

City of Minnetonka Demographics and Housing Analysis to Evaluate Potential Market Leakage

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Abstract: The undergraduate students at the University of Minnesota-Twin Cities completing a course on Understanding Housing: Assessment and Analysis paired with the Resilient Communities Project to find sustainable solutions to issues facing the City of Minnetonka. During a 15 week long semester the issue being evaluated was the potential market leakage of mid-priced housing options; homes priced between \$200-500,000. The students researched data from the American Community Survey (ACS) and the U.S. Census to compose geographic maps presented in this research paper. These maps portray the demographics and housing situations of existing households to identify the spatial construction, income, age, and mobility patterns of residents in the City of Minnetonka. What was found was the City of Minnetonka is split among 14 distinct census tracts surrounded by Hopkins, St. Louis Park, Eden Prairie, Chanhassen, Wayzata, and Plymouth. The city is most heavily populated in the northern- and southern-most tracts with households most expensive (median price \$105-126,000) in the north-west where most of the new residential construction has occurred. The Selected Monthly Owner Costs (SMOC) for residents with a mortgage varies from \$500-1,150 making Minnetonka an expensive area to live in. Due to the high number of personal vehicles amongst the residents, many residents commute to work and travel to other districts such as Plymouth and Minneapolis leading to coherent mobility patterns to such districts over time. Also, Minnetonka is a city popular by its residents who plan to age-in-place thus leading to a higher population of older persons. If the City of Minnetonka plans to appeal to younger families interested in moving-up and empty nesters interested in downsizing, the city officials must consider the building of smaller, more affordable homes within areas currently housing those of older-age and higher-income to alleviate housing disparities and create mixed-income communities.

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INTRODUCTION

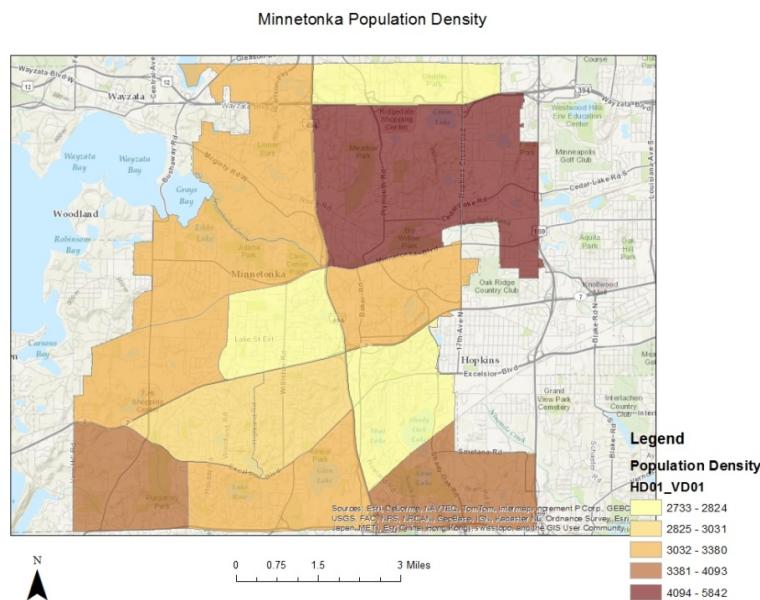
The City of Minnetonka is a western suburb of Minneapolis and serves as a home to over 52,000 people who occupy a total area of 28.22 square miles with a density of 1,846.8 people per square mile. There are currently 765 homes per square mile making the City of Minnetonka a highly populated area with more than 23,000 homes throughout (Census 2010).

The City of Minnetonka is experiencing a market leakage of housing stock within the financial range of \$200,000 and \$500,000. This set of housing stock is considered mid-priced housing and considered to be a viable option for younger families interested in moving into larger homes and empty nesters interested in downsizing from the size of their previous home.

