County, although the school consolidation policy has increased the

average quality of basic education[2], schools have become less accessible to students living in remote areas. In addition, the few village schools remaining after the 2000 consolidation have had to find other sources of funding in order to maintain school facilities and quality.

Villages situated in the vicinity of key-point schools reap the benefits of consolidation. Yet other villages are being left out. With poor infrastructure connecting villages with township centers, this new consolidation policy exacerbates the polarization between remote villages in the county periphery and developing areas in the county core.

China's Rural Education Post Mao

Chairman Mao believed in having "one school in every village." During the Cultural Revolution the education system was completely decentralized (Pepper 1981, Mauger 1983). Curriculum was geared towards political and moral indoctrination, a complete reversal from the science based system established by the Republican and Communist Governments from the 1930s to the 1960s. After Mao's death in 1976, leaders of the Chinese Communist Party (CCP) hoped to close the development gap between China and other first world countries by fostering a new generation of scientists, engineers and academics. Education bureaucracy was re-centralized in Beijing and competitive entrance examinations were once again established (Pepper 1981).

The Central Government has identified impoverished rural areas as the weak link in China's education system. The success of top-down reforms, such as the Nine-Year Compulsory Education Law, is strongly correlated to the development level of an area

(Hannum 1999). In rural areas high transportation costs greatly impede access to education. Rural inhabitants are scattered across the countryside, resulting in a disconnected system of village primary schools with few resources (Pepper 1990).

Fiscal decentralization has also aggravated regional inequalities by forcing revenue-starved rural counties to become self-sufficient. Such areas may choose to divert investment from public infrastructure to revenue gathering industries such as Township and Village Enterprises (TVE) (Park, Rozelle, and Wong 1996). This means possible delays in wages for teachers and decreases in school maintenance funds.[3] Without being able to rely on adequate and timely support from the local government, some schools have had to find creative ways to raise funds. In the Shiyan Municipality, an impoverished are of Hubei, villagers are encouraged to donate profits from crops to the local school (Tsang 1994). Schools may also employ private fees to cover *minban* teacher salaries, books, and maintenance. The need for rural schools to be somewhat self-sufficient contrasts to the state-funded nature of urban schools, raising the question: "Can China ever realistically offer equal education opportunity to inhabitants of remote towns and villages?"

Yanyuan County's Education Situation

Yanyuan County is located in the Liangshan Yi Autonomous Prefecture in a region known as Xiao Liangshan (Lesser Cool Mountains) on the border of southwest Sichuan and northwest Yunnan provinces (Map 1). The county is centered on a broad basin of about 2400 meters elevation, surrounded by mountains as high as 4300 meters and deep river valleys as low as 1060 meters. The basin flatland, the most densely populated area, has decent transportation infrastructure with paved roads and buses

that run every ten to fifteen minutes. In contrast, the mountain townships and villages are at best accessible by muddy dirt roads and in some areas only via foot or motorcycle.

There are several ethnic groups that inhabit the area. Yanyuan's population is made up of 45 percent Nuosu,[4] 47 percent Han, and 8 percent Prmi and Na. The Han Chinese live mostly in the basin and in some of the river valleys, while the Nuosu villages are located primarily in the mountains. Like many mountainous areas, especially in western China, the region is quite poor due in part to its geographic remoteness. Within the county, Nuosu areas are generally poorer and have worse infrastructure, including schools, than do the Han areas in the central basin.

(Insert Map 1: Liangshan Prefecture, showing its location within Sichuan, and the location of Yanyuan County)

Before consolidation, most villages had a small schoolhouse, but conditions were poor.[5] The typical schoolhouse was a one room building made out of mud-bricks. Moreover, education resources were not distributed based on demand; some classrooms had sixty students under one teacher while others had fifteen students under three teachers.

Teachers are the most limited education resource. Most teachers, even those who themselves grew up in small villages, want to teach in either a developed-township or the county town. This is a reflection of China's social climate: after having received an education and been certified by the government, trained teachers do not want to return to their previous standards of living.[6] Even well-funded schools in small villages are unattractive because life in these villages revolves entirely around the school; there

are no other opportunities for recreation. County data indicate that there exists an adequate number of teachers in Yanyuan. Figure 1 shows Yanyuan's county-wide student to teacher ratio to be above the government's preferred standard (1:20).[7] Yet some rural schools still report a shortage. The problem therefore lies in the distribution of teachers within the county.

