Economic Transition, Educational Expansion, Social Inequality in School Enrollments in China, 1990-2000 [1]

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ABSTRACT

Current research on social stratification in reform-era China is focused largely on the change in income inequality and returns to education. Little attention has been paid to how individuals' access to educational opportunities is affected by the rapid social and economic changes. In this project, we analyzes the micro-data of both 1990 and 2000 population census, matching the school-age children to their parents' background information within the same household, to address the changes in the effects of family backgrounds (parents' education and occupation) on the likelihood of school enrollment among children of school-age. Results show that (1) educational opportunities have been expanded greatly in the 1990s, particularly at the compulsory level. Rural-urban enrollment gap decreased at junior high school level but increased at the senior high school level. Family backgrounds started play an even stronger role in get access to educational opportunities for urban children in 2000 than in 1990.

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Introduction

The past two decades have witnessed a dramatic expansion of educational opportunities in China. The average schooling of Chinese population above age 15 has increased from 4.8 years in 1982 to 7.85 years in 2000 (ZJRWK 2003). However, educational expansion does not necessarily lead to the equalization of educational opportunities (Mare 1980). Sociologists have asked how the increased schooling is allocated among different social strata. As education plays an increasingly important role in getting a better job and receiving more economic benefits, in China as in elsewhere, the question of "who gets educated" assumes a central place in stratification research (Deng and Treiman 1997; Shavit and Blossfeld 1993).

Current studies on the impact of market transition on social stratification in China are largely focused on income outcomes (e.g., Nee 1989; Bian and Logan 1996; Xie and Hannum 1996). Despite the growing importance of education (human capital) in determining income (Bian and Logan 1996; Zhou 2000), few scholars have explicitly examined the effect of economic reforms on educational inequality per se. Even though the pattern of educational attainment in China is found to vary across different historical periods associated with major policy shifts (Hannum and Xie 1994; Zhou, Moen, and Tuma 1998), the educational inequality observed in the 1980s after the Cultural Revolution is largely seen as reflecting a return to the generic practice under socialism, rather than the effect of market transition (Deng and Treiman 1997; Tsui 1997; Zhou, Moen, and Tuma 1998).

Relying on analysis of census data, demographic studies on educational attainment in China are mainly focused on inequality between men and women, among different regions, and among ethnic/nationality groups (e.g., Bauer et. al. 1992; Hannum and Xie 1994; Hannum 2002; Lavely et. al. 1990; Tsui 1997). To address the temporal trend, these studies adopt an inter-cohort analysis of the snapshot census data. This approach is somewhat problematic, however. In China, many people did not finish school at a typical age, and the schooling system has also been changing from time to time. Hence, it remains unclear to what extent the cohort effect can represent the period effect (Zhou, Moen and Tuma 1998). More importantly, the census data contain no information on the respondents' family origins when they were receiving education, thus multivariate analyses of social inequality in educational attainment are quite limited (except for Deng and Treiman [1997]). Using the retrospective education history data can partially remedy these problems, but this approach has its own weakness: personal recall errors are inevitable, particularly for those who finished school earlier; the population change over time cannot be captured by the retrospective samples; meanwhile, the sample size from survey data is too small for certain groups of interest.

The decennial census is a unique tool for the study of social changes because it provides a rich set of data for detail analysis of social and demographic groups. For the most part, the census employs a constant set of measures for each decade, thereby avoiding the problem of confusing changes in the population in the way that the population is measured (Mare 1995). In addition,

the census is also a uniquely reliable source of data for certain social groups of relatively small size.

From 1990 to 2000, fundamental institutional transitions in China have had important implications on the changes in educational stratification, particularly in regards to the roles of family backgrounds. However, little research has been done to document and evaluate such a trend over the past decade. In this paper, we conduct an inter-censal analysis of education and enrollment data from China's two population censuses to investigate the change in educational stratification in the late reform period.

Data, Variables, and Methods

Data

The 1990 census data include two variables on education: educational level and enrollment status, which can be combined, together with age/cohort information, to define whether a person of certain ages (7-18) is enrolled in school or not. The questions on education in the 2000 census are slightly modified, but the variables are comparable to each other, and to be used as the main dependent variable in this research project.

