The School Progression of Children of Migrants

Abstract

The massive rural-to-urban migration in China has caused widespread separate living arrangements for rural children and their parents. It makes some other children join their migrant parents to live in urban areas. I examine the school progression of children who are left behind by or migrate with their parent(s). Using longitudinal data from the 2010-2014 China Family Panel Studies, I compare the hazard rates of school interruption between children of migrant parent(s) and children living with both parents in rural China. Propensity scores are calculated to control for the probability of having migrant parent(s). The findings show that parental migration, especially father-only migration and both-parents migration, raises the likelihood of children dropping out or being held back one or two grades. Remittances and three-generation arrangement demonstrate protective effects for children whose father migrates and children whose both parents migrate, respectively. Rural-to-urban migrant children overall are not significantly different from rural children from non-migrant households. Migrant children show substantial lower risk of dropout or retention than left-behind children. Findings suggest that presence/absence of parents is more important than migration itself in affecting children's school progression. This effect cannot be explained by the variation in guardian-child communication about school life between different migration statuses.

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Undergoing a remarkable scale of rural-to-urban migration, China has 169.34 million rural migrants working in nonagricultural industries outside their hometowns in 2016 (China National Bureau of Statistics 2017). Many of them remain disadvantaged in urban areas (Jordan, Ren, and Falkingham 2014) and decide not to take the whole family with them to settle in destination cities under financial and structural (e.g., household registration system) constraints. As a result, many children are "left behind" by their migrant parents in the source regions. An estimated 61 million left-behind children in rural China make up 37.7 percent of rural children and 21.88 percent of all children nationwide (All-China Women's Federation 2014). There are another 35.81 million migrant children, according to the estimation by All-China Women's Federation (2013). The sheer amount of children with migrant parents makes them non-negligible in any respect of child development and human-centered urbanization.

Although the migration of family member(s) is a form of family disruption (Lu 2012), the parental absence due to temporary migration distinguishes itself from other family transitions (e.g. divorce, death) by signifying parents' commitment to the family rather than abandonment (Schmeer 2009; Nobles 2011; Zhou, Murphy, and Tao 2014). In fact, covering children's expenses and providing them with a better life are often important incentives for parents to migrate (Liu 2009). However, a reduction in parenting inputs seems inevitable since migrant parents tend to engage less in children's daily life. These complexities induce curiosity about the well-being of left-behind children and studies showing different effects of parental migration.

Using longitudinal data from the 2010, 2012, and 2014 China Family Panel Studies (CFPS), this paper examines the school progression of children of migrants. It aims to answer whether children of migrant parents face a different risk of dropout or grade retention from children in non-migrant households. It also seeks to understand factors underlying the overall effect and

their importance. To reach this goal, I first examine the roles of remittances, grandparent's presence, and guardian-child communication about school life. I then compare all alternative (parental) migration statuses of rural children to tease out the possible benefits of migration and its disruptive effect on the family.

Background

There are several ways in which parental migration can affect the education of children. First, as a strategy to improve family living standards, parental migration may benefit children's education by relaxing the budget constraints and funding child development. Economic benefits can be transferred to left-behind population through remittances, which do not only diversify production risks (Stark and Bloom 1985; Taylor 1999) and relieve poverty (Adams and Page 2005) but also result in higher investment in human capital in migrant sending areas. For instance, remittances enable the migrant households to direct more resources to education (Adams 2006; Calero, Bedi and Sparrow 2009), health care (Frank et al. 2009; Amuedo-Dorantes and Pozo 2009), and nutrition (José-Ignacio Antón 2010), helping children continue their schooling and perform better academically. Based on data from El Salvador, a study (Edwards and Ureta 2003) found that remittances lowered the school dropout rate. In China's setting, remittances have also shown a positive effect on the educational performance (Hu 2013) and high school attendance (Hu 2012) among children with migrant parents. Moreover, an improved family economic condition of migrant households reduces demand for child labor and allows children to stay in school (Kandel and Kao 2001; Yang 2008; Alcaraz, Chiquiar, and Scalcedo 2012).