Unfortunately Minnetonka is experiencing a decrease in population (-3.1%) since the 2000 census which begs the question; where and why are people choosing elsewhere to live? As a group we have used American Community Survey (ACS) and U.S. Census data to create maps which accurately portray: the current population distribution, median household income, median age of residents, mortgage prices, commute patterns, and migration patterns of residents of Minnetonka as to where residents moved to between the years 2007 and 2011. It is through these maps we were able to visually see and understand who decides to remain within the city and who decides to vacate. Also, the data helps inform where mid-priced housing would be most beneficial to be built.

POPULATION DISTRIBUTION

According to 2010 Census data there is an even population of males and females with 26,667 and 26,139 respectively. The population has decreased by -3.1% between 2000 and 2010 but still the City of Minnetonka has a large population of people it serves. Map 1.1 accurately conveys the areas where the population is highest between the 14 census tracts within the city. One must keep in mind that the size of the tract does affect the overall color of the tract but, with that said, much information can be gathered.

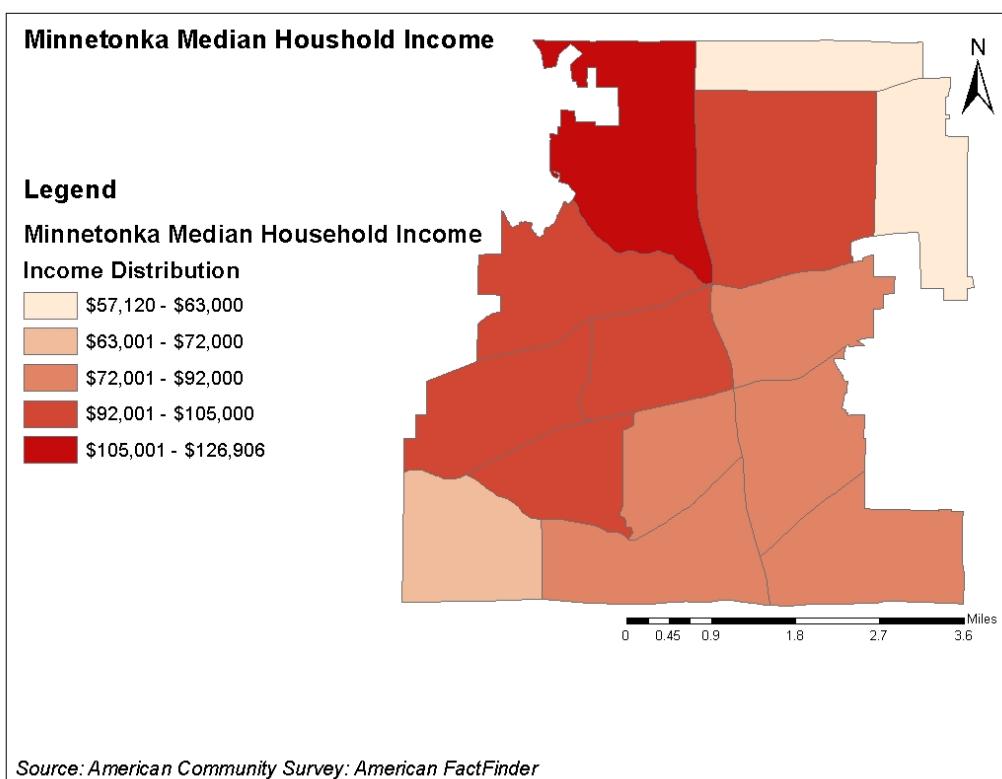


Map 1.1: Population Density Distribution of Minnetonka

After viewing Map 1.1, one can visually see there is a higher amount of persons living in the north-east and the southern areas of Minnetonka. This type of distribution may be because of different housing types in these census tracts such as; apartment buildings and condominiums which would assist in serving a higher amount of persons per square mile. Map 1.1 should be compared to Map 2.1 which expresses median household income to have a better understanding of where the wealth of the city resides most heavily and most infrequent.

