'MIGRATION AND EDUCATION INEQUALITY IN CHINA: EVIDENCE FROM CHINA EDUCATION PANEL STUDY

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ABSTRACT
In virtue of unprecedented migration and existing hukou system in China, migrant children will have to cross the threshold of education inequality when they migrate into a new district. This problem has been existing in China since 1980s. Many research papers based on the education of migrant children and left-behind children have been emerging since then. As time went by, new policies have been set to help migrant children, while the scale of migrant children keeps on rising.

In this study, we focus our concentration on the cognitive skills of middle school students in China. In empirical approach based on micro data, we find that migrant students perform worse than local students, and there exist educational gaps both within and across provinces/districts in China. We use OLS estimation on individual level first to figure out more reasons behind. The parameters for migrant status dummies and district dummies are significant. Then we verify that the ratio of local students in a school is a good attribute which can reflect the school quality. Since the gaps related to cognitive skills originate from two dimensions, composition heterogeneity and status discrimination, we conduct Oaxaca-Blinder decomposition approach on the data from first tier and second tier cities subsample in China. Outcomes show that migrant children not only have no advantage in endowments but also face enrollment barriers due to their migrant status. Despite that public schools are more open to migrant children than years before, disparity in the quality of public schools still exists. Thus, recessive discrimination is now replacing the position of overt discrimination. Based on the statistics and conclusions, we also propose some policy implications for local government and call on more concern and care to migrant teenagers.

Keywords: Academic Performance, Inequality, Public School, Migrant Status

1. INTRODUCTION

Education plays a crucial role in economics development. Hanushek and Woessmann (2009) point out that there exists robust correlation between cognitive skills and economic growth, which reflects a causal effect of the effective school policy and the cognitive skills. From the perspective of individuals' development, improvement in the equality of education will promote social inclusion. In many developing counties, the rate of return to education is at a high level. Thus, it is necessary for us to promote the improvement and equality in education, and then we

can achieve the goal of more innovation in our society and sustainable growth in our economy. Cognitive skills can manifest the inequality in the process of education. And the inequity at an early age has a further impact on one's later life. Migrant children and teenagers, as a vulnerable group, needs the concern and support from our society.

Migration, as a popular topic in the field of demographic economics, is related to the enrollment policy of migrant children in mainland China. In the process of urbanization, patterns of population movement have changed a lot. As time went by, the persistent migration takes the lead of the temporary relocation gradually, and the whole family migration replaces the individual migration steadily. People migrate from rural areas to urban areas, from remote province to developed provinces and mega-cities. So, more and more migrant children without local 'hukou'(Household Registration System in China, for example local 'hukou' means residents' status, and means having the right to enjoy the local welfare and policy.) need to enroll into the local school and study with native children. According to the report published by the CEPS program office, the migrant children account for a quarter of the total school-age children in mainland China.Due to the dual system and the accelerating process of urbanization, migrant children and left-behind children face dilemma in education. Migrant children can live and stay with their parents, but they may not get the same education opportunities as the children from urban areas do. Left-behind children lack the company and care from their parents. Those children tend to perform worse in education. (Zhang,2015) Urban-to-rural migration not only could not narrow the difference between rural education and urban education, but also causes the huge gap to date. (Zhang et al., 2014) Oaxaca-Blinder decomposition is a popular method in studying the inequality. Page, Murnane, and Willet (2008) decompose the education achievement gap between white and black in America to figure out more details with regards to racial discrimination.

In this paper, we analyze the dataset from CEPS (China Education Panel Study) to study on the inference between migration problem and education inequality. We conduct OLS estimation as well as Oaxaca-Blinder decomposition approach and get pooled estimation results. Statistics and outcomes show that, migrant students who migrate into developed cites perform worse than local students in those cities. On the one hand, the process of migration helps migrant children get the opportunity to study in a district with more advanced education system. On the other hand, migrant students suffer from recessive discrimination in the enrollment and learning process. The differences are statistically significant, which provide us evidence for two dimensions of disparity. At the same time, we also find that there exists huge disparity not only between local public schools and migrant schools, but also within public schools. But how to distinguish the rank/quality of public school is a technical problem in this case, Ma and Wu (2019) face the same problem when they try to definite and distinguish school quality in their research. In this paper, we try to propose some implications for settling this issue as well as some policy implications.

Migrant students and educational disparity in china

In China, the school enrollment policy for migrant children is related to the hukou system, and has been changing with the process of urbanization. Before 2000, the enrollment policy for migrant children is called 'Jie du", which means they are just transient students for local school, but can't get registered in the local school. This policy aims to control the number of migrant children. After the Millennium, many policies and regulations are published to help migrant children obtain better education. The key players of interest in this problem are education finance department, government of outflow places and inflow places, migrant and local people. The games between these key players also exacerbate the dilemma. In the year of 2013, the state council proposed that public schools should open to migrant children.

Figure-1 shows the total number of migrant children and teenagers from the year of 2009 to the year of 2018. The general trend of migrant children is increasing. In the year of 2013 the total number is 12771700, while secondary school migrant children account for 27.1% of the population. The current situation of those children catches the attention of scholars and policy makers. As time went by, enrollment policies had changed a lot. In the past, many migrant teenagers were not allowed to enroll in local public school, they can only study in schools only for migrant teenagers. In recent years, more and more migrant children can enroll in public schools, but migrant children are always been arranged to low-quality public school even if they were acknowledged by the urban educational system.

Secondary school education is compulsory in China, which means secondary school education are free and open to all teenagers. But for the selection of school, the enrollment threshold is related to household registration system. Of all the 116 middle schools listed in this panel study, 108 of these schools are public schools, while 2 schools are migrant schools, and 6 schools are private schools. Within the 108 public schools, only 62 schools accept migrant students. However, public schools accept migrant students tend to have less qualitative teachers, and lower quality educational resources, and the academic performance for students are poor.

Data source: http://www.moe.gov.cn/
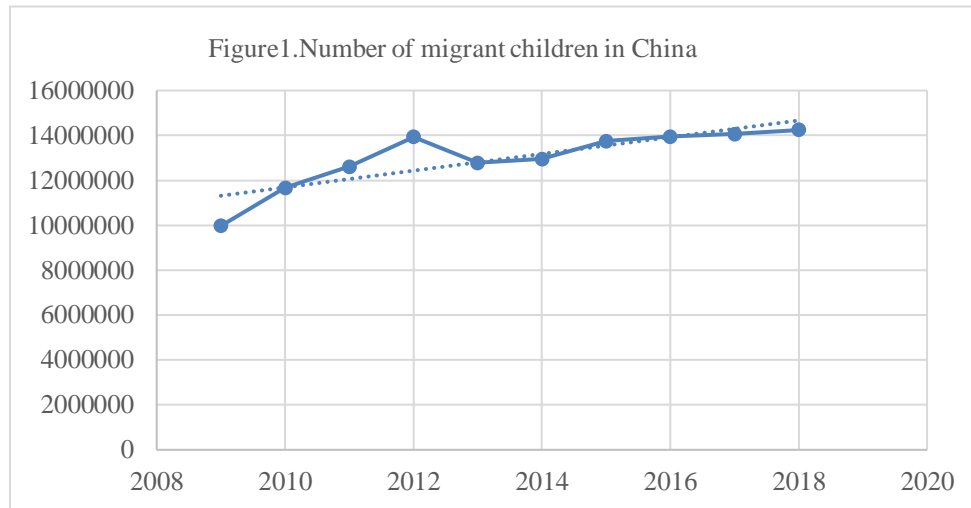
Figure.1 Number of Migrant Children in China

Data in Table.1 show that there still exists gap when it comes to the academic performance between migrant students and local students. Many panel surveys tend to use standard test scores to reflect the education performance of primary and secondary school students. CEPS (China Education Panel Study) is one of them. CEPS did two waves of tests to 10 counties with large influxes of migrant people, the total score of the test in the first wave is 20, while the total score of the test in the second wave is 35.The tests include words test and math test, in wave one the difference is 0.62, and in wave two is 1.092. Relevant results are showed in table-1.

Table 1. Cognitive tests of CEPS

Students		Wave1mean	Wave1sd	Wave2mean	Wave2sd
Local Children		11.01936	3.656066	24.7825	6.5322
Migrant Children		10.35714	3.542041	23.69027	6.457724

2. RESEARCH QUESTIONS AND HYPOTHESIS

Does migration status cause discrimination in education? What is the role that migration plays in the disparity of cognitive skills? What are the reasons behind? Which one matters more in students' academic performance, school quality or family socio-economic status? For the disparity of education performance between migrant and local, I decompose the difference into explainable part and unexplainable part. Through the approach of decomposition, I plan to tell whether migrant children are facing discrimination when they study in the district they migrate into. Although setting models based on the data of the education performance is feasible, it is quite technical to identify the causal relationship between family attributes and inequity in education. It is obvious that the number of migrant schools has been decreased as time went by, which means they are facing less overt discrimination. But I still want to know whether migrant children are faced with invisible discrimination because of migrant status until today.

Data source

CEPS, China Education Panel Study is an annually, all-round survey charged by Renmin University of China. They use the method of PPS sampling to gather the micro data. There are 3 subsample datasets in this data set, core sample, Shanghai sample and LIM sample. LIM sample are selected from districts with large influxes of migrants in the country. The study not only focus on students' performance, but also provide data from teachers, parents, principals. The base line of the survey started from 2013, and the program office plan to do a series of follow up survey to track their performance after they graduate and get into the labor market. They did a series of cognitive skill assessment to the students, which can reflect the education inequality to some degree.

3. METHODOLOGY

OLS Estimation

The linear model (1) intends to estimate the factors that influence children's school performance. Yi denotes performance of education, the score of the test for a certain child. F, S, and P stand for 3 attributes that affect school performance. Each of them is a set of indicators respectively. P represents for children's personal characteristics which include age, weight, height, gender and short-eyesight. F denotes the information from the child's family, containing mother education, father education, economy status and migrant status. S gathers the characteristics of the school, and it contains school type, and some interactive terms.

$$Y_{i=} \quad \beta_0 + \beta_1 P_i + \beta_2 F_i + \beta_3 S_i + \mu_i \quad (1)$$

We also plan to run OLS in school level. As equation (2) shows, Qi stands for the ratio of local students in each school, Li stand for a three-class dummy represent the location of school (western, eastern, middle in China). Ri denotes for the self-reported school rank by principals, while T represent the Teachers-Students Ratio of a school. To avoid collinearity, we will not include all dummies in our model.

$$Q_i = a_0 + a_1 L_i + a_2 R_i + a_3 T_i + \varepsilon_i \quad (2)$$

Oaxaca Blinder- Decomposition

Blinder-Oaxaca is mainly about decomposition of mean wages differentials. although it is a statistical method rather than econometric method. This method departs the differentials of mean into two parts, explainable term (composition effect) and un explainable term (structure effect). The explainable part stands for differentials caused by individual difference, while the unexplainable part stands for differentials caused by discrimination/disparity. In our analysis we are going to decompose the differentials between migrant students and local students into two parts and try to find where the disparity exists in by computing the contribution level of the main factors. Y_L denotes the cognitive score for local students, Y_m denotes the test score for migrant students. X_L stands for the attribute matrix for local students which contains the factors like gender, BMI indicator, eye-sight, parents' education, income level, school type and so on), while X_m stands for attribute matrix of migrant students. β_L denotes for the coefficient matrix of local students, β_m denotes for the coefficient matrix for migrant students. The six equations below show us the fundamentals of this method. We assume (3) and (4), and then get (5) and (6). By taking a difference between (5) and (6), we get (8) and the simplified equation (7). In equation (7), the first term means composition effect and the second term represents structure effect. In equation (8), we have three terms. The first term is the endowment term, the second term representforthe coefficient impact and the third term is the interactive effect.

$$Y_m = X_m\beta_m + \mu_m \quad (3)$$

$$Y_L = X_l\beta_l + \mu_l \quad (4)$$

$$\overline{Y}_m = \overline{X}_m\hat{\beta}_m \quad (5)$$

$$\overline{Y}_l = \overline{X}_l\hat{\beta}_l \quad (6)$$

$$(5)-(6) = \overline{Y}_m - \overline{Y}_l = \overline{X}_m\hat{\beta}_m - \overline{X}_l\hat{\beta}_l = \Delta\hat{\mu}_x + \Delta\hat{\mu}_s \quad (7)$$

$$= (\overline{X}_m - \overline{X}_l)`\hat{\beta}_l + \overline{X}_l`(\hat{\beta}_m - \hat{\beta}_l) + (\overline{X}_m - \overline{X}_l)`(\hat{\beta}_m - \hat{\beta}_l) \quad (8)$$

Descriptive statistics

Regional Disparity and Migrant Status Inequality in Academic Work

The Table.2 below show us the scores of cognitive skill tests conducted by CEPS program office by listing the migration status. In wave one, both Grade-7 students and Grade-9 students, local

children perform better than children floating within provinces/cities and floating across provinces/cities. The gap among boys is wider compared to girls. In wave 2 survey we notice similar outcomes. As the direction of migration is from less developed areas to more developed areas. Therefore, to some degree migrant students who enroll in schools in those developed provinces can enjoy better education than students who stay and study in less developed cities/provinces. In our analysis we denote the gap in cognitive skills caused by endowment differences in educational development as structural inequality.On the other hand, disparity with regards to migration status is denoted as composition inequality. The gap in cognitive skills between local students and migrant students always exists and is not small.

Table.2 Cognitive Skills for Local and Migrants

Wave-1	Local		Migrant	
Grade-7	Boys	Girls	Boys	Girls
Mean	11.72	11.65	10.62	11.04
SD	3.4	3.21	3.2	3.27
Count	1211	1113	606	533
Grade-9	Local		Migrant	
	Boys	Girls	Boys	Girls
Mean	10.26	10.41	9.57	9.41
SD	3.87	3.78	3.91	3.6
Count	1170	1150	350	363
Wave2	Grade-8		Local	Migrant
		Mean	24.79	23.6
		SD	6.53	6.45
		Count	2400	1017

Local Families and Migratory Families

Family characteristics are always introduced in the analysis of education outcome. Chen and Feng (2013) point out in their paper that level of parents' education and level of family income which reflect socio-economic status have significant impact on the school type their children could enroll in. In our paper, we also choose level of education and current occupation as representative attributes for family characteristics. Parents for districts with large influxes of migrants have better education background.

These outcomes not only can reflect the socio-economic status of student's family, but also indicate the relationship between unbalanced regional development and migration. First tier and second tier cities in China are quite attractive to migrants, while people with better socio-economic conditions from third or fourth tier cities tend to migrate into cities/provinces with better employment opportunities, medical and educational resources. Relevant data are stated in table-3.

Table.3 Parents Education Background

Parents Education Background		Core-Sample		LIM-Sample		Shanghai-Sample	
		Local	Migrants	Local	Migrants	Local	Migrants
Senior High School Degree		667	17	332	75	210	23
Junior High School		1125	92	597	228	600	69
Vocational High School		239	9	109	18	82	14
Technical Middle School		352	7	214	36	229	20
Junior College Degree		393	4	562	62	422	20
Bachelor Degree		416	2	529	48	282	32
Master Degree or higher		30	0	74	11	23	2

Empirical analysis

OLS Estimation for School Quality

In this table-4 above, we run an OLS regression based on the school level data. In this regression, the dependent variable is the ratio of local students in a school, the dependent variable includes a series of dummies (location of the school, rank of the school and teachers-students ratio. For a school ranks below average and near the bottom, the coefficients are all negative and significant, which means when a school with a low quality, it tends to have more migrant children. The parameter for TS-ratio is positive and significant, and shows us evidence that higher TS-ratio means higher ratio of local students in a school.

Table.4 OLS Estimation for School

		Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)		0.5409866	0.1360914	3.975	0.000145 ***
location					
middle		0.0965188	0.0527115	1.831	0.070512 .
west		0.0645672	0.0514514	1.255	0.21287
School Rank					
Best		0.053331	0.0424509	1.256	0.212371
Average		-0.0676287	0.0457907	-1.477	0.143311
Below the Average		-0.2028947	0.0681842	-2.976	0.003784 **
Near the bottom		-0.1474097	0.0566094	-2.604	0.010835 *
TS Ratio		0.002194	0.0007042	3.116	0.002487 **

Table.5 OLS Estimation for Students' Grades-Individual Level

wave1-OLS Estimation for Students' Grades					
		Estimator	Std.Rror	T-value	P-value
	Intercept	15.19	0.896	16.939	< 2e-16 ***
	Male	0.39	0.075	5.186	2.19e-07 ***
	Age	-0.0003	0.0001	-2.33	0.019*
	Height	-3.87	0.54	-7.215	5.79e-13 ***
	Weight	0.0039	0.004	0.934	0.35
	Short-eyesight	0.53	0.09	5.901	3.59e-09 ***
Mother Education					
Elementary school		-1.98	0.24	-8.08	7.04e-16 ***
Senior high school		-1.04	0.24	-4.3	1.54e-05 ***
Junior high school		-0.38	0.236	-1.6	1.48e-09 ***
Technical secondary school		-0.64	0.3	-2.1	0.01418 *
Junior college degree		0.64	0.29	2.2	0.016*
Master or higher		3.3	5.6	0.586	0.55
Father Education					

Elementary school	-1.95	0.23	-8.558	< 2e-16 ***
Senior high school	-0.94	0.215	-4.367	1.27e-05 ***
Junior high school	1.57	0.21	7.34	2.2e-13 ***
Technical secondary school	0.63	0.25	2.453	0.01418 *
Junior college degree	4.5	1.32	3.42	0.00015***
Master or higher	4.8	5.1	0.937	0.3
Migrant Status				
Local(non-floating)	3.71	1.09	3.376	0.0007***
floating within province	2.057	1.23	1.67	0.095854 .
Economic Status				
Poor	0.18	1.13	0.16	0.87
Rich	0.25	0.11	2.19	0.028*
School Type				
Public	0.42	0.159	2.669	0.007616 **
School for Migrant Children	-1.37	0.224	-6.1	1.04e-09 ***
Private School	2.31	0.38	-6.02	1.74e-09 ***
Ratio of local(Ral)	2.85	0.439	6.493	8.66e-11 ***

Ral*floating within-province	-1.85	0.73	-2.51	0.01*
Ral*local students	4.09	0.49	8.03	< 2e-16 ***

OLS Estimation for Students

Table.5 shows us the regression outcome in students' level. Within attributes for children, the parameter for short-eyesight is positive and quite significant, this binary variable is used as a measurement for the degree of schoolwork burden here. We introduce a three-class dummy variable for the economic status of the student's family (rich, poor and middle). To avoid dummy variable trap we only include two in our regression. Students from rich family tend to perform better. When it comes to the dummies for school type, the coefficient for migrant school is -1.37 and the P-value is close to zero, while the parameter for public school is positive and significant. These outcomes verify the education disparity between schools. From the regression outcome in school level, we get more accurate evidence by introducing the ratio of local students in a school as an attribute for school level in our analysis. We abbreviate this indicator to Ral and include this variable in our estimation. The range for Ral of all 116 schools is from 21% to 100%.To figure out more persuasive evidence, we create a series of interactive terms of Ral (ratio of local students in a school) and migrant status. Migrant status is a three-category variable in CEPS raw data set (Local, floating within province, and floating across province). The last two lines in Table-5 reveal that for a local student, if he/she studies in a school with a higher ratio of local children, he/she will perform better in academic work. However, for a migrant child who is floating within province, if he/she enrolls in a school with majorities of local children, he/she are going to perform worse. This phenomenon raises our concern.

Tests of Significance in Difference

For the convenience of decomposition, we did some integrations to the variable 'students' migrant status.' This variable is a categorical variable, which include three sub-categories (local student, floating within province, and floating across province). We merged migration status into a binary variable by amalgamating 'floating within province' and floating across province' together into migrant students. Then, we name the new variable as floating status. Within this new variable, non-floating local students are denoted equals to 0, while floating students are denoted equals to one. We use this new variable in decomposition process.

In table-6, we use T-test to test the significance of group difference in school performance between local students and migrant children. Within each subsample, the difference between migrants and local students are negative and P-values are close to zero. However, for the whole sample, the difference is positive and P-value is no less than 0.05. We think statistics provide no evidence for us it is useful to decompose the whole sample. To obtain further details, we also conduct T-test for migrant students in LIM-subsample and local students from core-sample, the

difference is quite significant. Therefore, when it comes to decomposition, we only decompose the difference exists in LIM Subsample between migrant children and local children.

Table.6 T-test for Cognitive Skills

T-test for Cognitive Skills						
		migrants	local	Difference	T-value	P-value
LIM Sub-sample		10.32	11.08	-0.76	-7.1	1.48E-12
Core sub-sample		8.9	9.1	-0.2	-3.03	0.003
Shanghai subsample		11.22	11.62	-0.4	-2.32	0.0204
Whole Sample		10.04	9.91	0.13	1.89	0.059
T-test -Migrant in LIM and local in core						
Migrants in LIM		Local in Core		Difference	T-value	p-value
10.3		9.1		1.2	13.1	< 2.2e-16

OB-Decomposition Outcomes

Table.7 show us detailed information about threefold OB-decomposition. There are three sub-terms in this figure, endowments term, coefficients term and the interaction term. The endowments term stands for the differences between local students and migrant students can be explained by the differences in endowment vectors (composition effect) such as gender, age, parents' economic status, and school quality. The coefficients term represents the part that is due to group differences in the coefficients, in other words structural effect. The interaction term represents the phenomenon that the cross-group differences can be affected by both endowments and coefficient at the same time. In our decomposition approach, we find that the difference between migrant and local in LIM subsample is -0.76, -0.496 (65%) is due to the disparity of endowment between two groups of students. -0.22(29%) can be explained by the interactive inference of endowments and coefficients. Within the difference caused by endowments, about -0.46 (94%) can be interpreted by the (Ral) ratio of local students in a school. Family economic status, gender, age accounts for little for the difference. As we mentioned in 7.1, Ral is an indicator for school quality, and we have verified that school with more local students are mainly good school. School quality accounts for the most in the difference by endowments. This finding

tells us that, the reason that migrant students who migrate into first and second tier cities perform worse is because that they can not enroll in a good school. The inequality at the starting point of education widen the disparity in the process of education.

Table.7 Threefold OB-Decomposition

Threefold OB-Decomposition						
	Endowments	Se(endow)	Coefficients	Se(coef)	Intercations	Se(inter)
Overall	-0.49649578**	0.07860503	0.02848057.*	0.11576099	-0.22063063*	0.10898694
(Intercept)	0	0	-1.010787717	0.40230326	0	0
Ral	-0.45675054**	0.076051066	0.611590781	0.39380042	-0.163611111*	0.10653874
age	-0.009288169	0.00850378	0.00298711	0.01685563	0.002002402*	0.01145745
Male	0.00014321	0.001327556	0.020381842	0.10419114	0.000226574	0.00258224
Schids	0.02627741*	0.009437807	0.34209201.	0.16015653	-0.035722919.*	0.01735452
eco_poor	-0.056404682*	0.020710881	0.000766979	0.02619058	0.000792313	0.02757818
eco_rich	-0.000473005	0.007056297	0.061449559	0.039725	-0.024317888	0.01706684

4. CONCLUSIONS AND DISCUSSIONS

Academic Performance and Migrant Status

Through a series of descriptive and empirical analysis, we find that migrant children in first tier and second tier cities in China perform worse than local students in general. To figure out the

reason behind, we firstly conduct descriptive analysis to the endowments for migrant children and local children. Local children tend to have more educated parents and their family values more on education. As for school attributes, local children have more choices, and the gaps among school quality are still huge. Schools for migrant children only have less advanced educational resources and students from migrant school perform significantly worse than migrant children from public school. We also find that, the ratio of local children in a public school is related to the quality of a school. Public schools which have a higher percentage of local students tends to have higher quality, since the both the parameters for OLS are positive and significant. The estimator of migrant status is also significant. These results give us verification that migrant status widens students' grades in this data set. For Oaxaca-Blinder Decomposition, outcomes are slightly different. Some variables in the coefficient terms are not significant, while almost all variables from endowments terms and interaction term are statistically significant. Although those outcomes may not provide persuasive evidence that migrant students suffer from dominant discrimination in the process of education due to their status. We still think that there exists latent discrimination and threshold in the process of compulsory education. The endowments for migrant children and local children have obvious difference, to be specific, migrant children tends to own less competitive family endowments and school endowments. Most of the variables in the interaction terms are significant in the level of 95%, which tells us the interactive effect of endowments and migrant status. Therefore, we can conclude that migration widen the gaps between local students and migrant students, while the effect may amplify through the disparity in endowments, unbalanced development of socio-economic status between first/second tier cities and third/fourth tier cities.

Shortcomings for the Dataset and Limitations in Analysis

CEPS dataset has advantages and shortcomings. Since it only has two waves of data set, one wave for baseline survey and one wave for the follow-up survey. Many students are from grade-9 in the baseline survey. Thus, when the wave two survey was conducted, they have graduated from middle school. If we have more waves of follow-up survey in the future, we can conduct our analysis a step further by using more technical methods like taking the difference of the same individuals. And if we can keep on doing survey to this group of students when they enter in the labor market, we will get their income data as the measurement for education attainment instead of cognitive skill scores. Another feature for this dataset is many of the indicators are categorical variablesand ordinal variables instead of continuous variables. If more family attributes are in terms of continuous variables, we can get more accurate information. The problem of school quality still exists in this data set. The rank of the school and the quality of school is vague. Within the 108 public schools, the school quality varies a lot too. The problem of school quality exists in many study and papers. Ma and Wu (2019) face the same problem when they try to definite and distinguish school quality in their research, and they point out that previous papers usually use the segregation of migrant schools and public schools as measurement for school quality. But this method is not that efficient when more and more public schools are open to migrant children.

Policy implications

Education is the key link in the cultivation and accumulation of human capital. The mobility of social class also depends on the equity of education system.Recent years, school policy for migrant children has always been under heated discussion. Education authorities and policy makers have made some promotion to help migrant children gain better education. The overt discrimination of migrant children is decreasing, while recessive discrimination still exists and enlarges. In the past, migrant school for migrant children is quite common, but now public school are more open to migrant children. Migrant children are getting more chances to enroll in a public school. But the recessive inequality is that most of migrant children are arranged to low-quality public school and their academic performance is significantly worse than local student.

In the future, policies could focus more on how to narrow the gaps among public school, especially they can give more support to public schools with a large about of migrant children. In fact, many of the migrant children hope to stay and live in urban cities rather than back to their hometown after finishing school. Local government can set more polices which can help migrant children gain better education. Then this city/province is going to have more high-quality residents in the future, which in return can bring long term accumulation in human capital to this place.

REFERENCES

Angrist, Joshua, Alan Krueger.1991. Does Compulsory School Attendance Affect Schooling and Earnings.Quarterly Journal of Economics 106(4):946-1014

Bai, Ying and Ruixue Jia. 2016. "Elite Recruitment and Political Stability: The Impact of the Abolition of China's Civil Service Exam System". Econometrica, vol. 84 (2), 677–733.

Cai, Dongliang, Xiaoyu Meng and Shuang Ma (2016). Family Background and the Gender Inequality of Education. Science of Economics. 2016(10): 110-120.

Chen,Yuanyuan. Shuaizhang Feng. Access to public schools and the education of migrant children in China[J]. China Economic Review,2013,26.

Fortin Nicole, Thomas Lemieux, Sergio Firpo, Elsevier B.V (2011) Decomposition Methods in Economics

Hoxby, Caroline M. (2000). Does Competition Among Public Schools Benefits Students and Taxpayers? [J]. America Economic Review 90, 1209-1238

Hoxby, Caroline M. (2000). The Effect of Class Size on Student Achievement: New Evidence from Population Variation. Quarterly Journal of Economics. 115(4):1239-1285

Hanushek Eric A, and Ludger Woessmann (2009). Does Better School Leads to More Growth? Cognitive Skills, Economic Outcomes and Causation. NBER working papers series:14633.http://www.nber.org/papers/w14633

Jann B (2008). The Blinder-Oaxaca Decomposition for Linear Regression Models. Stata Journal, **8**(4), 453–479.

Liu, Bo (2020). Inequality of opportunity in the quality of higher education: Evidence from CHIP 2013 [J]. Journal of Hunan University ,2020,21(1)

Ma, Gaoming, Qiaobing Wu (2019). Social capital and educational inequality of migrant children in contemporary China: A multilevel mediation analysis[J]. Children and Youth Services Review,2019,99.

McKenzie, D. and H. Rapoport (2011). Can migration reduce educational attainment? Evidence from Mexico. Journal of Population Economics, 24(4), 1331–1358.

Min, Weifang, (2019). Lecture Notes for Economics of Education. Spring Semester. National School of Development, Peking University.

Wang, Huan, Fang Chang, Han Liu, and Yaojiang Shi (2019). An Empirical Study of the Relationship Between School Size and Students' Academic Performance in Northwest Rural China. Education & Economics 35(4): 28-34

Wen Yong, Jun Xue (2019). Financial Investment Efficiency of Urban and Rural Compulsory Education in the Context of Rural Revitalization Strategy. Education & Economy, 35(3): 56-64

Xia, Xiaojia (2018), Income Analysis and Regional Comparison of Immigrants in China: Based on Oaxaca-Blinder Decomposition, Master Paper, Beijing: Capital University of Economics and Finance.

Zhang DanDan, Xin Li and Jinjun Xue (2015). Education Inequality between Rural and Urban Areas of the People's Republic of China, Migrants' Children Education, and Some Implications. Asian Development Review 32 (1):196–224

Zhang Hongliang and YukShing Chung (2018). The labor market effects of immigration on natives: Evidence from Hong Kong. China Economic Review, 51, 257-270.

Zhang, Hongliang, Jere R. Behrman, C. Simon Fan, Xiangdong Wei, Junsen Zhang (2014).Does parental absence reduce cognitive achievements? Evidence from rural China.Journal of Development Economics, 111:181-195