Migration may also bring about nonmonetary transfer in the forms of knowledge, attitudes, and practices (Levitt 1998), which can generate an aspiration effect (Wang 2014). On one hand, parents who have worked in cities may become acutely aware of the urban-rural gap in living conditions and the difference that education can make. They usually hope that their children can live in urban areas in the future and find better jobs than themselves there, so they tend to have higher expectations for their children's education. In the meantime, migrant parents transmit this aspiration to their children as well as children's guardians. More often than not, left-behind children are told the importance of education and urged to study hard (Murphy 2014; Shu 2014). On the other hand, parental migration informs children of another potential route to economic mobility and reduces their likelihood of migration failure (Kandel and Kao 2001). The higher migratory aspirations of left-behind children may result in lower desire for additional schooling, especially when the return to education at the destination is low (Wang 2014). For example, Mexican children in migrant households demonstrate lower aspirations to attend a university (Kandel and Kao 2001). Similarly, as the prospect of future illegal migration into the US provides an alternative to acquiring more education, living in a migrant household lowers the chances of boys completing junior high school and high school (Mckenzie and Rapoport 2011).

The third channel is the decline in parental supervision and care, which unambiguously suggests a negative effect of having migrant parents. A lack of discipline and supervision of children's activities and school work may directly affect their academic performance. The psychological and health cost of parental migration may also impose unfavorable influence on children's education. For example, in Indonesia and Thailand, children of migrant fathers are more likely to have psychological difficulties in comparison with their peers from non-migrant households (Graham and Jordan 2011). It is also found that West Indian youths who were

separated from their migrant mothers felt rejection and abandonment (Hine-St.Hilaire 2008). In addition, studies have noted more behavioral problems with children of migrant parents (Dreby 2007; Graham and Jordan 2011) and a correlation between delinquency and mother's migration (Crawford-Brown 1999). Although not all studies found poorer mental health among left-behind children, the observed lower score in emotional functioning (Huang et al. 2015), higher level of depression (Wu, Lu, and Kang 2015), and lower life-satisfaction and self-esteem (Sun et al. 2015) are likely to harm children's educational performance and interest in schooling. Besides, parental migration is also associated with higher odds of illness (Schmeer 2009; Li, Liu, and Zang 2015; Tang 2016), underweight (De Brauw and Mu 2011), and unhealthy behavior (Gao et al. 2010), for which left-behind children can be at disadvantage to achieve the same educational performance and attainment as children living with both parents.

Finally, as a result of parental migration, the change in intra-household duties and division of labor may also produce a disruptive effect. A reduction in adult labor available at home entails extra domestic workload endured by the remaining members. Consequently, children of migrant parents may spend less time and energy on schoolwork and more time and energy on housework (Giannelli and Mangiavacchi 2010; Hu 2013; Wang 2014). The increased household obligations faced by the remaining parent or caregiver may also affect the quantity and quality of care provided to children (Lu 2014). An analysis of the time use patterns of the left-behind population in rural China demonstrates that the migration of household members increases the time spent on farm work and domestic work by the left-behind children and elderly (Chang, Dong, and Macphail 2011). This change in time allocation and household workload can delay children's satisfactory completion of school work.

To the extent that some of these mechanisms dominate or countervail the others, the overall impact of parental migration on children's education in rural China can either be positive, negative or little. In terms of school performance, some studies found that parental migration lowered children's test scores in Chinese and mathematics (Zhao et al. 2014; Hu 2013; Zhou, Murphy, and Tao 2014). Chen et al.'s (2009) study contests these findings by showing that educational performance improves among students who have migrant fathers. Regarding school enrollment and educational attainment, the findings are also mixed. Hu (2012) found that 17-to 19- years old left-behind adolescents who have attended middle school were less likely to attend high school than those from non-migrant households. Wang (2014) found that parental migration had a negative effect on children's school enrollment. By contrast, children from migrant households are more likely to be enrolled in schools than children from non-migrant households in Fujian Province (Morooka and Liang 2009). Similarly, Lee (2011) showed that children whose parents had migrated fared better in school enrollment and years of schooling compared to children whose parents have not. However, Lu (2012) found that the highest grade completed by children with migrant parents was not significantly different from that by children in non-migrant households. Although the school progression of children left behind in rural China remains understudied, I argue that it is an important educational outcome to examine explicitly for the following reasons. School enrollment and years of schooling may not sufficiently capture how parental migration affects grade retention and other types of delay or discontinuity (Lu 2012; Hu 2013). Academic performance, although more sensitive, fails to capture the dropout events because it only observes children enrolled in school. Comparing children's educational attainment at a given age better addresses these issues, but it is unable to detect the rate at which one's schooling is interrupted or to distinguish the interruptive effect of migration from delayed

