

# Attainable Housing Strategic Initiative

## Naperville Housing Needs and Market Analysis 2009



Prepared for the City of Naperville, Illinois

by

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We very much appreciate the dozens of City of Naperville employees who took time out of their busy day to serve as test subjects for the two surveys used in this research. Their comments and suggestions helped us refine the questions and design of the surveys so that they could generate the high response rates they produced.

We never could have conducted the survey of the people who work in Naperville without the cooperation, time, and energy of a small number of people at each of the major Naperville employers. They produced random samples, distribute surveys, returned completed surveys, and reminded employees to complete and return the surveys. Several went the extra mile to follow the labor-intensive Tailored Design Method (described in Appendix A) that generated response rates as high as 87 and 93 percent. We cannot adequately express our appreciation.

We greatly appreciate the people we surveyed who kindly took the time and effort to complete and return the random-sample surveys essential for this study. Their information was the vital ingredient to producing the timely and factual information needed for this study. We thank them for sharing their confidential and anonymous personal details with us.

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# Tips to get the most out of this research

Please take a few minutes to **read this page first** to learn how to get the most out of this study and the research upon which it is based.

This study is based on extensive research and two random sample surveys conducted in the late spring and summer of 2008. Appendix A explains how the two surveys were conducted, the sampling methods used, and other details. One survey was of Naperville residents — throughout this report it is called the “Resident Survey.” The other was conducted of people who work at Naperville businesses, schools, nonprofits, and governments. It is called the “Employee Survey.”

## Tips

- ◆ The findings and conclusions of this report outlined in the “Executive Summary” are a compact *summary* of the findings of this research. Readers are strongly urged to read the entire report to see the factual basis and calculations upon which the findings are based.
- ◆ Chapters 2 and 3 highlight the most significant factual findings and data that will inform the city’s efforts to formulate housing policy and programs. All of the data is presented in Appendix B where the questions from both surveys appear with a breakdown of the answers and the number of respondents who answered each question.
- ◆ In addition to providing citations, the footnotes supplement the text and often expand upon it.
- ◆ The cross tabulations referenced in the text are included in Appendix C. All cross tabulations are available as Excel spreadsheets from the City of Naperville’s Planning Services Team at 630/420–6694.
- ◆ Throughout this report, “residents” refers to the people sampled in the Resident Survey and “employees” refers to the workers sampled in the Employee Survey.

# Chapter 1

## Executive Summary

**In city planning there is a fundamental adage that the better informed decision makers are, the better decisions they will make.**

This analysis is intended to provide Naperville's decision makers with factual information about the housing needs and housing market of current Naperville residents and of the people who work in Naperville.

This report presents the findings of two random sample surveys conducted in the spring and summer of 2008, one of current Naperville residents and another of people who currently work in Naperville. The extensive data these surveys generated provide a concrete basis for policy discussion that is as up-to-date as possible.

The surveys produced factual information that will enable decision makers to identify and understand the housing needs of the different segments of Naperville's population and the employee population — tenants, homeowners, and senior citizens. These two surveys identified housing costs, income, source of income, housing tenure (rent or own), housing mobility, age, household size, and employment status as well as the relationship between where respondents live and work, including commuting practices and preferences. The surveys also identified the housing needs of respondents, where they expect to move next, and the type of home they seek. The surveys learned why 61 percent of the people who work in Naperville do not live here.

The random-sample Resident Survey produced a 66 percent response rate. Such a high response rate greatly increases the reliability of the findings as explained in Appendix A. The usual response rate for citizen surveys in Naperville tends to top out at 30 percent. About 50 percent of those surveyed in the stratified random-sample survey of people who work in Naperville returned completed surveys, and at four employers more than 70 percent of those surveyed responded. Such high response rates help assure results that accurately reflect the full universes of Naperville residents and employees — to give decision makers a solid factual basis for policy discussions.

As the research for this study discovered, while tenants and homeowners, and employees and Naperville residents, have much in common, they also have different financial situations and housing needs. It found that the central housing issue for some segments of Naperville's population and employees is their ability to find housing they can afford in Naperville. For other residents, their issue is their ability to continue to afford to live in Naperville.

Rather than present findings and data solely for *all* Naperville residents or *all* employees, this study frequently disaggregates the data by tenure — homeowners and tenants — to identify the current housing situation and housing needs of the households in each category. The research also found that age matters. Younger tenants and senior citizens face different housing needs than other residents and each other. This study identifies the varying current conditions and housing needs of these specific segments of Naperville’s population and employees.

## The recession’s impacts on affordability

These surveys were conducted during a time of great fluctuation in housing markets throughout the nation. This volatility continues today and is unlikely to disappear for some time. But any research effort and survey must have a beginning and an end. The surveys conducted for this study in late spring and early summer 2008 capture many of the impacts of these market fluctuations. To help assure consistency and accuracy, the surveys asked respondents to report their 2007 gross income and their current housing costs. The data on rents at the 27 largest Naperville rental complexes are from 2007 while the data on the sale prices of homes cover January 1, 2007 through March 2008.

The nationwide collapse of the housing market probably is not producing much of an impact, if any, on Naperville rents. There is simply no evidence that landlords are reducing rents. The opposite is more likely thanks to an increase in demand for rental housing due to homeowners who have lost their homes. So it is extremely likely that this report’s findings regarding tenants are still current.

Although one might intuitively think that ownership housing has become substantially more affordable in Naperville due to the 11 percent Chicago–area decline in home prices over the past year, that is simply not the case here. We analyzed the Naperville home sale prices for the last half of 2008 as well as four of the communities where a high percentage of the people who work in Naperville live and compared them to the sale prices during the study period of January 1, 2007 through March 2008. While there has been an almost universal decline in sale prices since the study period, the decline for Naperville ownership housing has been marginal, just 4 percent for single–family detached homes and 6 percent for condominiums and townhouses. See Appendix D for the full analysis and discussion. The unavailability of income data for 2008 prevents a full analysis from being conducted.

It is unlikely that any further declines in the sale price of houses, townhouses, and condominiums would make housing more affordable except to first–time home buyers. Existing homeowners often rely on the “profit” from the sale of their homes to buy their next home. When the prices of homes available to purchase in Naperville decline, so do the sale prices of residents’ current homes. Factor in the shortage of available mortgage funds and it is highly unlikely that more recent data would show that housing has become more affordable in Naperville or anywhere else except to first–time homebuyers.





## Summary of findings

### Measuring the affordability of housing



A household should spend no more than 30 percent of its monthly income on monthly housing costs according to the most commonly-accepted standard for determining whether a household can afford the home in which it lives. Spending more than 30 percent significantly affects a household's ability to cover other essential household costs and generates negative impacts on the household, the community in which it lives, and the economy.<sup>1</sup>

The full discussion of each bullet point below *begins* on the page noted. In some instances, the discussion runs several pages.

### Findings on housing affordability








-  In any community, housing is affordable to some segments of its population and unaffordable to others. While the vast majority of Naperville residents can afford their homes, 15 percent spend more on housing costs than is healthy, namely more than 30 percent of their income.<sup>2</sup> Among some segments of Naperville's households, significant numbers of residents are spending as much as 40 percent or even more than 50 percent of their income on housing. [Details beginning on page 31.]
-  Sixty-five percent of single-family detached houses in Naperville sold for over \$400,000 in 2007 and the first quarter of 2008. Forty percent sold for over \$500,000. [Details beginning on page 38.]
-  Nearly half the condominiums in Naperville sell in the \$100,000 to \$199,999 price range with another 35 percent in the \$200,000 to \$299,999 range. [Details beginning on page 37.]
-  Higher proportions of Naperville households are at the low and high ends of the income spectrum than employee households. Among employee households, 54 percent have incomes between \$50,000 and \$124,999. Just 40 percent of Naperville households fall in that range. The annual income of 36 percent of Naperville households is over \$150,000 while just half as many employee households bring in that much. About the same proportion of resident and employee households earn less than \$50,000 a year. [Details beginning on page 39.]

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1. See page 11 for a thorough examination of the measures of housing affordability and the consequences of spending more than 30 percent of income on housing.
  2. These figures probably underestimate the number of residents and employees who spend unhealthy proportions of their income on housing. As explained beginning on page 30, these figures understate the percentage of income spent on housing because they do *not* include other "housing expenses" like utilities and insurance that usually are included in housing costs when estimating housing affordability. Any error due to excluding these costs is on the conservative side.


-  More lower-cost housing opportunities are needed in Naperville to meet market demand from employees and to enable more current residents to find housing that is affordable. [Details beginning on page 25.]
-  The disparity between income and housing costs is greater among Naperville residents than among employees. [Details beginning on page 48.]

## Naperville residents



### Tenants

-  Roughly 30 percent of Naperville residents and about 36 percent of employees *cannot* afford the median-priced Naperville townhouse or condominium. [Details beginning on page 22.]
-  With a median income of \$62,500, about 36 percent of employee and 30 percent of resident tenants fall at least \$20,000 short of being able to afford the median-priced Naperville condominium or townhouse. [Details beginning on page 25.]
-  Twenty-one percent of tenant households have annual incomes under \$25,000. There is a shortfall of at least 1,200 rental units they can afford. [Details beginning on page 17.]
-  Over 10 percent of Naperville's tenants spend more than half their income on housing. Twenty-three percent spend over 30 percent. [Details beginning on page 16.]
-  The rents of Naperville apartments are highly concentrated, leaving households with modest incomes few opportunities to rent in Naperville. Ninety percent of Naperville rentals rent in the \$750 to \$1,499. [Details beginning on page 33].
-  About one-third of Naperville's tenant households and one-sixth of employee tenant households prefer renting to owning at this time in their lives. [Details beginning on page 15].
-  While nearly every Naperville and employee tenant hopes to own someday, most lack the income needed to purchase a home. [Details beginning on page 15.]






### Homeowners

-  Significant proportions of the employee population and Naperville's homeowner population are paying more for housing than is healthy for their economic welfare, their communities, and for the health of the economy. One in seven employee and Naperville homeowner households spends over 30 percent of its income on their homes while one in


20 spends more than half of its income on housing. [Details beginning on page 21.]

-  Sixty-four percent of all Naperville residents and 82 percent of employees lack the income needed to afford the \$450,000 median-priced single-family house in Naperville. [Details beginning on page 22.]
-  About 30 percent of Naperville residents and 36 percent of employees cannot afford the median-priced Naperville townhouse or condominium. [Details beginning on page 23.]


### Senior citizens

-  One-tenth of Naperville's senior households spend over half their income on housing. Another tenth spend 41 to 50 percent with 5 percent spending 36 to 40 percent. Just 77 percent of Naperville's seniors can afford their current homes. [Details beginning on page 26.]
-  Many homeowners tend to use the "profit" from the sale of their home toward a larger down payment on their next home or to help pay the rent on their next home. The income of many Naperville senior citizen homeowners is below what's needed to buy the median-priced home or afford the median-rent apartment in Naperville. Further research is needed to determine how many of them have enough equity in their homes to compensate for their lower incomes when they buy or rent their next home. [Details beginning on page 30.]
-  Future housing demand for seniors is largely for rentals. While 86 percent of Naperville seniors currently own a single-family house, two-thirds who expect to move plan to move to an apartment or townhouse. [Details beginning on page 29.]
-  Twenty percent of Naperville's senior households lack the income needed to afford the median-rent Naperville apartment. [Details beginning on page 29.]
-  To meet the needs of its lowest income seniors and retired households, Naperville needs additional units of very inexpensive housing. [Details beginning on page 29.]








### Younger households

-  One in five Naperville households under age 26 spends 36 to 40 percent of its income on housing which makes it difficult for them to make ends meet, save for a down payment, and improve their living conditions. [Details beginning on page 26.]

### Employees who work in Naperville

-  Employee tenants tend to spend less of their income on housing than do Naperville tenants. Twenty percent of employee tenants spend

more than 30 percent of their income on housing, mostly in the 31 to 35 percent range. Only 5 percent spend more than 40 percent on rent. In contrast, 14 percent of Naperville tenants spend more than 40 percent on rent with another 9 percent spending 36 to 40 percent. [Details beginning on page 16.]

-  More than one adult works in 73 percent of employee households in contrast to just 46 percent of Naperville resident households. This situation implies that employee households rely more on income from more than one household member than do Naperville residents to pay for their housing. [Details beginning on page 40]
-  There is substantial demand for Naperville housing among the people who work in Naperville, but, more than any other factor, the cost of housing deters employees from moving to Naperville. [Details beginning on page 47.]
-  The intense concentration of Naperville monthly rents in the \$750 to \$1,499 range erects a nearly impenetrable barrier to employee households with annual incomes under \$30,000. Ninety percent of Naperville rentals fall in that narrow range with just 7 percent under \$750. Fifty-seven percent of the employees who live outside Naperville pay rents in the \$750 to \$1,499 range while 30 percent pay less than \$750 a month. [Details beginning on page 33.]
-  Of all the sectors in which members of the employee sample work, the households of government employees have the lowest incomes and the fewest units of housing that is affordable to them in Naperville. [Details beginning on page 52.]
-  Thirty-nine percent of employees currently live in Naperville. Of the employees who rent, 46 percent live in Naperville. Of those who own their home, 38 percent live in Naperville. [Details beginning on page 46.]
-  When they make their next move, employees who live in Naperville are nearly twice as likely to move within Naperville than other Naperville residents. If they had the resources, 60 percent of employees would prefer to live in Naperville (39 percent currently live in Naperville). These findings suggest that a significant number of people who work in Naperville would prefer to live in Naperville. [Details beginning on page 46.]
-  Sixty-one percent of Naperville's residents work outside Naperville. Most Naperville residents commute longer distances to work than do the people who work in Naperville. It appears that Naperville residents are willing to live further from their jobs and commute longer times and distances than employees — the benefits of living in Naperville.

ville are worth the extra time and cost to them. [Details beginning on page 53.]

#### Statistical terms defined

- ◆ Mean = The average. The mean is a useful statistic for comparing housing prices in different jurisdictions and over time.
- ◆ Median = The value in the middle: half the values are greater than the median and half are less. The median is a useful statistic for illustrating the affordability of housing.
- ◆ Mode = The value (or values) in the data that occurs the most frequently. There can be more than one mode. The mode is a useful statistic for showing the most frequent sale price, for example.
- ◆ Percentile = The value of a variable below which a certain percentage of data falls. For example, 25 percent of the data is found within the 25th percentile, also known as the first quartile. Percentiles are useful statistics for showing the distribution of housing prices.