From the variable "relationship to the household head," the children' father and mother can be identified, whose occupation and education can be matched to the children' individual records, and used as the main measures to family backgrounds. Other individual characteristics (gender, nationality) and household characteristics (*hukou* type) are also available for the multivariate analyses in both censuses.

The data sets analyzed here are the sub-sample (0.1%) from the micro-data of population censuses in China in both 1990 and 2000. I first extracted those who aged between 7 and 24, and then match with their parents or household head if their parents are absent, based on the variable indicating the relationship of the respondent to the household. As a result, I was able to obtain children-parent (or pseudo-parent) records, as well as the household records including geographic location, household registration (*hukou*) status, father's education and occupation, gender, and ethnicity.

Variables

The dependent variable is the enrollment status at certain ages, which is coded as a dummy variable (1 if in school, and 0 otherwise). Given the fact that the primary school education is almost saturated in both rural and urban China, we will focus on the determinations of enrollment status at secondary school (junior high school and senior high school). While we are also interested in tertiary enrollments, family background information for most tertiary students are not available from census because most of them have moved out of their parents' household and lived in student dormitories.

From 1990 to 2000, the Chinese school system remains largely the same. Typically, a student starts school at age 7, and proceeds to junior high school at 13 after 6 years of primary school, and proceeds to senior high school/vocational school at age 16. Because we lack the information for a particular grade that a student is attending, we approximate the enrollment status in junior

high school as that when the respondent was at the age between 13 and 15, and the status in senior high school as that when the respondent was at the age between 16 and 18.

The main independent variables of our research interests are family background, measured by father's occupation, education, and mother's education. Fathers' occupation is coded into 6 categories (1=manager and professional; 2=office staff; 3=commercial and service workers; 4=agricultural workers; 5=production workers; and 6=no job or retired). Father's education and mother's education are measured in three levels (1=primary school; 2=junior high school; 3=senior high school or above). They are treated as a set of dummy variables in multivariate analysis.

In addition, the household registration status captures family backgrounds on the one hand but also the regional inequality reflecting the fundamental divide in the country. *Hukou* type refers to whether one holds agricultural (rural) or non-agricultural (urban) hukou. It is coded as a dummy variable (rural=1 and urban=0). All 31 province-level jurisdictions in China are grouped into three regions based on their levels of economic development: 1= East; 2=Middle; and 3=West. The eastern region includes Liaoning, Beijing, Tianjin, Hebei, Shandong, Jiangsu, Shanghai, Zhejiang, Fujian, Guangdong, and Hainan. The middle region covers Heilongjiang, Jilin, Inner Mongolia, Shanxi, Henan, Anhui, Hubei, Hunan, Jiangxi, and Guangxi; and the rest provinces belong to the western region. They are coded as a set of dummy variables in the analysis.

Gender, age, and ethnicity are controlled variables. It is expected that enrollment rate decreases with age. Age is a continuous variable ranging from 6-15. Gender is a dummy variable (boy=1 and girl=0). Nationality is also coded a dummy variable (Han Chinese =1 and the other minorities=0).

Methods

To model the probability of enrollment, omitting subscripts denoting the *i*th person of *j*th birth cohort in *t* period (census year), a general model is specified as

$$\log it\left(\frac{p}{1-p}\right) = \alpha + \beta' X ,$$

where *p* is the probability of being enrolled in school of certain level/age range, X is the vector of independent variables measuring family backgrounds (more control variables are to be added as necessary), and β' is the vector of estimated coefficients. Note that in this specification β is estimated separately for each cohort in each of the two periods. To examine the temporal trend, this model can be expressed equivalently as

$$\log it\left(\frac{p}{1-p}\right) = \alpha + \beta^{*\prime} X + \delta' S$$

where S=*t*X, t is s scalar dummy variable (2000=1), and δ is a vector of parameters representing the interaction effects between family background variables and time (*t*) (Wooldridge 2003, Chapter 13).

In the following, we first provide descriptive statistics of the variables involved in the analysis and then examine the determination of enrollment status for those between 13 and 15 and those between 16 and 18. Special attention will be paid to the changing role of *hukou* status, and father's occupation in affecting the status of enrollment in two levels of schools.