attendance. To assess the school progression process in a dynamic way, a survival analysis is especially appropriate in that it allows us to directly compare the hazards of school interruption between children who experienced parental migration and children who did not.

In addition to living with non-migrant parents, migrating with parents is another alternative to being left behind. Theoretically, migrant children do not have to experience family disruption while benefiting from the socioeconomic resources brought about by their parents' migration. Therefore, comparing migrant children with left-behind children and children from non-migrant households is useful to detect the relative importance of co-residence with parents and the benefits of migration that motivate many people to seek out opportunities in urban areas.

According to the classical assimilation theory (Warner and Srole 1945; Rumbaut 1997), migrant children should be more similar to urban children and more advantaged than rural children in school progression patterns, as they benefit from better educational resources and environment in the hosting cities as well as adopt the practices and perspectives in urban areas. On the other hand, the paths to assimilation may be segmented (Portes and Zhou 1993; Zhou 1997). For example, the lack of supporting services for rural-urban migrant families without local *Hukou* in destination cities causes difficulty in school enrollment (Wu 2011; Wu and Zhang 2015). Migrant parents who cannot afford surcharges (*jie du fei*) or reside in the school districts for urban public schools have to send their children to schools particularly sponsoring migrant students (Liang, Guo, and Duan 2008; Guo 2011). Concentrating in these lower-quality schools (often informal and unregulated), migrant children can be marginalized in the urban educational system (Wang 2008). Lu and Zhou (2013) found poorer achievement and greater loneliness among migrant children attending migrant schools than migrant students in urban public schools. Compared to non-migrant children, migrant children may also be confronted by the challenges of

integrating into a new environment and sometimes isolation or discrimination (Xu and Xie 2015). These factors complicate the predictions of educational outcomes of migrant children relative to non-migrant children. Some research (Liang and Chen 2007) found that migrant children without local *Hukou* were less likely to be enrolled in school compared to non-migrant children in the rural origin. Other research shows that migrant children overall have high school enrollment rates (Liang, Guo, and Duan 2008) and have better objective well-being (e.g. test scores, time spent in studying, better language skills, more parental attention to education) than their counterparts in rural areas (Xu and Xie 2015).

Data and Methods

I use longitudinal data from the 2010, 2012, and 2014 China Family Panel Studies (CFPS), a nearly nationwide survey of Chinese communities, households, and individuals launched in 2010 and conducted biennially. The survey covers a wide range of docmains, including migration, education, economic activities, family structures, health, and child development, etc. The sample in the first wave is drawn with stratification through multiple stages – administrative district/county level, residential community/village level, and household level – using the probability proportion to size approach from a sampling frame that integrates urban and rural populations. All members in the baseline survey and their new children born or adopted since then are defined as gene members and tracked (Xie and Hu 2014). The households where at least one gene member lives are re-interviewed at the follow-up surveys, and information of those living with the gene member will also be collected (Xie and Hu 2014). For the purpose of the present study, I focus on children aged 6-15 who lived in rural communities defined by National Bureau of Statistics of China when they were first observed in the analysis. The age range is selected because the child dataset of the CFPS does not include family members older than 15

years old, who are respondents of the adult dataset. Besides, respondents aged 16-17 do not have information on grade. Following the survey, only those aged 15 or younger are considered children in this study. This results in a sample primarily containing students of elementary schools and middle schools. A child would not be included until the first time when he or she was observed attending school. Before that, a child was not at any risk of school interruption. In addition, children who have a parent absent for a reason other than migration for work are excluded from the sample.

