Population Migration and Children's School Enrollments in China, 1990-2005

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(Abstract)

While population migration has been surging in China since 1990, little attention is paid to the impact of migration on children's educational wellbeing. In this paper we analyze the micro-data of Chinese population censuses in 1990 and 2000 and mini-census in 2005. We match the school-age children (6-15) to their parents' background information within the same households, and examine how parents' migration status and family living arrangements affect children's school enrollment status. We also compare migrants' children to their peers in both origin and destination counties/districts. Results show that migration status per se has no clear impact on school enrollments since 1990; however, migrant children of rural status face disadvantages in educational opportunities in 2000 and 2005. Mother's migration and living with relatives other than parents and grandparents have negative impact on children's enrollment status. The distance and timing of migration also affect children's enrollment status.

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Introduction

Market reforms and ensuing economic growth have brought about a surging wave of internal migration in China. In the pre-reform period, by virtue of the household registration system (*hukou*), the Chinese government has set up an "invisible wall" among different residence places, and especially between the urban and rural sector, to effectively controlled population migration (Chan 1994). Economic reform in the past next two decades has relaxed this administrative control and rendered geographic mobility and change of employment much easier. Most literature on internal migration in China is focused on documenting demographic patterns of migration and socioeconomic consequences for migrants and community development (Liang 2001; Liang and White 1996; Ma 2001; Yang and Guo 1996; Zhao 2000). Few studies have paid attention to the wellbeing of migrants' children (except for Liang and Chen 2002).

The nature of population internal migration in China has changed since 1990. In the 1980s, migrants were largely young adult males, whose stay for a long term was uncertain. Since the early 1990s, the market-oriented economic reform has become irreversible. Regional inequality in development has triggered an even large wave of migration; the size of migration population across provinces and counties has reached 79 million by 2000, where intra-county migration contributes another 66 million to the floating population (Liang and Ma 2004). Migrants tend to not only move further and stay longer, but also bring their spouse and children once they secure employment and settle down. Meanwhile, the early young migrants may get married, start family life, bear and raise children in the destination cities. The body of migration population becomes increasingly heterogeneous.

The Chinese household registration (*hukou*) system, with which the government used to control and regulated population migration, has far from being adapted to the tidal wave of migration. The sizable population continues to be denied of permanent residency on the basis of household registration status (Solinger 1999). Those without local (urban) registration are not entitled to allocate government subsidies, welfare, and employment opportunities to local urban permanent residents. Only temporary, undesirable, and menial jobs were open to migrants (Wang, Zuo and Ruan 2001; Yang and Guo 1996; Roberts 1997). Most government services were unavailable to them: they needed to pay extra fee to go to hospital, to rent an apartment, to have their children attend local schools (Cai 2002: 215). Moreover, many city governments often instituted a set of local regulations requiring migrants of several documents (3 certificates and 1 card) for their stay to be considered legal. For those documents, on average, a migrant worker was charged about 223 RMB Yuan in 1995 (Zhao 1999: 777).

Such discrimination policy against migrants has created special hurdles in socioeconomic attainment not only for adult migrants themselves (Wu 2005), but also for their offspring, particularly in regard to their access to educational opportunities. First, in the 1990s, more city-born children of early migrants have reached school ages. Second, the new tidal wave of migration has been bringing to destination cities more children of school age who migrate with their parents. In a survey conducted in 1997, school-age children constitute 12 percent of the total migration population in Shanghai (op. cit. Liang and Chen 2002). Without local permanent registration status, migrant parents need to pay additional fee and surcharges to get their children access to local schools, a cost hardly affordable to many migrant families. A survey conducted in Beijing in 1995 reported that only 40 percent of school-age children were actually enrolled in schools (op. cit Liang and Chen 2002). The provision of educational opportunities for migrants'

children has been an increasingly important issue that concerns the public and education policy makers.

