

# Class origin, family culture, and intergenerational correlation of education in rural China<sup>\*</sup>

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## Abstract

This paper examines the intergenerational correlation of education in rural China. Focus is on the influence of family class origin (*chengfen*). A nationally representative cross-sectional household survey is used. It is shown that the effects of family class origin on family members' educational attainment varies across historical periods. Regarding the educational level of male heads of household with landlord/rich peasant background, we found a drop caused by the class-based discrimination in the Maoist era and a rebound in the postreform era. It was also found that family class origin still matters for the educational achievement of the current younger generation. Young people who are of landlord/rich peasant and middle peasant origins are more likely to achieve higher educational attainment. We argue that a class-specific, education-oriented family culture shaped as a mixture of family cultural capital inherited from the pre-1949 era and intergenerational cultural reaction against class-based discrimination.

**Keywords:** education; intergenerational correlation; class origin; family culture; social discrimination

**JEL classification:** D31; J24; N35; O15

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## Summary

### *Objectives*

1. This paper examines the influence of family class origin (*chengfen*), the political label hung on every family member up to the 1970s, on the intergenerational correlation of education in rural China.
2. This paper is a case study on the role of family background in transition economies. It also has a certain implication for comparative analysis of social discrimination.

### *Design and subjects*

Design: Cross-sectional study using a nationally representative survey of rural households in China (2002 CHIP survey).

Subjects: (1) Current male heads of household and (2) current younger generation (aged 16-18)

\*Heads of households are classified into 4 birth cohorts according to the socio-political conditions when they were aged 12 (transition from primary level education to junior high school level education) and aged 15 (transition to beyond junior high school level education):(a) *Pre-Maoist* cohort (born up to 1944); (b) *Mid-Maoist* cohort (born in 1945-59); (c) *Late-Maoist* cohort (born in 1960-65); (d) *Postreform* cohort (born 1966 and after)

### *Outcome measure and estimation method*

- (1) Male heads of household's years of education completed (OLS regression)
- (2) Dummy variable for whether children aged 16-18 have achieved or achieving 10 years or more schooling (whether they have continued education beyond junior high school) (probit estimation).

### *Major findings*

Educational level of male heads of household:

1. Both father's education and family class origin have significant effects on offspring education.
2. The effects of family class origin varies across historical periods. The educational level of offspring of landlord/rich peasant origin experienced a sharp drop caused by the class-based discrimination in the Maoist era and then a rebound in the postreform era.
3. The degrees of drop and rebound in the educational level of landlord/rich peasant family members vary by the social environment. The drop and rebound are more apparent for those who lived in multisurname villages where the density of kinship relation was considered to be lower and the class-based discrimination was more severe.

Educational level of current younger generation (aged 16-18)

1. After controlling for gender, parent's education, family wealth and other individual/family factors, family class origin still has a significant influence on the educational level of children aged 16-18. Children of landlord/rich peasant and middle peasant families are more likely to continue schooling beyond junior high school level compared with their poor and lower-middle peasant family counterparts.
2. Parents of landlord/rich peasant and middle peasant families tend to have stronger wish for their children's educational attainment.

### *Conclusion and implications*

#### Conclusion:

1. A class-specific, education-oriented family culture has been shaped as a mixture of, firstly, family cultural capital inherited from the pre-Maoist, and, secondly, the intergenerational cultural rebound against class-based discrimination.
2. Although radical institutional change after 1949 thoroughly destroyed the physical capital stocks of well-off families, invisible family cultural capital was preserved throughout the Maoist era and has begun again to play a role in current rural society.

#### Research implications:

1. For China study: a long-term continuity in the role of family and kin networks on social mobility in rural China (see for example, Campbell and Lee 2003; 2006).
2. For comparative economic transition: family cultural capital transmitted from the pre-revolutionary era matters in determining offspring's socioeconomic attainment after marketization (see for example Szelényi's 'interrupted embourgeoisement' account of rural Hungary) (Szelényi 1988)
3. For comparative analysis of social discrimination: robustness of family against government intervention (see for example Fang and Norman 2006 on the government-led ethnic discrimination in Malaysia's labor market). A. K. Sen's argument on 'resignation', instead of 'rebound' as a common reaction of oppressed people against deprivation (Sen 1992).

## 1. Introduction

This paper examines the determinants of intergenerational correlation of education in rural China. Three generations who completed their education during the period from before 1949 to the beginning of the 2000s are included. The focus of this study is on the influence of family class origin (*chengfen*), which is generally believed to have become irrelevant after the 1980s. Our empirical results suggest that family class origin is still important for the intergenerational transmission of education. We argue that a class-specific, education-oriented family culture underlies this finding.

### *Data*

The data source for this paper is a nationally representative cross-sectional survey of Chinese rural households conducted in the spring of 2003 by the Chinese Household Income Project (CHIP) under the auspices of the Chinese Academy of Social Sciences. The reference year is 2002 (hereafter referred to as the 2002 CHIP survey). The survey covers 9,200 rural households distributed across 122 counties in 22 provincial-level administrative units: Beijing, Hebei, Shanxi, Liaoning, Jilin, Jiangsu, Zhejiang, Anhui, Jiangxi, Shandong, Henan, Hubei, Hunan, Guangdong, Guangxi, Chongqing, Sichuan, Guizhou, Yunnan, Shaanxi, Gansu, and Xinjiang. The sampling frame for the survey is a subsample of the official rural household survey conducted by the National Bureau of Statistics (NBS).<sup>1</sup>

### *Literature review*

Common explanations for the intergenerational transmission of socioeconomic status, in addition to the direct transfer of wealth through inheritance, focus on transmission of human capital over generations (Black 2005; Bowles et al. 2005; Erikson and Goldthorpe 2002; Grawe and Mulligan 2002; Solon 1992). Affluent families can invest more in their children's education. Also, wealthy parents usually have higher educational levels, which directly and indirectly affect their children's education (the intergenerational spillover of education)<sup>2</sup>. Higher educational levels, then, enable children to attain higher socioeconomic status (see Figure 1). From the standpoint of comparative economic studies, it would be interesting to investigate to what degree these common transmission paths of education are relevant in transition economies, which have experienced the establishment and the collapse of a socialist system within a few generations. We intend to investigate this issue in the context of rural China during the period from the pre-liberation period to the beginning of the 2000s. In the present paper, we concentrate on the intergenerational correlation of education.<sup>3</sup>

Besides the wealth and education of parents, various factors (including inherited ability, family and community characteristics, and school quality) will affect children's educational level. In the present paper, we focus on the contribution of family culture. We firstly conceptualize family as a cultural institution that promotes the socialization of children and the building up of their human capital, as well as an economic unit that makes an investment in the physical and human capital of its members. Secondly, we define family culture as the quality of intergenerational interactions focusing on education, culture, and social experiences within the family.<sup>4</sup> Thus, offspring's educational attainment is considered to be affected by the quality of family culture. It is difficult to find operational measures of family culture because it is a highly complicated concept. Our idea is to employ family class origin (*jiating chengfen*), a unique socio-political variable in the post-revolution rural China, as a proxy for the characteristics of family culture.

#### Figure 1 Reference framework

Since individual's socioeconomic status in socialist countries had been more or less affected by their family background, it would be interesting to compare rural China with other transition economies. Among literature on intergenerational transmission of socioeconomic status in transition economies, we refer to Széleányi's 'interrupted embourgeoisement' theory as the framework of reference. Széleányi (1988), using extensive household survey data in rural Hungary at the beginning of the 1980s, argued that the old rural bourgeoisie and other entrepreneurial families (especially 'kulaks' and 'middle peasants') could exploit the new market opportunities of the mixed economy after the 1980s by placing their family resources (education, occupational skills, and so on) in the educational and politicoeconomic systems under the socialist regime. Based on an estimation of agricultural production, Széleányi also stated that the more prosperous families under collectivization and the peasant entrepreneurs who took advantage of the opening up of the market after the 1970s appeared to be the descendants of families who had been well off and entrepreneurial before the socialist transformation. That is to say, the process of 'embourgeoisement' had been interrupted during the socialist regime in rural Hungary..

