

ANALYSIS OF RESIDENTIAL HOUSING MARKETS
IN LARGE U.S. METROPOLITAN AREAS

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ABSTRACT

This paper consists of three essays focusing on the geography of U.S. residential housing markets, the role of housing attributes in the residential housing markets, as well as the housing tenure choices in large metropolitan areas. It conducts the clustering analysis to identify the geographic pattern of U.S. residential housing markets. Based on the housing prices and other relevant dwelling features, the K-means clustering analysis classifies the residential housing markets into three groups: a Coast group, a Central U.S. group and an in-between group. The clustering analysis rejects the hypothesis that the housing market associations between cities are random, and finds strong evidence of regional differences in housing price variations.

The paper also applies the hedonic analysis to examine the relationship between prices of owner-occupied dwellings and housing attributes using American Housing Survey (AHS) data. The results show that both the housing attributes and the regional factors play an important role in determining the housing prices. The F-test verifies the disparity of housing attributes effects across regions.

Moreover, the paper employs the logistic model to capture the association between household features and the tenure status. The Cox proportional hazard model is used to investigate the determinants of the timing of tenure change. The empirical results suggest that household demographics, household composition and economic status features considerably affect household's tenure choice, as well as the decision of the transition from housing rental to ownership.