Reading Notes on *Do Better Schools Matter? Parental Valuation of Elementary Education*

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Introduction:

Many studies have been done to determine how much parents value education. When examining the relationship between school quality and house prices, no previous research controlled for different neighborhood characteristics, which could lead to overestimating the effect of better school quality. Through careful selection of house pricing data to address the previously mentioned bias, this study has shown that the marginal residents' willingness to pay would increase by 2.1 percent with every 5 percent increase in elementary school test scores.

Body:

Data

This study analyzed single-family residence housing price data from 1993 to 1995. To ensure housing prices' homogeneity, only houses in small school districts, such as Massachusetts county Middlesex, Essex and Norfolk, and Boston suburbs were considered. To prepare the basis for comparison, only districts with at least two elementary schools that overlap grades are considered. Districts with intradistrict choice programs were excluded because school assignment is not based on house location. The database also excluded 24 districts with attendance district boundaries either unavailable or poorly defined. To minimize the neighborhood difference within each district, boundaries that clearly divide neighborhoods, such as large rivers and parks were excluded. Subsequently, only 39 school districts' housing data were included.

Popular literature suggests that parents often use test scores as the primary indicator for school quality. Hence, this study measures school quality by the average MEAP scores for the years 1988, 1990, and 1992. MEAP is a state-wide assessment performed every two years by grade 4, 8, and 12 students. Supporting information, such as neighborhood characteristics and school district characteristics are added as control variables to support findings.

Methodology/theoretical foundation and empirical strategy:

To overcome the biases caused by unobservable houses and neighborhood characteristics in previous research, this study introduced a set of boundary dummies to control for neighborhood characteristics and eliminate the omitted variables such as property tax rates.

Sensitivity analysis disproves several popular beliefs. Many believe that neighborhoods in different districts are not really the same. This concern is addressed by excluding certain boundaries, as explained in the data section. The sensitivity test shows that the test score's coefficient is statistically identical with and without this exclusion. Hence, concerns about neighborhood characteristics are resolved. Another popular belief is that better schools are in better neighborhoods. If this statement is true, it would create a multicollinearity problem as the study's regression would pick up progressions in worse to better neighborhoods. An artificial dummy variable "hi", which indicates whether the house is in the higher score district is included. This regression yields an insignificant coefficient, while the true regression yields a positive

and significant coefficient. Hence school quality directly affects house prices without the neighborhood's influence. The final issue concerns the influence of house quality differences. Observable house quality differences such as the number of rooms yields in different distract showed no systematic difference. Hence house quality differences do not influence the study's findings.

Findings:

By examining the difference in means for the restricted sample and full sample, houses and neighborhood characteristics become increasingly similar as the distance to boundary decreases while the difference in test score means remains relatively unchanged. The regression results show that all the coefficients on the elementary school test scores are positive and significant. Specifically, after controlling for the boundary dummies, the coefficient nearly halves compared to coefficients in previous studies, and the change is not due to sample reduction. When comparing the houses 0.15 miles from the boundary, the coefficient shows that a 2.1 percent increase in house prices comes up with a 5 percent increase in elementary school test scores.

Conclusion:

House in the same area but are associated with different elementary schools differ in prices. This study shows that parents are willing to pay about 2.1 percent or $3948 more for houses associated with elementary schools with 5 percent higher average MEAP grades. This finding not only explains how much parents value their children's education but could also help evaluate education policies. By applying the approach demonstrated in this paper to education policies, the economic benefit of policies such as the Metco program that promotes desegregation by enrolling urban Boston students into suburban school districts can be estimated. Education's value can be quantified under similar logic. The average math and reading MEAP score have increased by about one point in the last ten years, which translate to a roughly $69,192,900 increase in Massachusetts' wealth. However, recall that all data were collected in Massachusetts, an education heavy state. Being the home of several elite American universities, such as MIT, Harvard, and BU, parents in Massachusetts may have a systematically higher portion of elite school graduates than parents in other states. Their personal experiences may translate to a higher-than-average expectation for their children to attend those schools and subsequent a higher value for education. Parents in other states may value education statically differently. Readers should be careful of the selection bias when interpreting this study's findings.