North Minneapolis: Examining Neighborhood Trends with GIS

Urban GIS Seminar
Macalester College, St. Paul
in association with the
Federal Reserve Bank of Minneapolis
April 27, 2006
What can publicly available and frequently updated data tell us about current conditions?

- Mortgage foreclosures have affected N. Mpls. neighborhoods at a disproportionate rate
- Indicators do not show a high degree of gentrification
- Affordable housing provision has changed with the Hollman consent decree
- N. Mpls. lags behind the rest of the city in the provision of some “asset” areas
Data Sources

- Hennepin County Sheriff’s Office
- MetroGIS Regional Parcel Dataset
- Home Mortgage Disclosure Act (HMDA)
- 1990, 2000 Census
- HousingLink
- Northside Residents Redevelopment Council, Habitat for Humanity
Mortgage Foreclosures in North Minneapolis

Tim Bates
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Ruth Strickland
Introduction

- Map the distribution and density of 2005 home mortgage foreclosures
- Compare this distribution to 2002 foreclosures
- Understand foreclosures in North Minneapolis neighborhoods in the context of broader trends in the City of Minneapolis
- Map foreclosure patterns at the neighborhood level
- Discuss future outlook of foreclosures
2005 Foreclosures

Hennepin County: 1,680
Minneapolis: 870
North Minneapolis: 487
2005 Minneapolis Totals: Use-Type Percentages

Homestead: 74%
Non-Homestead: 26%

2005 Minneapolis Foreclosures: Use-Type Percentages

Homestead: 57.01%
Non-Homestead: 42.53%
Unknown: 0.46%
2005 North Minneapolis Totals: Use-Type Percentages

Homestead: 68%
Non-Homestead: 32%

2005 North Minneapolis Foreclosures: Use Type Percentages

Homestead: 51.95%
Non-Homestead: 48.05%
2002 Foreclosure Density in Minneapolis

Density categories defined by the Natural Breaks method, which separates the data based on gaps in the distribution. Values under 7 were excluded to eliminate densities around single foreclosure points.

Example: For areas in category one, there are 7 to 19.9 foreclosures per ~1/3 square mile.

2002 Foreclosure Density
600-meter radius
- 7 - 19.9
- 20 - 41.9
- 42 - 75.9
- 76 - 123.9
- 124 - 208
- Neighborhoods
- Water features

Map Created by: Tim Bates, Fay Cleaveland, Ruth Strickland, Macalester College, April 2006
Data sources: Hennepin County Sheriff's Office, 2002
ESRI
2005 Foreclosure Density in Minneapolis

Density categories defined by the Natural Breaks method, which separates the data based on gaps in the distribution. Values under 7 were excluded to eliminate densities around single foreclosure points.

Example:
For areas in category one, there are 7 to 19.9 foreclosures per ~1/3 square mile

Map Created by: Tim Bates, Fay Cleaveland, Ruth Strickland, Macalester College, April 2006
Data sources: Hennepin County Sheriff's Office, 2005
ESRI
Change in Foreclosure Density 2002-2005

Change in density determined by difference between density category in 2005 and density category in 2002 for each areal unit.

Map Created by: Tim Bates, Fay Cleaveland, Ruth Strickland, Macalester College, April 2006
Data sources: Hennepin County Sheriff's Office, 2002 & 2005
ESRI
Change in Foreclosures as % of Mortgaged Units

Change categories defined by the Natural Breaks method, which separates the data based on gaps in the distribution. This method can help show outliers. It was modified to split positive and negative percent changes.

The percent changes were calculated by subtracting the 2002 foreclosures counts (by census tract) from the 2005 counts, and dividing the result by the number of mortgaged units in 2000 (US Census).

It is important to note that the number of mortgaged units has likely changed between 2000 and 2005, possibly causing a mis-estimate of the proportion of foreclosed homes, especially in 2005.

Foreclosure change as % Mortgaged Units

- 7.6% - 10.25%
- 6.24% - 0.01%
- 0.01%
- 0.01% - 2.22%
- 2.23% - 4.60%
- 4.61% - 6.05%
- 6.06% - 25%

Water features
Neighborhood boundaries

Map Created by: Tim Bates, Fay Cleaveland, Ruth Strickland, Macalester College, April 2006
Data sources: Hennepin County Sheriff's Office, 2002 & 2005
US Census, 2000
ESRI
## 2005 Foreclosures by Lender (greater than 1% of total foreclosures)

(total # of lenders - 223)

<table>
<thead>
<tr>
<th>Lenders</th>
<th># of foreclosures</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage Electronic Registration Systems, Inc.</td>
<td>590</td>
<td>35.29%</td>
</tr>
<tr>
<td>Wells Fargo Bank</td>
<td>197</td>
<td>11.78%</td>
</tr>
<tr>
<td>Deutsche Bank National Trust</td>
<td>144</td>
<td>8.61%</td>
</tr>
<tr>
<td>J P Morgan Chase Bank As Trustee</td>
<td>47</td>
<td>2.81%</td>
</tr>
<tr>
<td>Ameriquest Mortgage Company</td>
<td>41</td>
<td>2.45%</td>
</tr>
<tr>
<td>U.S. Bank National Association</td>
<td>33</td>
<td>1.97%</td>
</tr>
<tr>
<td>Argent Mortgage Company LLC</td>
<td>28</td>
<td>1.67%</td>
</tr>
<tr>
<td>WM Specialty Mortgage, LLC</td>
<td>25</td>
<td>1.50%</td>
</tr>
<tr>
<td>LaSalle Bank National Association, as Trustee</td>
<td>20</td>
<td>1.20%</td>
</tr>
<tr>
<td>Option One Mortgage Corporation</td>
<td>20</td>
<td>1.20%</td>
</tr>
<tr>
<td>Inter Savings Bank, F.S.B.</td>
<td>19</td>
<td>1.14%</td>
</tr>
<tr>
<td>TCF Mortgage Corporation</td>
<td>18</td>
<td>1.08%</td>
</tr>
<tr>
<td>ABN AMRO Mortgage Group, Inc.</td>
<td>17</td>
<td>1.02%</td>
</tr>
</tbody>
</table>

*percentage shown by above 13 lenders* 71.71%

**TOTAL # of foreclosures** 1672
North Minneapolis Neighborhoods:
Percent of Home Foreclosures vs. Percent of Counseling Calls

- Cleveland
- Folwell
- Harrison
- Hawthorne
- Jordan
- Lind-Bohanon
- McKinley
- Near North
- Shingle-Creek
- Victory
- Webber-Camden
- Willard-Hay

Percent of Counseling Calls refers to calls placed between 1998 and 2002 to Habitat for Humanity, and between 1998 and 2003 to the North Side Residents' Redevelopment Council.