

# Study of the Household Registration System and Academic Performance of Migrant Workers' Children

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**Abstract:** China's household registration system is a dualistic system that links individual household registration to status, leading to constraints on residents' access to employment and education. It has resulted in inequality in the educational level performance of migrant workers' children. This paper attempts to study the academic performance of migrant workers' accompanying children in the city compared to urban household registration students using data from the China Family Tracking Survey (CFPS). The results show that students with rural household registration lag behind the academic performance of students with urban household registration. To avoid differences across cities, dummy variables were added and the results remained the same. Based on these findings, this paper makes recommendations such as reforming the household registration system and strengthening child protection policies.

**Keywords:** Household Registration System; Dual System; Children of Migrant Workers: Education; Academic Achievement.

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## 1. Introduction

The household registration system is the most extensive and profound system in China's management system [1]. The establishment of the household registration system in China in the early years of the founding of New China was based on the economic system of the former Soviet Union, which established a strategy of prioritizing the development of the country's heavy industries. The main function of the household registration system at that time was also to prevent the rural population from automatically migrating into the cities and to guarantee the urban population the benefits they were entitled to. However, due to this dualistic system, the labor force was restricted to agriculture, which led to a decline in the labor force and a decline in China's economic growth rate. Realizing that the continued labor shortage was inhibiting China's economic growth, the government reformed the household registration system in 2014. After the reform, in 2016 it was estimated that 169.34 million rural people were working in non-agricultural related industries outside their home areas [2]. The large number of rural people moving to the cities also means that the urban-rural dual structure resulting from the process of China's economic and social development has entered a stage where it needs to be transformed towards the integration of urban and rural systems. However, the existence of the household registration system limits the transformation of the dual structure, which is most notably reflected in the obstacles set for the education of migrant workers' children. The dual structure caused by the household registration system separates urban and rural areas and widens the education gap between urban and rural areas for the children of migrant workers. This has led to the awkward situation that migrant workers, despite entering the cities, are not integrated into the system into the cities. They could not enjoy the education system derived from the household registration system and related education policies, so a large number of migrant parents chose to work in the cities themselves to provide more funds for their children's education. Migrant children who follow their parents to the cities are forced to attend schools with low teaching standards

because of the cumbersome household registration process, and because of the low returns on education in the cities and the financially stressful environment that leads parents to choose to leave their children in the countryside, thus giving rise to problems such as education. Although more comprehensive enrollment policies have been established for migrant children, the household registration system has always widened the gap in educational resources and the allocation of educational resources, which has a significant impact on students' academic performance. Low returns to education also inhibit parents' motivation to subsequently invest in their children's education.

## 2. Review of the Literature

The dualistic system in China, which links individual household registration to status, allows residents to receive a certain degree of constraints in terms of occupation and education [3]. China has a school system that is locally responsible and managed in a hierarchical manner [4]. Under this system, children are enrolled in school districts according to their household registration. However, the economic situation of migrant families often does not allow them to purchase property within a quality school district, which results in migrant children attending schools that are generally of low educational quality or working children's schools [5]. These schools are usually set for children of migrant populations. These schools are characterized by low thresholds and low fees in order to attract migrant children to attend [6]. However, due to various constraints, these schools generally have some problems. The low level of teaching technique is one of the main problems. Due to the limited funding of working children's schools, they are often unable to attract and retain high level teachers. This leads to a relatively weak teaching force, and teachers may not have a high level of teaching ability and professionalism, which affects the quality of teaching. Secondly, household registration determines the amount of education funding available to some children. Children of migrant workers often receive less funding for education than other students.

According to the 2019 studied the average financial allocation for education per student in public schools is 1,467 yuan, while the schools for children of migrant workers is only 350 yuan [7]. The imbalance in educational opportunities and educational levels further amplifies the poor returns to education for migrant children. Some studies have shown that when the returns to education are low, parents' desire for high migration decreases and even the willingness to reverse increases [8]. The household registration system can also affect students' psychological well-being, identity and thus student achievement. Children of migrant workers face different identities in the process of urban integration, which inevitably has some negative psychological effects. They often show the emergence of poor interaction skills, poor self-binding, introverted, more closed, and low self-esteem and isolation [9].

From the literature, it can be seen that most of the existing studies are based on a framework measure of educational inequality by the domestic household registration system, and most of the literature focuses on educational investment and equal access to school, but the academic performance of students with different household registration in the city needs to be further explored. In line with this issue, this paper attempts to focus on a sample of migrant children of farm-name workers in compulsory education, exploring their performance in the city in comparison to students with adult city household registration, and examining whether household registration has an effect on the performance of migrant children. Finally, the empirical findings are used to propose policy recommendations.