The institutional barriers and social exclusions associated with the *hukou* system create extra costs to some migrants who wish to bring their families with them. Many children are left by their migrant parents to their grandparents at home. Indeed, rural education finance reform in the 1990s has imposed extra economic burden for families and driven some parents to migrate for cash income to support their children's education. To what extent parents' (specifically mother's) absence affects children's school enrollment? Current literature highlights the positive impact of migration on socioeconomic development in sending communities, either through remittance or return migration (Ma 1999; 2001). This suggests that parents' migration could have positive effect on children's school enrollment by providing necessary economic resources. On the other hand, migrant parents' absence could have negative impact on children's school enrollment and performance, an empirical finding that has been interpreted as a result of lacking social capital.

Much of scholarly work on migration and children's educational outcome is focused on the role of social capital (Coleman, 1988; Long, 1975; Loyd and Blanc, 1996; Pribesh and Downey1999). Despite of the importance of *hukou* status and institutional discrimination in school admission against migrants' children, the role of social capital in affecting children's school enrollment in a developing country like China should not be dismissed promptly without closely looking at how it interplays with family economic resources, community development, and institutional constraints (Buchmann and Hannum 2001; Kerckhoff 1995).

In this paper, we examine the rising educational inequality in the context of massive population migration in China in the 1990s. Specifically, we investigate how parents' migration

affects children's school enrollments. This issue has fundamental implications for the country's sustainable development in the future.

We define school-age children between 6 to 15 years old, an age group required to receive 9-year of compulsory education. Based on analysis of a sample of the micro-data of population censuses/mini-census in 1990, 2000 and 2005, we first document the trend in children's school enrollments and the variations among different groups in the context of educational expansion and tidal wave of population migration in the 1990s. We then conduct the multivariate analyses to investigate how children's migration status, mother's migration status, *hukou* status, and children's living arrangements, as well as other demographic variables, affect the likelihood of children school enrollment. Finally, we utilize some specific information in the 2000 census data and 2005 mini-census data to show the factors of migration distance and timing in determining enrollment status of migrant children.

Data and Variables

Data

The data sets analyzed here are the sub-sample from the micro-data of population censuses in China in both 1990 and 2000, and the mini-census in 2005. We first extracted those who aged between 6 and 15, 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, we were able to obtain children-parent records, as well as the household records including geographic location, household registration status, and migration status for children and parents.

In all three years, "migration status" is defined as whether the individual resides in the place where his/her hukou is registered. If not, namely, the individual resides in the current

address over 1 year but is registered elsewhere, or resides in the current address less one year but has been absent from the registration place over 1 year, then he or she is considered as a migrant. Therefore, children and their mother's migration status are both coded as dummies.

The 2000 census and 2005 mini-census data include more detailed information on migration. Unlike the previous census, it makes distinction between intra-county and inter-county/district migration, allowing us to analyze the impact of both types of migration on school enrollments, which might be different. The timing of migration was given also precisely through a new question on "arrival time at the current location."(Lavely 2001; Liang and Ma 2004).

Variables

The dependent variable is the enrollment status of children aged between 6 and 15, which is coded as a dummy variable (1 if in school, and 0 otherwise). Because children may start schooling at slightly different ages, I delete children aged 6 who are not enrolled in school and have no education (in other words, they have not started school yet).

The main independent variables include children's migration status, mother's migration, which are both coded as dummies (yes=1). Both are defined as not residing in the current place where their hukou are registered. Hukou type refers to whether one holds agricultural (rural) or non-agricultural (urban) hukou. It is also coded as a dummy variable (rural=1 and urban=0).

Living arrangement is coded in three categories (1=with parents; 2=with single parents; 3=with grandparents; and 4=with other relatives). They are coded as three dummy variables. Age, gender, 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 other minorities=0).

Family background is measured by both household head's occupation and education. Occupation is coded into 6 categories: managers & professionals, clerks, commercial & service workers, farmers, production workers, plus a missing category. Education is coded into 4 categories, including primary school or below, junior high school, senior high school, and college or above, plus a missing category.