MEDIAN HOUSEHOLD INCOME

Those of higher annual income (\$105,000+) tend to build housing units which fit their income range (homes financially pricier than mid-priced housing units) and in areas with amenities such as lakes and parks versus areas with amenities such as public transportation. From looking at Map 2.1 one can see where persons of high-income and persons of low-income tend to reside within the boundaries of Minnetonka.



Map 2.1: Minnetonka Median Household Income

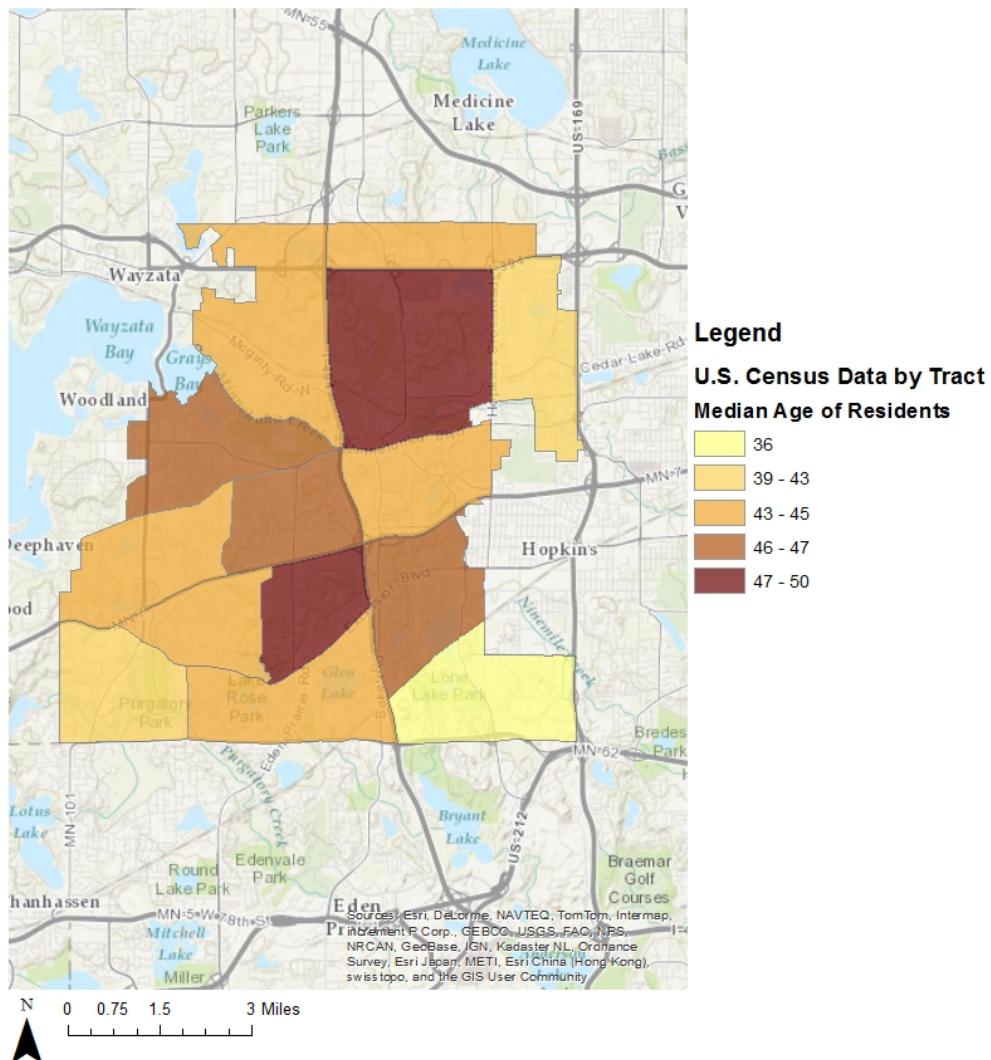
Data presented in Map 2.1 came from the ACS between the years 2007 and 2011 to give the most recent figures of median income. Map 2.1 should be compared with Map 1.1 in order to have a full understanding of what types of housing styles are available in certain census tracts reaffirming the thought that apartment buildings and condominiums are more present in the north-east and southern census tracts where large single-homes are more present in the north-west.