(Insert Figure 1: Yearly Student to Teacher Ratio in Yanyuan County)

The poor quality of village primary schools, including the shortage of teachers, has impacted the demand side of education. Without an adequate number of teachers or facilities, students are unable to compete in entrance examinations for secondary schools, resulting in low returns on education. Families who wish their children to attend school prefer sending them to higher quality schools in developed townships. Therefore not only do village schools suffer from under-funding, but they also often suffer from under-enrollment.

By the end of the century, it had become apparent to education officials from both the provincial and the county levels that the system of scattered primary schools was not adequately serving the rural population. In the year 2000 Yanyuan County, along with many other rural counties in Sichuan, followed national policy and conducted a massive consolidation of primary schools. The primary education system was to be modeled after the secondary education system, that is, a system of well-funded key-point schools that serve as magnet schools for the surrounding area. Village-level schools were to be closed and key-point schools built in townships and the county-town. By 2001, 66 percent of all elementary schools within the county had been closed.[8]

(Insert Figure 2: Official Yearly Count of Primary Schools)

(**Insert Figure 3: Adjusted Yearly Expenditure on Education in Yanyuan County)**

Although enrollment is at an all-time high, the county must now ensure that the opportunities for education are equally accessible. The gross numbers depicted in Figure 4 do not reveal where the increases in the number of students come from. The increases are likely to come mostly from economic centers or the central basin. Resources and opportunities are clustered in certain areas, increasing transportation costs for those who lie on the far peripheries of these development centers.

(Insert Figure 4: Number of Schools v. Enrollment)

The Effects of Consolidation: A Comparison of Key-point schools and Successful Village Schools

Fieldwork was conducted in two key-point schools, Yanyuan Government Street Elementary and Baiwu Township Elementary; and three non-key-point rural schools, Shaba Elementary School, Yangjuan Primary School, and Mianba School.[9] Both key-point schools are in local economic centers but on different administrative levels: Government Street Elementary School (GSES) is an example of a county-level key-point school located in the central basin. Baiwu Elementary is an example of a township key-point school located in Yanyuan's mountainous areas. Both schools have their respective administrative regions from which they draw their students and resources. GSES attracts students from relatively wealthy neighboring townships, while Baiwu serves as a magnet school for nearby and remote villages under its jurisdiction.

The centralization of elementary education in key-point schools located in economic centers provides numerous benefits. The developed local economies surrounding key-point schools provide diverse sources of funding. These areas may

draw funds not only from agricultural production but also from tourism and a small amount of primary industry. The top-down nature of the Chinese government means that the county government's information network extends reliably to townships but not necessarily to villages. Village schools must deal with an extra layer of administrative bureaucracy when communicating with the county government.

Yanyuan still has a small number of functioning village schools. Two of the three village schools studied here were able find independent sources of funds and avoid closing during the 2000 consolidation. Shaba Elementary is located a half hour drive away from Yanyuan GSES. Shaba has been receiving corporate funds from China Telecommunications as part of the company's development financing project. Yangjuan Village Primary school is located in a village within the Baiwu Administrative Township and is about a 40 minute walk from Baiwu Elementary. Yangjuan has benefited from funds raised by foreign researchers and philanthropists. Mianba, another village in the Baiwu Township, has received no domestic or foreign assistance for its school, and is thus perennially on the point of closing altogether.

Students are more attracted to key-point schools than to village schools. The mindset is that attending a key-point school is equivalent to working towards higher social-economic status.[10] Students will often walk two to three hours to attend key-point schools. Also village primary schools are more likely to charge attendance, book, and/or boarding fees due to their need for funds. The county is in the process of implementing the policy of *liang mian yi bu*, or "two waivers and one stipend," that is, eliminating book charges and miscellaneous fees, and helping with living expenses, but many village schools have not totally abolished fees. Therefore, although village

schools provide an alternative to key-point schools, they are disadvantaged in attracting students and trained teachers.

