WHAT WAS THE RESEARCH NEED?

The issues involved in right-of-way acquisitions and assessing the value of remainders are complex. This 2022 Remainder Sales Study aims to provide an up-to-date remainder sales study and damages study that can help TDOT appraisers make complete and accurate appraisals in cases involving partial takings. The overall purpose of investigating the case histories of previous remainder appraisals is to determine better predictability or expectancy for individual remainders and thus deal with uncertainty.

WHAT WERE THE RESEARCH OBJECTIVES?

Notably, this 2022 Remainder Sales Study uses TDOT's standard appraisal forms and uniform methodology to highlight unique case examples involving variations in land use, types of improvements, and damage percentages. This supports TDOT in its current analytically sound method for making remainder sales valuations. By obtaining and analyzing appraisal reports and actual remainder sales data, this study identifies the parcel attributes that have the most significant impact on the percentage of damages, which is the amount of the fair market value of the property before the taking and the fair market value of the remainder after the taking. This study does not include remainder appraisals that result in benefits; rather, it includes only appraisals resulting in damages.

WHAT WAS THE RESEARCH APPROACH?

This project conducted a comprehensive review of TDOT 1995 Remainder Sales and Damages Study. The team also
did data gathering from diverse sources, including before and after appraisals and sales. The application of new analysis methods were explored and quantified damages and benefits incurred. One such aspect included investigating other sources that have emerged recently and are based on the Multiple Listing Service (MLS) and tax assessors' data to find additional cases. Specifically, Zillow.com and Realtor.com As a result, the project updated the remainder sales and damages study.

WHAT WERE THE FINDINGS?

Hedonic regression modeling results indicated statistically significant relationships between the percentage of remainder damages and various land attributes. The factors associated with higher damages included a ratio of acquired land area to original parcel area closer to 1:1, parcels with one front side, acquisitions that involve the taking of more than 50 percent of landscaping value, adverse changes in tract utility, such as a reduction in parking, after the acquisition, reductions in tract proximity after the acquisition, damages to parcel access after the acquisition, damages to residential parcels compared to other land uses, changes to frontage elevation after the acquisition, any adverse change in highest and best use after the acquisition, smaller-sized parcels when comparing differently-sized parcels with similar attributes and acquisition size, and change in use after acquisition. It is notable that no statistically significant regional differences (p < 0.05) in remainder damage appraisals were found indicating that damages were assessed uniformly across the four TDOT regions.

The analysis of the comparison of actual sales with remainder damage appraisals, where data from Zillow and Realtor.com were used, showed a few important items. First, when analyzing the “sales-based” percent-damage/benefit, the results showed that in 64% of the cases (N = 63), properties sold below the remainder value before damages, and in 36% (N = 35), the properties showed benefits. The median percent-damage (-25%) for the “sales-based” estimation of damages/benefits is almost similar to the appraisers-based estimation (-32%). Notably, in 14% of the cases (N=14 out of 98), the difference between “appraisers-based” estimated percent-damage and “sales-based” percent-damage is within ±10%. When appraisal and sales occurred within two years, in 59 such cases, the median sales-based percent-damages becomes -37%, which is within the close range of appraisers' percent-damage (-35%).

IMPLEMENTATION AT TDOT

A vital aspect of the project is developing a predictive tool that will allow TDOT to anticipate right-of-way costs under varying economic and demographic conditions. To this end, the hedonic regression model for remainder damages (based on the appraiser predictions of remainder damages) was embedded in a Right-Of-Way Damage Assessment (ROWDA) tool. This tool provides a platform for establishing a more standardized approach in future appraisals using Microsoft Excel for the interface. The tool has several future uses, which include 1) encouraging and maintaining uniformity of remainder damage appraisals across regions, 2) estimating damages before proceeding with a project (and before having complete appraisals done), as well as clarifying changes in scenarios and opinions about how the project is to be implemented, and 3) identifying damages calculated by appraisers that appear to be inconsistent with similar appraisals and providing more profound understanding into why these differences may exist.
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