MEDIAN AGE OF RESIDENTS

According to 2007 and 2011 ACS data the median age of residents is 44 years old which is older than the 2000 census by 4 years, therefore, alluding to the phenomenon of aging-in-place.

Current residents of Minnetonka tend to appreciate the amenities and diversity of their neighborhoods and therefore choose to remain within its boundaries. This is a flattering phenomenon but a phenomenon that requires planning because though these persons may wish to live in Minnetonka their entire lives they may need to increase their housing space or downsize which is something the city must be prepared to offer in order to keep their population consistent and/or growing.

Minnetonka Median Age of Residents 2007-2011 ACS Data



Map 3.1: Minnetonka Median Age of Residents

Map 3.1 conveys the median age of residents within the 14 census tracts. This visualization is important because it expresses the potential market areas where mid-priced housing options

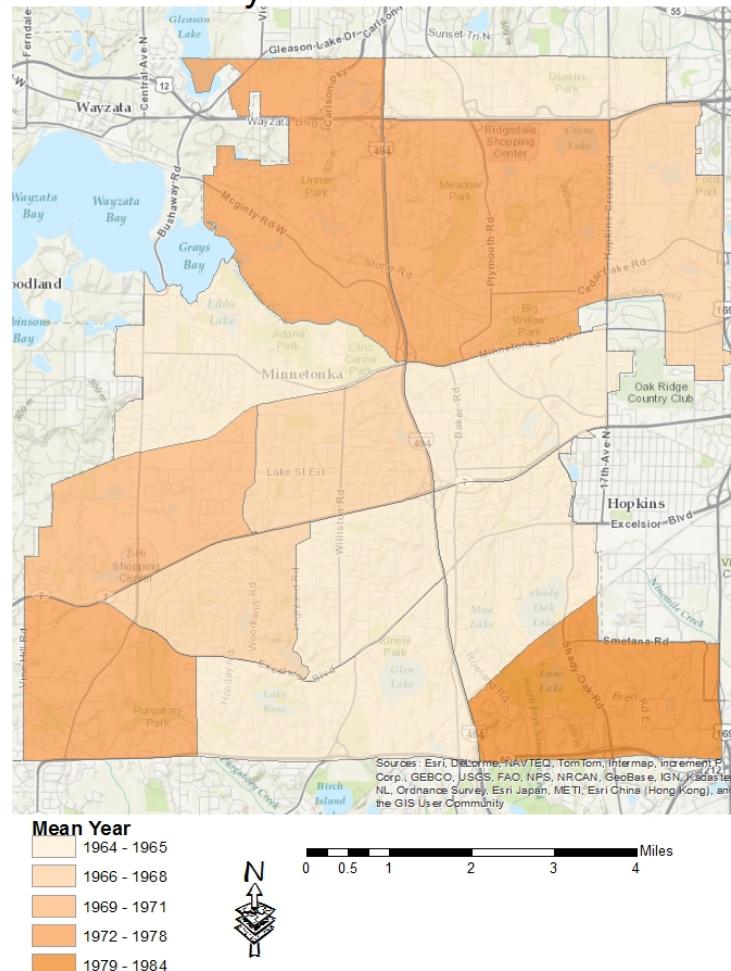
could be best used for empty nesters and growing families. The dark red and bright yellow areas would be the geographical areas which would be in most need of mid-priced housing options (granted current residents still wish to remain in their immediate neighborhood).

The year in which the homes were built could also assist in evaluating where mid-price housing options could best be built. Seventy-five percent of Minnetonka housing stock was built between 1950 and 2000. The peak building age for Minnetonka was between 1980 and 1989 when 27.3 percent of homes were constructed. The 1970s had the second most construction with 18.9 percent of the current housing stock. Map 3.2 conveys that newer constructed housing tends to be located near the north-west near the lake and also in the south-east corner bordering Eden Prairie. The newer units in the north-west appeal more towards high-income residents and families because of their location towards natural amenities and the units in the south-east appeal more towards low-income residents and families because of their location towards public transportation options.

