The Impact of Placemaking Attributes on Home Prices in the Midwest

MICHIGAN LEGISLATIVE FORUM

WEDNESDAY, FEBRUARY 6, 2013
ANDERSON HOUSE OFFICE BUILDING
LANSDING, MI
Presentation Outline

- Background
- Analysis methods
- Model 1 results: Analysis results utilizing traditional data and survey responses
- Model 2 results: Analysis results using traditional data only
- Model 3 results: City by city analysis
- Conclusions & Policy Considerations

Presenter: 
Benjamin Calnin, MSU Land Policy Institute
Land Policy Institute

- Has a strong focus on research and outreach based on analysis of land policy options in many contemporary issue areas.
- The ways in which we use our land and build upon it impact our quality of life, today and tomorrow.
- Focus Areas: Placemaking & Regional Prosperity, Land & Planning, Land-Based Resources, and Energy.
- Affiliated with the School of Planning, Design and Construction, with Dr. Scott Witter, Interim Director.
- Please see our website for more information: www.landpolicy.msu.edu.
Gibbons & Machin (2008) identified **school quality, employment accessibility and crime rates** as important influences on housing prices within cities.

Bina, et al (2006) found that home prices rise with **proximity to the Central Business District** (by $8,000 per mile) and shorter average **commute times** ($4,700 per minute saved in daily travel time) in Austin, Texas.

Wilson & Frew (2007) discovered that rents declined with increased **distance from the central business district** in a study of Portland, Oregon.

Cortright (2009) estimated that, in 13 of the 15 U.S. housing markets studied, **above-average levels of walkability (as measured by Walk Score)** command a premium of about $4,000 to $34,000 over houses with just average levels of walkability in the typical metropolitan area.
Hedonic Analysis

- Hedonic analysis can show us how much more people are willing to pay for a house that has certain features, all else remaining equal.
- For example, if you have two identical homes, but one was located in a mixed-use urban environment and one was in a low density suburb, hedonics could theoretically explain the difference in value.
- When people vote with their wallets, it tends to reflect their true desires.
- By understanding this, we can help build housing that has greater value and brings higher local impact along with it.
Data Utilized in the Analysis

- Assessor’s data (e.g. sale price, building and lot characteristics)
- Municipal and other Spatial data (e.g. parcel layers, land use, parks, natural features, roads)
- Establishment data (e.g. employment, businesses, entertainment, retail)
- Census Socioeconomic and demographic data (e.g. income, race, age, educational attainment)
- Survey of homes in eleven Midwest cities
Walk Score

- Walk Score is an online tool that lets users find the walkability of their neighborhood.
- We used a methodology similar to Walk Score’s.
- Find your Walk Score: www.walkscore.com
Proximity to Placemaking Features
Model 1 Description

- Survey of homes in eleven Midwest Cities that were sold between 2000 - 2012. Received 2,008 responses.
- N = 1,639, R-squared = 0.536.
- Survey data completed some structural, property and neighborhood data not always available from the Assessor.
- Asked questions about what influenced a purchaser’s decision to buy a home, which were tested to see if these factors are associated with home price.
- Some bias associated with who responded to the survey (which is why we ran Models 2 & 3).
Model 1 Preliminary Results

- Found results for structural and property attributes typical with hedonic analysis:
  - More bathrooms & square footage associated with higher property prices.
  - Presence of garage, fireplace and finished basement associated with higher prices.
  - Higher educational attainment associated with higher property prices.
  - Higher poverty rates associated with lower property prices.
Model 1 Preliminary Results

- Influence factors (perception based) that had a positive relationship to sale price:
  - Public school quality
  - Nearby parks & recreation
  - Shade trees
  - On-street parking
  - Ease of walking & biking to nearby places
  - Safety
Model 1 Preliminary Results

- Influence factors that had a negative relationship to sale price:
  - Street lighting
  - Investment potential
  - Affordability
  - Short commute time to work or school
Investigation of larger, clean dataset of homes sold in 11 Midwest cities between 2005 - 2012 (does not include variables sourced from survey responses).

- N = 51,152 : R-squared = 0.605.
- Measured and scored proximity of each property to a variety of place features, including parks, lakes, arts & cultural venues, schools, restaurants and shopping.
- Tested whether these factors impact home prices.
Found results for structural and property attributes typical with hedonic analysis:

- More bedrooms, bathrooms & square footage associated with higher property prices.
- Higher educational attainment associated with higher property prices.
- Higher poverty rates associated with lower property prices.
Model 2 Preliminary Results

- **Pull Factors (i.e. places to which proximity has a positive relationship to home price)**:
  - Lake (within 200 feet)
  - Theatre, performing arts center, art dealers
  - Park
  - Schools
  - Pharmacies
  - Clothing stores
Model 2 Preliminary Results

- **Push Factors (i.e. places to which proximity has a negative relationship to home price):**
  - Museums
  - Grocery stores
  - Bars
  - Retail/Department stores
  - Gambling establishments
Model 3 Description

- Tested model separately for each of the 11 Midwest cities to see if there are differences in factors that impact sale prices.
Model 3 Preliminary Results

- Problematic results with Flint, Manitowoc and Davenport, possibly due to housing market issues.

- City Differences:
  - In Lansing, proximity to theatres and performing arts centers came out negative.
  - In Davenport, proximity to rivers, schools and clothing stores came out negative.
City Differences (continued):

- In Kalamazoo, proximity to restaurants and bars is associated with higher property prices.
- In Lakewood, proximity to rivers has a strong negative relationship to sale price.
- In Madison, sale prices are not declining at the same precipitous rate from 2005 - 2012 as we see in other cities.
- In Manitowoc, proximity to department stores is positive, while proximity to pharmacies is negative.
City Differences (continued):

- In Rochester, property prices are holding more steadily, and rising since 2009.
- In Royal Oak, proximity to retail stores has a positive relationship to sale price, while proximity to clothing stores does not.
- In Traverse City, proximity to a river has a negative relationship to property price. Also, proximity to restaurants, retail stores and liquor stores have a somewhat positive relationship to sale price.
We are continuing to do analysis to find out whether there are additional benefits associated with being close to multiple types of placemaking attributes than those attributes alone (e.g. parks and restaurants and shopping).

This is a somewhat difficult undertaking because different cities have different push and pull factors, and the study is limited to the Midwest.
Policy Recommendations

- Placemaking should be implemented at the regional and local level. One size does not fit all.
- Further research into what successful Placemaking in cities outside of the Midwest could help inform potential opportunities in Michigan.
Benjamin Calnin
calnin@landpolicy.msu.edu
517-432-8800 x107

www.landpolicy.msu.edu