

The Relationship between School Facility Age and Housing Sale Price

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Introduction

A person's home is one of the single largest financial investments he or she will ever make. This makes policy research investigating the influences on housing value a topic of great relevance. A review of the literature shows good school quality has an important affect on housing value. Most previous studies measure school quality using test scores, with some limited reliance on general perceptions, socio-economic characteristics, school finances, and student/teacher ratios. My research extends this literature by focusing on how a school's facility age, physical condition, and available resources affect a student's learning environment. The central hypothesis is that newer built schools may be perceived as higher quality schools. This has led some advocates of smart growth policy to suggest that improving inner city schools will help manage sprawl. This study explores this notion.

Several jurisdictions have already incorporated the construction of new schools into their redevelopment strategies with positive results. In 2004, Pomona (CA) reported positive reactions to new public elementary and high schools located in distressed areas of the city, stating the schools helped "jump start" revitalization by creating demand for housing in the surrounding neighborhoods. That same year, Philadelphia and Chattanooga reported similar experiences. Another project in St. Louis used the remodeling of an elementary school as the focal point of a neighborhood revitalization project. A large component of the renovation was increasing the school's technology resources. Most recently, a project in Atlanta built a new elementary school as part of its neighborhood revitalization efforts. A representative from the project advocated that this new school was the most significant aspect of the entire project, aiding in changing the actual overall perceptions of the neighborhood.

Data and Method of Analysis

This study investigates the relationship of school facility age on monetary housing value. The unit of analysis is the detached, owner-occupied, single-family house of primary residence. The analysis uses home sales recorded in the Orlando, Florida area (Orange and Seminole Counties) during 2005. The sale transaction dollar amounts, along with corresponding land and structural attributes, were obtained from Florida Department of Revenue tax rolls.

School data were obtained from the Florida Department of Education and the records of local public school districts. This study employs cross-sectional multivariate regression.

The central question asks: *is there a relationship between school facility age and housing sale price; and, if so, what is the direction and magnitude of this relationship?* School facility age is defined and measured in two ways: 1) the year the school building was originally built / opened or the most recent year the facility was fully re-built / re-opened when applicable; and, 2) the average effective age of the facility's net square footage. A series of control variables were included in the model to control for a wide range of varying housing and school quality attributes.

Findings

School facility [built] age did not have a straightforward inverse relationship with housing price as expected. Instead, a "U" shaped pattern emerged for elementary and high schools. Both newer and historic schools were positively associated with housing price, while the in-between, "aging" facilities were negatively associated with housing price.

Holding all other attributes constant, the monetary impact of newer schools on housing sale prices was calculated. At the elementary school level a newer school (built during the 1990s or 2000s) adds \$13,130.22 in housing value when compared to schools built pre-1990s. For middle schools, no association was found between house value and school age. For high schools, a newer school (built during the 1990s or 2000s) was found to increase housing value by \$15,090.74.

Interestingly, middle schools had the weakest overall statistical relationship to housing values. This finding suggests that housing consumers may not pay as much importance to middle schools when considering housing choices. Essentially, the middle school may become "sandwiched in" between the more exciting first (elementary) and last (high school) K-12 educational experiences. The result is that the middle school perhaps becomes overlooked. In sum, middle schools are part of a schooling sequence (elementary, middle, high) and it is thought this "packaging" of the entire sequence is what housing consumers are likely purchasing. Consequently, the specific middle school attributes, while important to the package, are not as

statistical significant to housing values as elementary or high school attributes.

Turning to school facility [effective] age, it showed a significant inverse relationship for all three school types. The averaged effective age of a school facility is much more strongly correlated with housing prices compared to the facility's built age. This indicates that there is perhaps an inequitable distribution of modern school facilities. Given their residential locations, lower income families have less access to the more modernized school facilities. Since school conditions are thought to influence students' education, this unbalanced distribution of facilities may be hindering lower socio-economic children.

Policy Implications and Concluding Remarks

This study provides evidence that housing prices are associated with school facility age. The

findings show housing prices to be positively correlated with both built and effectively newer schools in addition to an association with historic [built] school facilities. In this study, price is serving as the proxy for perceived desirability. The implication is that newer schools are perceived desirable and therefore might assist in promoting growth and development in certain areas of a metropolitan region if strategically placed. Thus, it is indeed plausible that by including new schools in community revitalization projects, the schools could assist in "jump-starting" and/or sustaining revitalization of those communities linked with the facility. In addition, the findings from this study suggest that the revitalization of historic school facilities may produce similar results.

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