Basin versus Mountains

There is also a geographic dimension to the effects of the consolidation. Key-point schools have been built mostly in central basin townships. These townships have the economic resources to support large schools and also have higher population densities. Moreover, the transportation costs for financial and human capital are much lower in the basin than in the mountains. It only takes a bus ride to experience the difference in transportation costs: basin townships have buses that run every ten minutes and travel on relatively smooth paved roads. Mountain township buses run sometimes only once a day and visit only the most accessible villages.

Central basin areas are more likely to attract trained teachers due to the higher standards of living and low transportation costs. Teachers in mountain areas can often only afford to travel to the county-town once a week, whilecentral basin teachers can go perhaps every other day.

The central basin vs. the surrounding mountains is thus another dimension we can use to compare schools. Regardless of whether a school is a key-point or a village school, its geographic location has a large impact on what resources are available to that school. Shaba village and the Yanjing county-seat are both located in the central Yanyuan basin. Baiwu Township, including Yangjuan and Mianaba villages, is located in a mountainous region north of the county seat, a ninety-minute bus ride away.

Methodology

To determine the differences in access to education between the catchments areas of key-point and village schools, and of central basin and mountain schools, both time series quantitative data on numbers of schools, enrollments and budgets, and local interview data were gathered. Time series quantitative data came from a variety of sources, as most compilations were incomplete. The main source of quantitative data were the Yanyuan County 1990 Book of Statistics for figures before 1990, and unpublished data kept in Yanyuan County government offices, primarily from the Office of Education and Cultural Affairs. Data for villages came from one-on-one interviews with village-heads, school principals, and officials at the township party headquarters.

We conducted several interviews with the education and tax county officials. Local leaders were asked to reflect on the reasons for recent education reforms and their effectiveness. At each field site we met with school principals and teachers. They were asked how the reforms have affected their schools and whether they thought these changes were beneficial for their local community and for the county as a whole.

Delineating the differences in development between selected schools

The schools in this study were selected because of their location in areas of different stages of development. The hierarchy of development was decided based loosely on G.W. Skinner's hierarchical regional space model (HRS). Skinner's model allows us to get beyond the misleading dichotomy between "urban" and "rural." Skinner's model is applied mostly in the literature on a macrogeographic level, identifying major cities such as Shanghai as apex metropolises and then classifying other towns and cities in relation to these apexes in order to compare levels of development. Skinner determined an area's HRS index by a matrix 7 x 8 matrix. One

variable was an 8 level urban-rural continuum (URC) and the other variable was a 7 level macro-regional zoning of an area's geographic location relative to a core economic zone (CPZ).

Skinner's model is used here on a microegeographic level to examine the economic development and resource distribution of a particular county. Under the assumption that administrative level is highly correlated to development, we simplified the URC administrative levels into 3 categories: county, township, village. The CPZ is similarly simplified to county economic center, developed township, market township, and agricultural output area. [11]

(Insert Table 1: HRS Model to Compare Fieldsites)

A Description of Field-sites

Yanyuan's Government Street Elementary – A County-Seat School in High Demand

Yanjing, key-point school, central basin

Yanyuan's Government Street Elementary School (GSES) is located directly in the center of Yanyuan's administrative district in Yanjing, surrounded by government officials' houses and administrative buildings. GSES is one of three elementary schools located in the county town. It serves a population of around thirty thousand. GSES is known for having the best teachers in the county and also has the lowest number of *minban* teachers of any of the schools sampled in this study.

As of early 2006, GSES served 1100 students, half of whom traveled from outside the county-town of Yanjing. The ethnic composition of the student body is 60 percent Han Chinese, 35 percent Yi, and 5 percent other minority groups.[12]

GSES is overenrolled and its location in an urban area allows no room for expansion. Currently there are sixty to seventy students in one classroom. Other schools in this study, such as Yangjuan, Baiwu and Shaba, are also facing the same problems with over-enrollment, but unlike Yanjing's school, their problem lies in the lack of teachers and not in the lack of space.