### 3. Data and Empirical Analysis

#### 3.1. Data Sources and Descriptive Statistics

This paper is selected from the China Family Panel Survey (CFPS). The analysis of the study in this paper utilizes cross-sectional data from 2018. This paper focuses on the sample of migrant children of farm-name workers who are in the compulsory education stage. Since the CFPS does not directly identify the migrant worker sample, it is based on the mobile population identification method prompted by the official

website. The agricultural household population living in the city and whose household registration is not local is identified as migrant workers, and children living in the same space as are further marked as accompanying children.

#### 3.2. Description of Variables

(1) Explanatory variables: The explanatory variables in this paper are the grade ranking of migrant children of agricultural workers, and the CFPS database has "ranking of the latest midterm and final exams", which is the ranking of children's exams, with "top 10%", "11-25%", "11-25%", "11-25%" and "11-25%" respectively, "11-25%", "26-50%", "51-75%", and "bottom 24%". The larger the value, the more backward the performance ranking.

(2) Explanatory variables: The explanatory variable hukou (the household registration), hukou of 1 indicates a sample of children of migrant workers, and hukou of 0 indicates a sample of children of urban residents.

(3) Control variables: There are three aspects of data, the students' individual achievement ranking is influenced by their parents' knowledge background, and the highest parental education (W01s), which indicates the highest education of the father or mother, are "college", "high school/junior college/technical school/vocational high school", "junior high school", "elementary school", and "illiterate/semi-literate". From the top to the bottom, assign the values "5", "4", "3", "2", and "1". Secondly, children's achievement ranking is influenced by the family's investment in education, and two control variables are selected: total education expenditure (pd5total), which indicates the total cost of the family's education expenditure; and school education expenditure (pd501b), which indicates the school education expenditure in the past 12 months; finally, children's achievement ranking is influenced by personal effort and socialization, and the following two control variables are selected Self-rated effort (qs601ns), which indicates the degree of students' self-rated effort, is assigned in descending order. Popularity (qm4013s), which indicates "liked by friends" in the database, is a proxy variable for children's socialization at school.

Table 1. Descriptive Statistics

Variable	Obs	Mean	Std.dev.	Min	Max
grade	801	0.452534	0.258555	0.1	0.99
hk	801	0.278402	0.448492	0	1
w01s	801	3.169788	0.501135	1	5
pd5total	801	7785.604	10790.42	0	151000
pd501b	801	5697.19	6836.304	0	100000
qs601ns	801	1.761548	1.442851	1	6
qm4013s	801	1.707865	1.492331	1	6

#### 3.3. Econometric Model and Analysis of Regression Results

In order to investigate whether the group of urban migrant workers affects children's academic performance, the following econometric model is constructed in this paper:

$$\text{grade} = \alpha + \beta_1 \text{hk} + \beta_2 \text{w01s} + \beta_3 \text{pd5total} + \beta_4 \text{pd501b} + \beta_5 \text{601ns} + \beta_6 \text{qm4013m} + \lambda$$

where grade is the child's achievement ranking, hk is the main explanatory variable of interest,  $\beta_1$  is the regression coefficient, and w01s, pd5total, pd501b, 601ns, and qm4013m are control variables.  $\lambda$  denotes fixed effects. For robustness considerations this paper uses stepwise regression to gradually add control variables. The following equation (1) is the regression analysis without adding any control variables, where the coefficient of hk is 0.041 and is significant at the 5% level, indicating that the achievement ranking of children

of migrant workers group lags behind that of children of urban residents, which verifies the hypothesis of this paper. Equations (2)-(6) include the five control variables w01s, pd5total, pd501b, 601ns, and qm4013m, respectively, in which the coefficient of hk of the core test variable gradually

increases and is always significant at the 5% level, and the above analysis indicates that the achievement ranking of the children of the urban peasant group significantly lags behind the achievement ranking of the children of urban residents.

**Table 2.** Regression analysis

	(1)	(2)	(3)	(4)	(5)	(6)
	grade	grade	grade	grade	grade	grade
hk	0.041**	0.041**	0.042**	0.044**	0.044**	0.044**
	[2.01]	[2.00]	[2.08]	[2.17]	[2.17]	[2.16]
w01s		0.001	-0.005	-0.002	-0.003	-0.002
		[0.05]	[-0.25]	[-0.12]	[-0.16]	[-0.13]
pd5total			0.000*	0.000**	0.000**	0.000**
			[1.68]	[2.11]	[2.06]	[2.04]
pd501b				0	0	0
				[-1.41]	[-1.38]	[-1.35]
qs601ns					-0.006	-0.006
					[-0.98]	[-0.94]
qm4013s						-0.007
						[-1.13]
_cons	0.441***	0.439***	0.444***	0.441***	0.455***	0.465***
	[41.10]	[7.48]	[7.57]	[7.52]	[7.54]	[7.63]
N	801	801	801	801	801	801
adj. R-sq	0.004	0.003	0.005	0.006	0.006	0.006

Considering that there is currently some educational inequity in different provinces in China, which leads to differences in educational attainment in different provinces in China, perhaps there is some degree of difference in the learning environment of different migrant workers' children. Therefore, this paper considers the fixed effect of provinces, based on this, this paper adds the dummy variables of each province on the basis of the basic test, since the fixed effect at the province level, Table 3 is the regression results controlling

for the fixed effect at the province level, equations (1)-(6) are also the analysis results of the stepwise regression, the analysis shows that the regression coefficient of hk rises slightly to 0.049, and it has been robustly maintained significant at the 5% level, and the regression analysis indicates that the achievement ranking of children of migrant workers robustly lags behind the achievement ranking of children of urban residents.

