**Educational Status of Temporary Migrant Children in China:
Determinants and Regional Variations[1]**

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 Abstract
This paper examines the educational status of temporary migrant children in China, using a unique data set specifically designed for studying this population across a wide range of migration destinations. I study the determinants of migrant children's schooling at both the micro-level (child and family level) and macro-level (city-level), and use multiple measures of educational status to provide a more comprehensive picture. Emphasis has been placed on city-level variations associated with distinctive levels of socioeconomic development and migration controls. Results show that household composition, parent's reasons for migration and family economic conditions are all strong predictors of migrant children's schooling. Also, there tends to be less gender bias regarding children's education in migrant families. Importantly, variations across destination-specific contexts are evident: migrant children in more developed coastal regions and in destinations with high concentration of migrants are more disadvantaged, presumably due to the more restrictive migration controls in such destinations.

Introduction
Rural-urban temporary migration is a salient phenomenon in China. The number of migrants flowing from rural areas into the cities has been on a rise since late 1970s. Previous research has disproportionately focused on adult migrants, ignoring migrant children, who have increasingly participated in the migration process accompanying their parents (Duan and Liang, 2001).

 The educational aspect of migrant children's life is of great importance. As demonstrated in recent migration literature, temporary migrant workers in China, the parents of migrant children, are disproportionately involved in low-status and low-paid jobs and thus suffer from disadvantageous socioeconomic status. Whether this negative pattern will be transmitted to the next generation largely depends on migrant children's ability to achieve upward mobility as reflected in their educational status, given that education has become the main vehicle for social mobility in China (Deng and Treiman, 1997). In addition, education is an important determinant of societal level development (Rong and Shi, 2001). Extensive historical evidence illustrates that none of the industrialized countries was able to achieve significant economic growth before attaining high levels of education. Given the large number of migrant children in China (an estimated 20 million), whether the low-status transmission or upward mobility dominates will not only have long-term consequences for migrant children themselves, but have great implications for the society as a whole.

 Migration literature in many other countries suggests that, due to large rural-urban education disparities, rural families are able to improve children's schooling by settling down in towns and cities where educational opportunities tend to be better and where schools are of higher quality (Verropoulou et al., 2002). However, existing studies uniformly show that this is not the case in China (Guo, 2002; Duan and Zhou, 2001): as a way of deterring migrants from settling in the

cities where they work, several obstacles are established in urban China to keep migrant children out of urban schools.

Yet, the relevant literature is scarce, and almost all existing studies focus on a particular city in China and use data not originally collected for purposes of studying migrant children. The present study seeks to bridge this gap by exploring migrant children's educational status using a unique data set that covers a wider range of migration destinations and was specifically designed to study migrant children. To obtain a more comprehensive picture, I study the determinants of several measures of children's schooling because a single measure of enrollment status may obscure substantial variations in the quality of education, school performance, previous education experience, etc. Determinants at both the child-level and family-level are taken into account. Furthermore, given the considerable regional socioeconomic heterogeneity in China reflected in varying migration patterns and government migration-related policies, I go beyond previous studies by examining regional variations in migrant children's schooling status. Specifically, cross-city comparisons are made by incorporating city-level contexts, such as proxy measures of regional socioeconomic conditions.

Data
The data used provide abundant information that is not available elsewhere for examining the status of migrant children. It is from the National Survey of Temporary Migrant Children in China (NSTMCC), a multi-stage stratified sample survey of 6,343 temporary migrant households with children from 0-18 years old. The survey was conducted in 2002-2003 by National Statistics Bureau in nine cities, including Beijing, Shenzhen, Shaoxing, Wuhan, Jilin, Zhuzhou, Chengdu, Xianyang and Yining. It is the country's first-ever survey on children of temporary migrant workers, sponsored by United Nations Children's Fund (UNICEF) in collaboration with Office of the National Working Committee on Children and Women under the State Council, and the China National Children's Center.

To obtain the sample, first, cities within each of the 31 provinces in China were divided into three groups: cities in coastal (eastern) region, central region and western region. Second, within each region, cities were further divided into large (with a population of more than 1 million), medium-size (with a population of less than 1 million), and small (around 0.5 million) by population size. This design resulted in nine strata of all cities. Finally, within each stratum, one city was chosen based on per capita GDP to be representative of different levels of socioeconomic development. Within each city, using probability proportionate to the size of the temporary migration population, the sample size was allocated to each district, and 2 or 3 street committees were then selected within each district. Within each street committee, migrant households that live in the city for more than half a year, registered at villages or towns lower than county level, and have children age 0 to 18 were chosen. Within each household, a maximum of two adults were interviewed, and a maximum of three migrant children's information were recorded, both by parents' reporting and children's self-reporting. This sampling design results in a record of 12,116 temporary migrant workers and 7,817 children aged 0-18 from 6,343 households.