Shaba Village –Benefiting from Corporate Funding

Meiyu Township, village school, central basin

The village of Shaba lies in the developed basin township of Meiyu, a half hour bus ride away from Yanjing town. Shaba makes up the largest administrative village in Yanyuan county, with a population of over five thousand people. The average per capita cash income in 2005 was 1000 RMB, very high for Yanyuan County. The original school was built in 1956 as a *minban* school, entirely supported by the community. In the 1990s, the county education bureau made plans to shut down the school and transfer the students to the primary school in Meiyu Township.

In the year 2000, a Yanyuan vice county-executive, a graduate of Shaba Primary, negotiated with China Telecommunications to incorporate the Shaba primary school into its rural development initiative. Although the company representatives originally wanted to give the money to a more mountainous region, China Telecom granted 700,000 RMB directly to Shaba Elementary. The school now runs on the China Telecom funds and its own revenue. The school has a few fields of apples and corn planted by students and teachers; the output is sold and profits are used to pay *minban* teachers and maintenance fees.

Shaba Primary is now the largest village-level elementary school in the entire county. In 2005-06 there were 927 students, about a 300 percent increase from before the school was rebuilt. The school building is actually capable of holding 2,200 students, but education services are limited because of the lack of teachers.

Baiwu Township – A Key-point school for Rural Students

Baiwu Township, key-point school, mountains

The township of Baiwu is the economic and political center for twelve administrative villages in its mountainous Yi region, encompassing numerous local settlements, including the two field-sites of Yangjuan and Mianba. Baiwu is a very poor township; its education infrastructure is entirely reliant on county funds.

Despite local poverty, Baiwu's key-point elementary school is relatively well equipped. The school, established in 1957, serves as the education center for the entire township administrative region. Only two other villages in the township have elementary schools that have all grade levels. Local students must travel up to two to three hours to attend Baiwu Elementary. Baiwu Elementary currently has 1,500 students, of whom 35 percent live at the school.

The size and the facilities of Baiwu Elementary are impressive. The school covers the largest amount of area of any in this study. Since 2000 the school has been expanding; there are now fifteen new classrooms and one new administrative building.

The main challenge Baiwu Elementary now faces is the increasing number of students who wish to attend. The school is experiencing a shortage of teachers; the current student-teacher ratio is far above the ideal of one to twenty students. Also, many

students who wish to attend the township school cannot endure the daily commute to school.

Yangjuan Village – The Fortune of Foreign Funding

Baiwu Township, village school, mountains

The villages of Yangjuan and Pianshui are hidden in a valley between the mountains surrounding the small river plain near Baiwu Township. Inhabited entirely by Nuosu people, Yangjuan village is distinct because it receives outside funding from international donors. This was the result of the close contact between Ma Lunzy (Ma Erzi), a native of the village and a prominent international scholar, and several Chinese and foreign anthropologists and other researchers. At Ma's instigation, some of those foreign associates raised money to build the school, which opened in Fall 2000, just as the consolidation policy was eliminating other elementary schools in places like Yangjuan. Before the local school was built, students from Yangjuan and Pianshui commuted to the Baiwu Township school. Before the year 2000, approximately 26 percent of primary age students attended school, but after the opening this increased to 83 percent (92 percent of the boys and 76 percent of the girls).

The Yangjuan principal believes that his students are worldlier because of foreign influence. The school supports curriculum beyond basic exam material. In 2006 the top seven sixth grade graduates of Yangjuan had higher test scores than the highest-testing graduate of Baiwu. Due to the unique aspects of the school, Yangjuan Primary has become an untraditional magnet school for the surrounding mountainous area, mitigating the problem of over enrollment in the Baiwu Township School.

Mianba Village – Neither key-point nor outside-aided

Baiwu Township, village school, moutains

An hour and a half hike from Yangjuan village, through fields of buckwheat and potatoes, is the Nuosu village of Mianba. There is no main road to Mianba, making it almost inaccessible to motorized vehicles. Before 1994, the Mianba school provided classes up to the fifth grade. Mianba had a very influential and gifted teacher who attracted students to the school. After 1994 this teacher left the village and the school quality began to decline, exacerbated by the cutoff of government funds during school consolidation. In 2006 the school had only two *minban* teachers. There were thirty-eight students in the first grade and eight students in the second grade – no other grades were taught. The lack of students is by no means due to a lack of demand for education. There are enough students in Mianba to fill the school to its original capacity. Most parents, however, choose to send their children to Yangjuan or Baiwu Primary.

