This study investigates the impact of a shopping center on surrounding housing prices, creating before-and-after scenarios from a recently developed project. First, the authors created a “drive-time buffer variable” (based on three increments: 0 to 3 minutes, 3 to 10 minutes and 10 to 20 minutes) to examine the impact of the linkage value for the property, Turkey Creek Shopping Center in Knoxville, Tenn. Second, they created a “time dummy” (sales of houses before or after the development of the shopping center) to measure the direct impact of the new development on property values in the surrounding housing market. Third, they measured the impact of the increased values on property-tax revenues that could be attributed to the shopping-center development. Results provided evidence that Turkey Creek was responsible for generating approximately 2% of residential property-tax revenue during the study period in 2004.

The authors examined four different GIS datasets, including individual parcel data, census-block group data, boundary data and environmental data. The individual-lot statistics included sale price, lot size and structural information for all parcels sold in Knox County, Tenn., from 1996 to 2005. The analysis included 49,594 sales. The environmental dataset and boundary/shape files were used to create distance variables. The shape file incorporated a few major changes that occurred in the study area over the analysis period (notably, three new golf courses), and the hedonic model included a variable measuring proximity to the golf course. Census data were included in the analysis, and two variables were used: neighborhood housing density and travel time to work. To account for educational quality, average ACT scores from each high school in the county were used.

The above data were analyzed using a spatial hedonic model, which in layman’s terms means that variables were analyzed to ascertain their impact on prices paid for houses in the database and that spatial interactions between sales prices and property attributes were also considered. All of the structural variables (e.g., lot size, finished area, age, brick, pool) were found to be statistically significant and to have a positive impact on the value of a house. Among the distance (spatial) variables, the closer a house is located to the central business district, the nearest railroad or the nearest interstate highway, the lower its value. An unexpected finding was that housing in close proximity to a nearby park also has lower values. Although somewhat counterintuitive, the authors explained that this result could be due to the negative effects of urban parks on value caused by increased crime and/or noise often associated with a park. Among other expected results, better schools (proxied by ACT scores), a location within the city limits of Knoxville as well as houses located in a more developed region all generated higher sales prices.

The most important findings from this study focused on the before-and-after development results from introducing a new shopping center to a community. Results indicated that increases between 2.5% to 3.0% were statistically significant for homes located within the 3-to-10 minute drive-time buffer after the establishment of the center. Property located within a 10-to-20-minute drive-time buffer experienced prices that were 1.8% higher post-center construction. These findings suggest that linkages matter to property owners when it comes to shopping, just as it does for schools and other amenities. However, the impact of the locational attribute varies and is not actually significant for properties in the 0-to-3 minute buffer zone. The sweet spot for this market appears to be 3 to 10 minutes.

Having established that linkages impact value, the authors then tested the marginal impact on value that can be attributed to the interaction between the drive time and the before/after development. This would help isolate the positive impact on property-tax revenues that can be attributed to the development of the shopping center. The authors considered the marginal increases in assessed values due to the proximity of the shopping center for homes in the 3-to-10 and 10-to-20-minute drive times in both the city and the county. Combining the municipalities, they estimated that the development...
of the center resulted in a $1.12 million to $1.17 million increase in property-tax revenues collected in 2004.

Results from this study provide clear evidence to shopping-center owners that accessibility matters but value enhancement is not uniform. The drive time with the most impact is the 3-to-10 minute range, followed by 10 to 20 minutes. In addition, the impact of a new shopping center was found to impact property prices but again, not uniformly. These increased values can also be translated to increased property-tax revenues. The authors suggest that these increased revenues should be reinvested into the infrastructure surrounding the property in order to maintain the valuable locational attributes partially created by the shopping-center development.

Another recommendation from the research is to consider a reinvestment program to revitalize old, run-down centers as an economic development play or a public-private partnership that will result in increased property values and in turn greater property-tax revenues. It is clear that housing prices increase within a 3-to-30-minute minute distance. Therefore, renovating the shopping center and bringing in national tenants will help the neighborhood along with the municipalities, in the form of increased tax revenues. Offering tax abatements for tenants and/or developers who assume the risk of redeveloping the center could encourage the re-gentrification of an entire area by focusing that investment on a critical part of the community fabric, the shopping center.

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