## Chapter 2

# Findings on Affordability

This chapter reports on the affordability of housing in Naperville for current residents — tenants, homeowners, and senior citizens — and for the people who work in Naperville. It explains how spending more than 30 percent of a household’s monthly income on housing costs damages the household, the community, and the economy. It reports on how much the households of Naperville residents and employees spend on housing. And it reports on their income as well as the cost of ownership and rental housing in Naperville. By disaggregating the data by tenure (rent or own) age, and residency (Naperville resident or employees who work in Naperville), this chapter identifies the different housing needs of each of these groups.

Not all of the data generated for this study appear in this chapter’s narrative, tables, and graphs. Additional data useful to local policymakers are proffered in Chapter 3. The responses to the questions asked in both the resident and employee surveys are presented in Appendix B.

### Focus: Housing needs of residents and people who work in Naperville

This chapter focuses on the housing needs of both current Naperville residents and the largest market of potential residents, the people who work in Naperville, hereinafter called “employees.” As this study found, the average length of residency in Naperville is 14 years. Half the residents have lived here for no more than 12 years. Ninety–nine percent of Naperville households moved here from another city. So it is crucial to know not just the housing needs of existing residents, but also of that largest market of potential residents.

The research for this study discovered that while tenants and homeowners as well as employees and Naperville residents have much in common, they also have different financial situations and housing needs. This research revealed that the central housing concern for some segments of Naperville’s population and employees is their ability to simply find housing they can afford in Naperville. For other residents, their concern is their ability to continue to live in Naperville.

Instead of presenting findings and data just for all Naperville residents or all employees, this study frequently desegregates the data by tenure — homeowners and tenants — to better identify the current housing situation and housing needs of the households in each category. The research also found that age matters. Younger tenants and senior citizens face different housing needs than other residents and each other. This study identifies the varying current conditions and housing needs of these specific segments of Naperville’s population and employees.

The population of any city is never static. Cities are dynamic entities with people moving into and out of them nearly every day. Throughout the nation, Americans place a “high value” limiting their commuting time and that the “length of their commute to work holds a dominant place in Americans’ decisions about where to live.”<sup>1</sup> As reported in Chapter 3, 57 percent of both Naperville residents and the people who work in Naperville report they prefer to live within five miles of their jobs. Another 27 percent of both groups prefer to live within six to ten miles of their jobs. Consequently, the people who work in Naperville constitute a substantial portion of the market for Naperville housing. One of the goals of this study was to identify and understand their housing needs.

Aside from the preference of Naperville’s workers (and residents) to live relatively close to work — a preference that is national in scope — why should any jurisdiction seek to facilitate this preference?

The City of Naperville has long recognized that it is sound public policy to promote and facilitate that wish. The city’s *Comprehensive Transportation Plan* explains that “Traffic congestion is often cited as a transportation problem in our region. Air pollution associated with congestion harms the environment, wastes natural resources, and affects human health. Congestion costs people time and money. All of these problems can be translated into quality of life issues for the region and individual communities such as Naperville.”<sup>2</sup>

The high usage of the public roads for commuting substantial distances contributes to their rapid deterioration and frequent repair. Road repair and reconstruction is a substantial cost to the taxpayer, a cost that could be reduced if the roads were used less for commuting.

In addition, the City of Naperville recognizes that it is hard to afford a car for the 3 percent of its population in poverty in 2006. It is well-established that proximity to employment is important to people with modest incomes, especially for those at or near the poverty level.<sup>3</sup>

Consequently, the two surveys conducted for this study examined the housing needs, preferences, and financial resources of current Naperville residents and of the people who work in Naperville. The surveys sought to identify the current status of both population groups as well as their future housing plans. In many cases, the characteristics of the two populations are virtually indistinguishable. In other instances, the surveys identified significant differences be-

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1. Belden Russonello & Stewart Research and Communications, *2004 American Community Survey National Survey on Communities* (October 2004), 1, 7, 9. Available online as a PDF file at <http://smartgrowthamerica.org/narsgareport.html>
  2. City of Naperville, *Naperville Trip Reduction Plan* (Naperville, IL 2002), 2.
  3. City of Naperville T.E.D. Business Group, *Overview of Naperville Transit Needs and Markets* (Naperville, August 9, 2007), 11. Also see Center for Housing Policy, *Something’s Got to Give: Working Families and the Cost of Housing* (New Century Housing, Vol. 5, Issue 2, 2005).

tween the two groups. The data gathered by the Resident Survey identified similarities and differences between Naperville tenant, homeowner, and senior citizen households. The Employee Survey identified the similarities and differences between the tenant and homeowner households of the people who work in Naperville. The proportion of senior citizens in the employee sample was too small to generate statistically significant findings about seniors. Among the employees, 39 percent currently live in Naperville.

# Affordability of housing

While some additional factors can enter into determining whether a household can afford what it pays to own or rent, affordability depends largely on two key elements:

- ◆ Household income
- ◆ Monthly cost of Naperville rental and ownership housing

According to the well-accepted national standard, as explained in the next section of this chapter (“Affordability measures”), a household should spend no more than 30 percent of its monthly income on monthly rent or ownership costs.

The table at the right suggests that 15 of every 100 Naperville households and nearly one in five employee households spend over 30 percent of their monthly income on housing. However, as is common, aggregate figures tend to mask those segments of the population where an even greater proportion is spending more than 30 percent of its income on housing.

**Table 1: Monthly housing costs above or below 30 percent of income for all households**

Percentage of income spent on housing	Employees	Residents
30% or less	81%	85%
Over 30%	19%	15%

Disaggregating this data to look separately at Naperville tenants, homeowners, and senior citizens as well as at employee tenants and homeowners, reveals that even larger proportions of some segments of Naperville’s population and employees spend more than 30 percent of their income on housing, some substantially more as shown in the table at the right.

Among both residents and employees, the proportions of

**Table 2: Monthly housing costs as a percentage of income for all households**

Percentage of income spent on housing	Employees	Residents
30% or less	81%	85%
31% to 35%	7%	3%
36% to 40%	4%	4%
41% to 50%	4%	3%
More than 50%	4%	5%

households spending over 30 percent of their income on housing are very similar.

As explained in the next section, spending more than 30 percent of a household's income on housing generates some serious impacts on the household, the community in which it lives, and the nation's economy. An employee household that lives outside Naperville and already spends more than 30 percent of its income on housing has a slim chance of finding a home in Naperville that it can afford when comparable Naperville housing costs more than the housing the nonresident employee currently occupies.

### Affordability measures

A significant percentage of employee (19 percent) and resident (15 percent) households are spending over 30 percent of their income for housing. Nearly one in ten employees and residents surveyed spend over 40 percent with one in twenty spending more than half their household income on housing. As we'll see later in this chapter, even greater proportions of Naperville's tenants and seniors spend in the 41 to 50 percent range as well as in the 50+ percent range. As explained below, housing experts consider spending over half your income on housing to constitute a "severe housing cost burden" or a "critical housing affordability problem."

At what cost level does housing cease to be *affordable*?<sup>4</sup> The housing industry considers housing to be affordable when it costs 28 to 32 percent of a household's income. Financial planners urge families to keep their housing costs down to one-third of their income.<sup>5</sup>

Housing experts, economists, and the U.S. Department of Housing and Urban Development have long concluded that for households to have adequate funds for other necessities (food, clothing, transportation, education, insurance, and savings), they should spend no more than 30 percent of their monthly income on monthly housing costs.<sup>6</sup> This study applies the 30 percent affordability standard not only because it is the most commonly-accepted standard by experts in housing and planning as well as the official standard the United States government uses, but for all the reasons that are stated in the paragraphs below.

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4. Over the years, other measures of housing affordability have been proposed, some of which can serve as a more "precise and finely honed instrument for assessing housing needs and problems" as examined in Michael Stone, "What is Housing Affordability? The Case for the Residual Income Approach," in *Housing Policy Debate*, Vol. 17, Issue 1 (Washington, DC: Fannie Mae Foundation, 2006), 151–184. In this report, we will use the percentage of income approach that continues to be the commonly-used standard throughout the United States.
  5. Center for Housing Policy, *Something's Got to Give: Working Families and the Cost of Housing* (New Century Housing, Vol. 5, Issue 2, 2005), 10.
  6. Michael Stone, 152.

The consequences of spending substantially more than 30 percent of a household's income on shelter are personal and national in scope. They reverberate throughout the local, regional, and national economies.

The Center for Housing Policy reports that families that spend more than half their income on housing — *11 percent of Naperville's tenant households and 5 percent of its homeowner households fall into this category* — “reduce expenditures for other essentials such as food, clothing, and healthcare.” They experience considerable hardship and stress. Compared to households spending less on housing, they are 23 percent more likely to have difficulty purchasing food, twice as likely to lack a car, and 28 percent more likely that at least one household member lacks health insurance. Spending on health care, food, insurance, and especially transportation shrinks as housing costs increase.<sup>7</sup> Some resort to sharing their homes and housing expenditures with a second family which tends to reduce quality of life and produce other negative impacts including unhealthy overcrowding.<sup>8</sup>

Tenants spending a high percentage of their income on housing have a more difficult time than homeowners. It is estimated that tenant households spending more than 50 percent of their income on housing typically spend \$600 a year on healthcare compared to \$2,000 for tenants who live in housing they can afford. They don't necessarily get ill more frequently or more seriously than wealthier households. They just forego preventative measures and medical treatment when they are ill because they cannot afford it. Homeowners paying over half their income on housing spend \$2,000 on health care while homeowners in homes they can afford spend \$4,000.<sup>9</sup> This is one way in which housing affordability reverberates throughout the economy as it contributes to the substantial number of American households that lack health insurance, which in turn affects all citizens who pay the taxes that fund public hospitals, Medicare, Medicaid, and children's health insurance programs.

Spending so much on housing has contributed to the huge nationwide increase in credit card debt<sup>10</sup> and the countrywide decline in savings. Such households are also relying more on auto loans and other forms of installment debt. The Federal Reserve has estimated that 25 percent of lower income households are spending nearly 40 percent of their take-home wages on debt payments. In the end, high housing costs make it very difficult for these tenant households to get ahead and become upwardly mobile.<sup>11</sup>

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7. Ibid., 16–18.

8. Ibid., 34–35.

9. Ibid., 8.

10. See The Century Foundation, *Life and Debt: Why American Families are Borrowing to the Hilt* (New York, NY, 2004).

11. Center for Housing Policy, 18–20.

Homeowners spending a high percentage of their income on housing have been better able to cope by refinancing their homes. Nearly half of the homeowners who refinanced between 2001 and 2003 took some equity out of their homes — increasing monthly payments for 40 percent of them and stretching out the life of their home loans for 80 percent of them. Since the 1980s, homeowner equity in homes has declined from 70 percent to 55 percent in 2003, a record low.<sup>12</sup>

So why would anybody spend more than half of their income on their housing? Why would they spend even 40 percent? It's a combination of making difficult choices and trade-offs as well as a lack of supply.

Some families choose to spend a large portion of their income on housing for the benefit of their children — to attend better schools, live in a better home or neighborhood — while cutting back on other necessities like food, clothing, health care, insurance, transportation, entertainment, and savings. They see a better education, home, and neighborhood as their children's path to achieving the American Dream.

But the bottom line is that households of modest income often have little choice but to spend more than 30 percent of their income on housing because the supply of affordable housing has been shrinking for decades and very little new housing is being built that they can afford. Many households of modest means are willing to live in minimally-adequate dwellings that cost less than 30 percent of their monthly income, but such units often are not available, especially close to jobs.<sup>13</sup> Condominium conversions have eliminated most of the lower-cost rental housing that the private sector provided at a profit without government subsidy. On the average, converting a rental unit to condominium during the first wave of condominium conversions in the late 1970s and early 1980s doubled the monthly cost of living in the unit, instantly reducing the supply of housing affordable to households with modest incomes. Conversions so reduced the supply of rental housing that rents for a huge proportion of the remaining rental units have risen to the same level as the monthly cost of owning.<sup>14</sup>

One survey of the nation's largest and/or fastest growing counties found that 85 percent of the new housing was aimed at middle- and upper-income house-

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12. The Century Foundation.

13. Michael Stone, 156.

14. See Charles Geisler and Frank Popper, eds., *Land Reform., American Style* (Totowa, NJ, Rowman & Allanheld, 1984) 273–301, and U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *The Conversion of Rental Housing to Condominiums and Cooperatives*, (Washington, DC, 1980).

holds.<sup>15</sup> A national study of rental construction found that new construction focused on units priced for the top 20 percent of the rental market.<sup>16</sup>

Whether a household with a modest income chooses to make trade-offs or has little or no choice but to spend more than 30 percent of its income on housing, the consequences of spending so much on housing are substantial to them, the community in which they live, and to the economy in general. That is one of many reasons why affordable housing is a concern for individual communities across the country, for states, and for the federal government.

### Calculating monthly housing costs for this study

Researchers usually include rent, utilities, and renter insurance when calculating monthly housing expenses for tenants. When calculating monthly ownership costs, researchers usually include mortgage payments (interest and principle), property tax, utilities, homeowner or condominium association monthly assessments, and homeowners insurance.

While the U.S. Census is able to gather all of this information, our survey asked tenants only for their monthly rent and homeowners for their monthly mortgage payments (including property tax) and monthly homeowner or condominium association assessments. *We decided to use this conservative measure because we wanted accurate results.* We did not want to ask questions respondents could not answer easily and accurately — that would have significantly reduced the response rates and confidence level of the survey results. It is highly unlikely that typical household members know their monthly utility costs since these costs vary wildly throughout the year. Similarly, they are unlikely to know their monthly insurance costs since these usually are not paid on a monthly basis. All homeowners do not pay their homeowner's insurance premiums as part of their monthly mortgage payment. The vast majority of mortgages require a monthly payment toward a property tax escrow. Since rent, mortgages, property tax, and condominium or homeowner association fees are paid monthly, respondents are likely to know these costs.

