

From Rural Schools to City Factories: Assessing the Quality of Chinese Rural Schools

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Rural school quality is low and varies significantly across provinces. We estimate provincial variations in school quality from the labor market returns to years of schooling of interprovincial rural migrants educated in different home provinces but working in the same urban labor market. School quality is higher and provincial variation is lower for younger cohorts, indicating at least partial effectiveness of recent policies aimed at improving the quality of rural schools.



Improving labor productivity in China has been closely related to internal rural-to-urban migration (Tombe and Zhu 2019), thus linking economic performance to the quality of education in rural areas. We connect this observation to the extensive research on the long-term importance of human capital for both individual labor market earnings and overall economic growth in China (Hanushek and Kimko 2000; Hanushek and Woessmann 2012; Hanushek et al. 2025). Understanding the human capital level of migrant workers and how their human capital is shaped by various factors, most importantly the school education they have received, is of vital importance for designing policies that promote sustained future growth.

We determine the human capital level of migrant workers from estimates of the labor market rate of return to their years of schooling (Card and Krueger 1992). Due to *hukou* restrictions, migrant workers generally attend school in their rural hometowns, where their *hukou* is registered. China's tremendous regional disparity in economic development level and public education quality shows up in the rates of return to schooling for migrant workers' *hukou* province.

Figure 2. Rates of Returns to Schooling for Migrants Working in Cities of Different Development Levels

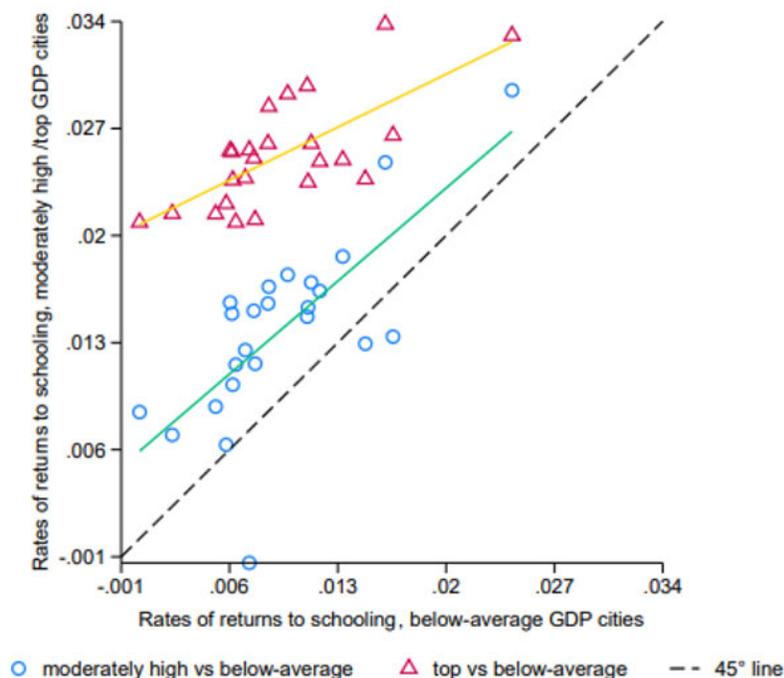
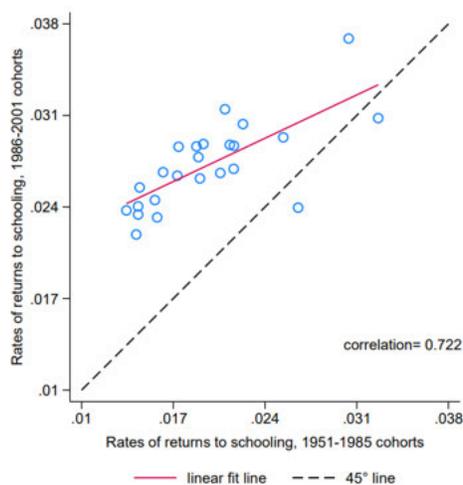


Figure 3. Rates of Returns to Schooling for 1951-1985 and 1986-2001 Cohorts



The returns are highly correlated (0.49) with cognitive skill test scores calculated for rural residents of the same age group from the 2014 China Family Panel Studies (Figure 4), suggesting a close association between the returns and the human capital level. We relate the provincial rates of return to provincial inputs for rural schools during the time when the migrant workers of the younger cohort attended school. Returns are associated with items that may characterize aspects of the province's historic support for schools, such as the number of books per student or the area of school buildings per student, but are not associated with current school spending measures.

Figure 4. Rates of Returns to Schooling and Cognitive Test Scores



There are two important considerations for future study. First, rates of return to schooling in China vary by education level, by *where* one is schooled (urban vs. rural, different provinces), and by *when* one is schooled. Considering only one group out of the larger population provides an incomplete picture of the skills of the Chinese population. Second, the central government's continued efforts to improve rural schools, including earmarked intergovernmental transfers, have improved the overall quality of rural schools and narrowed the gaps in rural school quality across provinces. However, we need a better understanding of how to raise the efficacy of school inputs to further improve rural school quality.

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