Reading note on Black (1999)

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Will better schools increase people's willingness to pay for houses? While past researchers have shown this possibility, they did not fully control neighborhood characteristics that may mediate the school quality effect. Neighborhood characteristics, such as local education spending, may influence school quality. To consider unobservable neighborhood traits, the author exploits the fact that houses on the opposite side of the school district boundary should share identical neighborhood characteristics but different schools. By investigating the mean difference in housing price between the two sides of the boundary, the author can demonstrate the effect of school quality on housing price while controlling identical neighborhood characteristics. Using the observations very close to the boundary (0.15 miles), the author finds that on average, a five percent increase in school's test score is associated with a two percent increase in house price.

Since better schools could be in better neighborhoods, earlier attempts to show the effect of school quality on housing price may overestimate. In this paper, the author revisits this question with an improved strategy to control for neighborhood characteristics. The strategy relies on a few arguments. First, a school district does not overlap a neighborhood district so that the boundary should divide the same neighborhood. Second, houses in the same neighborhood should have the same neighborhood-level characteristics. Third, the only difference between houses on either side of the school district is the school quality. Consequently, looking at the price difference between houses around the border can control for unobservable neighborhood-level variables. To further ensure a neighborhood is homogeneous, the author chooses Boston suburbs for this research because the Boston area has small school districts with homogeneous populations within them.

Regarding the data and measurement, the independent variable is school quality measured by the "fourth grade Massachusetts Educational Assessment Program (MEAP)." The MEAP by design allows for comparison across schools, and it is arguably an influential indicator of school quality for parents. Interestingly, the author only chooses the sum of math and reading scores to measure school quality, neglecting the science, social studies, and writing scores, making implicit

assumptions on parents' perceived school quality. With this school quality measure, observable neighborhood characteristics (e.g., distance to Boston) and school district variables (e.g., per-pupil spending), the author regresses the natural log house price on these right-hand side variables.

The results support the author's initial concern with earlier studies. With boundary fixed effects, the coefficient on school test scores halves. The results also show that if we further restrict our sample closer and closer to the boundary, the difference between the two sides of the district borders decreases in almost all characteristics except test scores. As expected, the coefficients on test scores are positive and significant across all models. Overall, a five percent increase in the school's test score is associated with a two percent increase in house price.

This paper combines clever strategy with clear writing. I particularly admire how the author carefully addresses potential challenges. For example, she removes the district where the boundary evidently divides a neighborhood (e.g., golf course, river, mountain). She even checks whether test scores will affect the price of one – and two-bedroom houses. The logic is that if school quality drives the difference in pricing, then it should influence houses with one or two bedrooms less since their residents are less likely to raise children. The two examples showcase her great attention to detail. In terms of contribution, the researcher provides us with convincing evidence of school quality's effect on housing price than previous scholars. Moreover, for those who are interested in the relationship between other public goods (e.g., parks) and property price, this paper is a clear reminder of the potential overestimate problem.

Despite its strength and contribution, I think the paper can be improved or extended with three directions. First, researchers should search for better house quality measures to examine whether those who take better care of their house care more about schools. While the researcher has identified the issue, she uses "internal square footage" and "lot size" to capture house quality. However, there is a discrepancy between the measurement and her own argument since large square footage or lot size does not entail "taking care of their houses." Second, the paper limits its scope to Massachusetts, which is known for its education quality. If parents in Massachusetts are particularly sensitive to school quality, then the effect magnitude may not be generalizable

outside this state. Lastly, it will be interesting to investigate the role of race in the school quality effect. For example, will Asian Americans be more sensitive to school quality as some media suggests? Will African Americans be less sensitive to school quality if the school is predominantly white?

Reference:

Black, S. E. (1999). Do Better Schools Matter? Parental Valuation of Elementary Education. *The Quarterly Journal of Economics*, *114*(2), 577–599. http://www.jstor.org/stable/2587017