Comparative Housing Market Analysis: Minnetonka and Surrounding Communities

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Comparative Housing Market Analysis

Minnetonka and Surrounding Communities

Resilient Communities Project

University of Minnesota

Driven to Discover℠
To: City of Minnetonka

From: Mark Huonder, Eric King, Katie Knoblauch, Xiaoxu Tang

Date: 5/16/2013

Subject: Comparative housing Market Analysis of Minnetonka and Surrounding Communities

Introduction

This memorandum is a comparative housing market analysis of Minnetonka and surrounding communities. Based on a recent Opportunity Cities Study of Minnetonka conducted by the Urban Land Institute/Regional Council of Mayors, Minnetonka does well meeting its regional affordable housing targets and has an adequate supply of higher end housing. The city also has an aging housing stock and a lack of mid-priced housing that might appeal to empty-nesters looking to downsize or young families and professionals interested in move-up housing.

The purpose of this research is to better understand the market for mid-priced housing in Minnetonka and the neighboring communities of St. Louis Park, Hopkins, Plymouth, and Eden Prairie to inform future efforts to increase the amount of mid-priced housing in the city. We have identified housing types, sizes, price points and amenities that are, in some cases, less available in Minnetonka compared to these surrounding communities.

We chose these sample cities because they are the top areas into which residents relocate and they are similar in size. We did not include Minneapolis as an outlier due to population, size, and amenities.

These analyses include a physical household analysis using variables that are major determinants in home purchasing decisions. A demographic household analysis provided us with a closer look at the areas with an intersection of householder’s age, income, and the number of people in the home that would benefit from this type of housing. In an effort to provide context outside of examining housing structures and demographic information, our group felt that conducting an amenity analysis may provide useful insight into why residents may be moving out of Minnetonka into areas more well-connected with desirable services and amenities. By separating out all residential parcels located within Minnetonka and the comparison cities, the spatial trend of housing locations and affordability could be effectively conveyed.
Demographic Census Analysis

Methodology

Factors in this analysis include median household income, number in household, and age. The ages included women between the ages of 40-49 and men between the ages of 45 and 54. They were given an aggregate rank between 4 and 12. The green color in the map indicates a preferred result of 12. The red color indicates a poor result of 4-5.

Data for the three variables in the analysis are from the American Community Survey.

Results

St. Louis Park and Hopkins are showing quite a bit of red in their demographic comparisons indicating a poor result. Plymouth is looking a little better and Eden Prairie has the best results with a more preferred ranking of 10-12 as shown below in Figure 1.

![Map of Eden Prairie](image)

*Figure 1 Map of Eden Prairie*
Amenity Analysis

Methodology

Utilizing each residential parcel, a “service” score was applied based on conducting a multi-criteria analysis consisting of: transit centers, transit stops, region trails, & parks/lakes within ¼ mile for 2 points; and shopping centers and park-and-rides within 1½ miles for 1 point. These methods closely resemble different criteria and rankings that are considered when applying Transit Oriented Development principles throughout the country. The “back-to-the-city” movement has impacted the typical migration patterns of U.S. citizens over the past decade, and particularly the young professionals seeking something different than their parents, and “empty-nesters” seeking to downsize and reconnect with community. New urbanism concepts promoting walkability, less dependency on the automobile by connecting with transit opportunities, along with an interesting and diverse mix of individuals and affordable housing opportunities. Older suburban cities, typically considered as “first-ring suburbs,” have seen a resurgence in activity over the past decade, as the land use patterns and high density promote these different new urbanism concepts in comparison to cities built during the suburban spread area with large lots and winding roads.

Considering that there are a range of affordable housing options and different amenities provided for individuals in Minnetonka and the different cities in which residents move, conducting an amenity analysis provides the opportunity to visualize how Minnetonka compares to other cities in relation to the amenities and services provided by spatial location. Having an understanding of the spatial location of affordable housing units and the different amenities which cater to these areas may provide the City of Minnetonka another method to examine different possibilities as to why residents may choose one location over another for their residency.

Results

The accompanying graphs (Graphs 1-5) highlight the differences in service levels between communities in relation to affordable housing opportunities, with Hopkins and St. Louis Park scoring highest as the result of their dense landscapes and high level of services. While there were two distinct linear portions of Minnetonka that ranked higher in amenities, many of the properties located within the neighborhoods with a mixture of affordable/non-affordable units lacked high levels of service points. The graphs of Plymouth and Minnetonka highlight the greater number of affordable housing units ranking much lower according to our amenity analysis. St. Louis Park performed so well in relation to the criteria chosen for our analysis that the lowest any residential parcel ranked was a total of three service points, with a the largest portion of the cities homes ranking in the 7-8 range. When analyzing the mean scores for the various cities in an effort to compare the overall housing stock of each city, Hopkins ranked the highest at 6.31 (result of overall lower housing stock), St. Louis Park ranked second with 6.075 (strong ranking considering large housing stock of 12,000+units), while Minnetonka ranked third with 5.58 total, which results from the large number of properties ranking 0-1. In order for Minnetonka to capture residents moving out to other cities within close proximity, efforts could be
made in order to extend different amenities to the large amount of housing stock that lacks a variety of recreational activities and services.

Graphs 1-5:
Physical Household Analysis

Methodology

Factors in this analysis include EMV (land and structure), square footage, and year built.

