

Housing prices and price endogeneity in tenure and dwelling type choice models

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The application of a strategic transport – land use model usually requires housing price data for both the chosen and non-chosen alternatives. Previous studies have used average housing prices either externally sourced from Census and commercial data or internally generated by hedonic models. The use of average prices may be reasonable if spatial resolution is fine enough to ensure price homogeneity – a well known issue but hardly investigated in the literature on housing choices. Using data collected from a revealed preference survey conducted in Sydney in 2013, this paper presents hedonic modelling techniques to obtain housing price data for each dwelling. The data are then used as input into a tenure and dwelling type choice model and a test undertaken to investigate the possible presence of price endogeneity, which we show to not exist. Price elasticities of demand for different dwelling types are derived and the application of this model within a broader and very general framework of the new version of the ‘Transportation and Environment Strategy Impact Simulator’ (TRESIS) is discussed.