Descriptive Statistics

Table 1 presents age-specific enrollment rates in China from 7 to 24 in 1990 and 2000 respectively, and Figure 1 plots the trend. Except for 7 years old, the enrollment rate at age 12 or below was quite high in 1990 and almost reached saturation in 2000. From age 13 to 15, the rate dropped from 81.7 percent to 54.4 percent in 1990 and from 94.4 percent to 75.4 percent. From age 16 to 18, the rate dropped further from 38.9 percent to 16.9 percent in 1990, and 58.9 percent to 24.1 percent in 2000.

[TABLE 1 AND FIGURE 1 ABOUT HERE]

Across columns, we observe a significant increase in enrollment rates with the decades, thanks to the implementation of the 9-year compulsory education law in the 1990s.

Table 2 presents descriptive statistics for those aged between 13 and 15 (implicitly means that they are in junior high school). The full-time enrollment ratio increased from 68.7 percent to 86.9 percent. Table 3 presents the descriptive statistics for those aged between 16 and 18 (senior high school) and the rate has increased from 26 percent in 1990 to 41 percent in 2000.

[TABLE 2a AND TABLE 2b ARE ABOUT HERE]

Empirical Findings in Multivariate Analysis

Table 3b presents the results from logistic regression predicting the likelihood of being enrolled in school for all children aged 13-15 in 1990 and 2000. I include a dummy variable year 2000 to capture the increase in enrollment rate in the 2000, sex, region, registration status in model 1. Then I add father's occupation and education, and *hukou* status in Model 2. Finally, I interact the family background variables with the year 2000 dummy to test whether the effect of family backgrounds has changed over the decades.

[TABLE 3a ABOUT HERE]

Not surprisingly, year, sex, region, and ethnicity are all significant predictors of enrollment stratus, and so are family background variables. Children whose father holds a high-status job are more likely to be in school at age 13 to 15.

The interaction terms in Model 3 show that, despite the significant improvement in enrollment in junior high school, children of farmers, production workers, and jobless become even more disadvantaged from 1990 to 2000, as indicated by the negative coefficient of the interaction terms, although only the coefficient for production workers is statistically significant ($p<.01$).

The gap between rural *hukou* children and urban *hukou* children, on the other hand, has been reduced within the decade, suggesting that the expansion may have occurred mainly in rural areas and children of rural status have benefited more from the increasing educational opportunities.

Table 3b presents similar models for predicting enrollment in senior high school (age between 16 and 18). The patterns are quite similar to those observed in Table 3a. expect that gap between rural and urban *hukou* holders has been enlarged since the 1990s.

[TABLE 3b ABOUT HERE]

As we observe significant difference between children of rural and urban registration status, and the change of such a difference over time. In Tables 4a and 4b, we present the models separated by rural and urban *hukou* holders. Among rural children, we do not find any significant changes in the effect of family background. Among the urban children, the pattern we found in the national sample becomes more pronounced. Children farmers, production workers, and the unemployed and retirees are disadvantaged in access to educational opportunities in 1990s, and the situation became even worse in 2000, despite the moderate increase in educational opportunities within the decades.

[TABLES 4a AND 4b ABOUT HERE]

Summary, Conclusions and Discussion

Results show that (1) educational opportunities have been expanded greatly in the 1990s, particularly at the compulsory level. Rural-urban enrollment gap decreased at junior high school level but increased at the senior high school level. Family backgrounds started play an even stronger role in get access to educational opportunities for urban children in 2000 than in 1990.

Educational expansion in China, accompanied by the rapid marketization in the 1990s did not bring more equal access to educational opportunities among different social strata. Education is mainly a tool for social reproduction rather than for social mobility. This finding bears great implication on the evolution of social structure in China.