Because of a lack of data, there are few previous studies that directly examine the effects of family class origin on offspring education using large household survey data that can represent rural China. Deng and Treiman (1997), using the 1982 census, claimed that the educational attainment of men had become highly egalitarian after 1949 with respect to class

origins because of strong state intervention, although discrimination in education existed against sons of ‘bad class origin’ during the 1960s and 1970s. Although we acknowledge that intergenerational correlation in education was generally weakened in both urban and rural areas by the expansion of public education after 1949, we find a significantly different picture in this paper.<sup>5</sup> First, we investigate the intergenerational correlation of education among the current younger generation who completed their education after the 1990s by employing various controlling variables, whereas Deng and Treiman concentrated on the Maoist era. Second, we elaborate their findings regarding class-based discrimination in education by examining the long-term influence of such discrimination.<sup>6</sup> Zhou, Moen, and Tuma (1998), using survey data collected from 20 cities, investigated the influences of family characteristics (father’s education, father’s occupation, and family class origin) on children’s educational achievements from 1949 to 1994. They concluded that the effects of ‘middle-class’ and cadre background varied across historical periods, and that the variation pattern was not clear-cut and not always consistent with state policies. Although their finding that the effects of class origin varied across historical periods is suggestive for our study, we will not refer directly to their study in the following discussion because it did not cover rural China and class origin was not necessarily the main focus of their analysis.<sup>7</sup> Our basic hypothesis in this paper is that the influence of family class origin on offspring’s social attainment will appear as the cultural response of family against the socioeconomic environment, as well as the direct impact of state policies.

### ***Structure***

This paper is structured as follows. In Section 2, we discuss the framework of study, working hypothesis, data coverage, and possible sources of bias. In Section 3, we examine the father–son correlation of education between cohorts of male heads of household and their fathers. Then, in Section 4, we investigate the determinants of educational attainment of the current younger generation by employing control variables at individual, family, and regional levels, as well as parental education and family class origin. Section 5 presents our conclusions.

## 2. Framework of research

### *Family class origin*

As mentioned above, we employ family class origin, the political label hung on every family member throughout the Maoist era, as the focal variable throughout the study. Family class origin was designated at the period of land reform (late 1940s to early 1950s) based on economic status (mainly land holdings) before land reform, and remained unchanged until the end of the 1970s.

Figure 2 illustrates a conceptual framework of family class origin in the sociopolitical and economic hierarchy in rural China. The upper part of the figure addresses the sociopolitical hierarchy, while the lower half of the figure describes the economic hierarchy. The economic and sociopolitical hierarchy in the pre-1949 era can be illustrated as a pyramid. Families labeled as landlord/rich peasant, a minority, were at the top rung of both economic and sociopolitical hierarchies. Middle peasant families were at the middle level, and poor and lower-middle peasant families, the majority, were at the bottom of the structure (see the left-hand part of the figure). During land reform, land and other property of landlord/rich peasant families were forfeited and redistributed to families classified as poor and lower-middle peasant. Landlord/rich peasant families were allowed to keep minimum means of production after land reform. Properties of families designated as middle peasant were basically protected (see the trapezoid at the lower-middle part of the figure).<sup>8</sup> After the thorough collectivization of agriculture in the late 1950s, all families had become economically homogeneous within the unit of collective agricultural production (the production team and the production brigade) under the People's Commune system, although inter-commune and interregional inequality in peasant income had remained steady or even increased (Selden 1988; Zhang 1998). After the early 1980s, the peasant family had been revived as an economic entity by decollectivization. Family characteristics had again become relevant to a family's socioeconomic conditions (see the right-hand part of the figure).

With regard to the sociopolitical hierarchy, family class origin had become a critical determinant of sociopolitical status after land reform and throughout the Maoist era (Chan et al. 1984; Huang 1995; Unger 1982; Watson 1984; Zhang 1998). Family class origin was recorded in the household registration, and as an implied political label it influenced the rural population's education, employment, party membership, and all other social and economic opportunities. The pyramid-shaped sociopolitical hierarchy in the pre-1949 era became an

inverse pyramid after the 1950s. Families labeled as landlord/rich peasant dropped to the bottom rung of the sociopolitical hierarchy, middle peasant families remained at the mid-level, and poor and lower-middle peasant families were at the top of the structure (see the upper right-hand part of the figure).<sup>9</sup> It was not until 1979 that the Communist Party announced the abolition of the system as a measure of political accreditation. In every political campaign in the Maoist era, especially the Great Cultural Revolution, families of landlord and rich peasant origin were, in company with ‘antirevolutionaries’, ‘rogues’, and ‘right-wing factions’, called the ‘five blacks (*hei wulei*)’ and became the main target of an intense ‘class struggle’. The opposite of the ‘five blacks’ were the ‘five reds’ (*hong wulei*), poor peasants, lower-middle peasants, workers, revolutionary soldiers, and revolutionary cadres, and these were regarded as the base of the socialist regime.

#### Figure 2 Family class origin (*chengfen*)

The 2002 CHIP survey provides information on the class origin of the heads of the household and their spouses’ parents. Based on this information, we adopted the following classification of family class origin.

(1) Landlord/rich peasant (*dizhu/funong*) family. This means a family where either parent of the head of the household is of landlord/rich peasant origin. This class category represents the former ‘exploitative’ class and was regarded as a ‘bad class’ throughout the Maoist era.

(2) Poor and lower-middle peasant (*pinxiazhongnong*) family. This means that both parents of the head of the household are of poor or lower-middle peasant origin. They belong to the ‘good (revolutionary) class’.

(3) Middle peasant (*zhongnong*) family. Both parents of the head of household are of middle peasant origin, or one of the parents is of middle peasant origin and the other is of a poor or lower-middle peasant origin. Rich middle peasant (*fuyu zhongnong*) and some other minor middle-class categories such as small landholders (*xiao tudi chuzuzhe*) and merchants (*shangren*) are classified as middle peasant. They belong to the ‘middle’ class; that is, they are allies of the revolutionary class.

Table 1 classifies the family class origin of our sample households by agricultural macroregions.<sup>10</sup> In the overall sample, landlord/rich, middle, and poor and lower-middle peasants comprise approximately 6, 20 and 74 percent, respectively. Although the ratio of landlord/rich peasant is higher in northeastern and southwestern regions, there are no large regional differences in the structure of family class origin among agricultural macroregions.

A possible criticism of using family class origin is that it is a crude indicator of family status because the socioeconomic characteristics of families designated as a certain class during land reform vary considerably across regions. Our rationale for using family class origin is as follows. First, because family class origin became a fixed political label after the 1950s, its sociopolitical meaning is basically common in all areas. Second, although the economic substance of a certain class before the land reform varies between regions, it is reasonable to assume that class status represents relative socioeconomic status within each of the regional units where land reform was implemented. If so, we can utilize an appropriate regional dummy variable. County (*xian*) is the appropriate regional unit because it was the basic unit for applying the land reform policy.<sup>11</sup>

Table 1 Structure of family class origin by regions

### *Historical cohorts*

For the purpose of our study, it is important to conduct the investigation by birth cohorts. When classifying birth cohorts, the unequal accessibility to education of people with different class origins in different historical periods should be considered.

Figure 3 shows average years of education for all current male household members grouped into five-year birth cohorts.<sup>12</sup> From this figure, we can confirm that the educational level of peasants has been increasing steadily since the establishment of the People's Republic, from 5.0 years in the 1935–1939 birth cohort to 8.6 years in the 1975–1979 birth cohort. We can clearly see the expansion of school education after 1949. In addition, we find fluctuations in education level among different class origins. Landlord/rich peasant family members born in the pre-1949 era had better education, as is expected. This trend was reversed for the 1945–1949 birth cohort and the education level of landlord/rich peasant family members became lower than their middle peasant and poor/lower-middle peasant counterparts. It is clearly shown that landlord/rich peasant family members were subjected to social discrimination. It is not until the 1960–1964 birth cohort that the education level of landlord/rich peasant family members caught up with the other classes.

Figure 3 Average completed education of male household members by cohort

Here we focus on the two transitional birth cohorts in Figure 3: the 1945–1949 cohort and the 1960–1964 cohort. In the 1945–1949 cohort, we found that the proportion of male members who could not proceed to junior high school level education (those who have less

than six years education) are 65 percent in landlord/rich peasant families and 53 percent in poor and lower-middle peasant families. In the 1960–1964 cohort, we found a type of polarization in the educational attainment of landlord/rich peasant family members. Specifically, the proportion of male members who have ten years or more education is 23 percent in landlord/rich peasant families and 20 percent in poor and lower-middle peasant families, while the proportion of those who have less than six years education is 21 percent in landlord/rich peasant families and 17 percent in poor and lower-middle peasant families. These findings suggest that, for the 1945–1949 cohort, class-based disparity in education level could be seen in the transition from primary school level to junior high school level education. This was the first transitional cohort when the overall average length of education was around six years. In the second transitional cohort, the 1960–1964 cohort, the overall average length of education increased to approximately eight years, and continuing education at senior high school level became the important crossroad.

Thus, it is appropriate to classify the historical birth cohorts for empirical analysis by year at age 12 (the transition from primary school level to junior high school level) and age 15 (the transition from junior high school level to senior high school level). Specifically, as illustrated in Table 2, we classify household members into the following four historical cohorts.

