

University of Michigan Masonry Ordinance Research
A. Alfred Taubman College of Architecture and Urban Planning
Construction Quality, Externality, and Community Competitiveness
A Study of Masonry Ordinances in Chicago's Suburbs

This is an independent research project funded by the Brick Industry. The views expressed in this report are solely based on the author's analysis and do not represent the position of the Brick Industry. Any errors remain to the author.

Executive Summary

The University of Michigan studied four Chicago suburban communities to identify the impacts that the adoption of a masonry ordinance has on housing price and the fiscal health of a community. Among other masonry planning policies, masonry ordinances are a local zoning requirement that specify a certain percentage of clay brick and masonry as the primary exterior building material on either residential or commercial buildings. The comparison of two masonry ordinance communities (Orland Park, IL and Tinley Park, IL) with two non-masonry communities, that are otherwise similar, found that the adoption of a masonry ordinance not only enhances the durability and aesthetic value of local properties, but it also increases the property value, tax base, and overall fiscal health of the community. In addition, the research indicates that the adoption of a masonry ordinance promotes population and housing growth and does not affect the affordability of housing or rental costs.

Research Team

The Taubman College of Architecture and Urban Planning at the University of Michigan conducted the masonry ordinance research. Dr. Lan Deng, Assistant Urban Planning Professor, and Dr. Fernando Lara, Assistant Professor of Architecture, were the primary researchers who worked on the project.

Scope of the Research

Hypothesis

The imposing of masonry ordinances, by setting standards for construction quality, will enhance the durability and aesthetic value of local properties, increase the attractiveness (both economically and physically) of the local community, and thus benefit both local residents and local business.

The researchers predicted that these benefits were observable in communities that have passed masonry ordinances, evidenced by high property values and healthy neighborhood environments. Moreover, the expanded property tax base in communities with a masonry ordinance would generate high tax revenue and enable the provision of high quality public services, further improving the quality of life for local residents. Last but not least, the researchers hypothesized that the added amenities from a masonry ordinance help attract more customers to the community, increase the competitiveness of local business, and generate more sales revenue or rental income for commercial properties.

Research Questions

The study looked at more than 25 years of data and over 20,000 single-family housing transaction records from the case study communities. Primary focus was placed on

examining the community changes during the period of 1990 to present. To evaluate the economic benefits (or costs) of a masonry ordinance on communities the researchers investigated two primary topics, including:

- 1) Property Value Impact: How has the adoption of a masonry ordinance affected local property values?
- 2) Community Competitiveness: How do suburbs with masonry ordinances perform relative to their neighbors in terms of economic health (including property tax revenue and sales tax receipts), growth, and housing affordability?

Methodology

To address these issues, a hedonic price model based on over 20,000 housing transaction records was created. The model examined not only how the value of a housing property is affected by the quality of its own construction material, but also the externality effects generated by the proximity to other high-quality properties as a result of the masonry ordinance.

Additionally, the research compared social and economic changes in communities with masonry ordinances versus the non-masonry ordinance communities. The comparison is based on differences in new housing construction and population growth rate, and differences in local fiscal revenue and expenditures.

Case Study MSA and Communities

Method of MSA and Case Study Community Selection

In order to choose the right Metropolitan Statistical Area (MSA) that offers national relevance with minimal regional influence, the research team developed a “dissimilarity index” based on 1990 and 2000 census data for all MSA’s that are known to have a prevalence of communities with masonry planning policies. To create this index, a series of social and economic variables including population growth rate, income growth rate, price appreciation rate, rent growth rate, and employment growth rate were evaluated against the national average trend. This led to the selection of the Chicago metropolitan area as the primary case study region given the finding that the development trend in Chicago is closest to the national average, ensuring the national relevance of this study.

A similar method was applied to identify masonry (those with masonry ordinances) and non-masonry case study communities within the Chicago metropolitan area. The Villages of Orland Park and Tinley Park were chosen as the two masonry communities; both have had a masonry ordinance for over a decade. Hoffman Estates and Streamwood were chosen as the control group without masonry ordinances, but are similar to Orland Park and Tinley Park in their demographic, economic, and housing profiles. The procedure ensures the diagnosis of the community impacts resulted from a masonry ordinance alone by controlling for a number of other external factors.

Findings of the Research

The adoption of a masonry ordinance results in an increase in property values for homes in a community.

Property values in communities with masonry ordinances have maintained at a significantly higher level than those in non-masonry ordinance communities. After the requirement for brick and masonry was legislated, the price of home differentials among the four municipalities continues to increase with the masonry ordinance communities of Orland Park and Tinley Park being significantly higher. Specifically, since 1990, a constant-quality property would be sold 96% higher in Orland Park and 130% higher in Tinley Park than if it were located in Streamwood. The same property would be sold 80% higher in Orland Park and 114% higher in Tinley Park than in Hoffman Estates.

The adoption of a masonry ordinance results in an increase in revenue generating capacity for communities both through property taxes and sales tax – lessening the overall tax burden for community residents.

Orland Park and Tinley Park have larger tax bases than nearly half of the other suburbs in Cook County (which is where Chicago is located) based on equalized assessment value data. Orland Park consistently outperforms other communities in Cook County in terms of sales receipts, while Tinley Park continues to experience a rapid increase in the amount of sales receipts. The comparable non-masonry ordinance communities have experienced relatively slow growth in sales receipts. Since Orland Park and Tinley Park have a relatively large property and sales tax base, they are able to charge their residents lower municipal tax and fees in order to pay for public services and community improvements. The ratio of municipal property tax to income per capita for Cook County suburbs in 2002 was 1.12%. At the same time, the ratio was 0.50% in Orland Park and 0.83% in Tinley Park.

The adoption of a masonry ordinance results in continued population and housing growth, and does not restrict growth.

The population of both Orland Park and Tinley Park continues to grow at a faster rate than the non-masonry ordinance communities studied, even faster than most other suburbs in Cook County. Orland Park and Tinley Park had population growth rates of 43% and 30% from 1990 to 2000 respectively. During the same period, Hoffman Estates and Streamwood had population growth rates of 6% and 17% respectively. Housing unit growth rates in Orland Park and Tinley Park were 53% and 36% respectively, and in Hoffman Estates and Streamwood they were 5% and 20% respectively from 1990 to 2000.

The adoption of a masonry ordinance does not significantly increase the owner cost burden or the rental burden for residents, and does not make housing in the community any less affordable than neighboring suburbs.

Measured by the percentage of household income spent on housing-related costs (mortgage payments, real estate taxes, property insurance, utilities and fuels), homeowner cost burden in Orland Park and Tinley Park were found to be similar to other suburban Cook County communities. For an average suburb in Cook County, the owner cost for housing-related costs, including a home mortgage, was 22.8% of their income in 2002. While in Orland Park and Tinley Park, it was about 22.2%. In addition, the median burden for rental households in Orland Park and Tinley Park was found to be quite close to the other suburban communities in Cook County. Residents in an average suburban Cook County community spend 24.4% of their income on rent, while in Orland Park and Tinley Park they spend a similar amount at 23.40% and 24.10% respectively.