Table 1 present descriptive statistics for the variables to be used in the analysis for 1990, 2000 and 2005. Overall, the school enrollment ratios increase from 83.5 percent in 1990 to 95.4 percent in 2000 and to 96.7 in 2005. This is largely attributed to the educational expansion, and specifically to the implementation of 9-year compulsory education.

[Table 1 about Here]

Despite the fact that compulsory education is implemented more thoroughly and educational opportunities are expanded rapidly, gender inequality in school enrollments persists in 1990, 2000, and 2005. The percentage of children who are registered with rural hukou status account for 53.8 percent of children in urban areas in 1990, 46.1 percent in 2000 and 50.4 percent in 2005. Early analysis found that children of rural hukou status are particularly disadvantaged in educational attainment (Wu and Treiman 2004). Regional disparities exacerbate the rural-urban inequalities in educational opportunities (Wu and Ma 2006).

Despite the continuing existence of the hukou system, migration increased dramatically in the 1990s. The increase in women migrants is also associated with the increase in migration children, but many children have been left behind, because of social exclusion based on hukou that prevent rural migrants to bring their families to the destinations (typically cities). As Table

1 shows, in 1990s, children living with both parents dropped from 82.8 percent in 1990 to 69.7 percent in 2005, and children living with grandparents increased from 7.35 percent in 1990 to 11.48 percent in 2000 and 16.02 percent in 2005.

Previous research in other countries has found that residential mobility/migration has negative impact on the likelihood of school enrollment. Family structure and living arrangements also have important effect on school dropouts (Astone and McLanahan 1994; Long 1975). Meanwhile, gender and ethnic educational inequalities have been documented by some scholars in China (e.g. Hannum and Xie 1994; Hannum 2002). We examine these issues through the multivariate analyses in the following.

Empirical Findings in Multivariate Analysis

Table 2 present the results from logistic regression predicting the likelihood of being enrolled in school for all children aged 6-15 in 1990, 2000 and 2005. We include (children's) migration status, hukou status, age, sex, ethnicity, living arrangement, and household head's occupation and income as independent variables in the models. Models 1, 3 and 5 are additive models for 1990, 2000, and 2005 respectively. To our surprises, within migrant children do not have disadvantages in school enrollment compared to non-migrant children in both years. They indeed have some advantages (as indicated by the positive coefficients), though these advantages are not statistically significant and have decrease sharply from 1990 to 2005. Only those cross-county and cross-provincial migrant children had disadvantages.

[Table 2 about Here]

Hukou status has significant impact on school enrollment, as found by Wu and Treiman (2004). Rural children are significantly less likely to be enrolled in school than urban children.

This suggests that the rural-urban inequality in educational opportunities have not been alleviated in the 1990s with the intact hukou system, despite the fact that China has made a great progress in economic development in the period.

In all three years, children living with grandparents and living with their own parents have no significant difference in the likelihood of attending schools, but children living with other relatives are significantly disadvantaged.

After introducing control variables, gender inequality still exists in 1990 and 2000 but disappears in 2005. The gap between Han Chinese and ethnic minorities persist and seem to be enlarged. All these effects are statistically significant ($p<.001$).

Since there is no evidence showing that migration children is disadvantaged than non-migrant children in school enrollments, the counter-intuitive results may be due to the mixture of rural and urban migrants in the analysis. In Models 2, 4 and 6, we include interaction terms between hukou status and migration status. While the other effects largely remain the same, the interaction coefficient is negative and statistically significant in 1990, but the effects are not statistically significant in both 2000 and 2005.

The result above suggests that the negative effect of migration on children may be limited to rural children only. In Table 3, we pooled the sample from all three years and test how migrant children's disadvantages change over time. As a result of educational expansion, Model 1 shows that children are more likely to attend school in 2000 and 2005 than in 1990. However, in such an expanded pie, migrant children get less and less opportunities, as suggested by the negative though insignificant coefficients of interaction terms.

[Table 3 about Here]

How do migrant children fare compared to their peers in origins. In both 2000 census and 2005 mini-census, we are able to locate the origin counties from which migrant children came. In both years, migrants children do significantly worse than non-migrant children in both origins and destinations.

