Hamzah Ahmed
Reading Note 3
Econ 613

Reading Note: Sandra E. Black – *Do Better Schools Matter? Parental Valuation of Elementary Education*

Many individuals, including parents, economists, educators, and even policy-makers, are interested in school value and quality; however, many studies addressing school quality are largely inconclusive. This paper, published in 1999 by Dr. Sandra Black, a professor of Economics at Columbia University, takes an alternative approach to measuring school value by examining how much more individuals have historically paid for houses located near better schools.

This paper's approach to examining this problem is unique to previous research. It aims to control for neighborhood characteristics to correct for the overestimation the value[1] of better schools found in prior research. The effects of neighborhood characteristics are controlled by comparing houses on opposites sides of an attendance district boundary[2]. This comparison can help control for variations in property taxes, school spending, and neighborhood differences to help isolate the relationship between test scores (a measurable component of school quality) and house prices to estimate the "value" of better schools. Through OLS regression, this paper looks at changes in housing prices (with the base year of 1993) as a function of household, neighborhood, and school characteristics as well as average elementary school test scores which is the primary variable of interest.

This paper uses data containing all house sales and purchases from three counties in Massachusetts between 1993 and 1995. Massachusetts is specifically chosen because it has relatively small school districts that allow for relative homogeneity in within-district populations (compared to states with much larger school districts). This paper focuses explicitly on elementary schools to allow for enough within-district variation[3]. For comparability, the study is limited to single-family residences, school districts without intra-district choice programs, and attendance boundaries that did not naturally separate neighborhoods (such as parks and rivers). As a metric for school quality, this paper uses data from the Massachusetts Educational Assessment Program (MEAP), which biannually performs statewide standardized testing for students in fourth, eighth, and twelfth grade. The metric of school quality, which is comparable across schools, is the average of the sum of the MEAP math and reading scores in 1988, 1990, and 1992.

Ultimately, this paper suggests that a 5% increase in test scores is associated with a 2.1% increase in housing prices. This means that the marginal willingness to pay for a house where the average elementary school test scores are 5% higher is roughly $3,948, nearly half the estimated effect found in prior research that does not control for neighborhood characteristics. Moreover, these results are relatively consistent and robust to a myriad of sensitivity checks.

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[1] Many previous examinations of this relationship are complicated by the fact that better schools tended to be in better neighborhoods which makes it difficult to extract a causal effect.

[2] An attendance boundary determines which school the children living within it will attend.

[3] The paper does not that some attendance boundaries also had different middle schools as well but the results were largely similar.

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Interestingly, this paper concludes that better do schools matter but not as much as previous research indicates. By controlling for neighborhood characteristics, this paper sees that an increase in roughly one standard deviation in elementary school average MEAP scores (a metric of school quality) increases the marginal resident's willingness to pay by approximately 2.1%. This conclusion is supported by the evidence of differing prices for houses near attendance districts. Houses in districts with higher test scores tend to have higher prices (after controlling for various other characteristics) even when they are in the same neighborhood, implying that the main difference between houses near boundary districts is the local elementary school. With that being said, one issue is addressed in the sensitivity analysis that should be discussed slightly more. The paper does say that houses with three or more bedrooms are more likely to have children (as opposed to one- or two-bedroom houses) but does not mention children much more than that. Although the study is limited to single-family residences, there is no information about the age of children (if any) that were a part of the family that purchased a house between 1993 and 1995 but it is reasonable to conclude that families with elementary school-aged children would take school quality into account more so than families without elementary school-aged children. Although this sample size would be smaller, it may yield a more accurate "value" of school quality that could change the overall results of the paper.