The three factors (also referred to as “variable” or “attribute”) are selected since they are major physical determinants in housing purchases. They each represent a reasonable proxy for market price, size and condition of the house.

The EMV values are grouped into five buckets: \(<=200,000\), \(200,000-300,000\), \(300,000-500,000\), \(500,000-1,000,000\) and \(1,000,000+\). Percentages of observations in corresponding buckets are calculated for each city. As with the EMV variable, values of the Square Footage are grouped into five buckets: \(<1,000\), \(1,000-1,500\), \(1,500-2,000\), \(2,000-3,000\) and \(3,000+\). Percentages of observations in corresponding buckets are calculated for each city.

Data for the three variables are obtained from the MetroGIS Regional Parcel Dataset (January 2013 Edition). The corresponding Field Names in the MetroGIS Dataset and their descriptions are summarized in the following table. Throughout this section, the analysis focuses on residential data only.

<table>
<thead>
<tr>
<th>Variable (Attribute)</th>
<th>Field Name</th>
<th>Description</th>
<th>Data availability for sample cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMV</td>
<td>EMV_TOTAL</td>
<td>Total estimated market value</td>
<td>All</td>
</tr>
<tr>
<td>Square Footage</td>
<td>FIN_SQ_FT</td>
<td>Finished square footage</td>
<td>All but Hopkins</td>
</tr>
<tr>
<td>Year Built</td>
<td>YEAR_BUILT</td>
<td>Year built</td>
<td>All</td>
</tr>
</tbody>
</table>

Data cleaning: The raw data are not suitable for analysis and must be cleaned to ensure sufficient data quality to support our results. For each attribute, observations with zero or invalid values are excluded. Particularly, EMV values smaller than 10000 are considered to be invalid and excluded.

Results

EMV

The results, as illustrated in Figure 2, show the composition of residential housing in Minnetonka by market price and how it compares to other cities where Minnetonka residents relocate. Residential housing in Minnetonka is concentrated in two price ranges, \$200,000-$300,000 (40%) and \$300,000-$500,000 (26%). Among all five cities, Minnetonka has the highest percentage of housing in the \$200,000-$300,000 range and second highest in both the \$500,000-$1,000,000 and \$1,000,000+ ranges. However, Minnetonka has the lowest percentage of housing for which the market price is below \$200,000.
Square Footage

Figure 3 illustrates the composition of residential housing in Minnetonka by square footage and how it compares to other cities where Minnetonka residents relocate. (Please note that the Square Footage data are not available for Plymouth and this city is excluded for the analysis of this factor.)

Of the residential housing in Minnetonka, 43% falls in the range of 1,000-1,500 square feet range, 25% in the 1,500-2,000 range, 20% in the 2,000-3,000 range, and only very small proportions (6% and 6%) in the >3,000 and <1,000 ranges respectively. Values of Year Built are grouped into five buckets: <=1970, 1971-1980, 1981-1990, 1991-2000, and 2001+. Percentages of observations in corresponding buckets are calculated for each city.

As compared to other cities, Minnetonka has a higher percentage of 1,500+ square feet houses. Nevertheless, Minnetonka has the lowest percentage of houses of less than 1,500 square feet among the cities.
Year Built

The results, as illustrated in Figure 4, show the composition of residential housing in Minnetonka by year-built and how it compares to other cities where Minnetonka residents relocate. 46% of the houses in Minnetonka were built before 1970. The proportion drops to 19% in 1971-1980 with a slight increase to 22% occurring in 1981-1990. The percentage of houses built in 1991-2000 declines to 9% and only 4% were built later than 2000. For St. Louis Park and Hopkins, the majority of the houses (over 70%) were built earlier than 1970, while 1% - 13% fall within each of the subsequent year ranges. For Plymouth and Eden Prairie, a significant proportion of the houses were built later than 1981, exhibiting a trend different from other cities. Minnetonka has the smallest proportion of recently built houses (later than 2000) among the cities and ranks in the middle or upper range for the rest of the year-built buckets.
Detailed observations are as follows.

- Minnetonka has the highest percentage of housing in the $200,000-$300,000 range and second highest in both the $500,000-$1,000,000 and $1,000,000+ ranges. However, Minnetonka has the lowest percentage of housing for which the market price is below $200,000.
- Minnetonka has the highest percentage of 1,500+ square feet houses but the lowest percentage of houses of less than 1,500 square feet among the cities.
- Minnetonka has the smallest proportion of recently built houses (later than 2000) among the cities and ranks in the middle or upper range for the rest of the year-built buckets.

The observations can also be made by comparing Minnetonka with the rest of the cities (including Plymouth, Eden Prairie, St. Louis Park, and Hopkins). Please note that, for the results shown in the attached graphs, data of EMV, Square Footage, and Year-Built are aggregated.

**Conclusions**

In conclusion, the physical analysis shows that Minnetonka’s housing market is relatively lacking in small-size (1,500 sq. ft or less), low price range (EMV $200,000 or less) and newly built (Year Built later than 2000) houses compared to other cities. The amenity analysis reveals that although Minnetonka and Plymouth have a larger number of affordable housing units, the lower rankings suggest that while there may be available affordable housing units, they may not be meeting the different needs of individuals who would otherwise choose to live in these locations. Finally, if Minnetonka is to build more middle income housing it seems that the best choice would be to do it near Eden Prairies to benefit from their demographics that may purchase this housing.