[Table 4 about Here]

Finally, among migrant children, I examine in Table 5 the effect of migration timing on school enrollment. Affirming the previous observations, results show that the likelihood of being in school decrease with the timing of moving to current residence. Children migrating to the current residence more recently are less likely to be in school. As migrant children spend more time in the destinations, their disadvantage in school attendance tend to diminish

[Table 5 about Here]

Conclusions and Discussions

As migration, particularly cross-county and cross-provincial migration, continues to surge since the mid-1990 in China, how migrant children fare in this large-scale social transformation becomes an important issues that have received a lot of attention from scholars and social commentators and bear a lot of policy implications for the government to deal with the waves of population movement.

In this paper, we provide some exploratory empirical analysis of school enrollment of children aged between 6 and 15 in China, using the micro sample data from two rounds of population censuses. Our results did not confirm earlier studies that migrant children are less likely to be enrolled in school than local children from 1990 and 2005, but children of rural hukou are disadvantaged in school enrollment, and migration makes their situations even worse in 2005. In the decade between 1990 and 2005, as the size of migrant children increased dramatically, the negative

impact of migration can be seen clearly in 2005. Mother's migration status, children's living arrangements also affect the likelihood of children's school enrollment: mother's absence and living with relatives other than parents and grandparents both reduce the likelihood of children's school enrollment. We also found significant difference in school enrollment among children of different gender, age, ethnicity, and region.

The analysis of 2000 census and 2005 mini-census data shows that migrant children across counties are the truly disadvantaged in terms of educational opportunities. Results also suggest that duration of residence matters for migrant children. The dropout and educational disruption occur most likely among migrant children who arrived between 1998 and 2000.

The study provides fresh evidence on the recent sociological literature of migration and children's schooling. Scholars have found that migration usually has negative consequences for children's schooling because of the loss of social capital in schools, neighborhood, and community of origin; my analysis of China has largely confirmed this pattern. To what extent, the cause of negative consequences for education is attributable to the fact of not having local *hukou* rather than the loss of social capital in the community of origin, and family's lower socioeconomic status who migrate? Further data collection and analyses are needed to address pin down these issues.

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Table 1. Descriptive Statistics for Children Samples (6-15) in Urban China, 1990-2005

	1990	2000	2005
Enrolled in school	83.54	95.44	96.59
Migrant status			
Non-migrants	96.75	83.89	83.53
Within-county migrants	1.52	10.40	7.60
Cross-county migrants	1.23	3.60	5.04
Cross-province migrants	0.49	2.10	3.83
Agricultural hukou	53.82	46.09	50.39
Age*	10.52	10.83	10.88
	(2.90)	(2.71)	(2.83)
Female	47.89	47.35	46.65
Han ethnicity	93.11	93.21	92.34
Living arrangement			
With both parents	82.75	78.90	69.86
With single parents	8.33	7.14	7.70
With grandparents	7.35	11.48	16.02
With others	1.57	2.49	6.42
Head's occupation			
Managers & professionals	15.31	13.25	11.81
Clerks	4.31	6.76	5.72
Commercial & service workers	8.43	16.69	17.09
Farmers	36.43	23.31	20.85
Production workers	26.78	25.61	23.55
Missing	8.73	14.38	20.97
Head's education			
Primary school or below	44.92	22.78	22.99
Junior high school	34.58	42.91	42.19
Senior high school	15.80	23.82	17.76
College or above	4.47	10.08	11.32
Missing	0.22	0.41	5.74
N	66,622	65,978	20,459

* Standard deviation in the parentheses. Figures of other variables are percentages.