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Table 1: Age-Specific School Enrollment Rates in China (7-24), 1990 and 2000

	1990		2000	
Age	Enrollment Rate (%)	N	Enrollment Rate (%)	N
7	75.79	20,516	94.71	19,017
8	90.74	22,363	98.01	20,383
9	94.19	18,525	98.76	21,699
10	94.61	19,449	98.64	27,560
11	92.93	19,470	98.35	27,532
12	87.75	18,983	97.01	27,204
13	81.71	19,608	94.39	28,604
14	71.09	20,679	88.49	25,871
15	54.42	22,047	75.43	22,136
16	38.86	23,910	58.91	20,905
17	25.86	25,020	46.34	20,511
18	16.75	24,792	33.86	22,381
19	10.81	26,450	24.12	18,955
20	7.64	26,519	15.82	17,630
21	5.34	28,170	10.05	18,034
22	3.14	25,354	6.11	18,387
23	1.36	23,399	2.24	17,686
24	0.63	25,788	0.96	19,533

Sources: 0.1 % micro-data of 1990 and 2000 population census

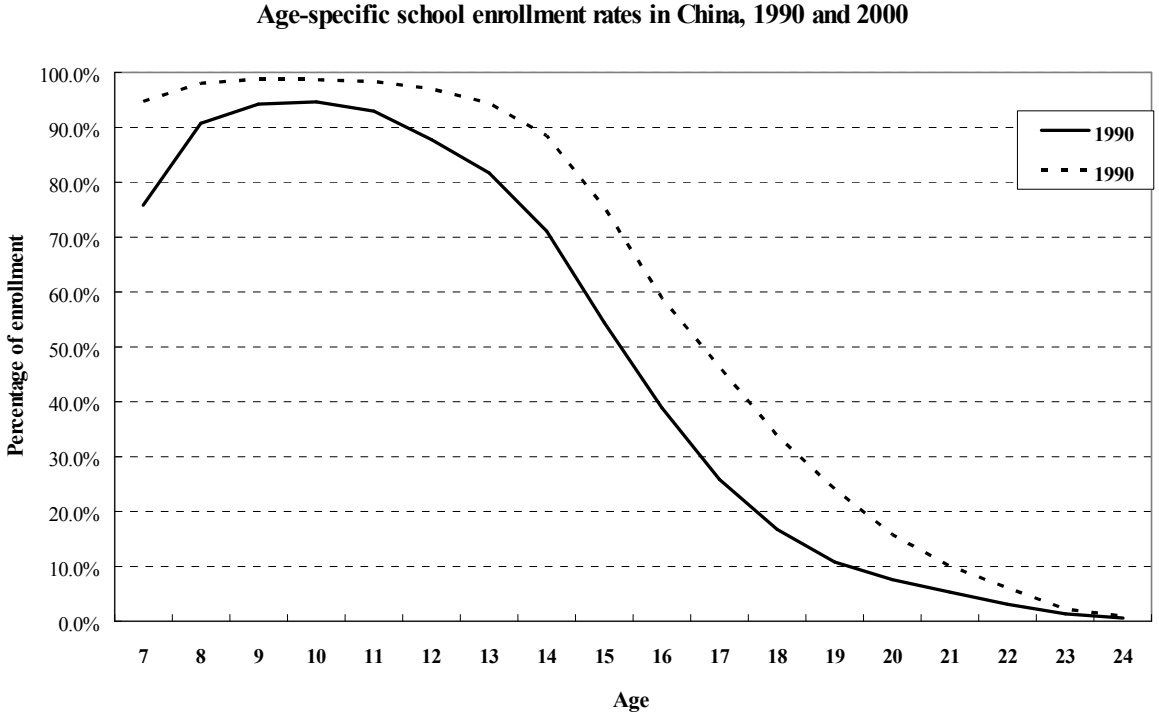

Table 2a: Descriptive Statistics of School-Age Children (13-15) in China, 1990 and 2000

	1990	2000
Full-time enrolled in school (yes=1)	68.73	86.86
Age		
13	31.23	37.74
14	33.50	34.00
15	35.27	28.26
Sex (female=1)	48.39	48.01
Registration status (rural=1)	84.32	82.31
Region		
East	31.65	36.77
Middle	43.45	39.94
West	24.90	23.30
Ethnicity (Han=1)	90.57	89.68
Father occupation:		
Manager & Professional	9.23	5.98
Office staff	1.99	2.43
Commercial & Service workers	3.71	6.35
Agricultural workers	69.54	65.58
Production workers	11.43	13.64
No job or retire	4.11	6.01
Father's schooling		
Elementary school or lower	65.28	33.65
Junior middle school	25.92	46.06
Senior middle or higher	8.80	20.29
Mother's schooling		
Elementary school or lower	83.95	54.64
Junior middle school	12.52	33.72
Senior middle or higher	3.52	11.64
Number of cases	66,719	75,663