(1) Pre-Maoist cohort. This cohort consists of those who were born up to 1944 (age at 2002: 58–88 years). They had reached the age of 12 years before 1957, the year when the collectivization of agriculture had basically been completed and when large political campaigns, the Rural Socialism Education Movement (*nongcun shehuizhuyi jiaoyu yundong*) and the Anti-Rightist Movement (*fan youpai yundong*), had been launched.<sup>13</sup>

(2) Mid-Maoist cohort. This birth cohort consists of those who were born between 1945 and 1959 (age at 2002: 43–57 years). Those who belong to this cohort reached the age of 12 years after 1957, and 15 years before the end of the Great Cultural Revolution.

(3) Late-Maoist cohort. This birth cohort includes those who were born between 1960 and 1965. They reached the age of 12 years during the Great Cultural Revolution and 15 years after it had finished. This cohort is a transitional cohort from the Maoist era to Deng Xiaoping's reform era.

(4) Postreform cohort. Those who were born after 1965 are included in this birth cohort. They reached the age of 12 years after 1978, the year of transition from the Maoist era to the reform era, which is illustrated by the third plenum of the 11th Central Committee of the

Communist Party of China (December 1978) and the official announcement of the abolition of family class origin as the measure of political accreditation (January 1979).<sup>14</sup>

Table 2 Classification of historical cohorts

### ***Subjects and Outcome measures***

Taking the common explanations for intergenerational transmission of education and Szélenyi's account into consideration, Table 3 illustrates the framework of the empirical study in this paper. We include three generations (Panel A of Table 3). The first (grandfather's) generation is the generation of fathers of current heads of household. The second (father's) generation is the generation of current heads of household. The third (children's) generation comprises resident and nonresident children.

The outcome measures are as follows (Panel B of Table 3). First, for the educational level of the second generation, we employ years of education completed by heads of households. To focus on father–son correlation of education, we concentrate on male heads of household. Thus, our working data consisted of 8821 observations (Note that male heads of household who were continuing education in 2002 are not included). Second, regarding to the third generation, we introduce a dummy variable for whether children aged 16–18 have already achieved or are achieving 10 years or more of schooling, that is, whether they continue schooling beyond junior high school. Number of observation for this estimation is 2639.

Table 3 Framework of the empirical study

We examine the following focal determinants of intergenerational correlation in education and their operational measurements. (1) Previous generation's educational level. Considering that the school system in rural area had changed frequently and that dropping out of school had been very common, we use years of education completed, not the school credentials. (2) Ability to invest in offspring's education. Unfortunately, operational measure of households' ability to invest in offspring's education during the Maoist era is not available. However, concerning the Maoist era, because of collectivization and the expansion of public education, it is safe to not consider the disparity in educational investment ability among families. Regarding the Postreform era, in Section 4, when we investigate the determinants of the educational level of the current younger generation, we employ per capita family wealth as a proxy for a family's economic ability. (3) Class-based Social discrimination and (4) Family culture. As described above, we utilize family class origin to examine these two factors.

### *Data coverage and possible bias*

Here we discuss the coverage of our data. The sampling framework of the official household survey by the NBS is based on the *hukou* (household registration) system. Because the rural samples of the 2002 CHIP survey are subsamples of NBS's official household survey, our working data set is representative for the population that has rural *hukou* status, but it does not include those who had changed their *hukou* from rural status to urban status (*nongzhuanfei*).<sup>15</sup> If there was a considerable volume of permanent rural–urban migration by changing *hukou* status, and if we found a large difference in the probability of obtaining urban *hukou* status among people of different class origins, these could be a possible source of bias for our empirical analysis. However, we argue that the bias would not be serious for the following reasons.

First, the volume of permanent rural–urban migration with changing *hukou* status is rather low. Based on the urban household data of the 2002 CHIP survey, we estimated that the ratio of rural–urban migration with changing *hukou* status was approximately 8 percent of the total population in 2002.<sup>16</sup> This very low volume reflects the long-lasting strict restriction on rural–urban migration since the establishment of the *hukou* system at the end of the 1950s. Although the restriction of migration based on the *hukou* system has been relaxed in recent years, the massive inflow of rural populations into urban areas is still basically individual-based temporary migration without changes to *hukou* status. Our family-based rural samples captured such temporary migrants.<sup>17</sup>

Second, although we found weak evidence of selective migration based on family class origin, the magnitude and direction of the bias does not affect our discussions. Based on the 2002 CHIP urban survey, the percentage of landlord/rich peasant family members of the total number of permanent migrants is 6.3 percent. This is almost the same as the percentage of landlord/rich peasant families in our working data set (see Table 1). When we calculated the proportion of landlord/rich peasant family members by different historical periods, we obtained the following figures: 5.2 percent for those who migrated during the period 1949–1979, 2.8 percent for those who migrated between 1966–1975, during the Great Cultural Revolution, and 7.6 percent for those who migrated after the 1980s. Although it is suggested that persons of ‘bad’ class origin were less likely to migrate during the Great Cultural Revolution, we did not find strong evidence of class-origin-based selective migration for the entire Maoist era. This could be explained by the fact that, in the Maoist era, in addition to the selective traits for changing *hukou* status (such as becoming party/government cadres,

entering college, and joining the army), there were also nonselective channels such as expropriation of the village's cultivated land by the state.

### **3. Intergenerational correlation of education by historical cohorts**

#### ***Class origin and father–son correlation in education***

In this section, we examine the father–son correlation of education between male heads of household (the second generation) and their fathers (the first generation) by historical cohorts, using OLS regression.<sup>18</sup>

The outcome measure was years of education completed by male heads of households. The focal independent variables were: (a) dummy variables for family class origin (the omitted category was poor and lower-middle peasant); and (b) years of education completed by fathers of male heads of household. To control for different socio-political environments in different historical periods and for the overall upward trend in average level of education (see Figure 3), we introduced (c) dummy variables for birth cohorts of male heads of household (the pre-Maoist cohort was omitted in the estimations as the reference). We also incorporated (d) interaction terms of family class origin and birth cohorts of male heads of household to illustrate how the effects of family class origin on offspring's education vary by historical periods. In addition, county (*xian*) dummy is included to allow for above-mentioned different conditions in the classification of class status during the land reform and for regional disparities surrounding rural education.

Table 4 Family class origin and father–son correlation of education by historical cohorts

Table 4 reports the estimation results. Equation 1 in the table contains no interaction terms. Equation 2 incorporates interaction terms of family class origin and birth cohorts. The following points can be made from the results.

First, the main effect of landlord/rich peasant on offspring's education changes considerably when interaction terms with birth cohorts are included: from negative and insignificant (equation 1) to positive and highly significant (equation 2). As reported in equation 2, interaction effects between landlord/rich peasant and birth cohorts are negative and statistically significant for the mid- and late-Maoist cohorts, whereas they become insignificant for the Postreform cohort. Combining these interaction effects with the main effect, it is demonstrated that the father–son education persistence in landlord/rich peasant families was interrupted in the mid-Maoist cohort and rebounded in the Postreform cohort.

The large negative interaction effect of the mid-Maoist cohort clearly shows the outcome of intense class-based discrimination.

Second, with regard to middle, poor and lower-middle peasants, there was a convergence of education after 1949. Equation 2 shows that the significant positive main effect of middle peasant status and the significant negative interaction effects with birth cohorts cancel each other out. This tendency reflects the fact that father–son education persistence of middle peasant families in the pre-Maoist era was diminished by the collectivization and the equal spread of public education across non-’bad’ classes during the Maoist era.

Third, we have no evidence that the effect of father’s education varies by family class origin. Though not reported in Table 4, we have added the interaction terms of family class origin and father’s education to see whether the slope of fathers’ education is steeper for those who are landlord/rich peasant origin than for their poor and lower-middle peasant origin counterparts. We have found no statistically significant result suggesting that the slope of fathers’ education is different according to family class origin.

### ***Social environment and the degree of rebound***

Our hypothetical explanation of the rebound effect in educational level among family members of landlord/rich peasant origin in the Postreform cohort is that it was caused by a psychological or cultural reaction against class-based social discrimination. That is, fathers of this generation tended to have stronger incentives to encourage their sons’ education after the political label of class origin was abolished at the end of the 1970s.