Consequently, **the data the resident and employee surveys gathered about housing costs probably understates the actual monthly cost of owning or renting a dwelling unit.** If there is any bias in the data, it is that it understates total housing costs and understates the percentage of income surveyed households spend on housing. **Readers should consider the data on housing costs and housing cost as a percentage of income as minimum figures.** If you add in the costs the two surveys did not seek to learn, the percentages of Naperville residents and employees who spend more than 30 percent of their income on housing will be greater than what the surveys found.

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15. Center for Housing Policy & National Association of Counties, *Paycheck to Paycheck: Wages and the Cost of Housing in the Counties, 2004* (Washington, D.C. 2004), 2.

16. Harvard University, Joint Center for Housing Studies, *State of the Nation's Housing, 2004* (Cambridge, MA. 2004) 23.

The following sections of this chapter disaggregate the data reported above by tenure — rental or ownership housing — and by the age of the survey respondent. Additional data on the two essential elements for determining affordability — actual housing costs and income — appear in the final sections of this chapter.

## Rental housing

### Why households rent

While the cost of home ownership appears to be the major reason respondents to both surveys rent, a higher proportion of Naperville tenants prefer to rent than do employees.

Among both groups, the primary reason to rent appears to be the disparity between income and the cost of home ownership — the reasons highlighted in yellow in the table to the right. While this gap is also the primary reason why resident tenants rent rather than own (although by 12 to 17 percentage points less than employees, depending on the reason), twice as many residents prefer the flexibility of renting (32 percent) and prefer to rent rather than own (15 percent). Six percent more employees than residents report that owning does not make sense at their age.

Reason	Employees	Residents
Prefer to rent rather than own	8%	15%
Owning doesn't make sense at my age	21%	15%
Prefer flexibility of being able to move when I want	16%	32%
Don't want responsibilities of home ownership	13%	15%
Home I like costs too much	36%	24%
Don't have enough income to buy a home.	51%	37%
Don't have enough money for a down payment	61%	44%
Unable to obtain mortgage	12%	5%
Columns add up to more than 100 percent because respondents could choose as many reasons as applied.		

**While the primary reason for renting is that ownership housing is too expensive, there is a substantial proportion of employees and Naperville tenants who prefer to rent.<sup>17</sup>**

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17. Like just about everybody in America, nearly every tenant in both surveys stated they prefer to own *if they had the resources*. The data suggest that many tenant households do not have the resources.



**Resident tenants**

**Not only does one in five Naperville tenant households spend more than 30 percent of its income on rent, more than one in ten spends over half its income on rent.**

Of the 20 percent of tenant employee households that spend more than 30 percent of their monthly income on housing, most devote 31 to 35 percent to rent. But about half of the Naperville tenants who spend more than 30 percent on rent report spending more than half of their gross income for rent.<sup>18</sup> The different distribution among employee and resident tenants could be due in part to the small number of rentals below \$750 a month in Naperville which is examined on page 33.

**Table 4: Rent as percentage of income**

Percentage of income spent on housing	Employees	Residents
30% or less	80%	77%
31% to 35%	12%	0%
36% to 40%	2%	9%
41% to 50%	0%	3%
More than 50%	5%	11%

As shown in the table below, most Naperville residents (homeowners and tenants) can easily afford the median rent in Naperville. Households at or above the 2007 median annual income of \$112,500 can afford rents of \$2,812. *But the median income of Naperville tenants is less than half of Naperville homeowners.* Tenants at or above the 2007 tenant household median income of \$62,500 can afford apartments renting at \$1,562. The resident survey found that in 2007 half the apartments rented below \$875 and half above \$875.<sup>19</sup>

**Table 5: Residents — Affordable median rental costs in Naperville**

Year	Median Resident Household Income in Naperville	Affordable Rent for the Resident Median Household Income	Median Tenant Household Income in Naperville	Affordable Rent for the Median Resident Tenant Household Income	Median Rent in Naperville
1990	\$60,979	\$1,524	N/A	N/A	\$698
2000	\$88,771	\$2,219	N/A	N/A	\$942
2007	\$112,500	\$2,812	\$62,500	\$1,562	\$875

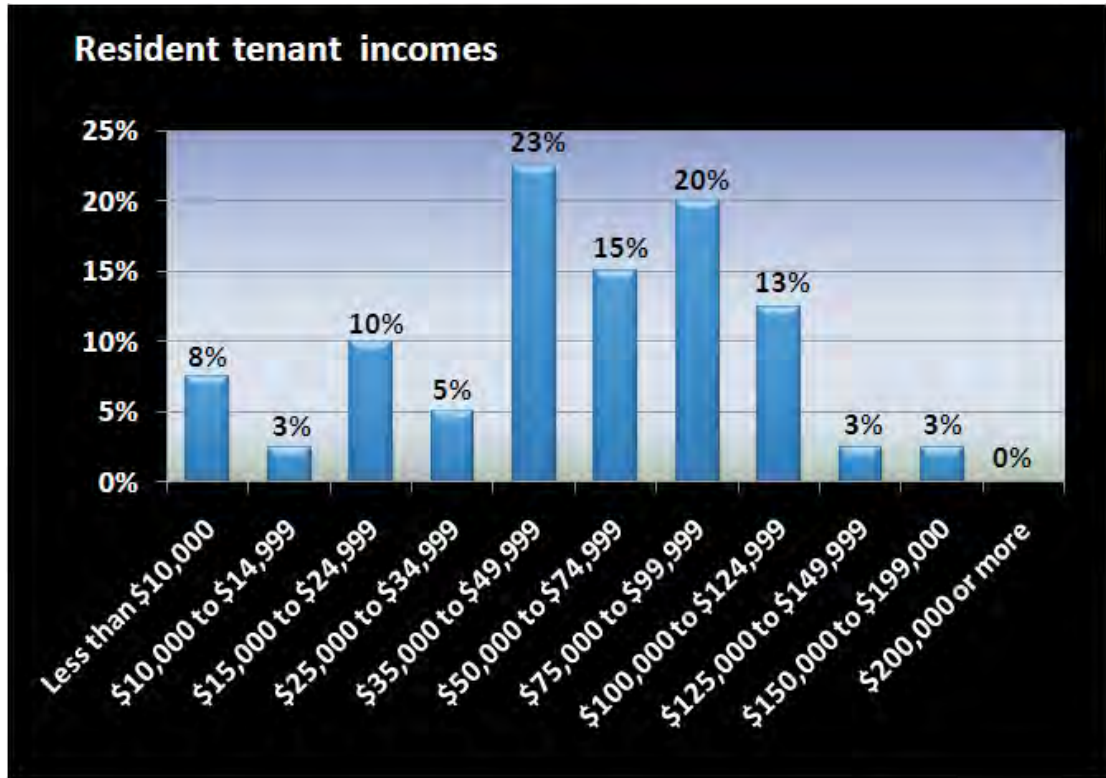
Note: “Resident” includes homeowners and tenants unless specified otherwise. Sources: 1990 and 2000 U.S. Census, and 2008 random sample survey of Naperville residents conducted for this study. The median affordable rents are set at 30 percent of household income.

18. Residents and employees pay, on average, roughly the same percentage of their income on rent, 25 and 24 percent respectively. Relying just on the average masks the differences between the two groups.

19. The 2007 American Community Survey reports that the median rent in Naperville for 2007 was \$1,141, plus or minus \$105, which is in line with the \$1,107 median rent the largest Naperville rental developments charge. The discussion on page 36 that explains this difference is applicable here as well. Nearly all of the other measures in the 2007 American Community Survey matched the results of the surveys conducted for this study.

This depiction, however, hides the affordability issue that faces a significant segment of Naperville’s tenant population described on page 16. While 78 percent of Naperville tenant households can afford the rent they pay, 22 percent spend more than 35 percent of their monthly income on rent with half of that group spending more than 50 percent of their income on rent.

Figure 1: Distribution of resident tenant incomes



As the above bar graph shows, 21 percent of Naperville’s 9,040 tenant households report an annual income under \$25,000. Those with incomes close to \$25,000 can afford a monthly rent of up to \$625.<sup>20</sup> But only 5 percent of Naperville’s rentals cost less than \$500 a month and 2 percent fall into the \$500 to \$749 range — about 633 of the city’s estimated 9,040 rental units.<sup>21</sup> Even if we assume that *all* of the units in the \$500 to \$749 range actually rent for no more than \$625, there is a shortage of at least 1,260 rentals affordable to the 21 percent of tenant households — nearly 1,900 households — with annual incomes under \$25,000.<sup>22</sup>

20. Monthly income is \$2,083. Thirty percent of \$2,083 is \$625.

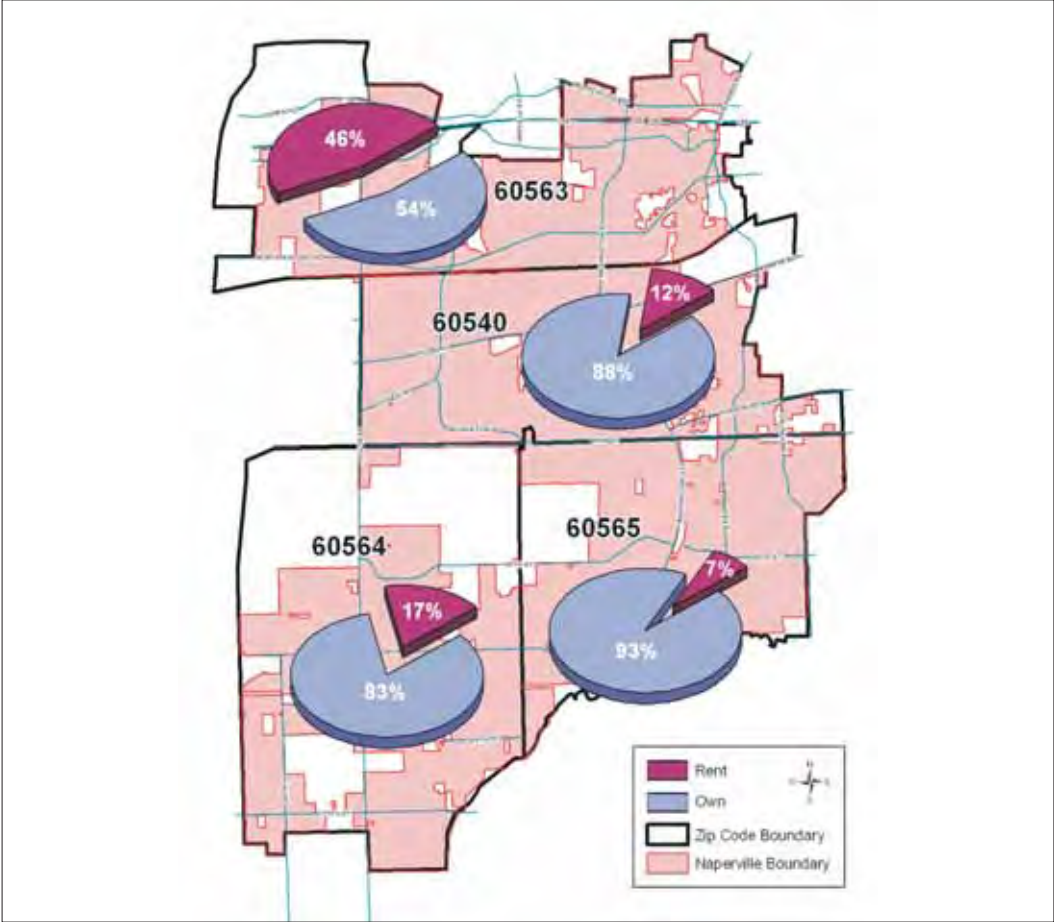
21. See the table “Monthly rent for residents and different types of employers” on page 33.

22. The 21 percent of tenant households comes to 1,898 households. Only 633 units are affordable to them. That leaves a shortfall of 1,265 rental dwellings. This figure is, of course, low because the assumption that all of the units in the \$500 to \$749 range rent for no more than \$625 is unrealistic.

**There is a shortfall of at least 1,200 rental units affordable to the 21 percent of tenant households with annual incomes under \$25,000.**

While Naperville housing is overwhelmingly occupied by homeowners, tenants constitute a significantly higher percentage (46 percent) of residents in zip code 60563, the northwest quadrant of the city, and a significantly lower percentage (7 percent) in 60565.

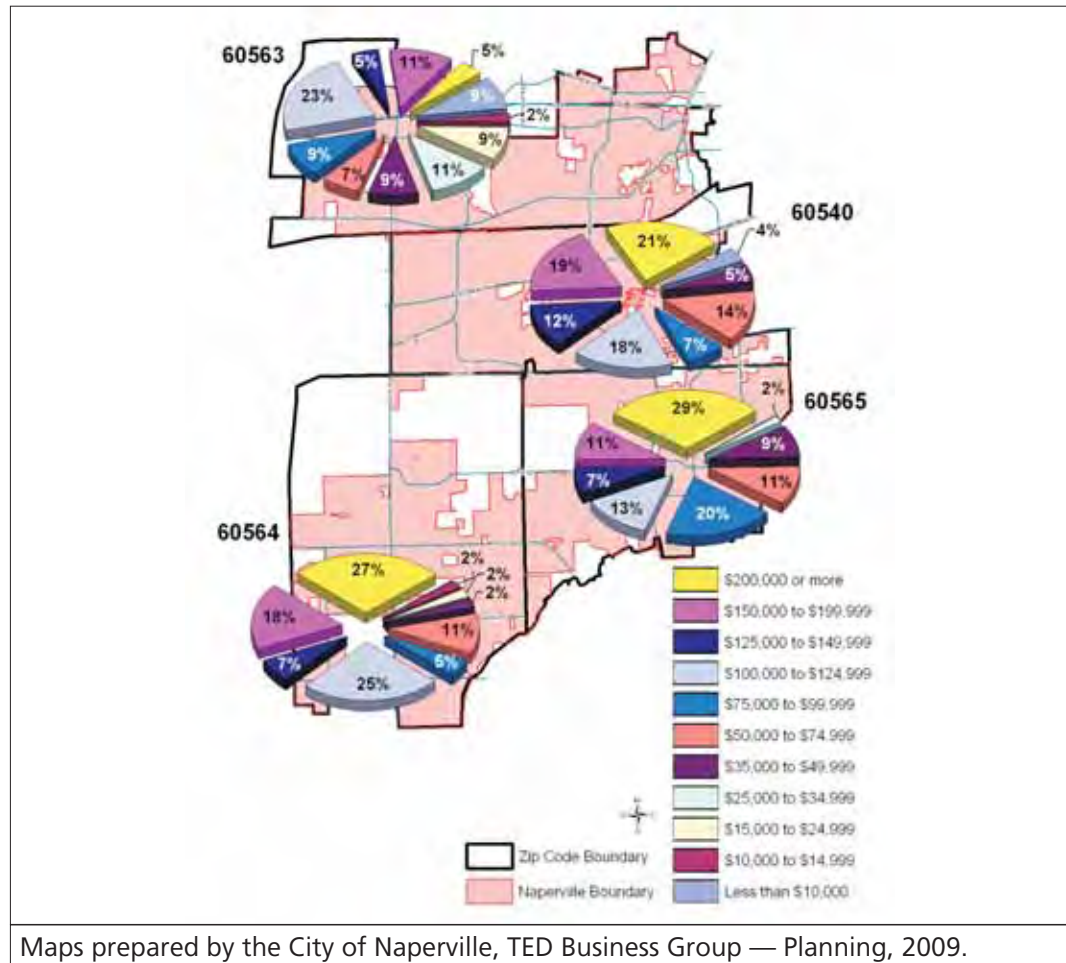
**Figure 2: Resident tenure by zip code**



Consequently the households with the lower incomes are concentrated in zip code 60563 where 40 percent of the households have annual incomes under \$50,000. In the other zip codes, the proportion of households with annual incomes under \$50,000 are 11 percent, 6 percent, and 9 percent. The inverse is the case for higher incomes of \$150,000 or more (40 percent, 45 percent, 40 percent vs. 16 percent for 60563). These concentrations are reflected in the follow-

ing figure that shows the income distribution of all Naperville households within each zip code.