Minnetonka House

Build Year

by Census Tract



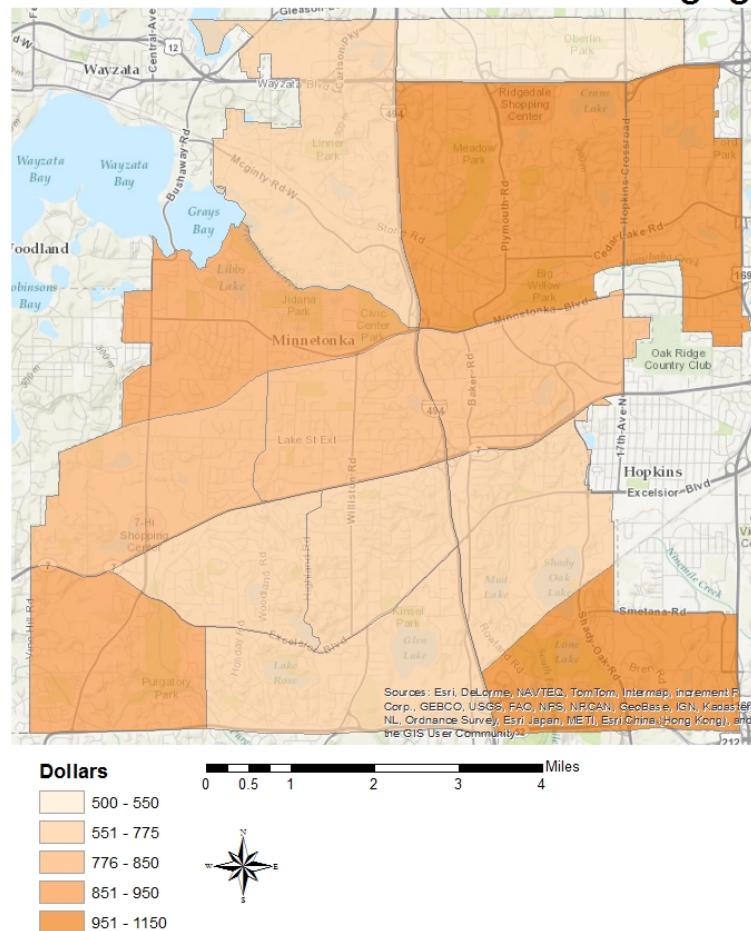
Map 3.2: Minnetonka House Build Year by Census Tract

Areas with newer built housing should be considered as possible development sites for mid-price housing not only to alleviate income disparities in the city but because these areas are currently being occupied emphasizing a want to be in these areas.

MORTGAGE PRICES

The U.S. Census tracks Selected Monthly Owner Costs (SMOC) in order to measure the cost of housing in census tracts. Through the use of this information one can have a full picture of which areas are most affected by large mortgage costs therefore allowing effective efforts to alleviate these financial pressures by residents which may be a reason for migration.