Table 2. Logit Models Predicting School Enrollment in Urban China, 1990-2005 (6-15 Children, Migrants and Non-migrants)

	1990		2000		2005	
	(1)	(2)	(3)	(4)	(5)	(6)
Migrant status(reference: non-migrants)						
Within-county migrants	0.122	0.824**	-0.090	-0.058	-0.169	0.170
	(0.131)	(0.253)	(0.068)	(0.089)	(0.161)	(0.284)
Cross-county migrants	-0.308*	0.172	-0.506***	-0.267	-0.751***	-0.538
	(0.136)	(0.447)	(0.090)	(0.193)	(0.146)	(0.295)
Cross-province migrants	-0.660***	0.560	-0.822***	-0.412	-1.050***	-1.099*
	(0.172)	(0.437)	(0.099)	(0.277)	(0.169)	(0.520)
Agricultural hukou	-0.136**	-0.108*	-0.308***	-0.269***	-0.496***	-0.426***
	(0.051)	(0.053)	(0.053)	(0.058)	(0.105)	(0.117)
Age	0.120***	0.120***	0.037**	0.036**	-0.282***	-0.282***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.020)	(0.020)
Female	-0.252***	-0.252***	-0.087*	-0.087*	0.068	0.069
	(0.035)	(0.035)	(0.039)	(0.039)	(0.078)	(0.078)
Han ethnicity	0.211**	0.211**	0.309***	0.311***	0.366*	0.360*
	(0.080)	(0.080)	(0.076)	(0.076)	(0.148)	(0.148)
Living arrangement (reference: with both parents)						
With single parent	0.034	0.033	-0.203**	-0.205**	0.101	0.107
	(0.056)	(0.056)	(0.075)	(0.075)	(0.156)	(0.157)
With grandparents	-0.062	-0.066	-0.005	-0.006	0.308	0.304
	(0.071)	(0.071)	(0.081)	(0.081)	(0.169)	(0.169)
With others	-0.718***	-0.730***	-0.782***	-0.786***	-0.445	-0.433
	(0.098)	(0.099)	(0.108)	(0.107)	(0.232)	(0.229)
Head's occupation (reference:farmers)						
Managers & professionals	0.578***	0.593***	0.402***	0.420***	0.562**	0.583**
	(0.067)	(0.069)	(0.092)	(0.093)	(0.198)	(0.201)
Clerks	0.432***	0.452***	0.253*	0.273*	0.269	0.300
	(0.087)	(0.088)	(0.109)	(0.109)	(0.239)	(0.243)
Commercial & service workers	0.296***	0.313***	0.249***	0.269***	0.139	0.176
	(0.064)	(0.065)	(0.064)	(0.065)	(0.142)	(0.143)
Production workers	0.289***	0.305***	0.222***	0.239***	0.176	0.202
	(0.047)	(0.048)	(0.060)	(0.061)	(0.124)	(0.128)
Missing	0.235**	0.252**	0.244**	0.261***	0.052	0.082
	(0.078)	(0.080)	(0.078)	(0.079)	(0.169)	(0.171)
Head's education (reference: primary or below)						
Junior high school	0.202***	0.202***	0.335***	0.334***	0.496***	0.494***
	(0.033)	(0.033)	(0.048)	(0.048)	(0.099)	(0.099)
Senior high school	-0.000	-0.002	0.527***	0.523***	0.561***	0.557***
	(0.050)	(0.050)	(0.067)	(0.067)	(0.146)	(0.145)
College or above	0.068	0.064	0.691***	0.688***	0.543**	0.530*
	(0.092)	(0.093)	(0.108)	(0.108)	(0.208)	(0.209)
Missing	0.582*	0.595*	0.382	0.377	0.473	0.455
	(0.258)	(0.258)	(0.258)	(0.258)	(0.278)	(0.277)
Interaction terms						
Within-county migrants*agricultural hukou		-0.917**		-0.070		-0.520
		(0.289)		(0.134)		(0.356)
Cross-county migrants*agricultural hukou		-0.550		-0.313		-0.309
		(0.455)		(0.218)		(0.352)
Cross-province migrants*agricultural hukou		-1.432**		-0.488		0.027
		(0.498)		(0.303)		(0.560)
Province	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.835***	0.806***	2.856***	2.824***	7.925***	7.855***
	(0.180)	(0.181)	(0.212)	(0.212)	(0.628)	(0.629)
Observations	66622	66622	65978	65978	20459	20459