If there is a rebound effect in father–son correlations in education, then it is anticipated that the rebound would be stronger where the class-based discrimination was more severe. To examine this point, we investigated whether the degree of rebound differed according to kinship relationships surrounding the family. It would be reasonable to assume that class-based discrimination could be mitigated where there are dense kinship relationships across families of different class origins. As a proxy of the density of kinship relationship within the community, we utilized the surname structure of villages.<sup>19</sup> The 2002 CHIP survey includes village questionnaires that collected information on the administrative villages where the sample households lived. Based on the village survey, we could divide sample households into two groups according to the kinship structure at the community level at which they were educated: (a) families living in non-multisurname villages; (b) families living in multisurname villages. Non-multisurname villages are defined as villages where families with the most

commonly occurring surname (*daxing*) comprise more than half of the total number of families.<sup>20</sup> Other villages are classified as multisurname villages. It can be assumed that non-multisurname villages have a higher density of within-village kinship relations than multisurname villages. Of the observations in Table 4, 32 percent lived in non-multisurname villages and 68 percent lived in multisurname villages.

According to this classification, Table 5 summarizes the reestimation of the determinants of male heads of households' educational level according to the two types of villages. The same specification as in Table 4 was used, and the mid-Maoist cohort and the Postreform cohort were compared.<sup>21</sup> With reference to multisurname villages, by comparing equations 1 and 2 we found a significant negative coefficient for landlord/rich peasant status in the mid-Maoist cohort, and this became positive and significant in the Postreform cohort, implying a sharp rebound from the drop in the previous cohort. Regarding the non-multisurname villages, we found a significant negative, but smaller in absolute value than multisurname villages, coefficient for landlord/rich peasant origin in the mid-Maoist cohort (equation 3). The relevant coefficient became insignificant in the Postreform cohort (equation 4). These findings imply a proportional rebound of educational attainment of landlord/rich peasant family members by the degree of class-based discrimination during the Maoist era.

Table 5 Father–son correlation in education by social environment

#### **4. Determinants of educational attainment of the current younger generation**

##### ***Framework of estimation***

In this section, to elaborate further on the findings in the previous section, we proceeded to investigate parent–children correlations of education between the second generation (heads of household and their spouses) and the third generation. The third generation was defined as offspring aged 16–18 in 2002 (The number of observation is 2639). Because we are interested in parent–children transmission of education, wives of sons (daughters-in-law) living at home are not included.

The framework of analysis is summarized in Table 6. The outcome measure is the dummy variable for children's educational attainment that indicates whether they had continued to attend senior high level schools after completing junior high school (1 if children aged 16–18 are full-time students or have already completed 10 years or more of education, otherwise 0). This threshold is set according to current school system (nine-year compulsory education) and

the actual situation of rural education illustrated in Figure 3. We employ probit models to analyze our data. Because a proportion of the cases are siblings belonging to the same family, we conducted estimation by clustering observations at the household level to deal with heteroskedasticity for grouped data.

An advantage here is that we could employ several control variables for family characteristics, which could not be utilized in the previous section. In addition to family class origin and We focused on the following variables that indicate family background: (a) family class origin; (b) parents' completed years of schooling; (c) political status (Communist Party membership of head of household); (d) economic status (per capita family wealth in 2002); and (e) father's birth cohort.

Regarding to the intergenerational spillover of education, here we see the effects of father and mother separately. Communist Party membership of head of household was employed as an indicator of family's sociopolitical status in the community that might affect parents' attitudes to children's education on the one hand, and as a proxy of father's human capital that complements years of education on the other. The expected sign of the coefficient for party membership is positive.

While family's economic status is a basic explanatory variable in studying intergenerational transmission of education, it is difficult to measure it properly based on cross-sectional data. Because income earned in one year is misleading because of year-to-year fluctuations, we employed current per capita family wealth as a proxy for the long-term stream of family income. Family wealth is defined as the per capita amount of financial assets, durable goods, housing assets, and fixed assets for production at the end of 2002.

Ages of fathers having children aged 16–18 are distributed from the mid-30s to the early 60s and basically belonging to the mid-Maoist and the late-Maoist cohorts. We control father's age by classifying it into three birth cohorts: first, fathers born up to 1953 (the former half of the mid-Maoist cohort and the pre-Maoist cohort); second, fathers born in 1954-1959 (the latter half of the mid-Maoist cohort); third, fathers born in 1960 and after (the postreform cohort). We hypothesize that children whose fathers belong to the first cohort tend to have higher probability to continue education beyond junior high school level by the following reasons. The first is a cohort effect. Fathers belonging to the first cohort (born up to 1953) can be regarded as the Cultural Revolution cohort because they had experienced the turmoil in the education system caused by the Great Cultural Revolution when they were in their adolescence or early adulthood. The literature on family sociology argues that external shocks

during one's adolescence are likely to have long-term influences on one's values and social attitudes (Bengtson et al. 2002). According to the relevant literature, we assume that fathers belonging to this birth cohort tend to have a stronger motivation for offspring's education. The second is an age effect. Since fathers belong to the first cohort had children in their mature adulthood, it is assumed that they tend to care more about children's education.

With reference to children's individual characteristics, we controlled for (f) gender (dummy for male children) and (g) age (17–18 dummies). Based on previous literature (see, for example, Song, Appleton, and Knight 2006) and our common knowledge on rural China, we assumed that boys would be more likely to achieve higher educational levels than girls. Coefficients for age dummies were assumed to be negative because the probability of dropping out of school becomes higher with age.

Considering large regional disparity in economic and educational conditions, we introduced a measure of the level of regional economic development: (h) sectoral structure of GDP at the county level (logit-transformed proportion of nonagricultural GDP to total GDP at the county level in 2001). This is a measure of the level of socioeconomic opportunities that induce demand for education, and, at the same time, a proxy of the financial ability of local government to invest in rural education. We also anticipate that peer effect among parents in sending children to school is stronger in developed regions.

Table 6 Family class origin and educational attainment of the current younger generation: framework and descriptive statistics

Before conducting the estimation, two possible sources of bias in our working data should be considered: first, censoring of children who have left home to receive higher educational attainment; second, selection bias caused by excluding children (mostly females) who have married and left home at younger ages. If the data are right-censored by these factors, as discussed in previous literature such as Holmes (2003), we should employ censored probit instead of ordinary probit. Regarding the former point, because our data include not only 'resident family members (*changzhu renkou*)' but also 'nonresident family members (*fei changzhu rekou*)', that is, family members who basically live away from home but are not yet socially and economically independent from their parents, it is safe to assume that the problem of right-censored data is minimal. Concerning the latter point, if the age of independence from parents relates to children's ability or motivation for education, there may be sample selection bias in estimating educational level only for children who have not yet

left home to start their own families. Based on our working data, we checked this point for each gender and concluded that there was no serious selection bias for either males or females.<sup>22</sup> Thus it will be safe to conduct ordinary probit estimation.

### ***Estimation results***

The outcomes of probit estimation are described in Table 7. The following points can be made from the outcomes.<sup>23</sup>

Table 7 Family class origin and educational attainment of the current younger generation: results

First, when all other factors are controlled for, family class origin still has statistically significant effects on children's educational levels (equation 1). Children of landlord/rich peasant families are more likely to continue schooling beyond junior high school level than their poor and lower-middle peasant counterparts. It should be noted that middle peasant origin also has a positive and statistically significant effect on children's education. It is interesting to consider whether the effect of family class origin varies by the sectoral structure of regional GDP. To investigate, equation (2) adds interaction terms for family class origin and the share of nonagricultural GDP. Other controls employed are the same as in equation (1). We find that the interaction terms are both insignificant, implying that the positive effects of family class origin are rather robust in the sense that they are not diminished by the level of regional economic development.

Second, we see positive and significant effects of parents' education.<sup>24</sup> The marginal effects of parents' education imply that a marginal increase from the average (7.5 years) in father's schooling brings a 1.9 percent higher probability of children's higher educational attainment. The same figure for mother's schooling (5.8 years on average) is 1.7 percent.

Third, father's party membership was proved to positively and significantly influence children's education. It is shown that party membership is associated with a 8.1 percent increase in the probability of achieving higher educational attainment when all other independent variables are fixed at their average.

Fourth, it is shown that family wealth has a positive and statistically significant effect on children's educational attainment, as was expected. A marginal increase in per capita family wealth from the average (9213 yuan) is associated with a 0.7 percent increase in the probability of achieving higher educational attainment. We can confirm that the wealth–

education correlation, the common trait of intergenerational transmission of education, has certainly been revived in the Postreform era.

Fifth, as expected, we found that children whose fathers were born up to 1953 are more likely to continue education beyond the junior high school. positively and significantly correlates with children's higher educational attainment.<sup>25</sup>

Sixth, from the positive and significant coefficient for male children, we found a clear gender gap in education. This is consistent with previous literature and with our general knowledge of rural China. The marginal effect for gender illustrates that boys have a 8.7 percent higher probability of higher educational attainment than girls.