Key-point and Village School differences

(Insert Table 2: Comparing Key-point and Village Schools)

It is clear that already-overcrowded key-point schools would be under even greater enrollment pressure were it not for the existence of local village schools. Village schools help siphon off enrollment by providing an alternative option to key-point schools. Often, a village school will serve not only its own village but also students from surrounding villages who do not wish to commute to the township.

The average number of students that attend key-point schools is still almost double that of village schools. Yanjing GSES and Baiwu are purposefully equipped by

the government to serve over one thousand elementary students each. These schools have larger buildings and also additional facilities such as libraries and laboratories.

One of the more striking differences between key-point and village schools, other than enrollment numbers, is the percentage of *minban* teachers that make up the teaching staff. Village schools rely much more on community-sponsored teachers. The living standards and location of village schools do not attract trained teachers. The county government will allocate the most inexperienced teachers to teach in villages, but these teachers will attempt to transfer to key-point schools. In interviews with village school teaching staff, many complain of boredom, low wages, and loneliness. One teacher stated that he was getting old but still could not find a wife because no woman would want to move out to the village. *Minban* teachers are unhappy at the village schools where they, on average, receive lower wages than their key-point counterparts. *Minban* teachers often have to take second jobs such as driving, as well as working on their families' farms, because they cannot support their families on teaching wages that the community provides.

Structurally village schools differ most from key-point schools in their sources of funding. The county government does not make much room in the education budget for funding village primary schools. Key-point schools are entirely supported by the county-level government and also can receive subsidies from the prefectural level. In contrast, village schools rely heavily upon outside funding. Without outside funding, these schools would have had to close under the consolidation effort, or at best limp along like Mianba. Village schools also have many small revenue generating projects such as growing produce or raising livestock. These projects, however, only generate only

enough revenue to pay for extra textbooks or school supplies and cannot in themselves support a school.[13]

Comparing Basin and Mountain Schools

(Insert Table 3: Comparison between Basin and Mountain Schools)

The comparison data between central basin and mountain schools look similar to those of key-point and village schools. Basin schools tend to serve more students. The cause and effect rationality is unclear here; it seems to be a combination of higher population density and higher quality that results in larger schools. The central basin is wealthier and as a result can support larger schools. In Meiyu Township (where Shaba is located) the living standards provide a stark contrast to a mountainous village like Yangjuan: It is not uncommon for a family in Meiyu to have a concrete-walled house with electricity and telephone. In contrast, the average house in Yangjuan is still in the traditional Nuosu style made out of mud-bricks, built around a fire-pit with one single electric bulb hanging from the ceiling, and there are no land-line telephones in the entire village.

The central basin serves as the economic center for the county. Farming families travel to the basin to sell their produce. Farmers' children will accompany their parents in the morning to attend the local school. In the schools studied, 50 percent of the student population of central basin schools came from outside the locality, while mountain schools had less than 20 percent.

Mountain schools serve fewer students from outside their administrative areas, despite having a higher number of boarders. Boarders in these schools come from villages that are far away from the township. The only way to reach these villages

would be walking for hours or hitching a ride on a horse cart. As a result families who wish their children to attend the township school will either try to have them move in with relatives who live in the township or have their children board. Boarding used to be an expensive option, but with the new *liang mian yi bu* subsidy, the number of student boarders is limited not by cost but by how much space is available in the dormitories.

Mountain schools are heavily dependent upon *minban* teachers. This is true even for mountain key-point schools; for example, 40 percent *minban* teachers staff Baiwu's key-point school.[14] The underlying causes are the same as for village schools' staffing problems: mountain areas do not offer the standard of living the central basin can provide. *Minban* teachers at central basin schools tend to receive higher wages than their mountain counterparts. In 2006, the *minban* teachers in Shaba made around 300 RMB per month, while those in Mianba made only 150 RMB.

The Skewed Distribution of Education Opportunities

The benefits that households reap due to the changes made to the education infrastructure depend on geographic and economic factors of the region. The Chinese government has concentrated developmental efforts entirely on local economic centers, neglecting the most remote villages.