Robust standard errors in parentheses *** p<0.001, ** p<0.01, * p<0.05

Table 3. Logit Models Predicting School Enrollment in Urban China, 1990-2005 Pool Sample (6-15 Children, Migrants and Non-migrants)

	(1)	(2)
Migrant status (reference: non-migrants)		
Within-county migrants	0.021	0.175
	(0.059)	(0.128)
Cross-county migrants	-0.422***	-0.256
	(0.073)	(0.136)
Cross-province migrants	-0.776***	-0.606***
	(0.082)	(0.173)
Year (reference: 1995)		
2000	1.316***	1.338***
	(0.034)	(0.035)
2005	1.690***	1.723***
	(0.052)	(0.056)
Agricultural hukou	-0.215***	-0.218***
	(0.038)	(0.038)
Age	0.083***	0.083***
	(0.009)	(0.009)
Female	-0.198***	-0.197***
	(0.028)	(0.028)
Han ethnicity	0.248***	0.248***
	(0.060)	(0.060)
Living arrangement (reference: with both parents)		
With single parent	-0.009	-0.011
	(0.044)	(0.044)
With grandparents	-0.018	-0.022
	(0.049)	(0.049)
With others	-0.707***	-0.713***
	(0.070)	(0.070)
Head's occupation (reference:farmers)		
Managers & professionals	0.509***	0.508***
	(0.054)	(0.054)
Clerks	0.379***	0.376***
	(0.066)	(0.066)
Commercial & service workers	0.263***	0.265***
	(0.045)	(0.045)
Production workers	0.252***	0.249***
	(0.037)	(0.036)
Missing	0.209***	0.209***
	(0.054)	(0.054)
Head's education (reference: primary or below)		
Junior high school	0.208***	0.207***
	(0.026)	(0.026)
Senior high school	0.117**	0.116**
	(0.039)	(0.039)
College or above	0.283***	0.281***
	(0.069)	(0.069)
Missing	0.414**	0.413**
	(0.132)	(0.132)
Interaction terms		
Within-county migrants*2000		-0.216
		(0.144)
Within-county migrants*2005		-0.288
		(0.205)
Cross-county migrants*2000		-0.275
		(0.160)
Cross-county migrants*2005		-0.330
		(0.193)
Cross-province migrants*2000		-0.256
		(0.195)
Cross-province migrants*2005		-0.228
		(0.240)
Province	Yes	Yes
Constant	1.215***	1.217***
	(0.147)	(0.147)
Observations	153059	153059

Robust standard errors in parentheses *** p<0.001, ** p<0.01, * p<0.05

Table 4. Logit Models Predicting School Enrollment in Urban China, 2000, 2005 (6-15 Children, Rural-urban Migrant Origin-Destination Sample)