Seventh, the nonagricultural share of GDP at the county level shows that the level of regional economic development has a considerable effect on the educational levels of rural youth. This finding, along with the significant positive effect of family wealth, suggests that both intra- and interregional disparities in education will increase in the future unless an adequate public policy is adopted.

### *Class-specific family culture*

It is rather surprising that the marginal effect of landlord/rich peasant origin (10.2 percent) is even larger than that of father's Communist Party membership (8.1 percent). This finding strongly supports our discussion on intergenerational cultural reaction against class-based discrimination. Thus we argue that a class-specific family culture characterized by a strong motivation for offspring's education has developed among families of landlord/rich peasant origin.

It is interesting that middle peasant origin as well as landlord/rich peasant origin positively correlate with children's education. This finding implies that, besides the cultural rebound, another family-specific factor should be incorporated in our discussion. Our explanation is that the relatively rich family culture of the former landlord/rich peasant and middle peasant families inherited from the pre-Maoist era has begun to play a role again after the revival of the family as the basic unit of economic activity. Although the radical institutional change after 1949 thoroughly destroyed the physical capital stocks of the formerly wealthy families and all families had become economically homogeneous, it may safely be assumed that invisible family cultural capital accumulated before 1949 could be preserved throughout the Maoist era. Offspring aged 16–18 entered middle school age after the late-1990s when the marketization of rural society had accelerated and the rural population had begun to face new

opportunities and risks, such as expansion of rural–urban labor migration, a wave of privatization of the township and village enterprises, and the challenge of structural adjustment of agricultural production. Previous literature shows that, along with marketization, education has become increasingly important to get lucrative job opportunities in rural area, although the trend of increasing return to education is not so clear cut as in urban area (see for example, Zhao 1997; Wei et al. 1999).<sup>26</sup> Expansion of senior high school level education in rural area was also observed in the 1990s. It seems appropriate to assume that families having relatively rich family culture are more responsive to changes in the socioeconomic environment and are likely to have stronger motivation for children’s education.

As another piece of supporting evidence for this finding, Table 8 reports the association of parents’ family class origin and their expectations for children aged 9–12 (children who are currently in the higher grades of primary school or the lowest grade in junior high school).<sup>27</sup> This table reveals that the proportion of parents who wish their sons aged 9–12 to attain senior high school level or above is highest in parents of landlord/rich peasant origin, second highest in middle peasant parents, and lowest in poor and lower-middle peasant parents. A similar association can be found for daughters, although middle peasant family is the highest in this case.

Table 8 Parents’ wishes for their children’s educational attainment

## 5. Conclusion

Thus far, we have examined the intergenerational correlation of education in rural China, focusing on the influence of family class origin. Regarding the educational level of male heads of household with landlord/rich peasant background, we found a drop caused by the class-based discrimination in the Maoist era and a rebound in the Postreform era. We also found that current younger generation (aged 16–18) who are of landlord/rich peasant and middle peasant origins are more likely to achieve higher educational attainment. Family class origin is still relevant for the educational achievement of the current younger generation. Summing up, we conclude that a class-specific, education-oriented family culture has been shaped as a mixture of, firstly, family cultural capital inherited from the pre-Maoist era and surfacing again in the Postreform era, and, secondly, the intergenerational cultural rebound against class-based discrimination.

Our findings in this paper have the following research implications for studying China, comparative economic transition, and socioeconomic analysis of social discrimination.

First, regarding China study, our findings suggest that we need to put more emphasis on the continuity and robustness of the rural family and as a cultural institution. We share the interest with recent historical studies on long-term trends in social stratification in rural China based on micro data, including those of Campbell and Lee (2003; 2006). Campbell and Lee, using a unique data set compiled from household registrations in rural Liaoning from the mid-18th century to the end of the Qing dynasty, have found a long-term continuity in the influences of the family and kin networks on social mobility.

Second, with reference to comparative economic transition, our study implies that, as far as intergenerational transmission of education is concerned, the major transmission path in rural China is different from that in rural Hungary, although there is a common outcome. That is, those of upper class origin are more likely to gain an advantage in education after the beginning of economic transition. In rural Hungary, wealthy families could transmit their family human capital by utilizing the education system under the socialist regime (Szelényi's 'interrupted embourgeoisement' account).<sup>28</sup> This is because the collectivization of agriculture in Hungary was relatively moderate in policy and shorter in period compared with rural China. Moreover, rural Hungary had not experienced repeated political campaigns that emphasized 'class struggle'. In rural China, there were very few chances in the public education system for families of landlord/rich peasant origin to transmit the previous generation's human capital during the Maoist era. However, family cultural capital could not be destroyed and, in response to class-based discrimination, they developed an education-oriented family culture that positively influenced children's education after the collapse of the rural class system.

Third, in a more general setting, our findings share implications with recent literature on economic analysis of social discrimination. For example, Fang and Norman (2006) compared the labor market outcomes of different ethnic groups in Malaysia and found that ethnic Chinese, a group that has been discriminated against in the labor market, are economically more successful. They argue that the cultural capital that is transmitted within families, which is very difficult to destroy by government intervention, may be a key source of their economic advantage. Our findings can be understood in a similar way. However, it is not necessarily natural that discrimination causes a rebound. As is emphasized in A. K. Sen's criticism of utility as a measure of well-being, a common reaction of oppressed people against 'long-standing deprivation' is resignation, or fatalism rather than rebound (Sen 1992, 55). Why, then, did rebound rather than resignation become the major form of reaction against class-based discrimination in rural China? Our inference is that the class-based discrimination in

education did not last long enough to make the oppressed group become accustomed to it. If the discrimination had continued so as to affect two generations' education and become an entrenched inequality, resignation instead of rebound might have overwhelmed the family culture of the 'bad class' families. Such family culture could then negatively influence human capital formation and the lifelong economic status of their offspring.

Our next step is to elaborate the paths of intergenerational transmission of family resources by taking other resources such as political status, occupational skills and experiences into consideration. Specifically, we will examine how family characteristics of the previous generation including class origin influence the current generation's income and wealth. This task will be undertaken in our forthcoming paper.<sup>29</sup>

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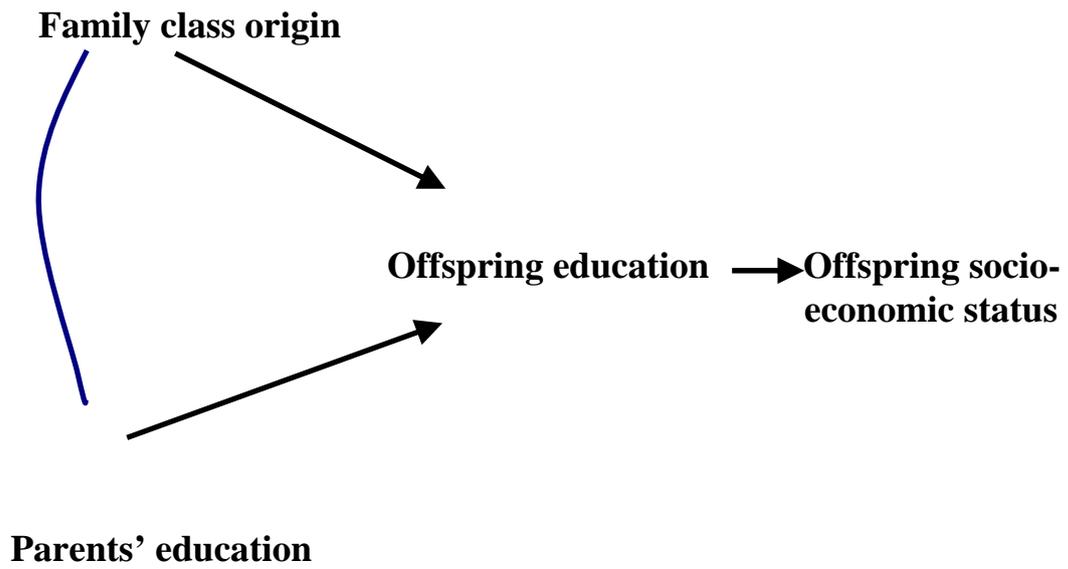
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Figure 1 Reference framework

1A: Intergenerational transmission of education



Source: the author.