2011 Selected Monthly Owner Costs for Minnetonka Residents with a Mortgage



Map 4.1: Selected Monthly Owner Costs for Minnetonka Residents with Mortgage

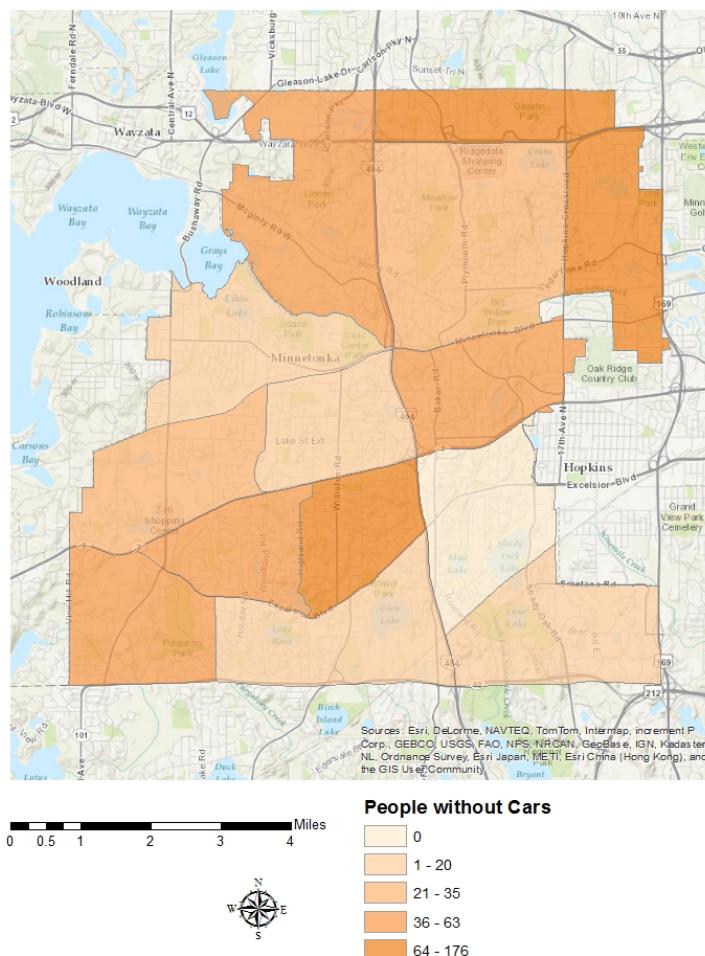
SMOC is calculated by adding; the costs of mortgage payments, property taxes, house insurance, utilities, fuel, and association fees (if applicable). These numbers are broken down by households with mortgages and those without in order to show an accurate number. The median home value

in Minnetonka is \$317,549, however that number varies depending on which neighborhood one chooses to occupy.

COMMUTE PATTERNS

Since we are researching the demographics and housing analysis of the market leakage of mid-priced housing options we must be aware of where people commute to work and what transportation method they prefer to travel. One way of finding this information out is through analyzing vehicle distribution of personal automobiles within the city. The majority of households within Minnetonka own at least one automobile. The numbers indicate there are 21,591 households in Minnetonka and 38,125 automobiles therefore, if quantified, there are 1.77 vehicles per household.