	2000		2005	
	(1)	(2)	(3)	(4)
Migrants status (reference: rural-urban migrants)				
Urban non-migrants (destination)	1.133***	1.123***	1.250***	1.116***
	(0.096)	(0.098)	(0.142)	(0.145)
Rural non-migrants(origin)	0.528***	0.843***	0.727***	0.827***
	(0.090)	(0.096)	(0.138)	(0.157)
Han ethnicity	0.561***	0.531***	0.380**	0.314*
	(0.133)	(0.127)	(0.131)	(0.137)
Age	-0.160***	-0.158***	-0.292***	-0.291***
	(0.013)	(0.013)	(0.020)	(0.021)
Female	-0.310***	-0.303***	0.009	0.013
	(0.030)	(0.030)	(0.074)	(0.075)
Living arrangement (reference: with both parents)				
With single parent	-0.119*	-0.019	0.028	0.134
	(0.051)	(0.053)	(0.125)	(0.128)
With grandparents	-0.092	0.083	0.015	0.182
	(0.053)	(0.062)	(0.139)	(0.176)
With others	-0.198*	-0.438***	-0.220	-0.604**
	(0.078)	(0.097)	(0.122)	(0.226)
Head's occupation (reference: farmers)				
Managers & professionals		0.402***		0.487*
		(0.102)		(0.219)
Clerks		0.820***		0.500
		(0.204)		(0.344)
Commercial & service workers		0.455***		0.124
		(0.083)		(0.168)
Production workers		0.329***		0.149
		(0.060)		(0.137)
Missing		0.309***		0.128
		(0.076)		(0.192)
Head's education (reference: primary or below)				
Junior high school		0.461***		0.473***
		(0.038)		(0.094)
Senior high school		0.629***		0.885***
		(0.061)		(0.175)
College or above		0.838***		0.610*
		(0.190)		(0.271)
Missing		0.632***		0.768**
		(0.165)		(0.294)
Province	Yes	Yes	Yes	Yes
Constant	4.056***	3.209***	7.051***	6.498***
	(0.391)	(0.364)	(0.573)	(0.569)
Observations	89536	89536	19156	19156

Robust standard errors in parentheses *** p<0.001, ** p<0.01, * p<0.05

Table 5. Logit Models Predicting Time Effects on School Enrollment of Migrant Children in Urban China, 2000, 2005 (6-15 Age Group)

	2000		2005	
	(1)	(2)	(3)	(4)
Migrant time (reference: less than 1 year)				
1~2 years	0.526***	0.518***	0.902**	0.877**
	(0.121)	(0.122)	(0.305)	(0.306)
2~3 years	0.596***	0.596***	0.328	0.304
	(0.168)	(0.168)	(0.280)	(0.281)
3~4 years	0.973***	0.956***	0.985**	0.983*
	(0.218)	(0.217)	(0.382)	(0.391)
4~5 years	0.727***	0.719***	1.206*	1.175*
	(0.203)	(0.206)	(0.552)	(0.556)
More than 5 years	1.022***	1.019***	0.821***	0.795***
	(0.136)	(0.137)	(0.230)	(0.231)
Agricultural hukou	-0.855***	-0.650***	-1.083***	-1.007***
	(0.098)	(0.108)	(0.223)	(0.247)
Han ethnicity	0.280	0.265	0.211	0.198
	(0.161)	(0.158)	(0.314)	(0.310)
Age	0.033	0.034	-0.377***	-0.379***
	(0.022)	(0.022)	(0.045)	(0.046)
Female	-0.161	-0.161	0.174	0.185
	(0.086)	(0.086)	(0.184)	(0.184)
Living arrangement (reference: with both parents)				
With single parent	-0.242	-0.219	-0.177	-0.240
	(0.164)	(0.171)	(0.304)	(0.350)
With grandparents	-0.218	-0.157	0.472	0.397
	(0.175)	(0.211)	(0.486)	(0.560)
With others	-1.319***	-1.366***	-0.737**	-0.813**
	(0.142)	(0.154)	(0.250)	(0.311)
Head's occupation (reference:farmers)				
Managers & professionals		0.263		0.611
		(0.216)		(0.502)
Clerks		0.162		0.339
		(0.265)		(0.589)
Commercial & service workers		-0.008		0.120
		(0.168)		(0.423)
Production workers		0.170		0.179
		(0.170)		(0.413)
Missing		0.299		0.465
		(0.209)		(0.522)
Head's education (reference: primary or below)				
Junior high school		0.280*		0.299
		(0.111)		(0.239)
Senior high school		0.500***		0.114
		(0.143)		(0.320)
College or above		0.518*		0.084
		(0.213)		(0.431)
Missing		-0.139		0.007
		(0.469)		(0.552)
Province	Yes	Yes	Yes	Yes
Constant	2.899***	2.343***	24.910***	25.261***
	(0.366)	(0.393)	(0.730)	(1.216)
Observations	10561	10561	3367	3367

Robust standard errors in parentheses *** p<0.001, ** p<0.01, * p<0.05