Figure 2 Family class origin (*chengfen*)

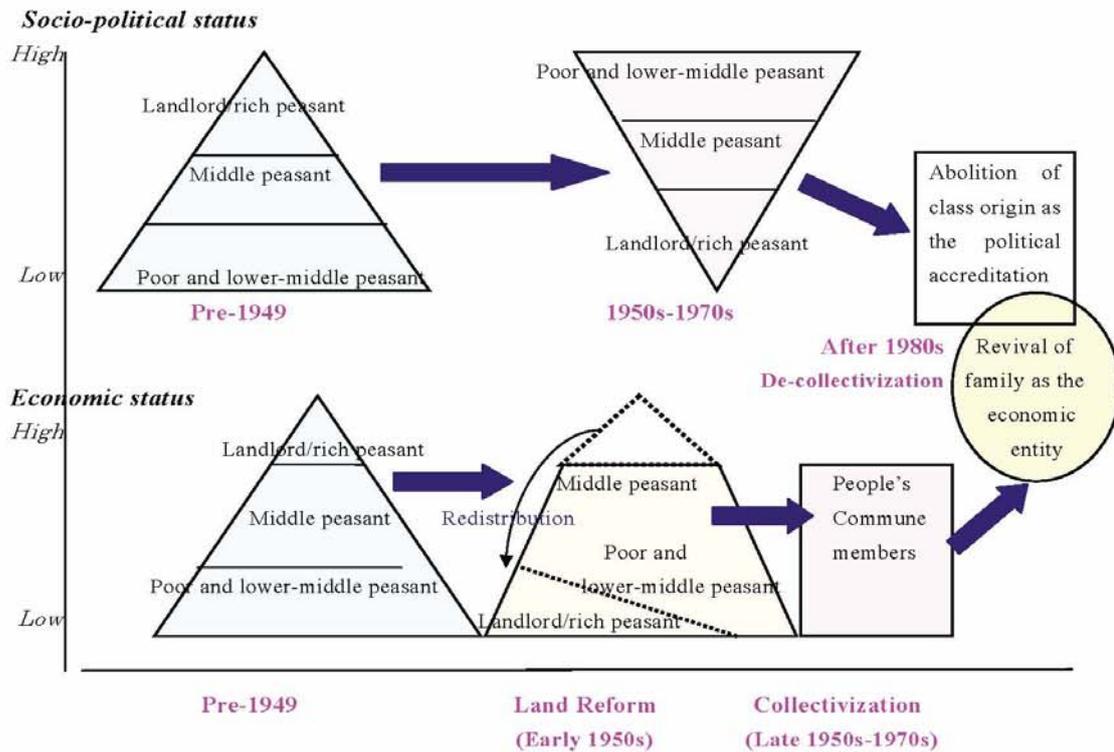
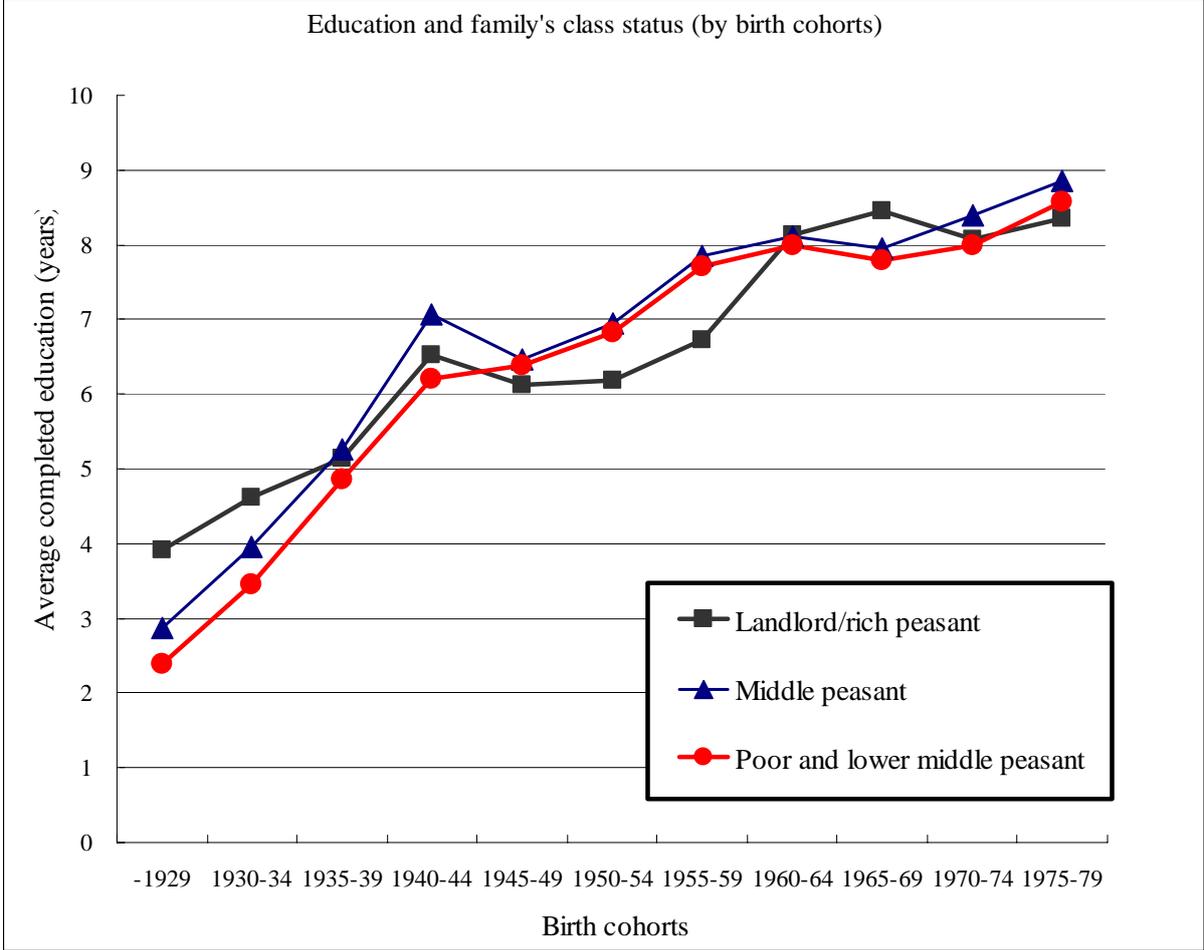


Figure 3 Average completed education of current male household members, by family class origin



Note. This figure reports averages of years of education completed by all current male household members born before 1980.

Table 1 Structure of family class origin by regions (%)

	Overall	Agricultural macroregions			
		Northeastern	Northern	Southern	Southwestern
Landlord/rich peasant	6.4	8.0	5.9	5.6	8.4
Middle peasant	19.8	21.4	20.9	17.1	22.8
Poor and lower-middle peasant	73.8	70.6	73.2	77.3	68.8
Total	100.0	100.0	100.0	100.0	100.0
Number of observations (households)	(8821)	(898)	(3300)	(3334)	(1289)

Notes. 1. For this and all subsequent tables, household data compiled from the 2002 CHIP survey are used.

2. For the consistency with the investigation of father-son correlation in education in Section 3, we report the class origin of families with male heads household.

3. Agricultural macroregions are as follows. Northeastern: Liaoning, Jilin. Northern: Hebei, Shanxi, Shandong, Henan, Anhui (Huaibei region), Jiangsu (Huaibei region), Shaanxi, Gansu (the central, southern, and eastern parts), and the Ganxin region (the northwestern part of Gansu and the entire Xinjiang). Southern: Jiangsu (Huainan region), Anhui (Huainan region), Zhejiang, Jiangxi, Hubei, Hunan, Guangdong, and Guangxi. Southwestern: Sichuan, Chongqing, Guizhou, and Yunnan.

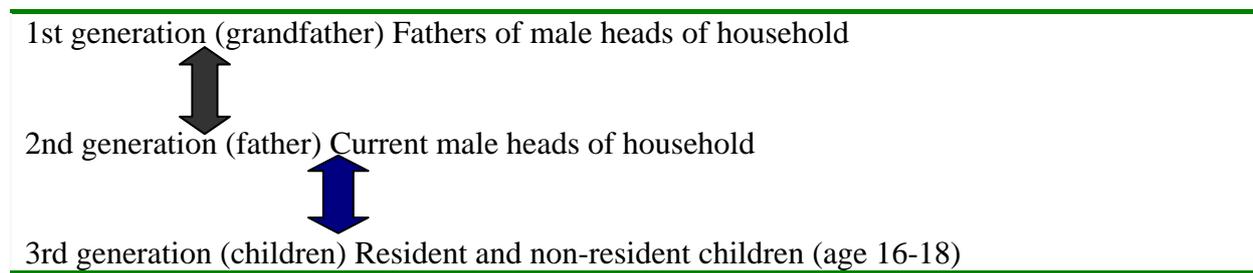
Table 2 Classification of historical cohorts

No.	Birth year (age at 2002)	Year of 12th birthday	Year of 15th birthday	Historical events	Distribution of observations (male heads of households) (%)
Pre-Maoist cohort					
1	1914–1944 (58–88)	1931–1956	1934–1959	1949: the establishment of the People’s Republic Early 1950s: completion of the Land Reform	14.7
Mid-Maoist cohort					
2.	1945–1959 (43–57)	1957–1971	1960–1974	1957: the collectivization of agriculture, the rural socialism education movement, the antirightist movement	46.7
Late-Maoist cohort					
3.	1960–1965 (37–42)	1972–1977	1975–1980	1966–1976: the Great Cultural Revolution 1976: the destruction of the Gang of Four	19.7
Postreform cohort					
4.	1966–1982 (–36)	1978–	1981–	1978: the third plenum of the 11th CPC Central Committee 1979: abolition of family class origin as the measurement of political accreditation	18.9
Total					100.0 (8821)

Notes. Total number of observations in parentheses. For the consistency with the investigation of father-son correlation in education in Section 3, we report the number of households with male heads of household.