These inequalities are evident from the case studies above, but here we reinforce our findings with quantitative data from Baiwu Township, which can serve as an example of emerging geographic disparities in education opportunity (Figure 8). As described in the previous section, Baiwu Elementary is a well-funded key-point school, one of the largest in the county. The surrounding villages, except for Dalin, which was formerly a township center before being amalgamated with Baiwu, have had education

funds cut as part of the consolidation program. Village children who wish to continue in school either walk to school, stay with relatives or board. Many, however, simply do not attend school.

Costs of education increase the farther away a household is from the township. As a local teacher described, “Getting to school for many students means they must wake up in the morning, and before the sun has even risen, take a two to three hour walk to the township. The road goes up and down and it is not easy. Then in the afternoon they must make the same trip back to their homes. By the time they reach home, in the winter especially, it may already be too dark to study. Such conditions naturally affect the incentives for students to attend school."

(Insert Table 4: Ratio of Students to Population)

Table 4 clearly shows the effects of high transportation costs in Baiwu Township. In villages located more than five kilometers away from a key point or a multi-year village school, the average percent of primary students within the population is about 5 percent. Villages located near either a key-point or a multi-grade village primary school have on average 20 percent of primary students within the population.[15]

A map of the distribution of elementary schools in Yanyuan County shows that schools are clustered around flatland areas or in close proximity with townships. (Map 2) This leaves vast areas without convenient access to primary education. (Map 3) We define “convenient access” as being located within a five-kilometer radius, a walkable distance in an hour on dirt roads or trails. While some areas have several schools competing for local students and trained teachers, townships on the peripheries remain underprovided.

(Insert Map 2: Location of Primary Schools with Reference to Elevation)

(Insert Map 3: Location of County Primary Schools with References to Township Population Densities)

Yangjuan and Baiwu Elementary are an example of two schools competing for the same population of students. The two schools are about a forty-five minutes' walk apart and draw their students from the same areas. Yangjuan was established because of the close personal connections between one of its natives and foreign scholars; it would have been more efficient to fund a school in a village like Mianba so that the children in the village could avoid the two-hour commute to the township. A more dispersed system of village schools could still mitigate overcrowding in key-point schools while improving access to education among the rural population.

Discussion and Conclusions

Because of the lack of reliable time-series data we cannot measure how education opportunities were distributed in Yanyuan before consolidation[16], and therefore it cannot be said conclusively that the consolidation effort has resulted in increasing inequality. We can, however, show that rather extreme inequality of access exists at present, and, that the *potential* for greater regional disparities has increased. Limited access to education and higher economic costs to families create disincentives, although it is entirely possible that potential returns to education outweigh increasing costs. However, in an economy increasingly valuing human capital (Hannum, Behrnam, and Wang 2006), access to education becomes ever more important for those wanting to escape the cycle of poverty.

The efforts of the Chinese government, particularly the provincial levels, to increase the quality of basic education should be applauded. Some reforms have

succeeded, but at the cost of unequal access for children living in remote areas. Higher direct costs to students are mitigated in a few cases by the existence of successful, subsidized village elementary schools. These village schools only exist because of outside assistance, receiving little or no support from the government. The current education system in Yanyuan County relies to some extent on schools that are not actually part of the government planned system; where these schools do not exist, as in most of the villages in Baiwu Township, children are much less likely to receive education. The government's education plan in itself cannot meet the goal of universal mass education because it creates enrollment pressures and high student transportation costs that have been alleviated in only a few cases by outside funding of schools.

Is the Chinese government willing to rely on outside support to serve its education needs? If the Chinese government wants to pursue a purely public education system, there needs to be serious rethinking of the consolidation policy. There need to be more schools in mountainous areas to decrease transportation costs. Moreover, the locations for these schools should not be chosen by economic prosperity or by outside connections of local people, but by whether that location will improve access to education for marginalized groups. Groups of villages in remote areas of the mountains should have their own government-sponsored school as an alternative to the township school. In addition, increased investment in transportation infrastructure in the remote areas could be the key to decreasing costs to students and providing more incentives for teachers to work in mountain regions. Paved roads and regular bus service can cut transportation time by two-thirds or more.