Notes: Figures in parentheses are standard deviations for continuous variables.
Sources: 0.1 % micro-data of 1990 and 2000 censuses

Table 2b: Descriptive Statistics of School-Age Children (16-18) in China, 1990 and 2000

	1990	2000
Full-time enrolled in school (yes=1)	26.25	41.27
Age		
16	32.90	35.48
17	34.09	31.56
18	33.01	32.95
Sex (female=1)	49.14	46.73
Registration status (rural=1)	84.09	79.30
Region		
East	31.10	39.10
Middle	44.02	39.73
West	24.88	21.16
Ethnicity (Han=1)	91.27	88.74
Father occupation:		
Manager & Professional	9.31	6.10
Office staff	1.83	2.92
Commercial & Service workers	3.49	6.69
Agricultural workers	69.48	64.21
Production workers	9.81	13.53
No job or retire	6.07	6.54
Father's schooling		
Elementary school or lower	68.40	38.28
Junior middle school	23.32	41.71
Senior middle or higher	8.28	20.01
Mother's schooling		
Elementary school or lower	86.27	59.76
Junior middle school	10.24	28.21
Senior middle or higher	3.49	12.03
Number of cases	75,845	52,910

Notes: Figures in parentheses are standard deviations for continuous variables.
Sources: 0.1 % micro-data of 1990 and 2000 censuses

Table 3a: Logistic Regression Predicting Full-time Enrollment for Children Aged 13-15 in China, 1990-2000

Variables	Model 1	Model 2	Model 3
Year 2000	1.095***	.870***	.675***
	(.015)	(.017)	(.105)
Sex (female==1)	-.579***	-.619***	-.620***
	(.015)	(.016)	(.016)
Region [a]			
Middle	-.432***	-.403***	-.406***
	(.017)	(.019)	(.019)
West	-.596***	-.465***	-.467***
	(.019)	(.022)	(.021)
Registration Status (rural=1)	-1.659***	-.973***	-1.068***
	(.028)	(.037)	(.048)
Ethnicity (Han=1)	.547***	.447***	.449***
	(.022)	(.024)	(.024)
Father's occupation [b]			
Office staffs		-.164	-.299**
		(.089)	(.107)
Commercial & service workers		-.296***	-.303***
		(.059)	(.075)
Farmers		-.688***	-.660***
		(.044)	(.050)
Production workers		-.223***	-.108
		(.049)	(.058)
No job or retired		-.435***	-.389***
		(.059)	(.072)
Father's education [c]			
Junior middle school		.427***	.427***
		(.019)	(.018)
Senior middle school or higher		.615***	.618***
		(034)	(.034)
Mother's education [c]			
Junior middle school		.421***	.421***
		(.024)	(.025)
Senior middle school or higher		.427***	.449***
		(.050)	(.051)
*Father's occupation * year 2000*			
Office staffs*2000			.419*
			(.199)
Commercial & service workers*2000			.011
			(.126)
Farmers*2000			-.069
			(.097)
Production workers*2000			-.288**
			(.107)
No job or retired*2000			-.075
			(.125)
*Rural origin * 2000*			.291***
			(.074)
Constant	3.253***	3.095***	3.153***
	(.040)	(.059)	(.066)
Pseudo R^2	0.158	0.181	0.181
Number of cases	142,319	122,653	122,653

Notes:
[a] the omitted category is "eastern region";
[b] the omitted category is "managers and professionals";
[c] the omitted category is "elementary school or lower."
Figures in the parentheses are standard errors adjusted of clustering on households.
*** p<.001; ** p<.01; * p<.05 (two-sided tests)

Table 3b: Logistic Regression Predicting Full-time Enrollment for Children Aged 16-18 in China, 1990-2000