Table 3 Framework of the empirical study

3A Three generations to be studied



3B Outcome measures

(a) (1st–2nd generations)

Male heads of household's years of education completed

(b) (2nd–3rd generations)

Whether children age 16–18 have achieved or achieving 10 years or more schooling (over junior high school level educational attainment)

Table 4 Family class origin and father–son correlation of education: OLS estimation results

<i>Dependent variable</i> : Male heads of household's years of education		
<i>Independent variable</i>	(1) with cohort dummy	(2) with interaction terms of class and cohorts
Landlord/rich peasant origin	−0.069 (0.65)	0.630 (2.73)***
Middle peasant origin	0.140 (2.15)**	0.586 (3.68)***
Father's years of education	0.100 (7.11)***	0.101 (7.15)***
Mid-Maoist cohort	1.141 (15.27)***	1.357 (15.29)***
Late-Maoist cohort	2.187 (25.05)***	2.357 (23.16)***
Postreform cohort	2.114 (23.47)***	2.244 (21.35)***
Landlord/rich peasant × Mid-Maoist cohort		−1.293 (4.69)***
Landlord/rich peasant × Late-Maoist cohort		−0.586 (1.70)*
Landlord/rich peasant × Postreform cohort		−0.121 (0.37)
Middle peasant × Mid-Maoist cohort		−0.543 (2.98)***
Middle peasant × Late-Maoist cohort		−0.530 (2.46)**
Middle peasant × Postreform cohort		−0.492 (2.27)**
County dummies	YES	YES
Constant	6.605 (24.95)***	6.450 (24.19)***
Number of observations	8821	8821
Adjusted R-squared	0.188	0.191

Notes: 1. This table reports the OLS estimation results of the effects of family class origin and father's education on male head of household's education. 2. For this table and Table 5, we concentrate on household with male heads of household. 3. The coefficients on the county dummies are not reported. 4. Omitted categories are poor and lower-middle peasant and Pre-Maoist cohort. The coefficients on the county dummies are not reported. 5. Absolute values of t statistics are in parentheses. \*\*\* denotes statistically significant at the 1% level and \*\* at the 5% level.

Table 5 Father–son correlation in education by social environment and birth cohorts: OLS estimation results

*Dependent variable:* Years of completed education of male heads of household

Social environment	Families living in Multisurname villages		Families living in Non-multisurname villages		Overall	
	(1) Mid-Maoist cohort	(2) Postreform cohort	(3) Mid-Maoist cohort	(4) Postreform cohort	(5) Mid-Maoist cohort	(6) Postreform cohort
<i>Independent variables</i>						
Landlord/rich peasant origin	-0.703 (3.37)***	0.841 (3.22)***	-0.542 (1.93)*	-0.001 (0.02)	-0.632 (3.83)**	0.496 (2.31)**
Middle peasant origin	-0.015 (0.12)	0.173 (1.01)	0.083 (0.49)	-0.023 (0.09)	0.054 (0.55)	0.078 (0.56)
Father's years of education	0.089 (2.93)***	0.106 (3.70)***	0.138 (3.42)***	0.133 (2.84)***	0.100 (4.20)***	0.133 (5.63)***
County dummies	YES	YES	YES	YES	YES	YES
Constant	8.490 (17.59)***	8.173 (11.31)***	7.509 (12.65)***	10.408 (6.73)***	8.132 (21.58)***	8.466 (12.93)***
Number of observations (male heads of household)	2760	1181	1355	488	4115	1669
Adjusted R squared	0.164	0.132	0.139	0.121	0.155	0.130

Notes: 1. This table extracts observations belonging to the mid-Maoist and the postreform cohorts from Table 4 and compares the effects of landlord/rich peasant origin on male head of household's education by the social environment.

2. Omitted dummy variable is poor and lower-middle peasant origin. The coefficients on the county dummies are not reported.

3. Absolute values of t statistics are in parentheses. \*\*\* denotes statistically significant at the 1% level and \*\* at the 5% level.

Table 6 Family class origin and educational attainment of current younger generation: framework and descriptive statistics

Variables	Description	Summary statistics
<b><i>Outcome measure</i></b>		
Dummy variable for children's educational attainment	1 if children age 16–18 are full-time student or have already completed 10 years or more education, otherwise 0	0.584 (0.492)
<b><i>Independent variables</i></b>		
<b>Class origin and other family characteristics</b>		
Family class origin	Dummy variables: for landlord/rich peasant; middle peasant; poor and lower-middle peasant (omitted category)	0.063; 0.187; 0.750
Educational level of the previous generation	Years of schooling completed: father; mother	7.533 (2.456); 5.792 (3.019)
Communist Party membership	1 if head of household has Communist Party membership	0.184 (0.388)
Father's birth cohort	Up to 1953 (pre-Maoist and mid-Maoist cohorts) 1954-59 (mid-Maoist cohort); 1960 and after (late-Maoist and post-reform)	0.224; 0.403; 0.373
Family wealth	Per capita family wealth in 2002 (financial assets, durable goods, housing assets, and fixed assets for production, in 1000 yuan)	9.213 (10.385)
<b>Children's characteristics</b>		
Gender	1 if male	0.520 (0.500)
Age	Age dummies for age 16–18	0.366; 0.311; 0.323
<b>Regional characteristics</b>		
Structure of county GDP	logit-transformed proportion of nonagricultural GDP to total GDP ( $p$ ) at the county level in 2001. The logit-transformed variable $p$ is defined as $\ln(p/(1-p))$ .	0.299 (1.077)
Number of observations		2639

Table 7 Family class origin and educational attainment of current younger generation: probit estimation results

*Dependent variable:* dummy variable for children's educational attainment (1 if resident and non-resident children age 16–18 are full-time student or already completed 10 years or more education)

	(1) Baseline	Marginal effect dy/dx	(2) with interaction terms of class origin and sectoral structure of county GDP
<i>Independent variables</i>			
<b>Class origin and other family characteristics</b>			
Landlord/rich peasant origin	0.278 (2.45)**	0.102	0.269 (2.31)**
Middle peasant origin	0.129 (1.78)*	0.049	0.137 (1.76)*
Father's years of education	0.050 (3.87)***	0.019	0.050 (3.87)***
Mother's years of education	0.044 (4.27)***	0.017	0.044 (4.28)***
Father's Communist Party membership	0.214 (2.89)***	0.081	0.215 (2.90)***
Father born up to 1953	0.170 (2.28)**	0.064	0.171 (2.29)***
Father born 1960 and after	0.006 (0.11)	0.003	0.006 (0.10)
Per capita family wealth	0.019 (4.27)***	0.007	0.019 (4.27)***
<b>Children's characteristics</b>			
Male	0.226 (4.18)***	0.087	0.226 (4.18)***
Age 17	-0.498 (7.60)***	-0.193	-0.498 (7.59)***
Age 18	-0.811 (12.33)***	-0.312	-0.811 (12.34)***
<b>Regional characteristics</b>			
Sectoral structure of county GDP	0.098 (3.07)***	0.037	0.098 (2.86)***
Interaction term of landlord/rich peasant × structure of county GDP			0.048 (0.46)
Interaction term of middle peasant × structure of county GDP			-0.023 (0.31)

Province dummy	YES	YES
Constant	0.934 (1.96)*	0.934 (1.98)*
Number of Observations	2639	2639
Pseudo R squared	0.154	0.154
Log likelihood	-1515.02	-1514.86
Wald chi squared	485.32	485.20

- Notes: 1. This table reports the estimation results of the effects of family class origin and other family characteristics on the educational attainment of children age 16–18. Children-in-law (son’s wives) are not included.
2. Estimations are conducted by clustering observations at the household level.
3. Absolute values of z statistics robust to heteroskedasticity for grouped data (grouped at the household level) are reported in parentheses. \*\*\* Denotes statistically significant at the 1% level, \*\* significant at 5% level, \* significant at 10% level.
4. Omitted dummy variables are: poor and lower-middle peasant origin; father born in 1954-1959; Age 16. Marginal effects for dummy variables indicate discrete change from 0 to 1.