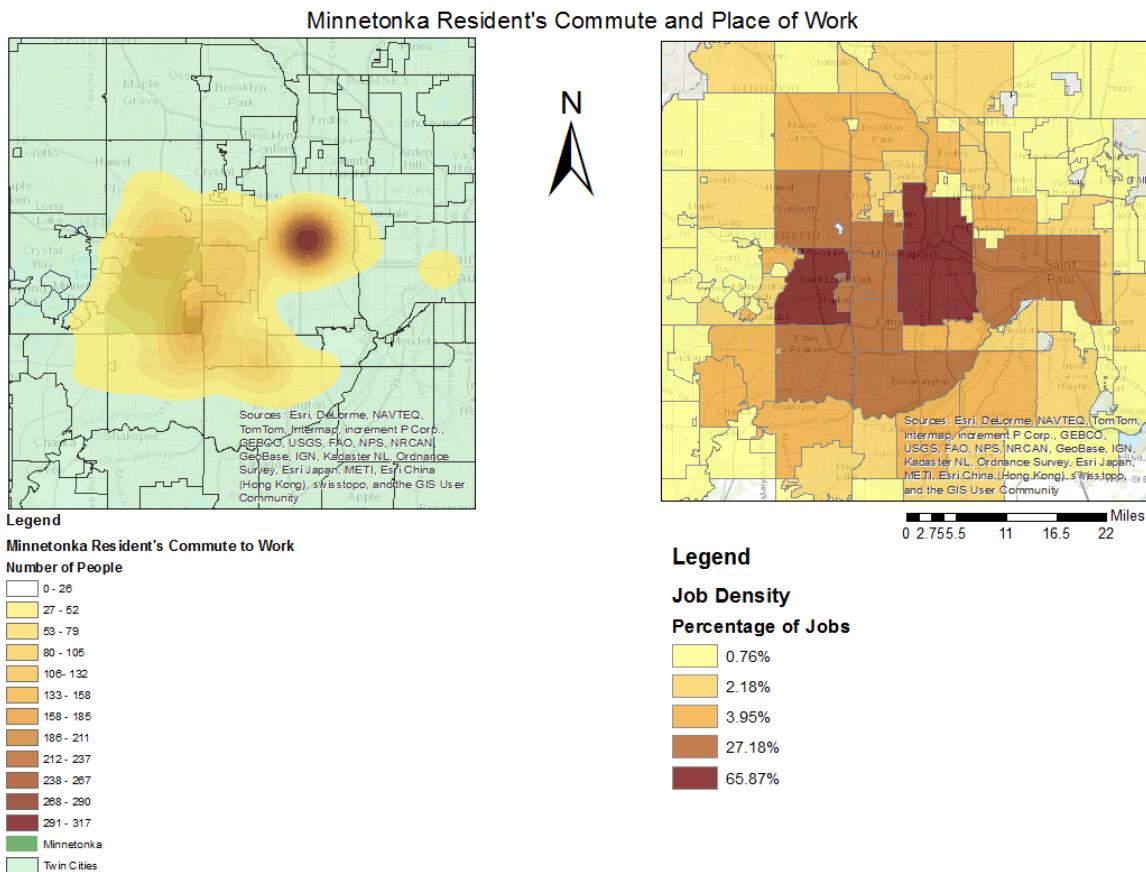
Minnetonka Residents with no Personal Vehicle



Map 5.1: Minnetonka Residents with No Personal Vehicle

According to Map 5.1, 4% of households have no vehicle, 33% of households have one vehicle, 46% have two vehicles and 17% of households have three or more vehicles. Areas with less vehicles would be improved with more public transportation options even though the City of

Minnetonka does not have direct control in the distribution of the public transportation options. Since Minnetonka is equipped with many automobiles households are not restricted to work within the city boundaries. Actually, many Minnetonka residents commute to nearby cities for work.