Variables	Model 1	Model 2	Model 3
Year 2000	.667***	.501***	.640***
	(.013)	(.016)	(.059)
Sex (female==1)	-.339***	-.371***	-.371***
	(.013)	(.014)	(.015)
Region [a]			
Middle	-.359***	-.345***	-.341***
	(.015)	(.017)	(.017)
West	-.242***	-.106***	-.103***
	(.018)	(.020)	(.020)
Registration Status (rural=1)	-1.816***	-1.134***	-1.076***
	(.016)	(.024)	(.032)
Ethnicity (Han=1)	.237***	.180***	.179***
	(.023)	(.026)	(.026)
Father's occupation [b]			
Office staffs		.022	-.164*
		(.053)	(.069)
Commercial & service workers		-.415***	-.460***
		(.040)	(.057)
Farmers		-.752***	-.745***
		(.031)	(.037)
Production workers		-.385**	-.315***
		(.033)	(.041)
No job or retired		-.440***	-.537***
		(.039)	(.051)
Father's education [c]			
Junior middle school		.400***	.406***
		(.018)	(.017)
Senior middle school or higher		.626***	.629***
		(.026)	(.026)
Mother's education [c]			
Junior middle school		.230***	.229***
		(.020)	(.020)
Senior middle school or higher		.561***	.540***
		(.033)	(.034)
*Father's occupation * year 2000*			
Office staffs*2000			.385***
			(.111)
Commercial & service workers*2000			.027
			(.083)
Farmers*2000			-.065
			(.062)
Production workers*2000			-.178**
			(.067)
No job or retired*2000			.154
			(.081)
*Rural origin * 2000*			-.113*
			(.047)
Constant	1.253***	1.087***	1.039***
	(.032)	(.044)	(.047)
D. F.			
Pseudo R^2	0.151	0.178	0.179

Number of cases	128,685	109,415	109,415

Notes:
[a] the omitted category is "eastern region";
[b] the omitted category is "managers and professionals";
[c] the omitted category is "elementary school or lower."

Figures in the parentheses are standard errors adjusted of clustering on households.
*** p<.001; ** p<.01; * p<.05 (two-sided tests)

Table 4a: Logistic Regression Predicting Full-time Enrollment for Children Aged 13-15 in China, by Registration Status, 1990-2000

Variables	Rural Hukou			Urban Hukou		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Year 2000	1.122***	.879***	.736***	.753***	.719***	1.253***
	(.015)	(.018)	(.109)	(.056)	(.071)	(.186)
Sex (female==1)	-.626***	-.669***	-.670***	.045	.047	.052
	(.015)	(.016)	(.016)	(.054)	(.060)	(.060)
Region [a]						
Middle	-.432***	-.401***	-.402***	-.472***	-.477***	-.478***
	(.018)	(.019)	(0.020)	(.064)	(.071)	(.071)
West	-.600***	-.460***	-.459***	-.561***	-.565***	-.568***
	(.020)	(.022)	(.022)	(.077)	(.088)	(.089)
Ethnicity (Han=1)	.568***	.464***	.464***	.286**	.216*	.215*
	(.023)	(025)	(.025)	(.091)	(.103)	(.103)
Father's occupation [b]						
Office staffs		.389*	.332		-.437***	-.542***
		(.155)	(.188)		(.114)	(.131)
Commercial & service workers		-.241***	-.285**		-.432***	-.454***
		(.071)	(.092)		(.109)	(.130)
Farmers		-.669***	-.713***		-.879***	-.337
		(.051)	(.059)		(.135)	(.207)
Production workers		-.238***	-.212**		-.187*	.047
		(.058)	(.071)		(.093)	(.107)
No job or retired		-.458***	-.493***		-.394***	-.260
		(.069)	(.085)		(.117)	(.153)
Father's education [d]						
Junior middle school		.445***	.443***		.059	.113
		(.019)	(.019)		(0.78)	(.078)
Senior middle school or higher		.625***	.627***		.413***	.451***
		(.037)	(.037)		(.099)	(.099)
Mother's education [d]						
Junior middle school		.455***	.457***		.182*	.190**
		(.026)	(.026)		(.073)	(.073)
Senior middle school or higher		.504***	.511***		.291**	.242*
		(.063)	(.063)		(.095)	(.095)
*Father's occupation * year 2000*						
Office staffs*2000			.203			.095
			(.334)			(.277)
Commercial & service			.155			-.244
workers*2000			(.149)			(.243)
Farmers*2000			.157			-
			(.110)			1.207***
						(.291)
Production workers*2000			.001			-.919***
			(.125)			(.215)
No job or retired*2000			.137			-.579*
			(.147)			(.249)
Constant	1.609***	2.115***	2.152**	3.035***	3.161***	3.031***
	(.031)	(.060)	*	(.121)	(.163)	(.165)
			(.066)			
D. F.						
Pseudo R^2	0.137	0.161	0.161	0.059	0.078	0.083
Number of cases	118,477	102,315	102,315	23,842	20,338	20,338

