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Econ 613 Reading Notes #3
Wednesday, March 23rd at 11:00pm

Do Better Schools Matter? Parental Valuation of Elementary Education

Understanding the value of better schools is essential to assessing school reforms. Previous studies in the literature have failed to be conclusive. Black (1999) thus pursues an alternative strategy which focuses on estimating the parental valuation of school quality through house prices. Other studies have attempted this before, but, due to the insufficient control of neighborhood characteristics, they tended to overestimate the value of better schools. This is because better schools tend to be in better neighborhoods. Black (1999) avoids this common pitfall by comparing houses on opposite sides of attendance district boundaries for school districts in Massachusetts. Through studying houses near the boundaries, Black (1999) can compare houses that are similar, only differing in the school attended. The paper thus isolates the relationship between test scores and house prices, finding that a 5% increase in elementary school test scores leads to a 2.1% increase in the marginal resident's willingness to pay. This finding is important since it is roughly half the estimate obtained through more traditional approaches to the question. Additionally, the paper's findings can aid the evaluation of school reforms and measure the importance of better schools to various stakeholders.

To obtain these findings, Black (1999) establishes a firm theoretical foundation. The parental valuation of better schools can theoretically be measured through house prices. This is because parents might systematically be willing to pay more for a given house if it is in a better school district. Thus, a price function which takes school quality, usually proxied through test scores, as well as various house, neighborhood, and school district controls can capture the value of better schools. The paper modifies the traditional hedonic price function by replacing the observed controls with a complete set of boundary dummies.

To test this model, Black (1999) takes housing price data for all purchases and sales from 1993 through 1995 for several counties in Massachusetts. The selected counties are all located in Boston's suburbs. After cleaning and making several carefully discussed omissions, the final data set consists of 22,679 single-family residences within 39 school districts, with a total of 181 attendance district boundaries. School quality is proxied through fourth grade Massachusetts Educational Assessment Program (MEAP) scores for 1988, 1990, and 1992. For the empirical strategy, Black (1999) takes these two data sets and runs two series of regressions: one set with the traditional hedonic price function and another with the full set of boundary dummies. The two series provide important and distinct findings.

For the regressions using the traditional hedonic price function, Black (1999)'s results are consistent with previous work done in the literature. Controls behave as expected, and, test scores, our proxy for school quality, indicate that a 5% increase in the average elementary school test score is associated with a 4.9% increase in house prices. These results are interesting, but the paper decides to contribute uniquely by also pursuing the second series of regressions to account for unobserved or unmeasured neighborhood characteristics. These regressions were estimated with the sample of houses located within 0.35, 0.20, and 0.15 miles of the nearest boundary, but coefficients did not change significantly between these three specifications. For the regression with houses within 0.35 miles, the coefficient on test scores is approximately half of the coefficient initially estimated. Black (1999)'s work suggests that a 5% increase in test scores is

associated with only a 2.1% increase in housing. So, through sufficiently accounting for neighborhood characteristics, Black (1999) confirms the previously theorized existence of the literature's overestimation of better school values.

Black (1999) contributes a more accurate estimation of the parental valuation of better schools. The paper explores the traditional hedonic price function previously studied in the literature, but it further develops the literature through replacing various house, neighborhood, and school district controls with a complete set of boundary dummies. Black (1999)'s findings will allow stakeholders to evaluate school reforms more effectively and to further understand the value of better schools on a community's housing prices and thus its financial well-being. One key limitation of this paper is that the sample only includes single-family homes as well as only suburban Boston homeowners. Therefore, the preferences of these homeowners might not necessarily accurately reflect the preferences of other groups. So, the study's findings might be limited in their external validity. Overall, Black (1999) contributes to the literature on the valuation of better schools and makes significant progress in determining the potential benefits of various school reforms.