Map 5.2: Minnetonka Resident's Commute and Place of Work

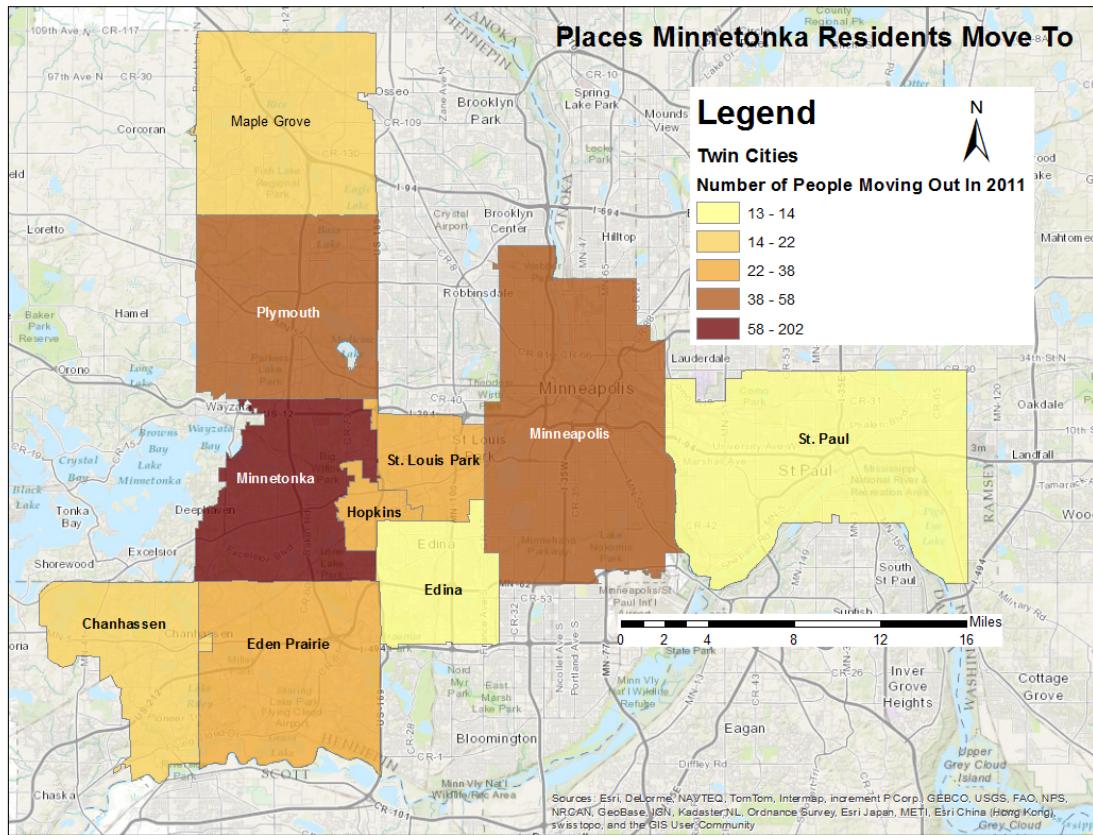
Most residents either work in Minnetonka or Minneapolis perhaps due to convenience and/or amount of work options. It is because of the amount of automobiles within Minnetonka which makes work in other cities a viable option.

It is our best judgment that people prefer to decrease their commute time over the duration of their lives. Therefore, we believe that comparing commute patterns with data detailing where households have moved to may be invaluable data to understand where the residents of Minnetonka prefer to live. In reference to mid-priced housing options, this comparison of data would assist the City of Minnetonka as to where in the city households are moving from and whether more development of mid-priced houses would be an effective measure to increase population and the well-being of the city as a whole.

MIGRATION PATTERNS

Minnetonka residents tend to move to bordering cities which hold the largest percentage of jobs held by Minnetonka residents thus affirming Minnetonka residents prefer to live near their work. Also these former-Minnetonka-residents may have preferred to live in Minnetonka but they may

be younger families looking for mid-priced housing options which are not available they are forced to reside elsewhere. More data on this pattern is needed.



Map 6.1: Places Minnetonka Residents Move To in 2011

The five main cities which former-Minnetonka-residents moved to in 2011 were; Plymouth, Eden Prairie, Minneapolis, St. Louis Park, and Hopkins. According to Map 6.1, Plymouth and Minneapolis had the highest share of residents from Minnetonka move into their cities. The duration between 2008 and 2009 was the highest recorded number of move-outs from Minnetonka to other cities. This migration pattern could be due to the crashing of the housing bubble in 2007.

RECOMMENDATIONS

As a group we have analyzed the demographics and housing options within the boundaries of Minnetonka, we have followed the commuting patterns of Minnetonka residents to other cities for employment, and we have come to the conclusion that mid-priced housing options are scarce within Minnetonka and should be implemented in either the north-east or south-east census tracts of the city to meet the needs of growing families and the elderly planning to age-in-place. We have chosen these areas as viable tracts for mid-priced housing options because of their population distribution and commute patterns. These areas are in closer proximity to public transportation options which is useful for young families with children attending school and elderly persons who are no longer able to drive themselves.

These mid-priced housing options should be integrated with the rest of the tract to encourage mixed-income communities in order to alleviate any housing disparities. Also, by building in areas such as north-east and south-east, areas which commute most out of the city for employment, may decrease the amount of residents who choose to migrate to other cities. Through these actions Minnetonka will increase its housing stock in reference to mid-priced housing options which will benefit the city for years to come and encourage the migration towards Minnetonka as a city where households flock live a convenient and affordable lifestyle.

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