Do Policies that Equalize School Resources Mitigate Sorting Effect?

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INTRODUCTION

Educational Sorting and Housing Market

Public basic education has been studied extensively under the Tiebout’s “voting by feet” framework (Tiebout, 1956). When schools follow neighborhood-based student assignment plans, sorting emboldened in residential segregation by income is conveyed through housing market (Epple & Romano, 1998). As a result, the rich are entitled to better schools and vice versa. Moreover, the function of education as to accumulate human capital (Schultz, 1961) links educational sorting to long-run sorting in labor market, which contributes to social inequality (Fernández, 2001).

Beijing’s Reform in Basic Education

China’s basic education enrollment adopts similar plans, so sorting becomes pronounced (e.g. Feng & Lu, 2013). In Beijing, the local government initiated a six-year reform in 2014 to mitigate the sorting effect. The core idea is equalizing the geographical distribution of public primary school quality by:

- giving weak schools disproportionately more enrollment slots in elite junior high schools;
- practicing school partnership and franchising;
- merging inferior schools completely into prestigious ones.

Each year a batch of weak schools are reformed, and greet students with a new look from the subsequent school year. If parental evaluation supports the changes, sorting effect will be less noticeable because inferior communities become more attractive, thus decreasing the cross-region variation of residents’ SES.

DATA & METHODS

Measurement of Sorting Effect

House prices serve as a reasonable signal of sorting effect (Gingrich & Ansell, 2014). Specifically, we focus on the price changes of treated houses relative to untreated ones (as described below). Data in use are transaction records of second-hand houses on Sofun, China’s largest web portal of housing information.

Definition and Timing of Policy Shocks

The first wave of reform came unexpectedly in 2014 as an exogenous shock. In particular, since each community (usually a housing project) is mapped to a single primary school, we include houses assigned to reformed schools into the treatment group, while other houses less than 1km away from treated ones serve as controls.

We rely on two intuitive settings to date the shock: the time of official news that a school would “transform” in Fall 2014, which differs across schools; and the universal time of Fall 14 enrollment, which specifies communities assigned to each school.

Figure 1 and 2 plot time trends of house prices in each setting.

RESULTS & CONCLUSIONS

Figure 3 and 4 plot the results of event study models, while Table 1 and 2 present CITS coefficients.

The results show that the first wave of school reform influenced sorting soon after the news came, despite the absence of “mapping” information for Fall 2014 Enrollment. Moreover, we spot heterogeneous effect across reforms publicized in different time, possibly implying differential intensity of reform across districts.

As the root of sorting lies in the unevenness of school quality, measures to reduce such variation may contribute effectively to education equality, as reflected in this study.

REFERENCES


OBJECTIVES

This study aims to provide empirical evidence of whether sorting effect changed in response to the reform, and if so, when and to what extent it changed. Based on the results, we try to discuss the policy implications.