Table 8 Parent's wish for their children's educational attainment

(%)

	Landlord/rich peasant origin	Middle peasant origin	Poor and lower-middle peasant origin	Total
<b>Sons age 9–12</b>				
Senior high school or above	89.2	89.6	80.3	82.6
Up to junior high school	10.8	10.4	19.7	17.4
Total	100.0 (74)	100.0 (251)	100.0 (1018)	100.0 (1343) <i>Pr</i> =0.001
<b>Daughters age 9–12</b>				
Senior high school or above	79.2	86.3	76.6	78.4
Up to junior high school	20.8	13.7	23.4	21.6
Total	100.0 (72)	100.0 (183)	100.0 (816)	100.0 (1071) <i>Pr</i> =0.015

Notes. 1. This table reports the association between family class origin and parent's expectation for educational attainment.

2. Respondents are heads of household who have children age 9–12 in 2002. Numbers of observations are in parentheses.

3. *Pr* indicates the level of significance of the chi square test of independence between family class origin and parent's wish.

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- <sup>1</sup> The stratified sampling of the NBS rural household survey followed two steps. First, sample administrative villages were directly selected in each province according to income level, and second, sample households (generally ten households) were chosen from each sample village. The total sample size of the NBS rural household survey is approximately 68190 households distributed across 6820 villages. For details of the sampling framework and sampling method of the CHIP 2002 survey, see Gustafsson, Li, and Sicular (2007). The CHIP survey was administered in 1988 and 1995 using a similar sampling framework and questionnaires. However, these rounds of the survey did not include information on family class origin.
- <sup>2</sup> Although some of the recent studies such as Black (2005) doubt of the intergenerational spillover of education, we can not consider the issue further in this paper.
- <sup>3</sup> In a forthcoming paper, we will proceed to a more comprehensive investigation of the intergenerational transmission of family socioeconomic status.
- <sup>4</sup> For the notion of family and family culture, we refer to Bengtson et al. (2002), Bowles et al. (2005), Coleman (1988), Erikson and Goldthorpe (2002), Grawe and Mulligan (2002), Mincer and Solomon (1974), and Solon (1992).
- <sup>5</sup> A weakening of the intergenerational correlation of education after the 1950s is common in East Asian economies. See, for example, Lillard and Willis (1994).
- <sup>6</sup> Although, the family planning policy is an important issue in studying the intergenerational transmission of education, since the impact of the policy would not be different by family class origin, we did not elaborate the issue in the present paper. Ting (2004) analyzed trade-offs between quantity and quality of children in urban and rural areas, using a fertility survey conducted in Hubei, Shaanxi, and Shanghai in the mid-1980s, and discussed that no difference was found in lifetime reproductive strategies between families of different socioeconomic statuses in rural areas, while there was a difference between white-collar families and blue-collar families in urban area. Drawing on Ting's argument and taking into account the fact that the difference in the number of children between families is relatively small in rural China (compared with other developing counties) because of a family planning policy, in this paper we do not consider the quantity-quality trade-off.
- <sup>7</sup> We will elaborate on their discussions when we examine the intergenerational correlation of education in urban China in our future research.
- <sup>8</sup> It should be noted that middle peasant families were also attacked in some areas where radicalism dominated the reform process. See Crook (1997/1967), Hinton (2003/1959), Putterman (1993) and Selden (1988) for the economic impact of the Land Reform and collectivization on peasant households.
- <sup>9</sup> Chan et al. (1984), a classical case village study of Guangdong, vividly illustrates how the notion of "blood-line (*chushen xuetong*)", which implies children with "bad" family background have inherited taint, affected social life of peasants in the Maoist era.
- <sup>10</sup> For classification of agricultural macroregions, see Guojia Ditu Bianji Weiyuanhui (1989).
- <sup>11</sup> For example, the typical method for supervising the land distribution process was to dispatch work teams (*gongzuodui*) organized at the county level to villages (Crook and Crook 2003/1959; Hinton 1997/1967).
- <sup>12</sup> Note that Figure 3 includes only current members of the household. Fathers of heads of household who do not live with current household members are not included.

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- <sup>13</sup> The Advanced Agricultural Production Cooperatives (*gaoji nongyeshengchan hezuoshe*) covered the entire rural area in 1957. In 1958, the Advanced Agricultural Production Cooperatives had been reorganized into People's Communes (*renmin gongeshe*).
- <sup>14</sup> Approximately 86 percent of male heads of household belonging to the Postreform cohort are aged 30 years old or over. Approximately 76 percent of their fathers belong to the pre-Maoist era, and the other 24 percent belong to the mid-Maoist cohort.
- <sup>15</sup> Regarding the institutional background and economic role of the *hukou* system, see Cheng and Selden (1994), Liu (2005), Wang (2004) and Whalley and Zhang (2004).
- <sup>16</sup> Based on the *hukou* status of the heads of household in the 2002 CHIP urban household survey, which is a nationally representative sample of urban households, we estimate that approximately 27 percent of heads of households originally had rural *hukou* status. By multiplying this figure by the proportion of urban *hukou* population, we obtain 7.5%. According to the official population statistics of 2002, the ratio of urban *hukou* population to total population is 27.9 percent (total population 1252.356 million; urban *hukou* population; 349.344 million; rural population 903.012 million) (Guojia Tongjiju Renkou he Shehui Keji Tongjisi 2003, 209).
- <sup>17</sup> The 2002 CHIP survey also contains a sample of temporary rural–urban migrants, which is randomly selected based on the temporary migration registration (*zanzhu renkou dengji*) in urban areas. The cities covered are the same as those in the urban household survey. We have checked the temporary migrant samples and confirmed that there is no significant difference in the structure of family class origin between rural and temporary migrant samples.
- <sup>18</sup> We are aware that we do not consider many other factors (including family's socioeconomic status in different periods and inherited ability of children) and that the problem of unobservability (endogeneity) exists. However, unfortunately, it is difficult to find good instruments to deal with the problem in the available data.
- <sup>19</sup> The surname structure is a crude proxy of the strength of kinship ties across families with different class origins. However, unfortunately, we could not utilize a better proxy instead of it.
- <sup>20</sup> Same surname here means families with the same surname who regard themselves as the descendants of common male ancestors.
- <sup>21</sup> This is based on the fact that there found no difference in the average years of education between multisurname and non-multisurname villages (for the pre-Maoist cohort, 6.0 years) and the assumption that the responsiveness of individuals/families to external shocks is distributed randomly.
- <sup>22</sup> Based on the samples of the 2002 CHIP survey, we have found that the ratio of males who are heads of household to the total number of males aged 16–18 is negligible and that the ratio of married females to the total number of females aged 16–18 is only 0.96 percent.
- <sup>23</sup> We have also conducted OLS estimation using children's years of education as the dependent variables. Though we have not reported the results in the text because of the space limitations, the estimation results are consistent with the results of probit estimation.
- <sup>24</sup> On the assumption that grandfather's education might have an independent influence on grandchildren's education in the context of rural China, we have conducted an estimation employing grandfather's education. Contrary to our expectation, the coefficient for grandfather's years of education is positive but not statistically significant. This might be because we could not control the actual situation of within-family cultural interaction between grandfather and grandchildren (for example, whether or not grandfathers live with

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grandchildren when grandchildren are in their childhood and adolescence, and if they lived together, how long).

<sup>25</sup> For a general discussion on the significance of cohort-specific factors in the Maoist era, see Davis-Friedman (1985).

<sup>26</sup> Regarding to the increasing return to in urban area, see Appleton, Song, and Xia (2005), Li and Ding (2004).

<sup>27</sup> This question was included in the supplementary household questionnaire of the CHIP 2002 survey. Respondents are basically heads of household, and they were asked to answer questions regarding parents' wishes for their children. In a few cases, spouses of heads of household answered the question.

<sup>28</sup> For example, many of 'kulak' descendants who started their adult life after the mid-1950s could get into middle school and become highly qualified technicians (Szelényi 1988, 171-179).

<sup>29</sup> Hanley and McKeever (1997), using large social mobility and life history surveys (1983, 1992), found another mechanism for the persistence of intergenerational inequality education in Hungary under the socialist regime, namely the strong incentive for administrators and professionals to transmit their education to their offspring. We will also examine the case in China using urban samples of the 2002 CHIP survey in our future research.