Reading notes on " *DO BETTER SCHOOLS MATTER? PARENTAL VALUATION OF ELEMENTARY EDUCATION*"

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Researchers value the quality of schools by establishing a direct causal link between such inputs and outputs as test scores and earnings, which leads to an inconclusive results. Then, an alternative method that estimate the quality of schools by calculating the price of houses located in areas with those schools is proposed. However, the fact that better schools tend to be located in better neighborhoods would offset the result.

To avoid those problem, the author limits his sample to those houses that are very close to the attendance district boundaries, which eliminate the neighborhood differences.

Theoretical Foundation

In standard estimate model, house prices are regressed on characteristics of house, neighborhood and school district characteristics and average test score. But the result of this model is biased because of omitted variables. Therefore, the author replace neighborhood and school district characteristics variable by boundary dummies that indicate houses that share (on either side) an attendance district boundary to explain the unobserved characteristics shared by these houses.

Findings

In empirical part, both traditional model and the model constructed by author are regressed. In the first model, the results are similar to previous literature - bedrooms and bathrooms have positive relationship with house prices. Additionally, the results also suggest that parents are willing to pay 4.9 precent more on houses if their children's scores increase 5 precent. Then the author regresses the second model. The results show that the coefficient of test score become half of the coefficient in the traditional model. Furthermore, the coefficient doesn't change a lot when the distance of boundary is changed from 0.35 miles to 0.20 miles or 0.15miles.

The author also does sensitivity test of the results to prove the robustness of empirical results. First, the attendance district boundaries may actually represent a neighborhood division. To solve that, the author runs the regression by excluding the boundaries that are major streets, railroads, and highways. The result shows little difference from previous research. Second, better school may locate in better neighborhoods, which may lead to progressions of neighborhoods. So the author creates a "hi" dummy indicate if the house belongs to the "better" of the boundary. The regression result is insignificant, thus, the hypothesis is invalid. Third, the author points out that there may be some unobservable difference in house quality. People who care more about the quality of education may care more about the house quality, hence the higher price of house. To test the hypothesis, the author regresses some observable characteristics on school test score and the boundary dummies. It turns out the result is insignificant as well, which rejects this conjecture.

Conclusion

In conclusion, the author proposes a new method to estimate how parents would pay for better education. In the process, the author solves the problem of omitted variable and properly add the dummies to the regression model.