If private philanthropists continue to be an essential part of the education system, there needs to be further effort to provide funds to areas that are in most need. In this study, the schools of Yangjuan and Shaba were built not in the most desperate areas, but where the respective philanthropists had local connections. This is not to say they were unfairly favoring one area; rather, logistical complexities such as official approval and permits made it necessary to have existing connections with local leaders in order to make the bureaucratic process more expedient. There needs to be better communication and coordination between philanthropists, locals, and county governments to pinpoint areas in most need. Perhaps academic institutions could serve as an impartial party to survey rural counties to identify potential locations for new schools. In the meantime, the dream of universal primary education for all China's children continues to go unfulfilled, especially in the remote areas populated by members of minority nationalities.

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[1] The authors would like to thank Tami Blumenfield and Ann Maxwell Hill for comments on earlier drafts of this chapter, Amanda Henck for much help with maps, Li Xingxing for introducing us to Shaba, and Ma Vihly for providing all kinds of invaluable help

[2] Quality of schools was evaluated in terms of number of teachers, building maintenance, school facilities, and learning conditions.

[3] The dilemma of county officials with insufficient educational funds has been tragically illustrated by the collapse of schools in many areas affected by the Sichuan earthquake of May 12, 2008. Officials caught between the necessity of building a school and the inadequacy of available funds often ended up compromising on shoddy and ultimately deadly construction.

[4] Nuosu, numbering about 2 million, are a subgroup of the official Yi *minzu*, or "national minority." Most Nuosu live in Liangshan Prefecture and adjacent areas in Sichuan and Yunnan. For overviews of the

Nuosu and their educational system, see Harrell and Bamo 1998, Harrell and Ma 1999, Harrell, Bamo, and Ma 2000, Bradley 2001, Schoenhals 2001.

[5] Interview with county official from the Office of Education and Culture.

[6] Interview with primary school teachers from Yangjuan, Baiwu, and Mianba elementary.

[7] Interview with county official from the Office of Education and Culture.

[8] In truth, the consolidation of the primary school system had already been slowly occurring since the early 1990s. Throughout the 1990s, many village primary schools were shut down or downsized due to a lack of funds, teachers and students. Yanyuan County had been experiencing a decline in the number of schools despite an increase in education funds. Education administrators over the years decided that funds were better used in schools that were already successful while allowing failing schools to close. However it was not until 2000 that it became official policy to concentrate all funds on key-point schools while providing only basic maintenance funds to other schools.

[9] Christina Chan conducted all the fieldwork in these schools except for Yangjuan. Stevan Harrell was a founder of the Yangjuan School, and the material on Yangjuan is a combination of both of our experiences.

[10] Interview with county official from the Yanyuan Education and Culture Office.

[11] A developed township serves as a marketplace for surrounding villages goods and as a link to the county seat. A market township is similar but provides few services beyond basic necessities. Developed townships may have other industries such as tourism. Markets towns are usually located in more remote areas.

[12] Other ethnic minorities are primarily *Zang-zu* (Prmi) and *Menggu-zu* (Na). These local ethnic groups were assigned to the Tibetan and Mongolian *minzu*, or "nationalities" respectively as part of the Ethnic Identification (*minzu shibie*) processes in the 1950s and 1980s.

[13] Interview with Shaba Elementary principal.

[14] In 2007, the Baiwu principal reported that the school had 17 positions for *minban* teachers, but had only been able to fill 8 of these, because the low wages he could offer made the positions extremely unattractive.

[15] The data do not account for possible differences in the age structure of the respective village populations. Such data are extremely difficult to find, especially at the village level, and often do not go back more than two years. The most precise measurements come from asking village-heads in person who often must rely on memory. Nevertheless, the age structures would have to differ radically and improbably in order to account for the differences in ratios of school children to total population.

[16] It is noteworthy, however, that in a larger-scale study of poverty and inequality among minorities in the Southwest, Bhalla and Qiu have claimed that, while location was a significant predictor of access to primary education among both Han and Minorities in rural China in 1988, with children living in mountainous areas less likely to attend schools than those in hilly or plains areas, that effect had disappeared by 1995. It would be interesting to see if the effect would re-appear nationally in statistics based on surveys taken after the 1999-2000 school consolidation, see Bhalla and Qiu 2006: 94-95,98.