A few limitations of the data should be acknowledged at the outset. Some sampling procedures, such as the purposive selection of cities instead of probability sampling, are somewhat problematic. Down to the city-level, it is less clear how migrant families were actually selected according to PPS because, in China, the registration of temporary migrants is often incomplete. Additionally, migrant children in the data may represent a selected group (only those

live with parents or relatives), though this group represents the majority of migrant children. This may bias the results to some extent that cannot be measured, and the findings should be generalized beyond this group cautiously. Moreover, this survey collects information only on temporary migrant children, and hence cannot be used to make useful comparisons with other status groups of children, namely urban children, permanent migrant children and rural children.

Despite these limitations, the survey is still a valuable source for research because, as described above, it provides perhaps the most up to date and systematic information of the state of migrant children in China, along with abundant information on their parents, the migrant workers. Compared to data used in other studies adopting an indirect way to locate migrant children by making assumptions which may not accurately target this population, this data collect information specifically on temporary migrant children, thus allowing for more direct and accurate assessment. Also, rather than contrasting migrant children with others, this paper focuses on comparisons among migrant children in varying regional contexts. Importantly, the survey generates very little missing data, which provides the basis for more reliable analysis.

Preliminary Summary

Using a unique data set, this paper presents a more comprehensive picture of migrant children's schooling by examining multiple measures of educational status and incorporating predictors both at the micro-level (child-level and family-level characteristics) and the macro-level (city-level contexts). Emphasis has been placed on city-level variations associated with distinctive levels of development and migration controls.

At the child level, I find a positive effect of children's length of stay on various measures of school status due to the higher level of adaptation. Contrary to the persistent son preference, there is no clear gender bias regarding migrant children's schooling once they are brought to cities. This implies that for migrant parents, the gender ideology that favors males has been weakened, probably resulting from the influence of a gender-equality view that are prevalent in urban areas.

At the family level, household composition appears to matter, with children in two-parent migrant families faring significantly better than those in other types of families. The reasons for migration have a highly consistent effect on children's schooling: parents who migrated for education-related reasons are far more likely to invest in children's education, to enroll children in regular schools, to avoid delaying or interrupting children's schooling and to protect children from work. This reflects the substantial influence of parents' migration decisions on children's outcomes. The family size usually has a negative impact on children's education, presumably due to the dilution of family educational resources associated with a large number of children. In addition, family economic condition is a crucial predictor in children's schooling, with well-off families being better able to provide children with schooling. By contrast, after controlling for economic conditions, parental education and occupation do not appear to have any impact.

Although migrant children are generally disadvantaged in schooling, the disparities across city-specific contexts are evident. The levels of development of and corresponding migration-related controls at destinations are shown to be important in shaping migrant children's education. Children living in coastal regions are generally worse-off in obtaining education, followed by children in central and western regions. The effect of sizes of the cities is less clear, probably due to the two offsetting mechanisms associated with the sizes. When the refined measures are used, both the estimated number of migrants and per capita GDP are negatively related to children's educational outcomes, while there is no clear impact of the number of

residents. Overall, the results show that the barriers, imposed by local government as a way to deter settlement of migrant families, are particularly rigid in the more developed coastal areas with a larger pool of migrants seeking opportunities. Consequently, migrant children in more developed destinations and in destinations with a high concentration of migrants tend to be more disadvantaged in schooling.

Overall, the results show that migrant children's enrollment rates are relatively high compared to previous studies, especially for children eligible for compulsory education. To some extent, this reflects recent government's efforts to promote the education of migrant children. Although these children are generally found to be advantaged, it should be noted that their situation has somewhat improved. However, it is also worth noting that the seemingly high rates may obscure migrant children's disadvantages in other aspects of schooling that will affect their ultimate educational attainment. For example, the results show that, despite of the relatively high enrollment rates, a significant number of these children attend low-quality migrant schools; in terms of school progress, while urban children largely take usual number of years to complete schooling without interruption, most migrant children tend to have school delayed, and some of the older children have even interrupted school to work. School quality and school interruption are negatively associated with children's school performance and progress, thereby reducing their ultimate educational attainment. Finally, it should be acknowledged that the results here are subject to selection bias in that migrant families with children may be positively selected in their socioeconomic status. This problem can hardly be dealt with given the available data.

Given the large scale labor migration in China and the increasing proportion of children participate in this process, the well-being of migrant children should be given adequate attention. As demonstrated by the findings, the less-developed regions and regions of less-concentrated migrant population predict favorable educational outcomes. This result suggests that although more developed regions may provide better economic opportunities for migrants, in order to achieve better outcomes, migrants should not flood blindly into these regions, given that the higher concentration of migrants drives down their relative status. Rather, less developed regions turn out to be a good choice for improving migrants' well-being. The findings also have immediate policy implications; that is, it would be more beneficial for the government to implement equalizing regional development policies, in particular shifting resources towards interior regions to promote their development. This will help redistribute migrant flows in a more reasonable way, and hence reduce the regional disparities in migrant's outcomes.