Notes:
[a] the omitted category is “eastern region”;
[b] the omitted category is “managers and professionals”;
[c] the omitted category is “elementary school or lower.”

Figures in the parentheses are standard errors adjusted of clustering on households.
*** p<.001; ** p<.01; * p<.05 (two-sided tests)

Table 4b: Logistic Regression Predicting Full-time Enrollment for Children Aged 16-18 in China, by Registration Status, 1990-2000

Variables	Rural Hukou			Urban Hukou		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Year 2000	.643***	.472***	.456***	.758***	.649***	.733***
	(.015)	(.018)	(.078)	(0.30)	(.038)	(.080)
Sex (female==1)	-.431***	-.464***	-.464***	.0135	.004	.004
	().015	(.016)	(.016)	(.029)	(.033)	(.033)
Region [a]						
Middle	-.308***	-.289***	-.289***	-.540***	-.558***	-.551***
	(.017)	(.019)	(.019)	(.033)	(.037)	(.037)
West	-.212***	-.067**	-.066**	-.350***	-.283***	-.273***
	(.020)	(.022)	(.022)	(.043)	(.050)	(.051)
Ethnicity (Han=1)	.281***	.205***	.206***	.036	.042	.041
	(.026)	(.029)	(.029)	(.056)	(.063)	(.063)
Father's occupation [b]						
Office staffs		.232*	.209		-.073	-.244**
		(.099)	(.135)		(.064)	(.082)
Commercial & service workers		-.325***	-.416***		-.519***	-.469***
		(.056)	(.081)		(.060)	(.081)
Farmers		-.720***	-.729***		-1.106***	.574***
		(.039)	(.047)		(.083)	(.124)
Production workers		-.379***	-.289***		-.367***	-.292***
		(.046)	(.061)		(.049)	(.058)
No job or retired		-.434***	-.486***		-.481***	-.575***
		(.056)	(.070)		(.059)	(.077)
Father's education [c]						
Junior middle school		.441***	.441***		.210***	.232***
		(.019)	(.019)		(.045)	(.044)
Senior middle school or higher		.602***	.602***		.567***	.585***
		(.032)	(.032)		(.053)	(.053)
Mother's education [d]						
Junior middle school		.241***	.239***		.222***	.216***
		(.024)	(.024)		(.041)	(.041)
Senior middle school or higher		.354***	.354***		.666***	.648***
		(.050)	(.050)		(.050)	(.050)
*Father's occupation * year 2000*						
Office staffs*2000			.052			.370**
			(.201)			(.139)
Commercial & service workers*2000			.159			-.135
			(.116)			(.121)
Farmers*2000			.023			-.872***
			(.079)			(.165)
Production workers*2000			-.153			-.213*
			(.094)			(.099)
No job or retired*2000			.142			.126
			(.117)			(.116)
Constant	-.573***	-.079	-.076	1.296***	1.188***	1.153***
	(.032)	(.051)	(.056)	(.067)	(.090)	(.092)
D. F.						
Pseudo R^2	0.083	0.106	0.107	0.089	0.138	0.140
Number of cases	105,677	89,875	89,875	23,008	19,540	19,540

Notes:

[a] the omitted category is “eastern region”;
[b] the omitted category is “managers and professionals”;
[c] the omitted category is “elementary school or lower.”
Figures in the parentheses are standard errors adjusted of clustering on households.
*** p<.001; ** p<.01; * p<.05 (two-sided tests)