In the following logistic model, I estimate the discrete-time hazard that a child's schooling is interrupted.

$$\log[\frac{P_{it}}{1-P_{it}}] = \beta_0 + \beta_2 \mathrm{Pmig}_{i,t-1} + \beta_3 \mathbf{X}_{i,t-1} + \beta_4 \mathrm{PS}_{i,t-1} + \mu_{it}$$

The dependent variable indicates if a child's grade-level is two levels higher than two years ago. After converting all grades (e.g., grade 1) and levels (e.g., middle school) into grade-level numbers (e.g., first grade in middle school equals grade-level 7), the dependent variable *school interruption* takes value 1 if the difference in grade-level between this wave and the last wave is smaller than two or if the child is no longer in school, otherwise it takes value 0. The conditional probability p_{it} represents the hazard that an interruption occurs at wave t to child i. A child is removed from the risk set once the interruption is observed. Because a child can at most contribute three observations, school interruption here is considered an unrepeated event. $\mathrm{Pmig}_{i,t-1}$ represents the parental migration status in the previous wave. Parental migration status is disaggregated to distinguish the situations where only the father migrated, only the mother migrated, and both parents migrated. The measure is constructed with items indicating if father (mother) is living in the household and the reason why father (mother) is not living in the

household. In the analysis of migrant children relative to children from non-migrant households in rural areas, this variable has three categories—rural-to-urban migrant children, left-behind children, and rural children living with both parents. Migrant children are defined as children who have rural household registration (*hukou*) and reside in urban areas. The propensity of having a migrant parent, denoted by $PS_{i,t-1}$, is estimated by probit models, which predict the probabilities of being in a migrant household using child's age, mother's age, father's age, years of schooling received by mother, years of schooling received by father, whether the child has any sibling, whether the child was born in hospital, and whether the child attended kindergarten. The latter two are used to indicate a family's original economic status in rural areas, because family income is likely to be contaminated by migration (Xu and Xie 2015). Other explanatory variables are quintile of family income per capita and family size. Regardless of when they are observed, children who have stayed in school for longer may be in higher or lower risk of school interruption. To minimize the possible bias for left-censoring, I also control for the year when a child enters school, namely the entry into risk, assuming that children start school at age six, as stipulated by the law of compulsory education.

After predicting the effects of parental migration on left-behind children's school progression in the baseline model, I estimate the role of grandparental care, remittances, and guardian-child communication about school life. They are indicated by whether the child lives in a three-generation household, log of remittances level, and the frequency of talking with child about things happened in school ("very often/5-7 times a week" = 5; "often/2-4 times a week"=4; "sometimes/once a week"=3; "rarely/once a month"=2; "never"=1). I then compare migrant children's school progression with that of children of non-migrant parents and left-behind children in rural China. Due to the small size of migrant children enrolled in migrant schools—

12 in the 2012 sample and 16 in the 2010 sample, I did not divide migrant children based on school type despite the possible difference in assimilation.

Results

The descriptive statistics for all the variables used in the school interruption analysis are presented in Table 1, along with the pairwise comparison results across categories of parental migration status. Overall, left-behind children have the highest probability of dropout or retention, especially those whose both parents are migrants. A significantly lower percentage of migrant children have experienced school interruption relative to children from non-migrant households. There is little difference between groups in the year of entry into school, meaning on average, each group is exposed to risk for similar amount of time. Migrant children's households have the highest family income per capita, followed by father-migrant households, mother-migrant households, both-migrants households, and non-migrant households. Households where both parents migrate tend to be larger than other households, while migrant children's households are the smallest in size. Left-behind children are significantly more likely to live in three-generation households than do children of non-migrants, especially children whose both parents migrate and children whose mother migrates only. Father-migrant families have the highest level of remittances, followed by mother-migrant families and both-migrants families. Although parents may earn more if they both migrate, the remittances are not necessarily higher than if one parent stays at home with the child(ren). When both parents migrate, the living cost of migrants is relatively higher, while that of the left-behind is relatively lower. It may be also because migrant parents keep and manage a larger portion of their earnings, whereas a larger portion is transferred to the parent remaining at home to manage if only one parent migrates. Guardians of migrant children talk with their children about what happened in school more

frequently than do guardians of other children, whereas the frequency is the lowest when both parents migrate. The propensity score of being in migrant household is highest for migrant children, followed by left-behind children whose both parents are migrants. The sample size of each group shown in Table 1 is for baseline models.