**Figure 3: Resident income by zip code**



### Employee tenants

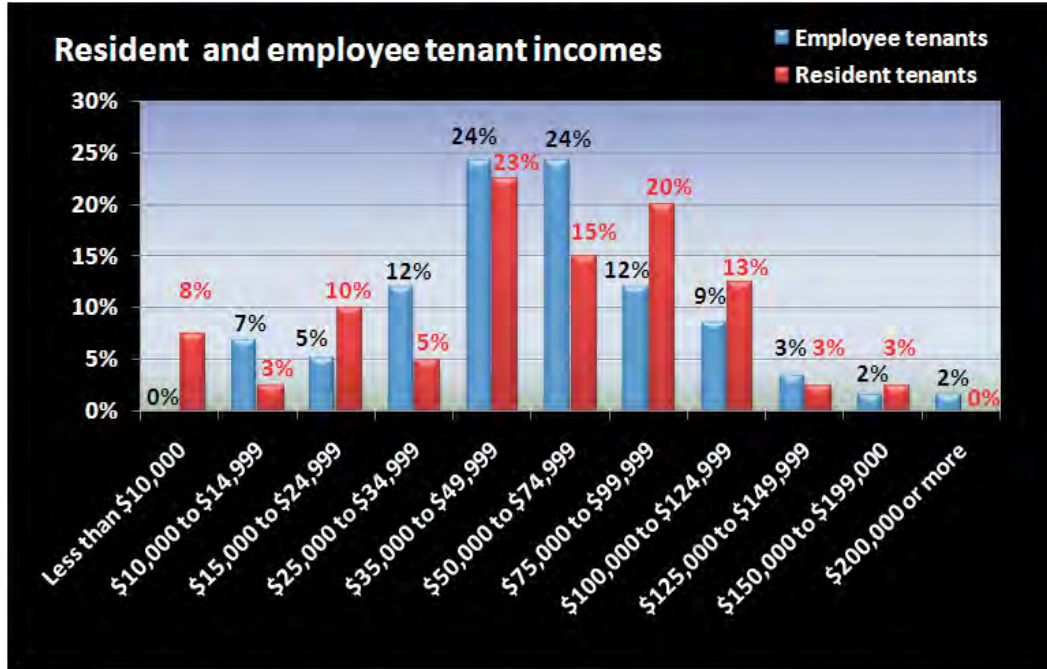
Since employee tenants and the resident tenants have the same \$62,500 median income, the employee tenants face the same affordability gaps that resident renters face.

Year	Employee Median Household Income	Affordable Rent for the Median Employee Household Income	Employee Median Tenant Household Income	Affordable Rent for the Median Employee Tenant Household Income	Median Rent in Naperville
2007	\$112,500	\$2,812	\$62,500	\$1,562	\$875

Note: “Employee” includes homeowners and tenants unless specified otherwise.  
 Source: 2008 random sample survey of Naperville residents conducted for this study. The median affordable rents are set at 30 percent of household income. Data available only for 2007.

The mean income for employee tenants is \$62,319, about \$500 less than for resident tenants. The distribution of income is a bit different than for resident tenants as shown in the bar graph below.

Figure 4: Distribution of resident and employee tenant incomes



While 21 percent of resident tenant households have annual incomes under \$25,000, only 12 percent of the employee tenant households do. More than twice as many employee households fall in the \$25,000 to \$34,999 bracket. No systemic patterns are visible. A smaller percentage of employee tenant households face the same affordability issues that confront resident tenants.

## Ownership housing

Conversely among homeowners, a slightly greater proportion of employee households (19 percent) spend more than 30 percent of their incomes on housing than do residents (15 percent). This four point range is within the margin of error.

**One in seven Naperville homeowner households spends over 30 percent of its income on housing while one in 20 spends more than half of its income on housing.** The proportions are statistically the same for employees.

Percentage of income spent on housing	Employees	Residents
30% or less	81%	85%
31% to 35%	7%	3%
36% to 40%	4%	4%
41% to 50%	4%	3%
More than 50%	4%	5%

**Significant proportions of the employee population and Naperville’s homeowner population are paying more for housing than is healthy for their economic welfare and for the health of their communities and the economy.**

To make sense of the large amount of data available, many researchers report on median household incomes and median home values. Remember, the median is the middle. For example, half of Naperville’s households have 2007 incomes above the \$112,500 median, and half below it.

**Table 8: Residents — Affordable median home ownership costs in Naperville**

Year	Median Resident Household (HH) Income	Affordable Home Price for the Median HH Income	Median Value of Single-Family (SF) Detached Houses	Median Resident HH Income to Afford Median SF Detached House	Median Value of Townhouses and Condos	Median Resident Income to Afford Median Townhouse or Condo
1990	\$60,979	\$182,937	\$176,200	\$58,733	N/A	N/A
2000	\$88,771	\$266,313	\$295,000	\$98,333	N/A	N/A
2007	\$112,500	\$337,500	\$450,000	\$150,000	\$250,000	\$83,333

Note: “Resident” includes all Naperville residents, both homeowners and tenants.  
 Sources: Median household incomes are from the 1990 and 2000 U.S. Census; 2008: Random sample survey of Naperville residents conducted for this study. The median value of single-family detached homes for 1990 is from the U.S. Census. Median home values for both types of ownership housing in 1990 and 2000 are from the 1990 and 2000 U.S. Census. Median values of single-family detached homes in 2000 and all three home values in 2007 (includes first three months of 2008) are from the actual completed sales of Naperville residences listed with the Multiple Listing Service (MLS). Note that MLS figures do not include homes sold by owner.  
 Methodology: “Affordable Home Price for the Median HH Income” is three times the “Median Household Income.” The median HH (household) income to afford each type of ownership housing is one-third of the median value for each type of housing.

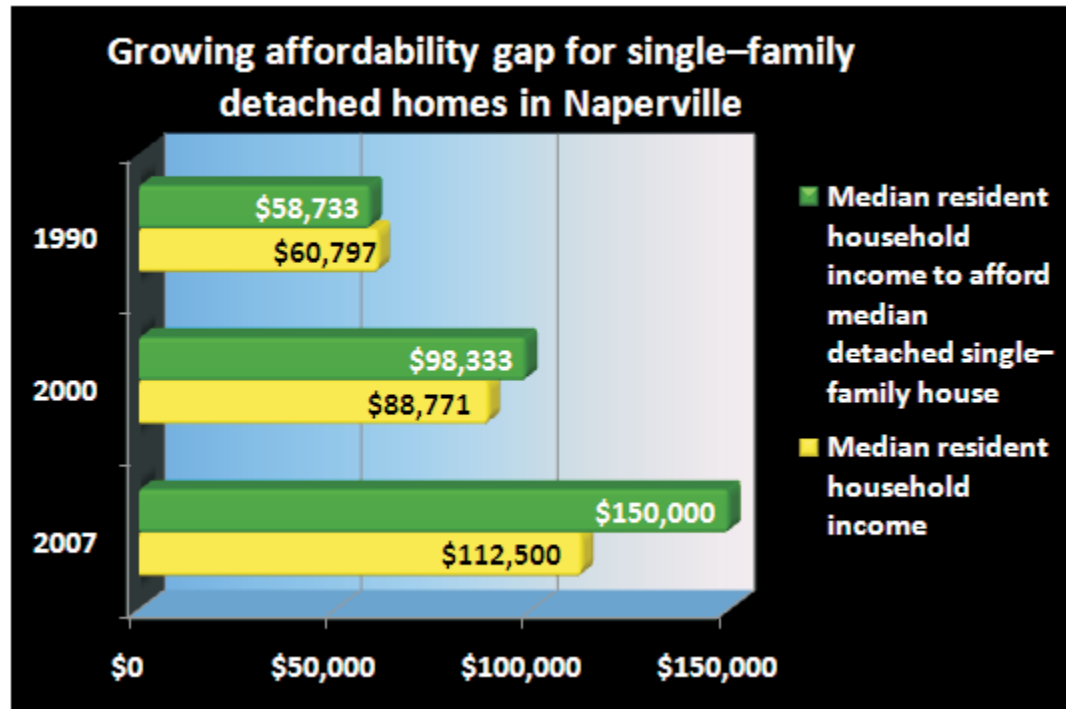
The table above shows the median sale prices of ownership housing that the median income Naperville household can afford.

In 1990, a household with the median income in Naperville (\$60,979) could afford a house costing as much as \$182,937. The median value of a single-family detached house was \$176,200, over \$6,000 less than what a median income Naperville household could afford. Nearly 30 years ago, more than half of Naperville’s residents could afford to buy a single-family detached house in Naperville.

Between 1990 and 2000, the median household income in Naperville rose 45 percent while the median value of single-family detached dwellings rose 67 percent. While that was great news for existing Naperville homeowners, it was bad news for any household earning less than \$98,333, the gross annual income needed to afford the median priced house in Naperville. In 2000, the actual me-

dian price of a single-family detached house (\$295,000) was now \$29,000 greater than the median price affordable to the median income Naperville household (\$266,313). Just nine years ago, more than half the single-family detached houses were beyond the financial means of more than half of Naperville's households.

**Figure 5: Growing affordability gap for single-family detached homes in Naperville**



Between 2000 and 2007 the value of houses in Naperville had grown so much that a household at the 2007 median income of \$112,500 earned \$37,500 less than it took to afford a median priced house in Naperville. In 2007, even more Naperville households were unable to afford an even larger percentage of Naperville single-family detached houses than seven years earlier. The gap between a median priced home (\$337,231) affordable to the median income Naperville household and the actual median value (\$450,000) of single-family houses had grown to over \$112,700 from just \$29,000 at the turn of the century.”

**Eighty-two percent of employees and 64 percent of Naperville residents lack the \$150,000+ annual income needed to afford the \$450,000 median-priced single-family house in Naperville.<sup>23</sup>**

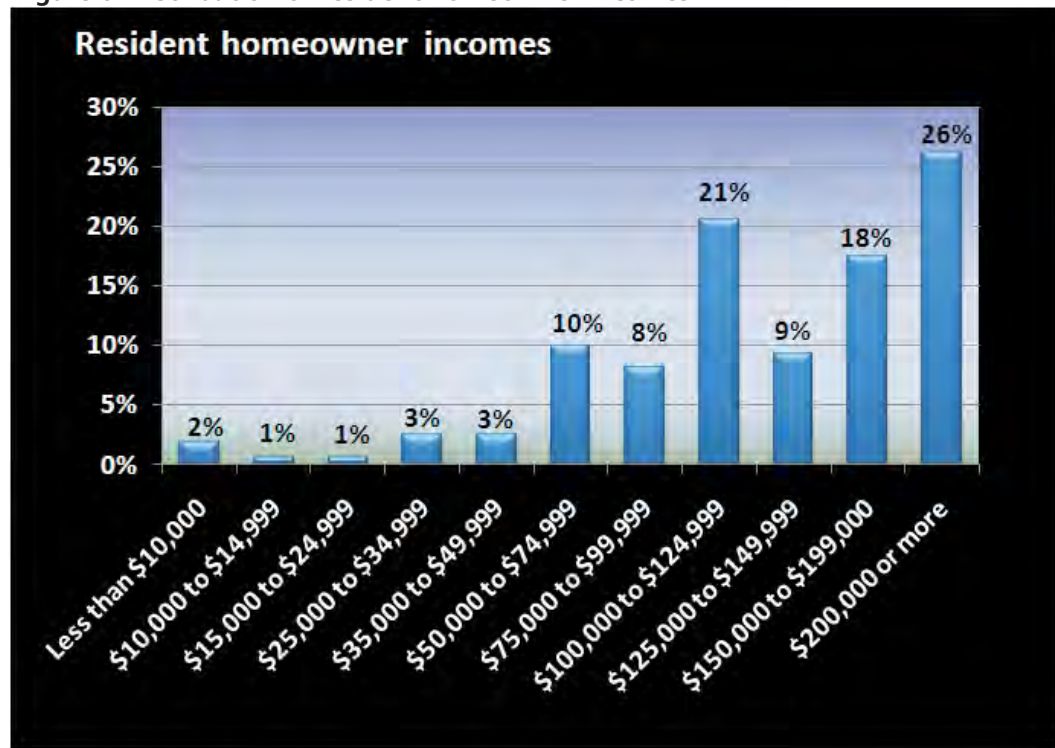
23. See the table “Resident and employee household incomes” on page 39. These figures may underestimate the proportion of homeowners who can afford these median-prices homes. Many existing homeowners may have equity in their current homes that they can apply as a higher downpayment to their next home, thereby reducing their mortgage payment and increasing the cost of the home they can afford to purchase. For further analysis, see the discussion beginning on page 30.