**Table 3.** Regression results controlling for provincial-level fixed effects

	(1)	(2)	(3)	(4)	(5)	(6)
	grade	grade	grade	grade	grade	grade
hk	0.045**	0.045**	0.048**	0.049**	0.049**	0.049**
	[2.16]	[2.15]	[2.28]	[2.34]	[2.34]	[2.35]
w01s		-0.004	-0.009	-0.007	-0.008	-0.007
		[-0.24]	[-0.51]	[-0.38]	[-0.40]	[-0.38]
pd5total			0	0.000**	0.000**	0.000**
			[1.64]	[2.06]	[2.04]	[2.03]
pd501b				0	0	0
				[-1.38]	[-1.37]	[-1.35]
qs601ns					-0.003	-0.002
					[-0.40]	[-0.37]
qm4013s						-0.004
						[-0.69]
Provincial fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
_cons	0.370***	0.384***	0.384***	0.373***	0.378***	0.381***
	[3.26]	[3.01]	[3.01]	[2.92]	[2.94]	[2.96]
N	801	801	801	801	801	801
adj.R-sq	0.038	0.036	0.038	0.04	0.039	0.038

## 4. Conclusion

Based on the analysis of CFPS data in this paper, the effect of household registration on student achievement is more significant. And after adding new dummy variables to avoid differences across provinces, the performance ranking of migrant workers' children still lags behind that of urban residents' children. This means that when children of migrant workers try to change their children's educational environment and social status by entering the city, they are constrained by the household registration system, which leads to the increasing problem of education for left-behind, migrant children, which also affects the cultivation of talents and social stability in China. For the education of migrant children, firstly, we should further promote the reform of the household registration system. The household registration system is a product of a different era and can no longer be better applied in the current society. Gradually promoting the reform of the household registration system can learn from the policies of other countries, for example, the United States does not have a household registration system in existence, and there is no problem of different household registration for children. But there are ways to manage this, and they do so through a driver's license system that is also equivalent to a Chinese ID card, registering in the newly relocated place, so that the household registration is not limited to one place. Population mobility and urban development can be encouraged by setting reasonable conditions and standards, such as employment, taxation, social insurance, etc. But the change of the household registration system is not a one-day event. For education, the differences in education due to different household registration can be examined first and then reformed to address the differences so that every child can receive quality educational resources regardless of their household registration status. A diversified school enrollment mechanism can be established to promote complementary and shared educational resources between urban and rural areas.

Secondly, child protection policies can be strengthened. The government could give children more social assistance in

the form of support from the government, family, and society in many ways. It can also build a complete education and teaching system by strengthening students' opportunities for extracurricular activities through state funding support, as well as providing psychological counseling even according to students' performance, mainly in schools.

## References

- [1] Duan, C.R., Wang, W. L., Wang, T.Y. (2008) 50 Years of Household Registration System. *Population Research*, 32 (1): 43-50.
- [2] National Bureau of Statistics of China (2017). 2016 Statistical Report on National Economic and Social Development. <http://www.stats.gov.cn/tjsj/zxfb/201702/t201702281467424.html>.
- [3] Li, J.Z., Zhang, L. S. (2014). Study of household registration system. Shandong People's Publishing House, Jinan.
- [4] Li, X. L. (2022). Further improvement of education policies for children of migrant workers accompanying migrant workers--based on a questionnaire survey of 46 prefecture-level and above cities. *Macroeconomic Management*, (06):38-45.
- [5] Tian, H. S., Wu, N. (2010) Research on the Education of Migrant Workers' Children: Analysis of the Current Situation, Problems and Solutions Based on Research in 12 Cities. Education Science Publishing House, Beijing.
- [6] Wang, S. X. (2014). The effect of parental migration on the educational attainment of their left-behind children in rural China. *The BE Journal of Economic Analysis & Policy*, 14(3), 1037-1080.
- [7] Zhou, L.P., Yu, Z.L., Wu, K.J. (2019) Exploring the financial equity of compulsory education for children of new generation migrant workers--based on China Education Tracking Survey and field research, 39(20):61-69.
- [8] Xu, J. W., Chen, Z. X., Wu J.J. (2022) Return of migrant workers, educational investment in children and intergenerational mobility in China. *Economic Analysis and Policy* (76):97-100.
- [9] Hu, H. Z. (2018) The lack of humanistic care and reshaping of migrant children. *Teaching and Management*, 724(03):19-21.