Table 2 presents the descriptive statistics for the variables used in predicting the propensity of having migrant parent. Migrant children tend to be slightly older than left-behind children and children from non-migrant households. Gender distribution does not vary significantly by parental migration status. Left-behind children's parents are relatively younger, especially parents who both migrate. In general, years of schooling received by the parents are low as typically they do not have educational attainment higher than elementary school. Compared to children with other parental migration statuses, migrant children's parents have more years of schooling. Mother's school education is the shortest for left-behind children, especially when only the father migrates. Father's school education is the shortest when only the mother migrates, followed by father's years of schooling in non-migrant households. Only 23% of migrant children have siblings, much less likely than other children. By contrast, almost 93% of left-behind children whose both parents migrate have siblings, followed by children of migrant fathers and children of migrant mothers. Migrant children are more likely to have been born in hospital and attended kindergarten relative to children from non-migrant households, while left-behind children are less likely to do so.

Table 3 shows the effects of parental migration on left-behind children's school progression. The overall effect is unfavorable to children remaining at home, suggesting that the disruptive effect of migration on family outweighs the benefits of migration. As shown by the baseline model, children of migrant parents are 30% more likely to have their school progression

interrupted than children whose both parents are present at home. Among different types of parental migration, father-only migration raises the odds of interruption by 38.3 percent, whereas mother-only migration has not shown any significant effect on children's school progression. The migration of both parents imposes a greater cost on children's education than father-only migration but the coefficient is only at the edge of statistical significance with a p value of 0.06. The odds ratio slightly decreases with the quintile of family income per capita (by about 7.5% for moving up one quintile).

After adding a variable indicating the remittances level to the baseline model, the negative effect of father-only migration becomes stronger. Children of migrant fathers now are 70.3% more likely to experience school interruption than children whose both parents are present. The amount of remittances is positively correlated with parental migration, especially father-only migration. Controlling for the effect of remittances may have depressed the economic benefits brought about by father-only migration, and thus reveals even more disadvantages associated with it. Besides, the hazard of dropout or grade retention increases slightly with family size (by 9% for every one more person in the household). Family income still demonstrates a positive effect on children's schooling.

The results from the model that includes the dummy variable indicating three-generation household show a significant effect of having migrant parents. Specifically, children whose both parents migrate are 49.2% more likely to have their school progression interrupted compared to children from non-migrant households. The more pronounced effect reflects the protective effects of social support from extended families. Because migrant households are more likely to live in three-generation households, and grandparental care is protective of children's school progression, eliminating the effect of living with grandparent(s) reveals stronger negative effect

of having migrant parents. Father-only migration raises the odds of school interruption by 35.8 percent. Its effect does not change substantially from the previous model, implying that the protective effect of three-generation living arrangement is stronger for families with two migrant parents. In addition, living with grandparent(s) lowers the odds of school interruption by about 12 percent. Higher family income again benefits children's schooling.

As shown by Model 5 in Table 3, how frequently the main caregiver talks with the child about what happened in school has little effect on the child's odds of school interruption. Bivariate analysis actually shows no substantively or statistically significant relationship between the frequency of guardian-child communication about school life and school interruption, even though the former varies by parental migration status, according to the previous pairwise comparison. One explanation is that for children whose both parents migrate, a lack of communication with their guardian is compensated for by the concern from their parents, who often attach importance to the children's school performance, despite the distance. Children of migrant-father households are 39% more likely to experience school interruption than children of non-migrant households. Migration of both parents increases the odds of interruption by 46%. Moving up one quintile of family income per capita reduces the risk by 8%.

In Table 4, the odds of school interruption are estimated for migrant children relative to non-migrant children. Results from Model 1 show that migrant children do not differ significantly from children of non-migrant rural households. It suggests that migrating with parents and attending school in urban areas do not lead to more advantaged situation in terms of school progression. However, this is only the case when parents are living in the household. When comparing migrant children with left-behind children in Model 3, migrant children are 35% less likely to be interrupted than children of migrant parents remaining in their rural hometowns. It

seems that the presence/absence of parents is more important than migration per se in affecting children's school progression. Additionally, this effect cannot be explained by the variation in guardian-child communication about school life between different migration statuses, as shown by Model 2 and Model 4.