As the above table suggests and as is discussed beginning on page 37, townhouses and condominiums provide a lower-cost ownership opportunity. In 2007, the \$83,333 median annual income needed to afford a Naperville townhouse or condominium was 55 percent of the \$150,000 needed to afford a single-family house.

**Roughly 30 percent of Naperville residents and about 36 percent of employees cannot afford the median-priced Naperville townhouse or condominium.<sup>24</sup>**

The 19 percent of Naperville’s homeowners with annual incomes under \$75,000 (as well as those with incomes below \$83,333 in the next income bracket) cannot afford to buy the median-priced condominium in Naperville. The 47 percent with incomes under \$150,000 could not afford to buy the median-priced single-family detached house. These observations do not factor in the equity a household may have in its current home that it could use to increase the down payment on its next home and be able to afford a more expensive home.<sup>25</sup> Even with that caveat, it is clear that segments of Naperville’s homeowner population face affordability issues with their current homes and their ability to purchase another home in Naperville.

**Figure 6: Distribution of resident homeowner incomes**



24. Ibid.

25. The equity question is discussed in more depth on page 30.



The next table helps place Naperville incomes in perspective by comparing the median income in Naperville with DuPage, Will, and Cook counties. It is extremely unlikely that there was any major relative change since 2006.

**Table 9: Median Income for Various Jurisdictions: 1999–2006**

Year	Naperville	DuPage County	Will County	Chicago Metro Area
1999	\$88,777	\$67,887	\$62,238	\$51,680
2006	\$97,077	\$73,677	\$72,816	\$57,008

Source: U.S. Census Bureau, *U.S. Census*, 2000, and *American Community Survey*, 2006.

**Employee homeowners**

Since employees and the residents have the same \$112,500 median income, the employees experience the same affordability gaps that residents face.

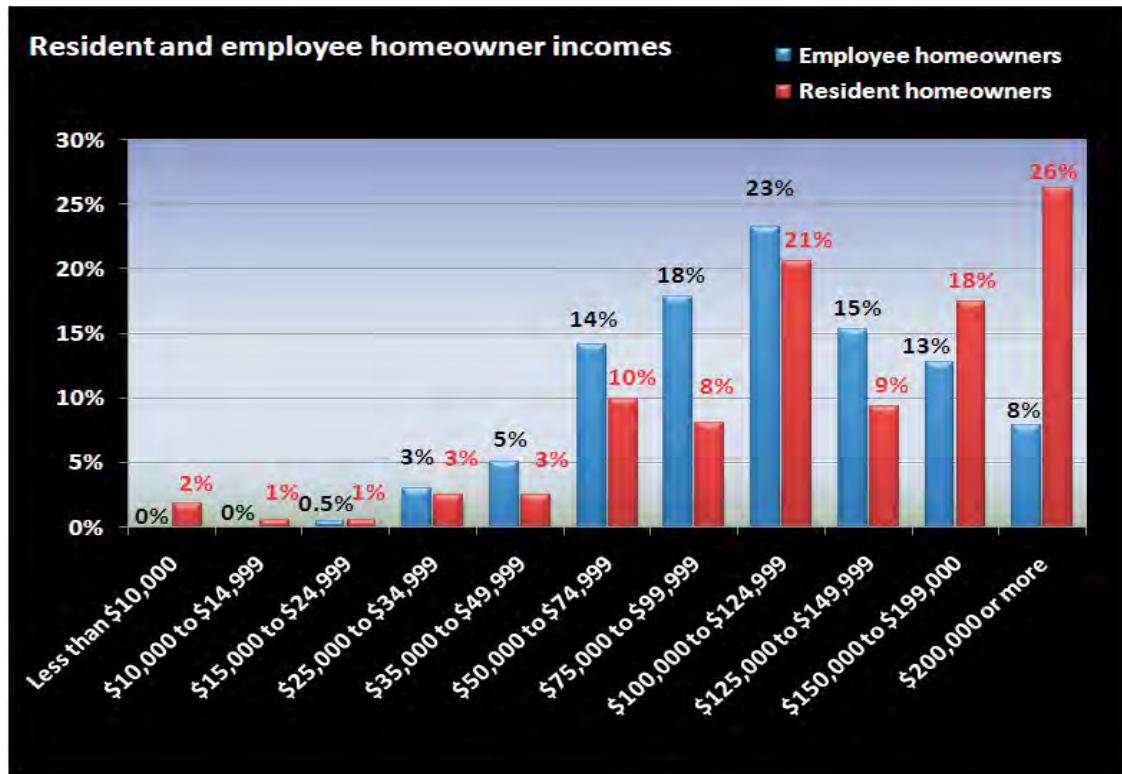
**Table 10: Employees — Affordable median home ownership costs in Naperville**

Year	Median Employee Household (HH) Income	Affordable Home Price for the Median Employee HH Income	Median Value of Single-Family (SF) Detached Houses	Median Employee HH Income to Afford Median SF Detached House	Median Value of Townhouses and Condos	Median Employee Income to Afford Median Townhouse or Condo
2007	\$112,500	\$337,500	\$450,000	\$150,000	\$250,000	\$83,333

Note: “Employee” includes all employees, both tenants and homeowners.  
 Source: Random sample survey of Naperville employees conducted for this study. Median values of homes in 2007 (includes first three months of 2008) are from the actual completed sales of Naperville residences listed with the Multiple Listing Service (MLS). Note that MLS figures do not include homes sold by owner.  
 Methodology: “Affordable Home Price for the Median HH Income” is three times the “Median Household Income.” The median HH (household) income to afford each type of ownership housing is one-third of the median value for each type of housing.

The bar graph below displays the distribution of income among Naperville homeowners and employee homeowners and shows that Naperville homeowners are wealthier than their employee counterparts. Fifty-three percent of Naperville homeowners are concentrated in the \$125,000 and higher brackets while 55 percent of employee homeowners are concentrated in the lower \$50,000 to \$124,999 brackets.

Figure 7: Distribution of resident and employee homeowner incomes



The 22 percent of employee homeowners with annual incomes under \$75,000 (as well as those with incomes below \$83,333 in the next income bracket) cannot afford to buy the median-priced condominium in Naperville. The 78 percent with incomes under \$150,000 could not afford to buy the median-priced single-family detached house. These observations do not factor in the equity a household may have in its current home that it could use to increase the down payment on its next home and be able to afford a more expensive home. Even with that caveat, it is clear that a substantial portion of the employees who own a home face affordability issues if they wish to purchase a single-family detached house in Naperville or even a condominium.

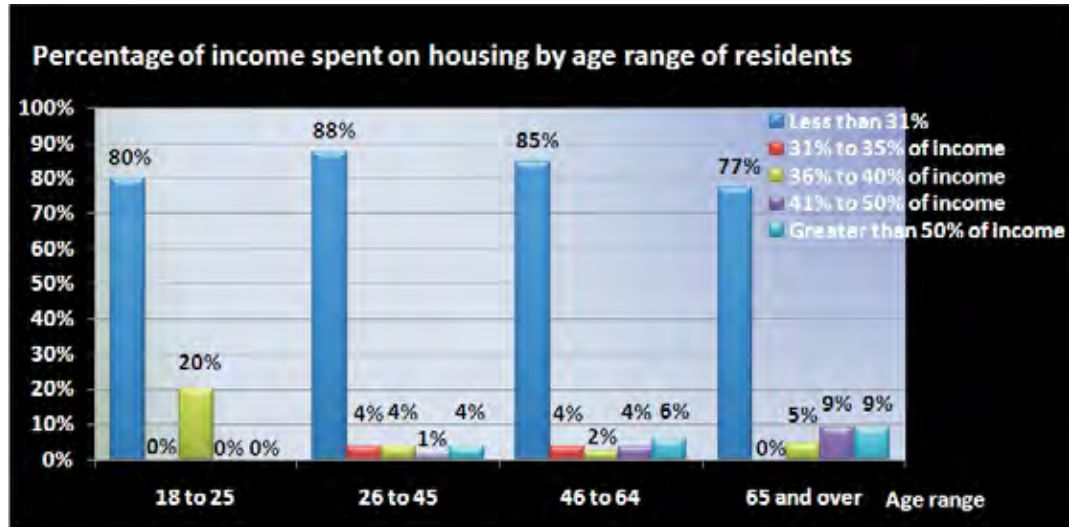
**The \$62,500 tenant median income leaves about 36 percent of employee and 30 percent of resident tenants at least \$20,000 short of being able to afford the median-priced Naperville condominium or townhouse.**

**More lower-cost housing opportunities are needed in Naperville to meet market demand from employees and to enable more Naperville residents to find housing that is affordable so they can continue to live in Naperville.**

## Residents: Age and senior citizens

Disaggregating the data by age reveals clear differences between Naperville households in different age cohorts. The following bar graph shows the percentage of income resident households spend on housing by the age of the survey respondent.

**Figure 8: Percentage of income residents spend on housing by age cohort**



Much of what appears in the above graph is not surprising:

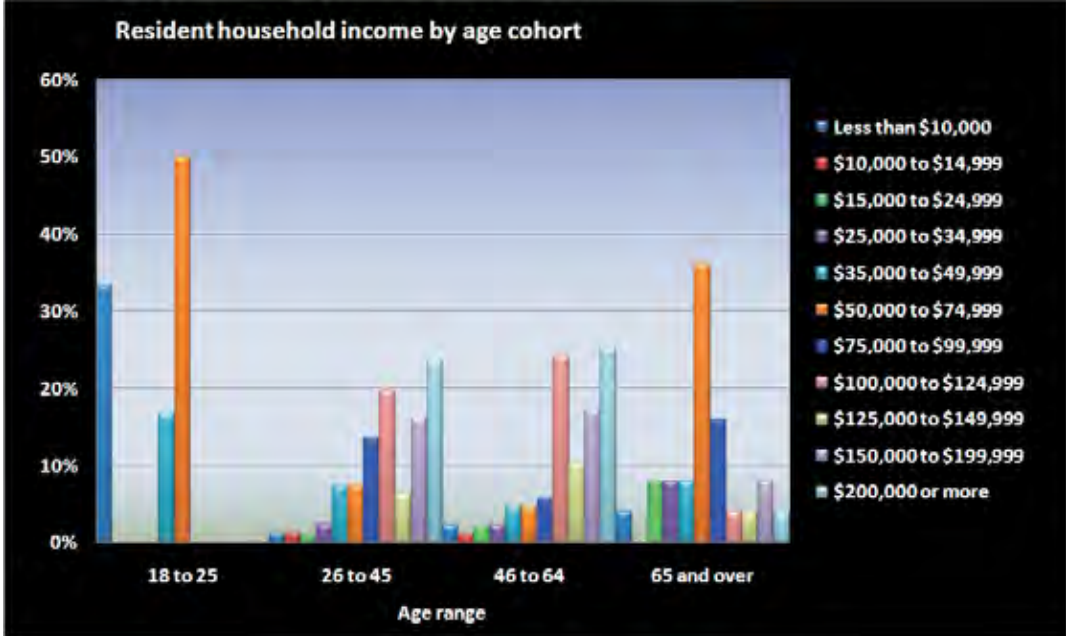
- ◆ One-fifth of the age 18 to 25 households spend 36 to 40 percent of their income on housing. The odds are very strong that a portion of these residents are upwardly mobile with incomes that will rise as they grow older and the proportion of income they spend on housing will decline. However, the portion of this age cohort that spends 36 to 40 percent may not enjoy that upward mobility and they will continue to spend an unhealthy percentage of their income on housing if they wish to remain in Naperville. It is noteworthy, however, that none report spending more than 40 percent on housing.
- ◆ The households in their peak earning years, the two age cohorts in the middle, have the smallest proportions spending over 30 percent of their income on housing.
- ◆ Nearly a quarter of Naperville’s seniors are spending more than 35 percent of their income on housing. It is of concern that nearly one in ten senior households is spending more than 50 percent of its income on housing and that another one in ten is spending 41 to 50 percent. Retirement income is the largest source of income for 72 percent of the households whose respondent was 65 or older.<sup>26</sup>

26. See Appendix C for the cross tabulation table DL T28 Q38: “Largest source of income by q37 income and q34 age.” All cross tabulations are available as Excel spreadsheets from the City of Naperville’s Planning Services Team at 630/420-6694.

**One in five households under age 26 spends 36 to 40 percent which makes it difficult for them to make ends meet, save for a down payment, and improve their living conditions.**

Among the Naperville resident sample, income varies considerably by the age as illustrated in the bar graph below where the percentage of respondents within each income range is shown.

**Figure 9: Resident household income by age cohort**



For example, among the 18 to 25 age cohort, no respondents reported household incomes over \$74,999 while one-third reported household incomes under \$10,000. Half had incomes from \$50,000 to \$74,999.

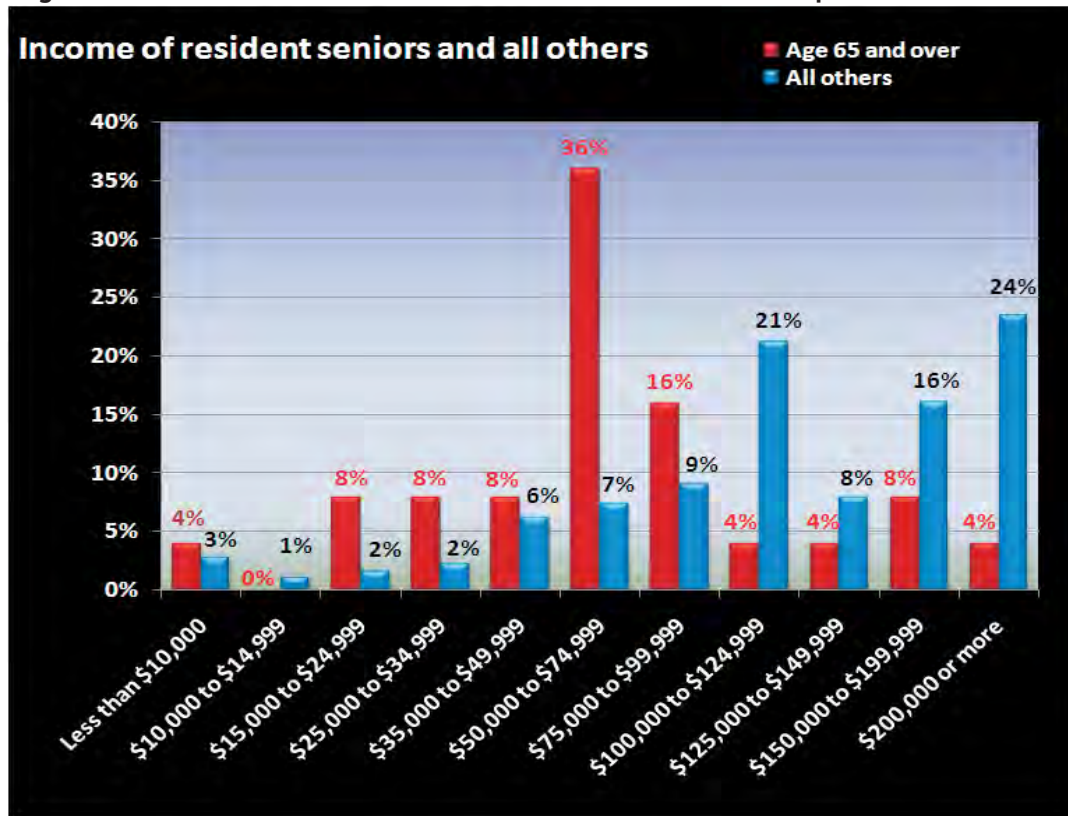
Relatively few Naperville resident households with a respondent between 26 and 64 had relatively low incomes. Most of the wealth among Naperville’s population is concentrated in these two age cohorts.

The bar graph below makes it easier to see how different the income distribution is among seniors compared to the rest of Naperville’s population. The difference in the mode is extreme: \$50,000 to \$74,999 for seniors and \$200,000+ for the under-65 crowd. A more telling measure is the median which is \$62,500 for seniors (the same as tenants) while the median for the rest of Naperville’s population is \$112,500. Twenty-eight percent of seniors have annual incomes below \$50,000 in contrast to just 14 percent of the city’s younger households.

The number of residents who reported they are retired was virtually identical to the number of respondents aged 65 and older. They have a somewhat different household income distribution in which 9 percent of retired households had incomes under \$10,000 with another 4 percent in the \$15,000 to \$24,999

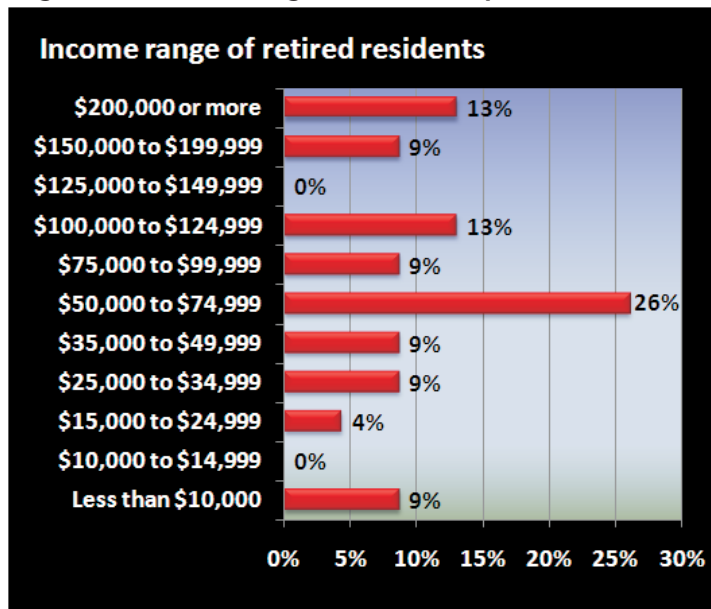
range. While most retired Naperville households have annual incomes of \$50,000 or more, nearly a third fall below that threshold.

Figure 10: Income distribution of resident seniors and rest of Naperville residents



Eighty-three percent of the retired residents who completed surveys report that their household's largest source of income is retirement income. It is likely that the other 17 percent had a least one household member who holds a job. At first blush, one might assume that retired households with lower incomes would be the ones who rely primarily on retirement income and that those at the higher end of the income scale do not. But the proportion of retired households that rely primarily on retirement income is roughly the same in every income range.

Figure 11: Income range of retired Naperville residents



As shown in the table at the right, most Naperville seniors and retired households can afford the median rent in Naperville.<sup>27</sup> Seniors and retired households at or above their 2007 median income of \$62,500 can afford apartments renting for as much as \$1,562. The 80 percent of Naperville’s senior households that generate annual incomes of at least \$35,000 can afford at least half the rentals in Naperville.

**Table 11: Resident seniors and retired — Affordable median rental costs in Naperville**

Year	Senior Median Household Income	Affordable Rent for the Median Senior Tenant Household Income	Median Rent in Naperville
2007	\$62,500	\$1,562	\$875

Source: 2008 random sample survey of Naperville residents conducted for this study. The median affordable rents are set at 30 percent of household income. Data available only for 2007.

That leaves the 20 percent of seniors with incomes under \$35,000. The highest monthly rent they can afford is \$750. Only 7 percent of Naperville’s rentals go for less than \$750 a month. As the table “Monthly rent for residents and different types of employers” on page 33 shows, just 5 percent of tenants report rents under \$300 — but 9 percent of Naperville retirees report incomes under \$10,000 and may need such low rents. Just 2 percent of tenants report rents in the \$500 to \$749 range, which would be affordable to households bringing in \$20,000 to \$30,000 a year — a clearly insufficient number of dwellings. To meet the needs of its lowest income seniors and retired households, Naperville needs additional units of very low-cost housing.

While the vast majority of Naperville seniors can afford rental housing in Naperville, 93 percent of them currently own a house, townhouse, or condominium. Eighty-six percent of Naperville seniors currently own a single-family house, but only 17 percent of those who expect to move at some point anticipate moving to another single-family house. Two-thirds expect to move to a townhouse or apartment while one-sixth expect to move to a retirement home or assisted living facility. Their intentions suggest that single-family housing is not a high priority option for the vast majority of Naperville’s current senior citizens.

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27. Of the residents who reported their largest source of income (Question 38) is retirement funds, 72 percent were age 65 and older. The rest were in the 46 to 64 age cohort, most likely at the older end. Coincidentally, retirement income is the largest source of income for 72 percent of residents age 65 and older. [Q38 Largest source of 2007 income \* Q34 Age of respondent crosstabulation]

**Table 12: Resident seniors and retired — Affordable median home ownership costs in Naperville**

Year	Median Senior Household (HH) Income	Affordable Home Price for the Median Senior HH Income	Median Value of Single-Family (SF) Detached Houses	Median Senior HH Income to Afford Median SF Detached House	Median Value of Townhouses and Condos	Median Senior Income to Afford Median Townhouse or Condo
2007	\$62,500	\$187,500	\$450,000	\$150,000	\$250,000	\$83,333

Source: Random sample surveys of Naperville residents conducted for this study. Median values of homes in 2007 (includes first three months of 2008) are from the actual completed sales of Naperville residences listed with the Multiple Listing Service (MLS). Note that MLS figures do not include homes sold by owner.

Methodology: “Affordable Home Price for the Median HH Income” is three times the “Median Household Income.” The median HH (household) income to afford each type of ownership housing is one-third of the median value for each type of housing.

Looking only at annual income in the above table, it appears that a substantial minority of Naperville’s senior citizens lacks the income needed to buy their next home in Naperville. Only 12 percent of Naperville’s seniors have the \$150,000 annual income needed to buy the median-priced single-family house in Naperville. Roughly 28 percent have the \$83,333 annual income needed to buy the median-priced townhouse or condominium. Keep in mind, though, that 66 percent of Naperville seniors who expect to move plan to move to multi-family housing while only 17 percent of Naperville’s seniors are interested in moving to a single-family house.

*But income is not the whole story.* Senior-headed households may have paid off their mortgages or have a relatively small amount of principle left to pay. The “profit” from the sale of their current homes — part of a household’s equity — may enable them to purchase new homes even though their current incomes are well below the \$150,000 annual income needed to afford the median-priced single-family house or \$83,333 needed to afford the median-priced townhouse or condominium. This equity may also provide the funds needed to afford Naperville rentals even though annual income may be below the 30 percent affordability threshold.

**The data suggest that further research is needed to determine whether Naperville seniors with annual incomes below these thresholds of \$150,000 and \$83,333 have enough equity in their homes to afford a Naperville rental or afford to purchase their next home in Naperville with a relatively small mortgage or buy it with cash and still have adequate funds to live on.**

However, it is abundantly clear that whatever the boost of substantial eq-

uity from the sale of their current homes may provide, half of Naperville’s seniors have annual incomes below the \$62,500 median.

**Table 13: Income of Naperville senior citizens**

Annual Income Range	Percentage of Senior Households	Cumulative Percentage
Less than \$10,000	4%	4%
\$10,000 to \$14,999	0%	4%
\$15,000 to \$24,999	8%	12%
\$25,000 to \$34,999	8%	20%
\$35,000 to \$49,999	8%	28%
\$50,000 to \$74,999 (Median = \$62,500)	36%	64%
\$75,000 to \$99,999	16%	80%
\$100,000 to \$124,999	4%	84%
\$125,000 to \$149,999	4%	88%
\$150,000 to \$199,999	8%	86%
\$250,000+	4%	100%

**While the vast majority of Naperville residents can afford their homes, 15 percent spend more on housing costs than is healthy.**

**The situation is particularly acute among seniors: 23 percent of whose households spend 36 percent or more of their income on housing and 18 percent of whom spend 41 percent or more. One in ten Naperville senior households spends more than half of its income on housing.**

**As noted earlier, it is important to remember that these figures understate the proportion of income spent on housing when you also count other “housing expenses” like utilities and insurance that usually are included in housing costs when estimating housing affordability.**

Not suprisingly, Naperville households with at least one senior citizen in them have lived in Naperville far longer than other households and have a stronger desire to continue to live in Naperville.

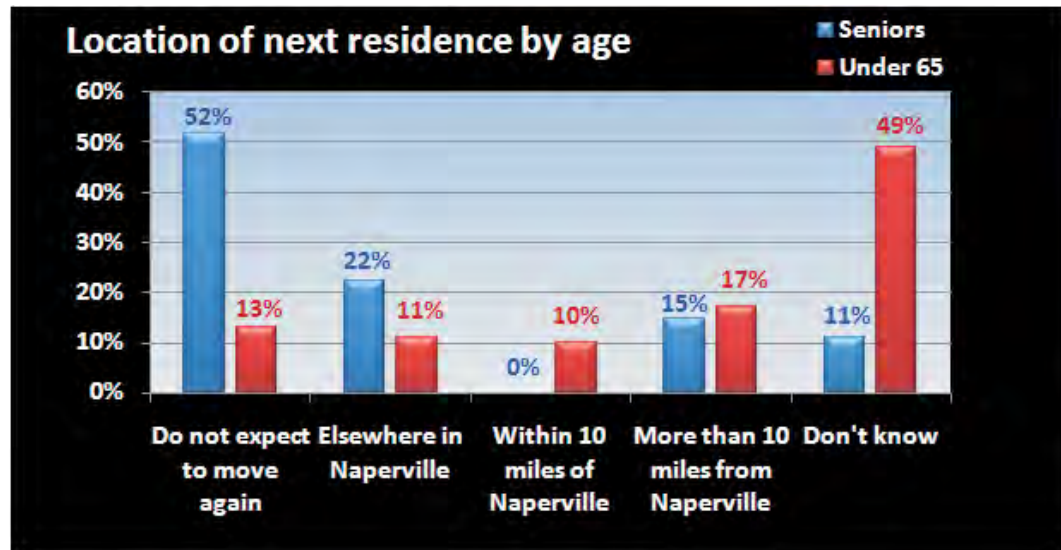
The mean length of residency for Naperville households whose survey respondent was 65 or older was 29.6 years. For those households whose survey respondent was 46 to 64 years old, the mean length of Naperville residency was 16.4 years. For those households whose survey respondent was 26 to 45 years



old, the mean was 7.7 years while for those in the 18 to 25 year range, the mean was 2.2 years.

As the figure below shows, our survey of residents found that at least 74 percent of Naperville's seniors wish to continue to live in Naperville. More than half do not expect to move again. Another 22 percent expect to move elsewhere in Naperville. Just 35 percent of all younger households express the same desires. Note, however, that half of them do not know whether they will move again.

Figure 12: Location of next residence by age



Naperville's senior citizens have lived here far longer than any other age group. The average Naperville senior citizen has lived here more than 29 years. At least 74 percent of them report they wish to continue to live in Naperville.

## Elements of affordability: Cost of housing

This section and the next section of this chapter further analyze the data to report in more detail on the two primary factors that determine the affordability of housing  
 (1) the cost of housing, and  
 (2) household income.

### Rental housing

Summary data such as the mean, median, and percentiles shown in the table at the right mask the significantly different rents residents and employees actually pay, which are shown in the more detailed table below. Ninety percent of resident tenants pay monthly rents between \$750 and \$1,499 while just 64 percent of employees do. More than half of the resident tenant households (52 percent) report paying \$750 to \$999 in monthly rent with just 8 percent paying less. Another 38 percent pay \$1,000 to \$1,499 with just 3 percent paying more. A greater proportion of employee tenants (21 percent vs. 8 percent of residents) pay rents below \$750 a month while five times as many employee tenants than resident tenants pay more than \$1,499 per month. The data show a narrow range of rents in Naperville.

**Table 14: Measures of monthly rents**

Measure	Residents	Employees
Median	\$875	\$875
Mean	\$991	\$1,033
25th percentile	\$875	\$875
50th percentile	\$875	\$875
75th percentile	\$1,250	\$1,250

**Table 15: Monthly rent paid by residents and employees by employer size**

Monthly rent	Residents	All Employees	Smaller Business	Largest Businesses
Less than \$300	5%	3%	4%	3%
\$300 to \$499	0%	5%	4%	6%
\$500 to \$749	2%	13%	20%	8%
\$750 to \$999	52%	36%	32%	39%
\$1,000 to \$1,499	38%	28%	28%	28%
\$1,500 to \$1,999	2%	13%	12%	14%
\$2,000 or more	0.0%	2%	0%	3%

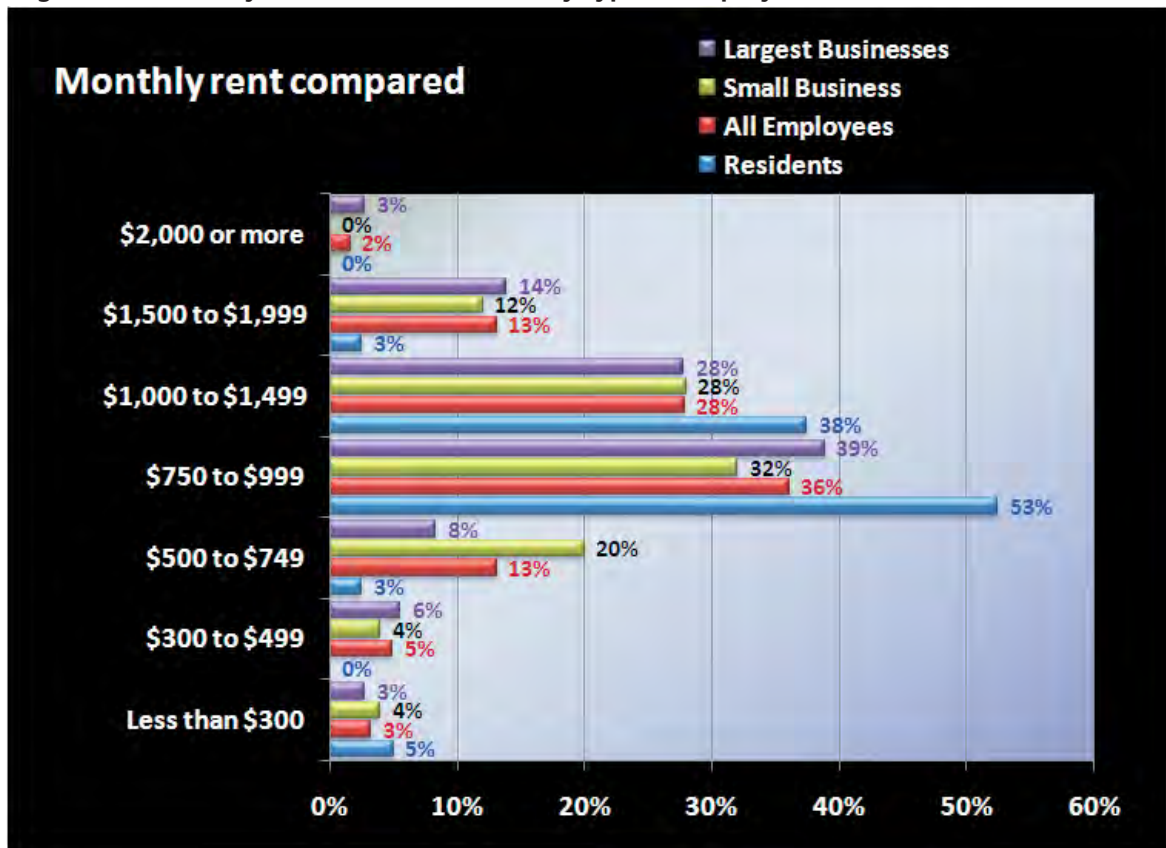
For a substantial number of employees, this concentration of 90 percent of Naperville rentals between \$750 and \$1,499 a month erects a nearly impenetrable barrier to accessing rental housing in Naperville. Twenty-three percent

of all employees, and 13 percent of employees who currently rent, have a household income below the \$30,000 minimum annual income needed to afford even a \$750 monthly rent. The consequences are that there are relatively few rental units available for households of the most modest means. Three times as many employee tenants than resident tenants rent for less than \$750 a month. Four times as many employees at the smaller businesses do. The ability of employees to find lower-cost rentals outside Naperville may help explain why only 5 percent of them spend more than 40 percent of their income on rent compared to 14 percent of Naperville resident tenants.<sup>28</sup>

Note that 28 percent of the employees of the smaller businesses pay less than \$750 in rent as opposed to 17 percent of the employees at larger businesses and just 7 percent of the resident sample.<sup>29</sup> At the other end, 15 percent of employees pay \$1,500 or more in rent while just 2 percent of the resident tenants spend that much.

The bar graph below more vividly illustrates that **Naperville rents are much more concentrated in the middle than the rents employees pay.**

Figure 13: Monthly rent for residents and by type of employer



28. See the table “Rent as a percentage of income” and accompanying discussion on page 16.

29. “See Appendix A for an explanation of “smaller” and “largest” businesses.

This concentration of rents between \$750 and \$1,499 suggests there are relatively few lower-cost rentals in Naperville. Only 7 percent of tenants reported rents below the concentration ranges while 21 percent of employees reported paying rents below \$750. It would appear that very few Naperville apartments are affordable to households in the lowest income brackets.

As the table to the right shows, the employees who rent in Naperville are also heavily concentrated in the \$750 to \$1,499 range (71 percent), albeit not nearly as intensely as the tenants in the Naperville resident sample (90 percent). Just 57 percent of the employees who rent outside Naperville fall into this range.

More than four times as many employees who live outside Naperville (30 percent) spend under \$750 on monthly rent compared to the Naperville tenant sample (7 percent). Eleven percent of the employees who live in Naperville rent for less than \$750 a month.

Whether or not they live in Naperville, far more employees spend over \$1,499 on rent than do the members of the resident tenant sample.

Prior to conducting this study, the City of Naperville had gathered rents levels from 27 of the city’s largest rental complexes that found higher rents (mean \$1,107) than what our resident sample reported (mean \$991). Among these, rents average \$1,107 with the lowest average (\$1,056) in zip code 60563 where most rentals are concentrated and the highest average (\$1,453) in zip code

**Table 16: Rent profile for employee sample by location and resident sample**

Rent Range	Naperville residents	Employees living in Naperville	Employees living outside Naperville
Less than \$300 per month	5%	0%	6%
\$300 to \$499	0%	0%	9%
\$500 to \$749	2%	11%	15%
\$750 to \$999	52%	46%	27%
\$1,000 to \$1,499	38%	25%	30%
\$1,500 to \$1,999	2%	18%	9%
\$2,000 or more	0%	0%	3%

60564 with the next highest proportion of rentals in Naperville. Among the largest landlords, rents range from \$700 to \$1,955.

Location by zip code	Percent	Mean monthly rent in 2007
<b>60540</b>	19%	\$1,146
<b>60563</b>	66%	\$1,056
<b>60564</b>	7%	\$1,453
<b>60565</b>	8%	\$1,087
<b>Citywide</b> 7,996 rental units	100%	\$1,107

Source: TED survey of major rental complexes in Naperville

The average rent that the 27 largest rental complexes reported is \$116 greater than the \$991 average monthly rent (same as the median) that Naperville tenants in our sample reported. The difference may be attributable to a variety of factors such as the sample including tenants who live in smaller rental buildings that charge lower rents. It’s a fairly safe assumption that these smaller buildings were built before the large complexes, possibly have fewer bedrooms, and possibly be smaller dwelling units — in which case they would likely rent for less.<sup>30</sup> The average rent among the large complexes built between 1981 and 1989 was \$1,042. The average rent is \$1,173, 13 percent higher, among the largest complexes built between 1990 and 2002. Eighty-eight percent of Naperville’s 9,040 rentals are in these 27 largest complexes.<sup>31</sup> Some of the tenants surveyed may be renting condominiums at rents less than what a professional landlord charges. The difference could be partially due to the landlords reporting the rents they sought while actually renting at lower rates.<sup>32</sup>

To estimate the affordability of rental housing in Naperville and the percentage of income spent on housing, this study uses the lower rent levels reported in the random-sample survey. If there is any error, this study errs on

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30. We have observed over the years that older and smaller apartment buildings tend to charge lower rents than newer and larger apartment buildings and large rental complexes. It is very likely that the 12 percent of Naperville tenants who rent in the smaller and older buildings pay a noticeably lower rent than the 88 percent of tenants living in these larger complexes which may help account for the lower mean rent in the Resident Survey sample.

31. *2007 American Community Survey*, U.S. Census Bureau. See the “Selected Housing Characteristic: 2007” data set.

32. The method used to calculate the mean rents for the largest complexes may also contribute to the difference. We had only rent ranges for each large complex, none of which started at less than \$700 and two of which started at less than \$800. In calculating the average rent for each complex, we had to assume an even distribution of rents in the range for each complex. In reality, it is likely that rents are not evenly distributed in each complex and may be concentrated at the high end or low end of the range.

the conservative side by using the lower rent levels reported by the random-sample survey of Naperville residents which would understate the extent of any affordability problems.

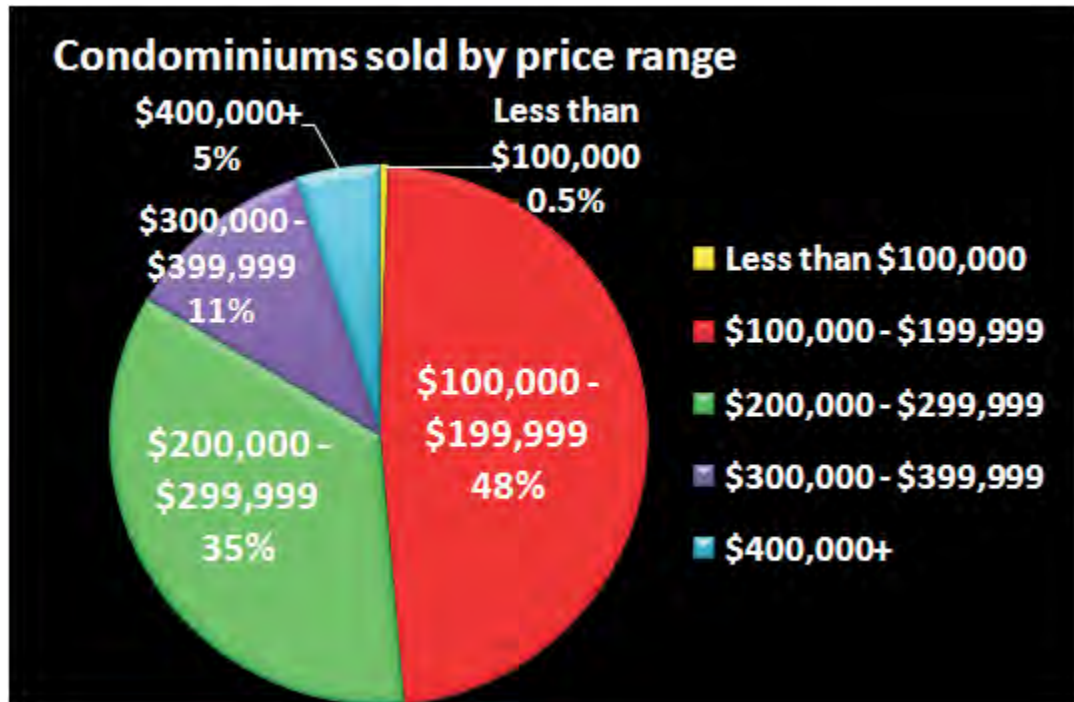
## Ownership housing

The sale prices of condominiums (including townhouses under condominium ownership) and single-family homes are based on all actual sales of Naperville properties reported to the Multiple Listing Service from January 1, 2007 through March 31, 2008. While these exclude sales by owners who did not use a real estate broker, they provide as accurate as possible a representation of the cost of residential ownership property during this time period.

As suggested by the data below, there appears to be a price continuum of ownership housing in Naperville with condominiums providing nearly all the lower-priced ownership opportunities.

**Condominiums:** Nearly half (48.5 percent; 447 of 920 dwellings) of the condominiums in Naperville sold for less than \$200,000 with another 35 percent between \$200,000 to \$299,999. Just 11 percent sold in the \$300,000 to \$399,999 range and 5 percent for \$400,000 or more.

Figure 14: Prices of condominiums sold in Naperville, 2007 — March 2008

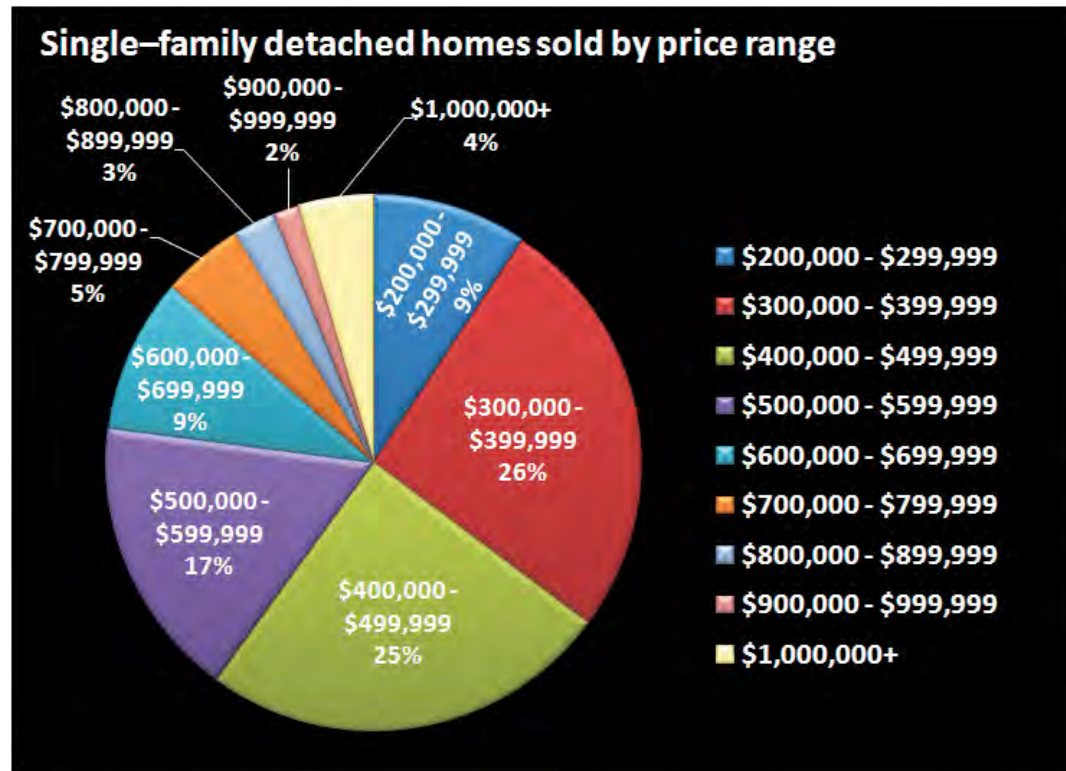


While 35 percent of condominiums sold in the \$200,000 to \$299,999 range, 9 percent of single-family homes sold in the \$200,000 to \$299,999 range. While 12 percent of condominiums sold in the \$300,000 to \$399,999 range, 26 percent of single-family homes sold in that range. As the pie graph entitled “Prices of single-family homes sold in Naperville” on page 36 shows, 65 percent of single-

family homes (1,068 dwellings) sold for \$400,000 or more, with most of those selling for half a million dollars or more (40 percent of all single-family homes).

The data suggest there's a continuum of ownership opportunities in Naperville that does exclude a substantial proportion of Naperville residents and employees as described earlier in this chapter. The bulk of sales below \$200,000 are condominiums followed by a little overlap between condominiums and single-family homes between \$200,000 and \$299,000. Above \$300,000, single-family homes dominate Naperville's ownership market.

Figure 15: Prices of single-family homes sold in Naperville, 2007 — March 2008



## Elements of Affordability: Household income

The second element for estimating the affordability of housing is household income. This section will examine household income for Naperville as a whole, by tenure, by age, and for employees. Most of the data on household incomes was presented earlier in this chapter beginning on page 27.

### Resident income compared to employee income

The distributions of resident and employee households by annual household income reveal several illuminating patterns. Twice as many resident (36 percent) as employee (18 percent) households are at the high end of the income scale, with incomes of \$150,000 or more in 2007. A higher percentage of em-

ployee (66 percent) than resident (48 percent) households falls into the mid-range of \$50,000 to \$149,999. None of the differences in the proportions in the lower income ranges is very significant.

As illustrated by the table below, “Resident and employee household incomes,” the size of the employer makes a significant difference in income.

- ◆ Nearly six in ten employees working for the smaller businesses earn less than \$100,000 annually while about four in ten of the employees at the largest businesses do.
- ◆ A little less than four in ten Naperville households (36 percent) earn less than \$100,000 a year.
- ◆ On the flip side, 63 percent of Naperville households and 60 percent of the employees of the larger businesses enjoy an annual income over \$100,000 in contrast to just 41 percent of the employees of the smaller businesses.
- ◆ Of the relatively few resident households that reported annual incomes under \$15,000, half were unemployed. Of the employed, one reported receiving a housing subsidy and another receives contributions from his family.<sup>33</sup>

**Table 18: Resident and employee household incomes**

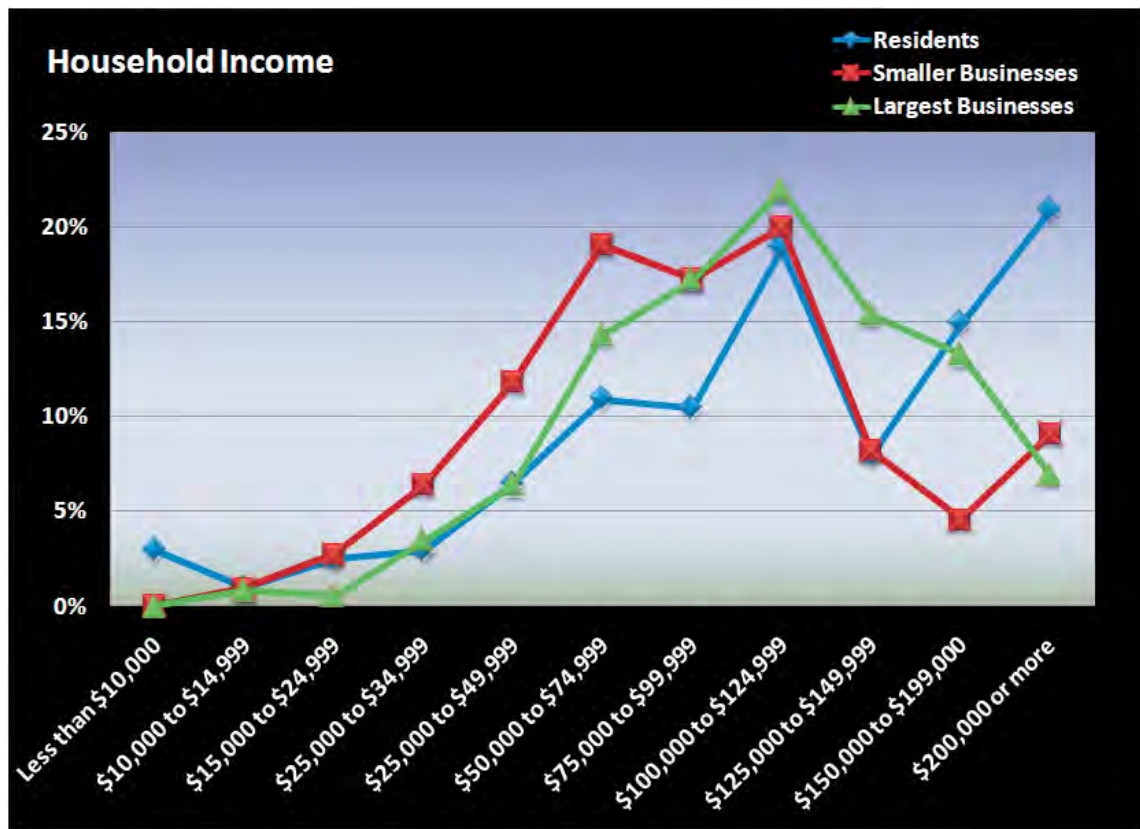
Income range	Residents	All Employees	Employees of smaller businesses	Employees of largest businesses
Less than \$10,000	3%	0%	0%	0%
\$10,000 to \$14,999	1%	1%	1%	1%
\$15,000 to \$24,999	2%	1%	3%	1%
\$25,000 to \$34,999	3%	4%	6%	3%
\$35,000 to \$49,999	6%	8%	12%	6%
\$50,000 to \$74,999	11%	15%	19%	14%
\$75,000 to \$99,999	10%	17%	17%	17%
\$100,000 to \$124,999	19%	22%	20%	22%
\$125,000 to \$149,999	8%	14%	8%	15%
\$150,000 to \$199,000	15%	11%	4%	13%
\$200,000 or more	21%	7%	9%	7%

33. Obviously there are no unemployed in the Employee Survey’s sample since only people with at least one job, be it full-time or part-time, were surveyed.



The distribution of resident and employee incomes is a bit clearer in the graph below.

Figure 16: Household income of residents and employees



As shown in the table below, significantly more households in the employee sample had more than one wage earner. More than one person is employed in 73 percent of the employee households compared to just 46 percent of the Naperville resident households.

The two surveys asked for *total household* income because total household income rather than an individual's income is used to determine housing affordability. It appears that a **greater percentage of employee households than resident households rely on income from more than one household member to afford their current homes.**

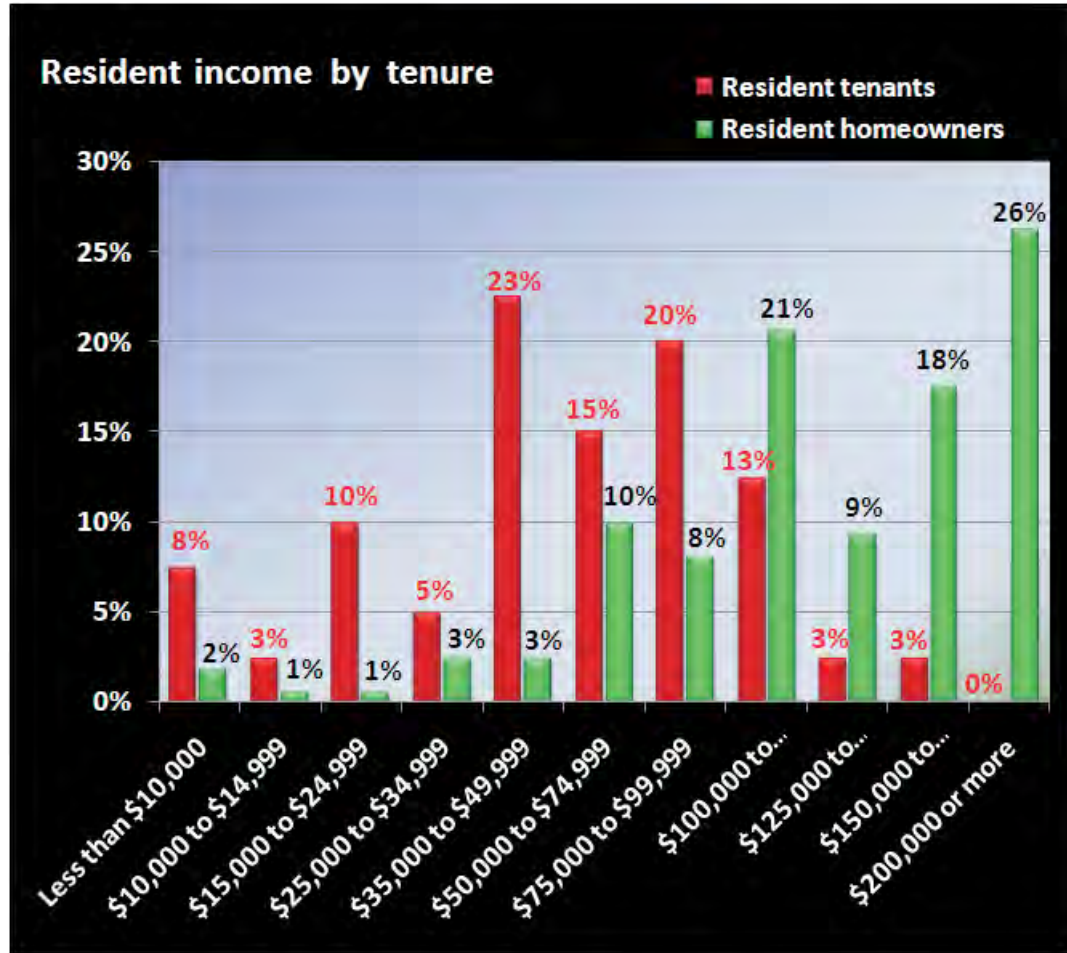
Table 19: Number of employed adults per household

Number	Employees	Residents
0	0%	11%
1	27%	43%
2	57%	40%
3	12%	5%
4+	4%	1%

## Resident tenant and homeowner income

Among Naperville residents, the income distribution of tenant and owner households is dramatically different as illustrated in the figure below.

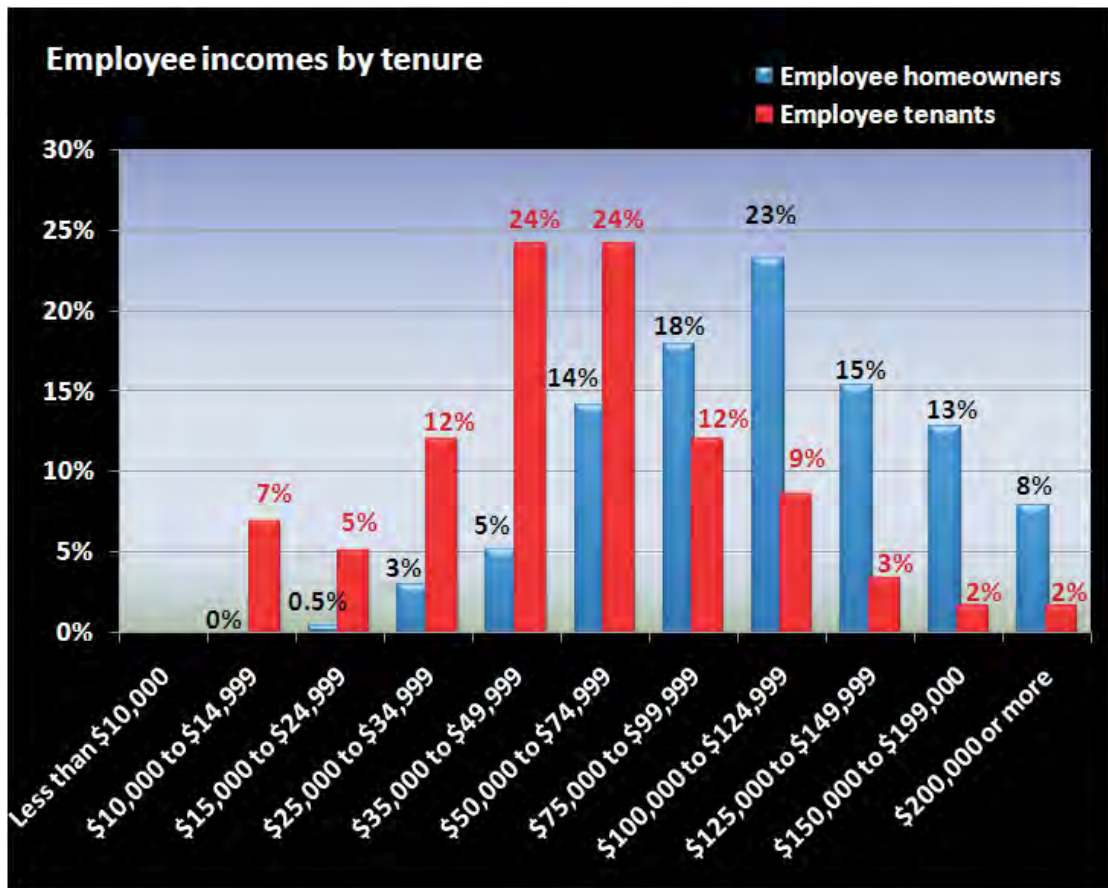
Figure 17: Distribution of resident income by tenure



Given the distribution of incomes shown above, it is no surprise that the mean tenant household income is \$62,863 while for homeowners it is \$134,694 with respective medians of \$62,500 and \$112,500. Nor is it any surprise that so few tenants can afford to buy any type of home as discussed earlier in this chapter.

## Employee tenant and homeowner income

Figure 18: Distribution of employee income by tenure



As the bar graph above shows, among employees, homeowners have higher incomes than tenants. Their incomes, however, average less than Naperville homeowners and tenants. Among employees, the mean income is \$62,319 for tenants and \$113,694 for homeowners.

## Chapter 3

# