# Cultural capital in migration: Academic achievements of Chinese migrant children in urban public schools

## Abstract

The educational inequality faced by migrant children is a great social problem in China. The government has gradually reformed the *hukou* system, allowing migrant children to attend urban public schools. However, their academic achievements continue to lag behind those of urban non-migrant children. The classic explanation would point to a lack of social capital; this article argues for the importance of cultural capital in children's migration. Drawing upon 10417 middle school children (14-16 years old), this article examines cultural and social capital as mechanisms through which migration affects education. Results show that the lower academic achievements of Chinese migrant children is mainly due to the mediating effect of objectified cultural capital. Family social capital is also a significant mediator, but the indirect effect is relatively small. Most surprising is the contradictory effects of embodied and objectified cultural capital on academic achievements. Theoretical contributions and policy implications are discussed.

## Keywords

Cultural capital; Social capital; Migrant children; Educational inequality; Mediation analysis

## 1. Introduction

The educational inequality faced by Chinese migrant children in urban areas is an important social issue in contemporary China. It is usually regarded as a consequence of the *hukou* policy, which institutionally restricts migrant children's access to public schools in urban areas (Guo & Zhao, 2019). Because of the institutional exclusion, they are found to have less psychosocial happiness, lower resilience and higher behavioral risks (Cui & To, 2019; Li & Jiang, 2018; Li, Lu, Ni, & Peng, 2019). One may assume that their educational problems will be solved when they are admitted by urban public schools. Scholars, however, have shown that their academic achievements are still lower than that of urban peers (Ma et al., 2018). This paper aims to explore why migrant children still lag behind in urban public schools.

A classic theory, based on Coleman's (1988) seminal work, argues that migrant children's educational problems may be due to the loss of social capital in the process of migration. Current literature partially supports this theory but indicates that social capital can explain only a minor percentage of the total effect (Ma & Wu, 2019). Additionally, this paper proposes a new explanation based on Bourdieu's theory of cultural capital. Cultural capital has long been an essential perspective for understanding educational and social reproduction, but it has not been paid much attention in the migrant children's research. We argue that migrant children's academic problems may be caused by having less cultural capital than their urban peers. Specifically, we examine the following questions: (a) Are the academic achievements of migrant children in public schools lower than their urban peers? (b) Does cultural capital mediate the effect of children's migration on their education? and (c) Is the mediating effect of cultural capital larger than that of social capital?

## 2. Literature Review

### *2.1 Migration and education*

Social scientists have long studied the association between children's migration and academic achievements. Early in the 1970s, some scholars had already documented a pattern in the United States: children's interstate moves would negatively affect their educational outcomes, especially for those living in lower-class families (Brawner, 1973; Long, 1975; Whalen & Fried, 1973). Subsequent studies found that children who moved into new places of residence and new schools were likely to have lower test scores, lower educational attainment, higher risk of dropping out of school, and more problems of psychosocial function (Astone & McLanahan, 1994; Coleman, 1988; Engec, 2006; Langenkamp, 2014; Pribesh & Downey, 1999; South, Haynie, & Bose, 2007; Swanson & Schneider, 1999).

International studies further indicate that the negative relationships between migration and education are not confined to the United States. Children in developing countries such as China, Indonesia, Mexico, and Turkey also experienced similar academic disadvantages when they moved (Berker, 2009; Halpern-Manners, 2011; Liang & Chen, 2007; McKenzie & Rapoport, 2011; Resosudarmo & Suryadarma, 2014; Wu & Zhang, 2015). China, for instance, has 34.26 migrant children in 2015, and most of them are facing various educational problems in urban areas (National Bureau of Statistics of China, 2017). Even when 80% of migrant children are admitted by urban public schools, their academic achievements are still lower than their urban peers (Ma, 2019). Therefore, scholars are eager to find out why migrant children lag behind.

### *2.2 Social capital: a classic explanation*

Social capital is an important mechanism through which children's migration affect their academic achievements. It is defined as the values and resources that people can access, which

are the results of collective ties and social relationships (Barn, 2010). “For families that have moved often,” argued by Coleman (1988, p. 113), “the social relations that constitute social capital are broken at each move”. The broken of social capital can be worse if children’s parents are not involved and supported (Hagan et al., 1996). And the closeness of peer relations can also be adversely influenced by children’s migration (Ream, 2005; Ream & Rumberger, 2008).

The broken of social capital in the migration is an educational turmoil for migrant children, because social capital is assumed to be important for academic achievements. According to Coleman (1988), social capital within and outside the family could significantly improve children’s academic performance. For example, family social capital, referring to the strength of child–parent relations, can positively affect academic achievements, improve educational attainments, and resolve behavioral problems (Israel, Beaulieu, & Hartless, 2001; Sandefur, Meier, & Campbell, 2006; von Otter & Stenberg, 2015). Moreover, studies also shows that extra-familial aspects of social capital are crucial for children and youth development (Behtoui & Neergaard, 2016; Cemalcilar & Gökşen, 2014). Based on an ecological framework of social capital, Wu and colleagues find that almost all domains of social capital have positive effects on the pychosocial wellbeing of migrant children (Wu, Tsang, & Ming, 2014).

Although social capital mediates the effects of children’s migration on their education, the explanatory power of social capital is not particularly promising. Pribesh and Downey (1999) calculated the adverse effects of children’s mobility on education, and found that less than ten percent were attributed to social capital. Ma and Wu (2019) also found a relatively small effect in their study of social capital on migrant children’s education in the Chinese context. The small effect of social capital lead us to a new puzzle: are there other factors influencing the academic

achievements of migrant children? Enlightened by French sociologist Bourdieu, we argue for the cultural capital perspective.

*2.3 Cultural capital: a novel explanation*

Cultural capital is an important concept in Bourdieu's theories of social and educational reproduction (Goldthrope, 2007). In their classical book, Bourdieu and Passeron (1977) argued that children from better family background were advantaged in their academic achievements because they had higher cultural capital. Although the concept is loosely used in Bourdieu's own study, it is well defined by Lamont & Lareau (1988, p. 156) as "institutionalized, i.e., widely shared, high status cultural signals used for social and cultural exclusion". Cultural capital, according to Bourdieu (1986), can be further divided into three forms: embodied, objectified, and institutional cultural capital. Embodied cultural capital refers to "long-lasting dispositions of the mind and body"; objectified cultural capital means "cultural goods (pictures, books, dictionaries, instruments, machines, etc)"; and institutionalized cultural capital is usually represented by educational qualifications (Bourdieu, 1986, p. 84). In our study, because migrant children still continue their educational qualifications, so we focus on the embodied and objectified forms of cultural capital.

Numerous empirical studies have been used to test the effects of cultural capital on children's education. DiMaggio and colleagues (1982) were the first to use highbrow cultural activities as the operationalization of cultural capital, and they showed that cultural capital was significantly related to educational outcomes. According to Bourdieu's theory, such a measurement of cultural capital focuses on the embodied form. Other scholars extend the measurement to include objectified forms like cultural resources, reading behaviors and others (Sullivan, 2001). Recent

studies, using the comprehensive measurements, have found that the more children's cultural capital, the higher academic achievements (Jaeger, 2011).

Although cultural capital has been intensively studied in literature, it has not been paid much attention in the studies of migrant children. Cultural capital should not be isolated in the studies of educational and social reproduction, argued Krarup and Munk (2016); instead, it should be used to study other relational and structural aspects. Migration is a right context for the generation of cultural capital: when migrant children move from rural areas to the cities, their cultural capital cannot be quickly adapted into urban educational system, resulting in their academic problems. Although they may deliberately absorb urban cultural capital and adapt to new life, the process seems to be a long-term struggle (Reay, Crozier, & Clayton, 2009, 2010).

The rural-urban divide in China, which results in the different cultural capital, is caused by the *hukou* system. Established in 1958, the Chinese *hukou* system is well-known for its restrictions on internal migration. People, predominantly living in rural areas, are registered with agricultural status; people who are living in urban areas are classified with non-agricultural status (Cheng & Selden, 1994). Both groups are not allowed to transfer their *hukou* status or move to other places in the socialist era (Chan & Zhang, 1999). Since the economic reforms, fortunately, rural people have been permitted to move to urban areas, but the *hukou* restrictions have not been fully changed (Chan & Buckingham, 2008). Therefore, after the decades of *hukou* system, it seems that there are two worlds in contemporary China (Wang, 2012).

The cultural capital accumulated by rural children may be very different from that of their urban peers when they migrate to the cities. For example, Mu and Jia (2016), based on the interviews in two elite high schools and two ordinary primary schools, found that migrant children were excluded or even punished because of their different accents and undisciplined

behavioral patterns. Even when rural-to-urban migrant children are fortunate enough to be admitted to the tertiary education, their deficits of cultural capital still remained. Li (2013), studying rural students' experiences in an elite university, found that rural students lack the legitimate culture and relations to fully join in urban activities, resulting in social exclusions.

Because of the importance of cultural capital in the studies of migrant children, this article develops a novel conceptual framework. As shown in Figure 1, the framework contributes to the literature in three aspects. First, previous research has studied the mechanism of social capital, but few scholars have taken a further step to study why social capital accounts for only a minor effect. We provide the additional explanation of cultural capital. Second, although some studies have showed that the educational inequality faced by Chinese migrant children may be due to their lack of cultural capital, these observations have not been tested in a national context. Our article, based on a national representative survey, may be the first quantitative study to analyze the mechanism of cultural capital in Chinese migration. Finally, previous research has not integrated both mechanisms of social capital and cultural capital into a full picture. This study takes a holistic perspective and compares their effects in the same framework.

(Figure 1 near here)

## 3. Method

### *3.1 Data and sampling*

Our study used data from the China Education Panel Survey (CEPS), a nationally representative survey of 19,487 middle-school students from academic year 2013–2014 (National Survey Research Center, 2015). Employing a stratified and multistage strategy, CEPS recruited a sample of 19,487 respondents across 438 classes, 112 schools, and 28 counties or districts for its

baseline wave (the only publicly accessible wave). More details about the sampling, data, ethical clearance, and other issues can be found in the CEPS manual on their website (National Survey Research Center, 2015).

According to our hypotheses, we selected our analytical sample based on three steps: First, we merged student and school information and created a new dataset. Second, we pooled out an urban sample (including both migrant and non-migrant children) based on *hukou* status. Rural non-migrant children were not the focus of this study. Third, we further restricted our sample to urban public schools in order to minimize the effect of educational segregation between public and migrant schools. A decade ago, migrant children could not go to urban public schools, but only to low-quality migrant schools. Thanks to more recent *hukou* reforms, most migrant children have been allowed to attend urban public schools. Although public schools do exhibit some variations, their basic educational qualities are usually guaranteed because of the Compulsory Education Law. Therefore, selecting children from public schools minimizes the *hukou* segregation to a large extent and focuses on the mediating effect of cultural capital.

Overall, the study selected 10417 children from urban public schools, of which 3082 were migrant children and 7335 were urban non-migrants. Missing data were directly deleted because the percent is relatively small. The CEPS conformed to the ethical regulations of Renmin University of China (National Survey Research Center, 2015).

*3.2 Measurement*

The independent variable, migrant status, was measured by children's *hukou* status. The 7,335 non-migrant children had an urban *hukou*, while the 3,082 migrant children did not. We used urban non-migrant children as the reference group.

Academic achievement was assessed using school exam scores for Chinese, mathematics, and English from academic year 2013–2014. The annual exams are of great importance for every middle-school student in China because they evaluate who will qualify for high-quality senior schools. Although using different scores from different schools might reduce the comparability of educational outcomes, school scores are nevertheless reliable, compared with other measures. Moreover, exam scores can be directly obtained from school records (i.e., not from students), so they have a higher degree of objectivity. The scores for Chinese, mathematics, and English ranged from 0 to 150, and they were standardized in the analysis.

Family social capital was measured by asking how frequently a student and his/her mother discussed issues at school; how frequently they discussed friends; how frequently they discussed teachers; how frequently they shared personal ideas and how frequently they expressed anxieties. The answers ranged from 1 (never) to 3 (regularly). Social capital outside the family was measured in terms of student–school relationships because resources embedded in student–school relations are of great importance for child development. Specifically, school social capital was measured using six questions answered by every student on a scale of 1 (totally disagree) to 4 (absolutely agree): my headmaster often praises me; other classmates are friendly to me; I find it easy to get along with others; my class has a good atmosphere of solidarity; I often participate in activities held by my school or class; and I feel close to people at school.

Embodied cultural capital was usually measured by highbrow cultural activities. In our analysis, four questions were used to reflect the frequency of student participation in cultural activities: how often he/she visited museums, zoos, and science centers with classmates; how often he/she went to movies, concerts, and sports events with classmates; how often he/she visited museums, zoos, and science museums with parents; and how often his/her family went to

movies, concerts, and sports events. Answers were 1 (never), 2 (once a year), 3 (twice a year), 4 (once a month), 5 (once a week), or 6 (more than once a week). Objectified cultural capital was measured by two indicators: one was the number of culturally-important books at home, ranging from 1 (few) to 5 (many); the other was whether the student had an independent desk for reading and writing (no desk = 0).

Five control variables were included. The first was gender, and we coded girls as the reference group. Second, age was treated as a continuous variable, with the average of 14 years old. Third, family structure was treated as a dichotomous variable, with "both parents present" as the reference group. Fourth, family economy was assessed by the question, "How are your family finances?". The student was required to answer very difficult (1), a little difficult (2), middle (3), somewhat rich (4) or very rich (5). Finally, shadow education was measured by whether he/she took part in after-school classes, no extra classes as the reference.

*3.3 Analytical Strategy*

We adopted two-step mediation models as our analytical strategy. Mediation analysis is important in social science research, because it can show how and why the treatment affects the outcome (MacKinnon, Fairchild, & Fritz 2007; VanderWeele 2016). We first conducted a complicated measurement of latent variables and estimate multiple mediators by using Structural Equation Modeling (SEM) in Mplus.

The second step was to rigorously test the result in Causal Mediation Modeling (CMM). CMM has several advantages: First, it combines classic mediation analysis within a counterfactual framework (Imai, Keele, & Tingley, 2010). Second, CMM narrows the assumption of sequential ignorability. Third, a research team had developed an R (mediation)

package to accommodate the causal mediation model (Tingley et al., 2014). Following are the mathematical formulas:

$$\delta_i(t) \equiv Y_i\big(t, M_i(1)\big) - Y_i\big(t, M_i(0)\big) \quad (1)$$

$$\varsigma_i(t) \equiv Y_i\big(1, M_i(t)\big) - Y_i\big(0, M_i(t)\big) \quad (2)$$

$$\tau_i \equiv Y_i\big(1, M_i(1)\big) - Y_i\big(0, M_i(0)\big) \quad (3)$$

$\delta_i(t)$ in Formula (1) refers to the causal mediation effect. $\varsigma_i(t)$ in Formula (2) represents the direct effect of the treatment. $\tau_i$ in Formula (3) denotes the total unit treatment effect. $Y_i()$ represents the potential effect. $M_i(t)$ is the mediating value of unit i under the condition t. More information about the formulas can be found in the work of Imai, Keele, and Tingley (2010) and Tingley et al. (2014).

## 4. Results

Table 1 summarizes the descriptive statistics of the main variables. According to the t-test analysis, academic scores, social capital and cultural capital for migrant children were lower than those of non-migrant children, except the indicators of participating in school activities and visiting museums with students. More rigorous analysis follows.

(Table 1 near here)

### *4.1 Structural equation modeling*

Because mediators and outcome were latent variables, we first conducted a confirmatory factor analysis in SEM. After four pairs of indicators were constrained, the measurement model showed a good fit to the data. Although Chi-square was significant due to the large sample size ($\chi^2 = 1671.126$, $p < .001$, DF = 154), other indices of fit were quite good, like RMSEA at 0.030. All the observed indicators were significantly loaded on the latent constructs, and all the coefficients were greater than 0.5, indicating that all the items of latent variables were reliable.

Based on the measurement model above, we then conducted the structural model. Because there were four mediating indicators of social and cultural capital, we made them interrelate. As shown in Figure 2, the structural model fit the data well (RMSEA = 0.039; CFI = 0.958; SRMR = 0.027). The coefficients of migrant status on family social capital (β = −0.067) and objectified cultural capital (β = −0.099) were significantly negative, indicating that migrant children had lower social capital compared to urban non-migrant children. But children's migrant status did not significantly affect school social capital (β = −0.019) or embodied cultural capital (β = −0.018). In addition, the effects of the mediators on academic achievement were significant and positive, except for embodied cultural capital (β = −0.203).

(Figure 2 near here)

The total effect of migrant status on academic achievement, shown in Table 2, was −0.064. The direct effect was no longer significant. This result showed that the negative effect of migration on education was fully explained by the mediation of social capital and cultural capital. The indirect effect of family social capital was −0.003, but that of school social capital was not significant. The indirect effect of embodied cultural capital was also not significant. Objectified cultural capital had the largest mediating effect, about eight times greater than that of family social capital. Therefore, SEM showed that objectified cultural capital was the main mechanism through which children's migration affected their academic achievements.

(Table 2 near here)

*4.2 Causal mediation modeling*

After the analysis in SEM, we were still cautious about whether the indirect effect of objectified cultural capital was causal. To rigorously test our finding above, we took a further step to utilize CMM. As shown in Table 3, the average causal mediating effect of objectified cultural capital on

the outcome of Chinese exam scores was significant but negative (β = −0.027). The indirect effect accounted for 35% of the total effect in the model. Meanwhile, the average causal mediating effects of objectified cultural capital on mathematics and English exam scores were −0.026 and −0.025, respectively. Finally, unlike the non-significant direct effect in SEM, CMM showed that the average direct effect was still significant and larger than the indirect effect. Therefore, there might be other unknown variables affecting migrant children's education.

(Table 3 near here)

After the analysis in CMM, we took a further step to test the robustness of the results. For the Chinese score, the sensitivity parameter $\rho$ was 0.2, as the confidence intervals for the average mediation effect of objectified cultural capital contained zero when $\rho$ equals 0.2. Because it is usually difficult to interpret the result of Rho, a better method involves changing $\rho$ into $R^2$, which can be interpreted as a magnitude of an effect of the unobserved variable. For example, $R^2$ in our sensitivity model was 0.04, indicating that 4% of the original variance was due to unobserved confounders. As a result, we can conclude that the mediating effect of objectified cultural capital was quite robust.

## 5. Discussion

Although Chinese migrant children are permitted to attend urban public schools, their academic achievements continue to be worse than those of urban peers. Drawing upon CEPS and mediation models, this article argues that cultural capital can be used to explain why migrant children still lag behind.

First, the results show that the mediating effects of cultural capital are larger than that of social capital. Coleman's social capital mainly focuses on the loss of social relations and

resources in the migration process. Bourdieu's cultural capital, on the other hand, pays attention to preexisting differences both before and after migration. This possibly reflects two perspectives in the studies of young migrants: origin-destination differences and intervening obstacles in the process. Although both perspectives are valuable, we suspect that cultural capital has more lasting effects than social capital in children's migration. Bourdieu (1986) defines cultural capital as a long-lasting disposition of mind, body, resources, and institutions, so it is not easy for migrant children to change quickly. Social capital, however, is closely related to parental involvement and peer interaction (Coleman, 1988). Migrant children may recover quickly from the loss of social capital in new places. For example, Hagan et al. (1996) have found that parental support could buffer the problems of losing social capital because of migration. Therefore, the mediating effect of cultural capital may be more durable than that of social capital.

Second, we are surprised by the contradictory effects of embodied and objectified cultural capital in the analysis. Unlike our hypothesis, the result show that embodied cultural capital has a positive but nonsignificant mediating effect. Such a finding seems to be different from that of some prior studies. For example, DiMaggio and colleagues (1982; 1985), using highbrow activities as the measurement, find that cultural capital was significantly related with academic attainment in America. The reason for the findings in our study, we suspect, is that embodied cultural capital may be sensitive to social class contexts. Bourdieu argues that the more vague the demands of university entrance criteria, the less chance students from vulnerable backgrounds have to succeed. Therefore, when Bourdieu develops the concept of cultural capital from the study of elite higher education in France, his original definition and assessment are also vague (Barone, 2006; Sullivan, 2001). Lamont (1992), in her famous study of the culture of French and

American upper-middle classes, showed that patterns of symbolic boundaries are completely different between France and America.

China is possibly a different social context for cultural capital. National universities, though they have been given some discretion recently, are required to recruit new students in ranked order, from the highest scores to the lowest on the annual university entrance examination. Because of this intense competition, it is hard for students to find time to participate in highbrow cultural activities. One recent study, analyzing the association between cultural capital and college major choices in China, shows that the effect of embodied cultural capital is usually not significant ($p<0.05$). Cultural resources, as Wu (2008) argued, may, therefore, be more suitable as an indicator of cultural capital in China. Wang, Davis, and Bian (2006) also argue for the existence of a reading dimension in cultural capital, suggesting that it is a means of "crystallizing class boundaries" in urban China (p. 315). Therefore, cultural capital may be firmly embedded in the social class of modern societies (Goldthrope, 2007). More comparative research is needed in the future.

Third, the mediating effect of objectified cultural capital in Causal Mediation Modeling (CMM) is smaller than that in Structural Equation Modeling (SEM). The direct effect is significant in CMM while it is nonsignificant in SEM. The different estimate may be due to two reasons. On the one hand, it may reflect the famous phrase: "correlation is not causation." SEM is good at analyzing latent variables and structural paths, but it fails to exclude the effects of emitted factors (MacKinnon et al., 2007). On the other hand, the difference between SEM and CMM may also reflect some measurement problems of objectified cultural capital. Cultural capital is practiced daily, so it includes children's knowledge, attitude, behavior, etc (Zimdars, Sullivan, & Heath, 2009). But in CMM Objectified Cultural capital is only represented by

cultural books. Therefore, the omitted variables and the measurement limitations may lead to the smaller effect in CMM than in SEM.

Fourth, our results above provide important theoretical contributions and policy implications for children services. Previous research has shown that *hukou* exclusion and social capital are important mechanisms for migrant children's educational problems(Guo & Zhao, 2019; Ma & Wu, 2019). This study, however, finds a new explanation for the educational inequality of migrant children in urban public schools. Cultural capital, to our knowledge, is the first to be studied in quantitative research of Chinese migrant children' education. Migrant children in urban public schools have less objectified cultural capital than their urban peers, resulting in academic problems. Such a finding indicates that more cultural resources and services, rather than participation in fine arts, should be delivered to migrant children. Maybe a tailored list of cultural services, representing urban culture, can be freely distributed to migrant children once they enter public schools. Reading resources and groups are encouraged at school to help migrant children practice urban culture. Lastly, family is another field through which help can be offered: parental social capital is of great importance in the adaptation of migrant children to new environments.

Finally, our results should be interpreted with caution. The dataset CEPS is a cross-sectional survey, so the result may be influenced by contextual variables. As cultural capital is very sensitive to the social context, it is unknown whether our explanation can be generalized to other societies. Moreover, the measurements of social and cultural capital are not comprehensive, due to the limitations of questions in the survey. For example, student's responses about their own economic background may not reflect their real socio-economic status. Finally, causal mediation modeling still needs a strong hypothesis in which all mediators are randomized. This hypothesis

may not be held because we cannot randomize independent and mediating variables at one time. Despite the limitations, our study highlights the importance of cultural capital in migration. When migrant children are familiar with cultural knowledge required to thrive in urban public schools, they will be able to stand with their peers at the same starting line of educational competition.

## References


Astone, N., & McLanahan, S. (1994). Family structure, residential mobility, and school dropout: A research note. *Demography*, *31*(4), 575–584. https://doi.org/10.2307/2061791

Barn, R. (2010). Care leavers and social capital: Understanding and negotiating racial and ethnic identity. *Ethnic and Racial Studies*, *33*(5), 832–850. https://doi.org/10.1080/01419870903318896

Barone, C. (2006). Cultural capital, ambition and the explanation of inequalities in learning outcomes: A comparative analysis. *Sociology*, *40*(6), 1039–1058. https://doi.org/10.1177/0038038506069843

Behtoui, A., & Neergaard, A. (2016). Social capital and the educational achievement of young people in Sweden. *British Journal of Sociology of Education*, *37*(7), 947–969. https://doi.org/10.1080/01425692.2015.1013086

Berker, A. (2009). The impact of internal migration on educational outcomes: Evidence from Turkey. *Economics of Education Review*, *28*(6), 739–749. https://doi.org/10.1016/j.econedurev.2009.03.003

Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education* (pp. 241–258). New York: Greenwood.

Bourdieu, Pierre, & Passeron, J. C. (1977). Reproduction in education, society and culture. London: SAGE.

Brawner, M. R. (1973). Migration and educational achievement of Mexican Americans. *Social Science Quarterly*, *53*(4), 727–737.

Cemalcilar, Z., & Gökşen, F. (2014). Inequality in social capital: social capital, social risk and drop-out in the Turkish education system. *British Journal of Sociology of Education*, *35*(1), 94–114. https://doi.org/10.1080/01425692.2012.740807

Chan, K. W., & Buckingham, W. (2008). Is China abolishing the hukou system? *The China Quarterly*, *195*, 582–606. https://doi.org/10.1017/S0305741008000787

Chan, K. W., & Zhang, L. (1999). The "hukou" system and rural-urban migration in China: processes and changes. *The China Quarterly*, *160*, 818–855. https://doi.org/10.1017/S0305741000001351

Cheng, T., & Selden, M. (1994). The origins and social consequences of China's hukou system. *The China Quarterly*, *139*, 644. https://doi.org/10.1017/S0305741000043083

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, *94*(1988), s95-120. https://doi.org/10.1086/228943

Cui, K., & To, S. M. (2019). Migrant status, social support, and bullying perpetration of children in mainland China. *Children and Youth Services Review*, *107*(June), 104534. https://doi.org/10.1016/j.childyouth.2019.104534

DiMaggio, P. J. (1982). Cultural capital and school success: The impact of status culture participation on the grades of U.S. high school students. *American Sociological Review*, *47*(2), 189–201. https://doi.org/10.2307/2094962

DiMaggio, P., & Mohr, J. (1985). Cultural capital, educational attainment, and marital selection. *American Journal of Sociology*, *90*(6), 1231–1261.

Engec, N. (2006). Relationship between mobility and student performance and behavior. *The Journal of Educational Research*, *99*(3), 167–178. https://doi.org/10.3200/JOER.99.3.167-178

Goldthrope, J. H. (2007). "Cultural capital": Some critical observations. *Sociologica. Italian Journal of Sociology Online*, (2). https://doi.org/10.2383/24755

Guo, Y., & Zhao, L. (2019). The impact of Chinese hukou reforms on migrant students' cognitive and non-cognitive outcomes. *Children and Youth Services Review*, *101*(April), 341–351. https://doi.org/10.1016/j.childyouth.2019.04.017

Hagan, J., MacMillan, R., & Wheaton, B. (1996). New kid in town: Social capital and the life course effects of family migration on children. *American Sociological Review*, *61*(3), 368–385. https://doi.org/10.2307/2096354

Halpern-Manners, A. (2011). The effect of family member migration on education and work among nonmigrant youth in Mexico. *Demography*, *48*(1), 73–99. https://doi.org/10.1007/s

Imai, K., Keele, L., & Tingley, D. (2010). A general approach to causal mediation analysis. *Psychological Methods*, *15*(4), 309–334. https://doi.org/10.1037/a0020761

Imai, K., Keele, L., & Yamamoto, T. (2010). Identification, inference and sensitivity Analysis for causal mediation effects. *Statistical Science*, *25*(1), 51–71. https://doi.org/10.1214/10-STS321

Israel, G. D., Beaulieu, L. J., & Hartless, G. (2001). The influence of family and community social capital on educational achievement. *Rural Sociology*, *66*(1), 43–68. https://doi.org/10.1111/j.1549-0831.2001.tb00054.x

Jaeger, M. M. (2011). Does cultural capital really affect academic achievement? New evidence from combined sibling and panel data. *Sociology of Education*, *84*(4), 281–298. https://doi.org/10.1177/0038040711417010

Krarup, T., & Munk, M. D. (2016). Field theory in cultural capital studies of educational attainment. *British Journal of Sociology of Education*, *37*(5), 761–779. https://doi.org/10.1080/01425692.2014.969398

Lamont, M. (1992). Money, morals, and manners: The culture of the French and the American upper-middle class. Chicago: University of Chicago Press.

Lamont, M., & Lareau, A. (1988). Cultural capital: Allusions, gaps and glissandos in recent theoretical developments. *Sociological Theory*, *6*(2), 153–168. https://doi.org/10.2307/202113

Langenkamp, A. G. (2014). Effects of school mobility on adolescent social ties and academic adjustment. *Youth & Society*, *48*(6), 810–833. https://doi.org/10.1177/0044118X13517908

Li, C., & Jiang, S. (2018). Social exclusion, sense of school belonging and mental health of migrant children in China: A structural equation modeling analysis. *Children and Youth Services Review*, *89*(April), 6–12. https://doi.org/10.1016/j.childyouth.2018.04.017

Li, H. (2013). Rural students' experiences in a Chinese elite university: capital, habitus and practices. *British Journal of Sociology of Education*, *34*(5–6), 829–847. https://doi.org/10.1080/01425692.2013.821940

Li, S., Lu, S., Ni, S., & Peng, K. (2019). Identifying psychological resilience in Chinese migrant youth through multidisciplinary language pattern decoding. *Children and Youth Services Review*, *107*(September), 104506. https://doi.org/10.1016/j.childyouth.2019.104506

Liang, Z., & Chen, Y. P. (2007). The educational consequences of migration for children in China. *Social Science Research*, *36*(1), 28–47. https://doi.org/10.1016/j.ssresearch.2005.09.003

Long, L. H. (1975). Does migration interfere with children's progress in school? *Sociology of Education*, *48*(3), 369–381. https://doi.org/10.2307/2112460

Ma, G. (2019). Migrant status, school segregation, and students' scademic achievement in rrban China. *Chinese Sociological Review*, *0*(0), 1–19. https://doi.org/10.1080/21620555.2019.1680280

Ma, G., & Wu, Q. (2019). Social capital and educational inequality of migrant children in contemporary China: A multilevel mediation analysis. *Children and Youth Services Review*, *99*(866), 165–171. https://doi.org/10.1016/j.childyouth.2019.02.002

Ma, Y., Hou, X., Huang, J., Wang, W., Li, Y., Zhou, X., & Du, X. (2018). Educational inequality and achievement disparity: An empirical study of migrant children in China. *Children and Youth Services Review*, *87*(October 2017), 145–153. https://doi.org/10.1016/j.childyouth.2018.02.026

MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, *58*(1), 593–614. https://doi.org/10.1146/annurev.psych.58.110405.085542

McKenzie, D., & Rapoport, H. (2011). Can migration reduce educational attainment? Evidence from Mexico. *Journal of Population Economics*, *24*(4), 1331–1358. https://doi.org/10.1007/s00148-010-0316-x

Mu, G. M., & Jia, N. (2016). Rural dispositions of floating children within the field of Beijing schools: can disadvantaged rural habitus turn into recognised cultural capital? *British Journal of Sociology of Education*, *37*(3), 408–426. https://doi.org/10.1080/01425692.2014.939264

National Bureau of Statistics of China, UNICEF China, & UNFPA China. (2017). Population status of children in China in 2015: Facts and figures. Retrieved from https://www.unicef.cn/en/reports/population-status-children-china-2015. Jun 20, 2020

National Survey Research Center, Renmin University of China (2015). China educational panel survey. http://ceps.ruc.edu.cn/index.php?r=index/index&hl=en.

Pribesh, S., & Downey, D. B. (1999). Why are residential and school moves associated with poor school performance? *Demography*, *36*(4), 521–534. https://doi.org/10.2307/2648088

Ream, R. K. (2005). Toward understanding how social capital mediates the impact of mobility on mexican American achievement. *Social Forces*, *84*(1), 201–224. https://doi.org/10.1353/sof.2005.0121

Ream, R. K., & Rumberger, R. W. (2008). Student engagement, peer social capital, and school dropout among Mexican American and non-Latino white students. *Sociology of Education*, *81*(2), 109–139. https://doi.org/10.1177/003804070808100201

Reay, D., Crozier, G., & Clayton, J. (2009). "Strangers in paradise"?: Working-class students in elite universities. *Sociology*, *43*(6), 1103–1121. https://doi.org/10.1177/0038038509345700

Reay, D., Crozier, G., & Clayton, J. (2010). "Fitting in" or "standing out": Workingclass students in UK higher education. *British Educational Research Journal*, *36*(1), 107–124. https://doi.org/10.1080/01411920902878925

Resosudarmo, B. P., & Suryadarma, D. (2014). The impact of childhood migration on educational attainment: Evidence from rural–urban migrants in Indonesia. *Asian Population Studies*, *10*(3), 319–333. https://doi.org/10.1080/17441730.2014.942954

Sandefur, G. D., Meier, A. M., & Campbell, M. E. (2006). Family resources, social capital, and college attendance. *Social Science Research*, *35*(2), 525–553. https://doi.org/10.1016/j.ssresearch.2004.11.003

South, S. J., Haynie, D. L., & Bose, S. (2007). Student mobility and school dropout. *Social Science Research*, *36*(1), 68–94. https://doi.org/10.1016/j.ssresearch.2005.10.001

Sullivan, A. (2001). Cultural capital and educational attainment. *Sociology*, *35*(4), 893–912. https://doi.org/0803973233

Swanson, C. B., & Schneider, B. (1999). Students on the Move: Residential and Educational Mobility in America's Schools. *Sociology of Education*, *72*(1), 54–67. https://doi.org/10.2307/2673186

Tingley, D., Yamamoto, T., Hirose, K., Keele, L., & Imai, K. (2014). Mediation: R package for causal mediation analysis. *Journal of Statistical Software*, *59*(5), 1–38. https://doi.org/10.18637/jss.v059.i05

VanderWeele, T. J. (2016). Mediation analysis: A practitioner's guide. *Annual Review of Public Health*, *37*(1), 17–32. https://doi.org/10.1146/annurev-publhealth-032315-021402

Von Otter, C., & Stenberg, S. Å. (2015). Social capital, human capital and parent–child relation quality: interacting for children's educational achievement? *British Journal of Sociology of Education*, *36*(7), 996–1016. https://doi.org/10.1080/01425692.2014.883275

Wang, L. (2012). Social exclusion and education inequality: towards an integrated analytical framework for the urban–rural divide in China. *British Journal of Sociology of Education*, *33*(3), 409–430. https://doi.org/10.1080/01425692.2012.659455

Wang, S., Davis, D., & Bian, Y. (2006). The uneven distribution of cultural capital: Book reading in rrban China. *Modern China*, *32*(3), 315–348. https://doi.org/10.1177/0097700406288178

Whalen, T. E., & Fried, M. A. (1973). Geographic mobility and its effect on student achievement. *Journal of Educational Research*, *67*(4), 163–165. https://doi.org/DOI: 10.1080/00220671.1973.10884593

Wu, Q., Tsang, B., & Ming, H. (2014). Social capital, family support, resilience and educational outcomes of chinese migrant children. *British Journal of Social Work*, *44*(3), 636–656. https://doi.org/10.1093/bjsw/bcs139

Wu, X., & Zhang, Z. (2015). Population migration and children's school enrollments in China, 1990-2005. *Social Science Research*, *53*, 177–190. https://doi.org/10.1016/j.ssresearch.2015.05.007

Wu, Y. (2008). Cultural capital, the state, and educational inequality in China, 1949–1996. *Sociological Perspectives*, *51*(1), 201–227. https://doi.org/10.1525/sop.2008.51.1.201

Zimdars, A., Sullivan, A., & Heath, A. (2009). Elite higher education admissions in the arts and sciences: Is cultural capital the key? *Sociology*, *43*(4), 648–666. https://doi.org/10.1177/0038038509105413

Figure 1

The conceptual framework

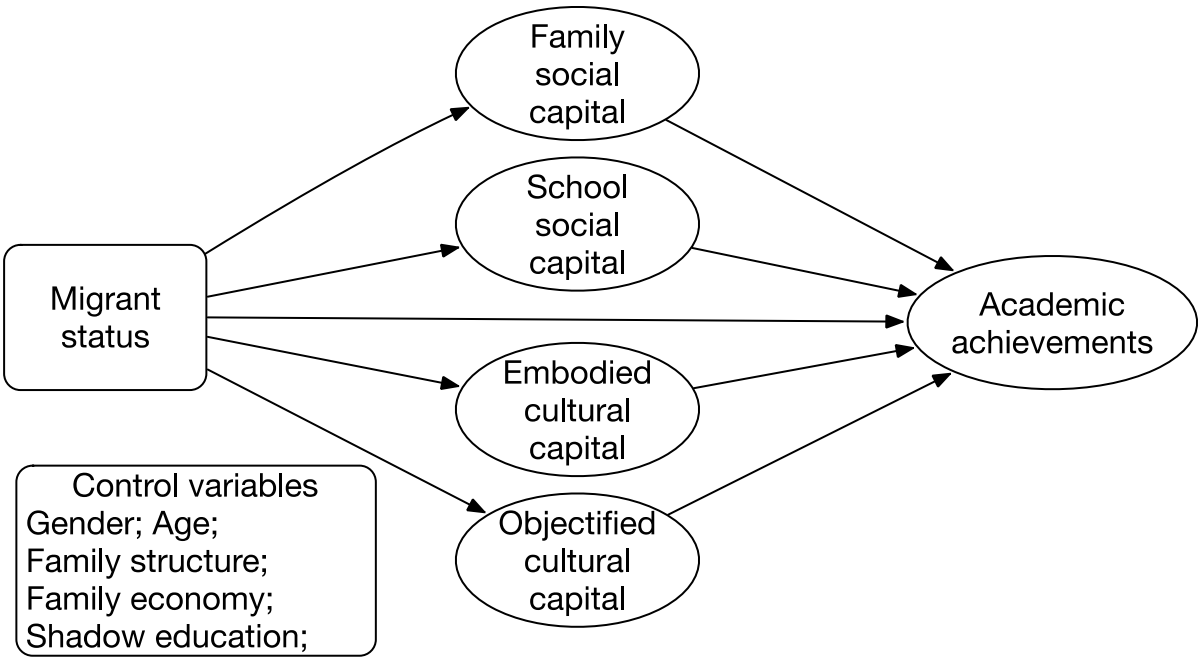
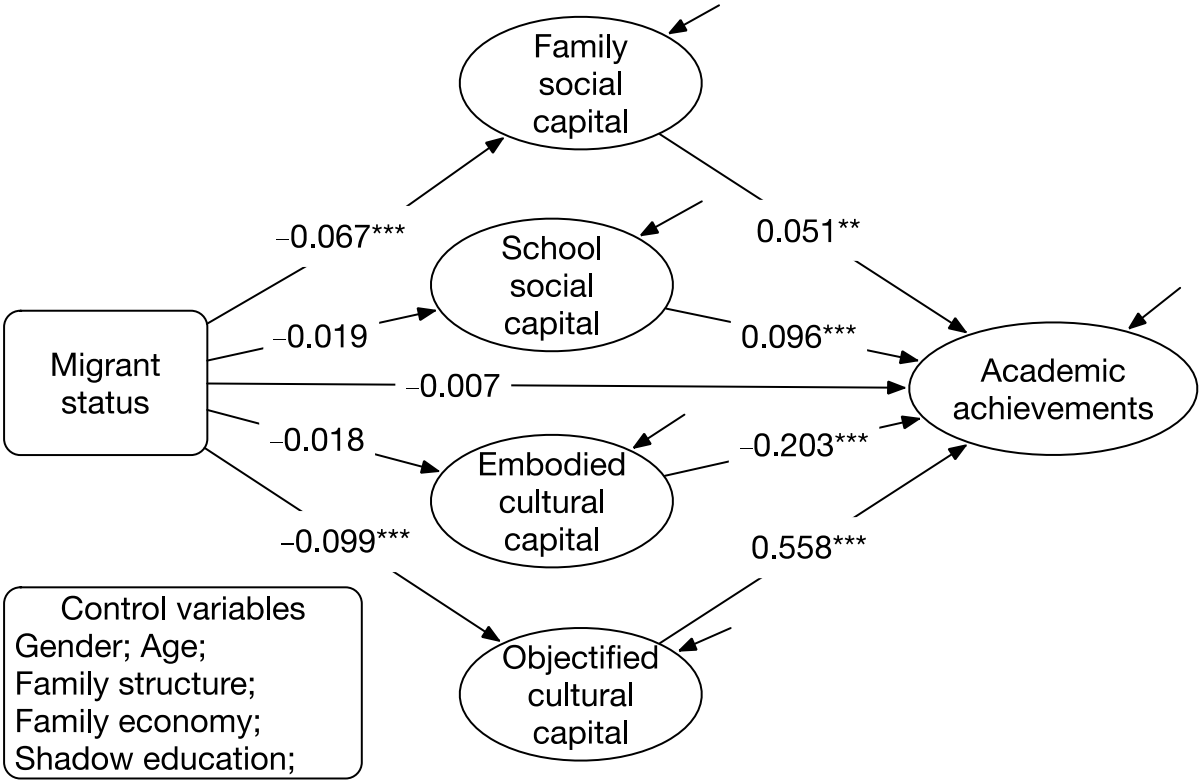


**Figure 2**

SEM of the migrant status, social capital, cultural capital, and academic achievements of Chinese migrant children in urban public schools: CEPS 2013–2014 (N = 11,417).




* Alpha = 0.05, ** Alpha = 0.01, *** Alpha = 0.001

**Table 1**

Descriptive statistics for main variables between migrant and non-migrant children in urban public schools: CEPS 2013–2014 (N = 11,417).

| Variable | Number | Migrant children | | Non-migrant children | |
|---|---|---|---|---|---|
| | Total N | Mean | SD | Mean | SD |
| **Educational outcome** | | | | | |
| *Standardized Chinese score* | 10,170 | –0.07 | 0.02 | 0.04 | 0.01 |
| *Standardized mathematics score* | 10,169 | –0.07 | 0.02 | 0.07 | 0.01 |
| *Standardized English score* | 10,165 | –0.13 | 0.02 | 0.08 | 0.01 |
| **Family social capital** | | | | | |
| *Frequency of discussing school issues* | 10,275 | 2.25 | 0.01 | 2.37 | 0.01 |
| *Frequency of discussing peer relations* | 10,257 | 2.15 | 0.01 | 2.23 | 0.01 |
| *Frequency of discussing student–teacher relations* | 10,222 | 2.13 | 0.01 | 2.20 | 0.01 |
| *Frequency of discussing student's mood* | 10,248 | 2.03 | 0.01 | 2.15 | 0.01 |
| *Frequency of discussing student's anxiety* | 10,255 | 1.95 | 0.01 | 2.07 | 0.01 |
| **School social capital** | | | | | |
| *Headmaster always praises me* | 10,286 | 2.33 | 0.02 | 2.40 | 0.01 |
| *Classmates were friendly to me* | 10,298 | 3.27 | 0.01 | 3.32 | 0.01 |
| *I was easy to get along with* | 10,304 | 3.19 | 0.02 | 3.22 | 0.01 |
| *My class had a good atmosphere of solidarity* | 10,287 | 3.14 | 0.02 | 3.20 | 0.01 |
| *I always participated in school activities* | 10,302 | 2.84 | 0.02 | 2.84 | 0.01 |
| *I felt close to the people in the school* | 10,240 | 2.95 | 0.02 | 3.03 | 0.01 |
| **Embodied cultural capital** | | | | | |
| *Frequency of visiting museums with students* | 10,059 | 2.20 | 0.02 | 2.14 | 0.01 |
| *Frequency of going to concerts with students* | 10,037 | 2.46 | 0.02 | 2.67 | 0.02 |
| *Frequency of visiting museums with parents* | 10,262 | 2.46 | 0.03 | 2.52 | 0.02 |
| *Frequency of going to concerts with parents* | 10,283 | 2.44 | 0.03 | 2.67 | 0.02 |
| **Objectified cultural capital** | | | | | |
| *The number of books at home* | 10,386 | 3.34 | 0.02 | 3.58 | 0.01 |
| *An independent desk for reading and writing* | 10,223 | 0.86 | 0.01 | 0.91 | 0.00 |
| **Control variables** | | | | | |
| Gender (girl as reference) | 10,417 | 0.51 | 0.01 | 0.50 | 0.01 |
| Age | 10,211 | 14.37 | 0.02 | 14.37 | 0.01 |
| Family structure (both parents as reference) | 10,417 | 0.15 | 0.01 | 0.19 | 0.00 |
| Family economy | 10,376 | 2.90 | 0.01 | 2.93 | 0.01 |
| Shadow education | 10,361 | 0.50 | 0.01 | 0.37 | 0.01 |

**Table 2**

Standardized total, indirect, and direct effects of the mediators and controls in urban public schools: CEPS 2013–2014 (N = 11,417).

| Predictor | Total | Indirect | Direct |
|---|---|---|---|
| Migrant status | −0.064*** | −0.057*** | −0.007 |
| *Mediation of family social capital* | | −0.003** | |
| *Mediation of school social capital* | | −0.002 | |
| *Mediation of embodied cultural capital* | | 0.004 | |
| *Mediation of objectified cultural capital* | | −0.055*** | |

* Alpha = 0.05, ** Alpha = 0.01, *** Alpha = 0.001

**Table 3**

The causal mediation of objectified cultural capital in urban public schools: CEPS 2013–2014 (N = 11,417).

| Outcome variable | Chinese scores | Math scores | English scores |
|---|---|---|---|
| Average causal mediation effect | −0.027*** | −0.026*** | −0.025*** |
| Average direct effect | −0.052* | −0.066*** | −0.143*** |
| Total effect | −0.079*** | −0.093*** | −0.169*** |
| Proportion of mediation effect | 35% | 28% | 15% |

* Alpha=0.05, ** Alpha=0.01, *** Alpha=0.001