Conclusions

The massive rural-to-urban migration in China has caused widespread separate living arrangements for rural children and their parents. It makes some other children join their migrant parents to live in urban areas. Using longitudinal data from the 2010-2014 China Family Panel Studies (CFPS), this paper examines the school progression of children of migrants. It aims to answer whether children of migrant parents face a different risk of dropout or grade retention from children in non-migrant households. It also seeks to understand factors underlying the overall effect of rural-urban migration and their relative importance. To reach this goal, I first examine the roles of remittances, grandparent's presence, and guardian-child communication about school life. I then compare all alternative (parental) migration statuses of rural children to tease out the possible benefits of migration and its disruptive effect on the family.

Findings suggest that presence/absence of parents is more important than migration itself in affecting children's school progression. A comparison between migrant children and children of non-migrants shows that as long as a child's parents are present in the household, migrating to urban areas and attending school there is not more advantaged than staying in the hometown. A comparison between left-behind children and children of non-migrants shows that the benefits of parental migration do not offset the family disruption it caused. A comparison between migrant children and left-behind children shows that when parents migrate, children who migrate along

fare much better than children under separate living arrangements. Regarding the risks of children's school interruption, if the family cannot migrate together, it would be better that the parents do not migrate at all.

Remittances play a positive role in children school progression, either through its financial value or symbolic value of commitment. Three-generation arrangement is crucial for protecting children with two migrant parents from a higher risk of dropout or retention. Regardless of parental migration status, the presence of grandparents in the household is beneficial for children's school progression. The effects of migration on children's school progression cannot be explained by the variation in guardian-child communication about school life between different migration statuses. This may be because parent-child communication is more important, and that care and attention towards children's school performance is not undermined by distance.

Ideally, the propensity of migrating along with parents relative to being left behind should also be controlled for when comparing these two groups of children. Previous research found factors such as child's age (Ryan and Sales 2010; Fan, Sun, and Zheng 2011; Tao, Kong, and Cao 2011; Ke 2016), child's gender (Tao, Kong, and Cao 2011), the stage of child's education(Ryan and Sales 2010;), the availability of migrant's parents to help (Fan, Sun, and Zheng 2011; Ke 2016), migrant's income (Tao, Kong, and Cao 2011; Yang, Duan, and Wang 2011; Song and Li 2014; Li and Wu 2017), migrant's job characteristics (Tao, Kong, and Cao 2011; Yang, Duan, and Wang 2011; Song and Li 2014; Li and Wu 2017), distance of migration (Yang, Duan, and Wang 2011; Song and Li 2014), future plans (Li and Wu 2017), parent's education level (Song and Li 2014), length of migrant's stay in the destination (Yang, Duan, and Wang 2011; Ke 2016), characteristics of the destination (Tao, Kong, and Cao 2011; Yang, Duan, and Wang 2011; Song and Li 2014; Li and Wu 2017), and housing conditions (Yang, Duan, and

Wang 2011) may determine children's migration status. For the lack of relevant information on migrant parents, especially on those of left-behind children, this selection process is not fully considered. However, some relevant variables are controlled for (e.g. child's age, parent's education, and household income). Some other variables mentioned here, such as migrant's housing conditions in the destination, are not available but unlikely to affect left-behind children's school progression. Moreover, since little difference is found between migrant children and left-behind children, the effect of migration is unlikely to be overestimated.

Despite the limitation, this study points out urgent problems faced by children's compulsory education in rural China, especially under the massive scale of urbanization. Given data, more mediating and moderating mechanisms underlying the consequences of parental migration need examination so as to better inform family migration strategies and public policies.

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Table 1. Descriptive Statistics of Children by (Parental) Migration Status, Interruption Analysis

Variables	**Mean/Percentage**					
	Migrant Children	Left-behind Children	Father Migrant	Mother Migrant	Both Migrant	Reference: Non-migrant
School Interruption	20.29*	30.02*	31.05*	20	32.48*	24.65
Year of Entry	2006.1*	2006.37	2006.29	2006.34	2006.52	2006.29
Quintile of Family Income Per Capita	3.52***	3.13	3.18*	3.01	3.07	2.99
Household size	4.69***	5.82***	5.22*	5.6**	7.09***	5.03
Three-generation household	--	57.22***	38.24	65.71***	90.45***	43.59
Remittances	--	8***	8.2***	7.91***	7.62***	2.06
Communication	3.19*	2.95	3.11	2.87	2.67***	3.06
Propensity of being in migrant household	0.48***	0.24***	0.23***	0.22	0.26***	0.21 (0.2)
N	749	533	306	70	157	1911

***p<0.001; **p<0.01; *p<0.05.

Table 2. Descriptive Statistics of Children by (Parental) Migration Status, Propensity Prediction

Variables	**Mean/Percentage**					
	Migrant Children	Left-behind Children	Father Migrant	Mother Migrant	Both Migrant	Reference: Non-migrant
Age	11.23***	10.98	11.11	11.12	10.73	10.95
Male	51.65	52.62	50.11	50.5	58.2	53.12
Mother's age	37.77	36.67***	37.62	36.46	34.97***	37.49
Father's age	39.11	38.45***	39.23	39.26	36.64***	39.39
Mother's years of schooling	6.33***	4.14**	3.79***	3.95	4.87	4.58
Father's years of schooling	7.66***	6.32	6.35	4.93***	6.86*	6.29
Has sibling	23.28***	85.79***	83.37***	80.2	92.62***	76.29
Born in hospital	68.43***	38.65***	37.2***	34.65*	43.03	46.88
Attended kindergarten	85.11***	48.25***	50.33*	42.57*	46.72*	55.28
N	1061	802	345	79	209	2775

***p<0.001; **p<0.01; *p<0.05.

Table 3. Odds Ratios from Logistic Regressions Predicting Children's School Interruption

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Migrant household	1.3*	--	--	--	--
	(0.15)				
Migrant father	--	1.38*	1.7*	1.36*	1.39*
		(0.188)	(0.37)	(0.18)	(0.19)
Migrant mother	--	0.76	0.64	0.79	0.79
		(0.23)	(0.36)	(0.24)	(0.24)
Migrant parents	--	1.42	1.32	1.49*	1.46*
		(0.27)	(0.39)	(0.28)	(0.28)
Propensity of having migrant parents	1.9	1.74	1.47	1.79	1.8
	(1.44)	(1.32)	(1.72)	(1.36)	(1.37)
Family size	1.01	1	1.09*	1.04	1.04
	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)
Quintile of family income per capita	0.93*	0.93*	0.86**	0.92*	0.92*
	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)
Year of entry	1.04	1.04	0.99	1.04	1.04
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Remittances	--	--	0.99	--	--
			(0.02)		
Three-generation household	--	--	--	0.78*	--
				(0.09)	
Communication	--	--	--	--	0.99
					(0.04)
Observations	2444	2444	1558	2444	2427

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

Table 4. Odds Ratios from Logistic Regressions Predicting Children's School Interruption

Variables	Model 1	Model 2	Model 3	Model 4
Migrant children	0.91	0.86	--	--
(Ref.= children of non-migrant households in rural areas)	(0.11)	(0.11)		
Migrant children	--	--	0.65*	0.65*
(Ref.= children of migrant parents in rural areas)			(0.11)	(0.12)
Propensity of having migrant parents	0.71	0.7	0.81	0.78
	(0.18)	(0.17)	(0.3)	(0.29)
Family size	1.03	4.03	1	1
	(0.03)	(0.03)	(0.04)	(0.04)
Quintile of family income per capita	0.93*	0.94	0.98	1.02
	(0.03)	(0.03)	(0.05)	(0.05)
Year of entry	1.02	1.02	1.02	1.02
	(0.02)	(0.03)	(0.03)	(0.03)
Communication	--	0.99	--	0.98
		(0.04)		(0.05)
Observations	2660	2647	1282	1274

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05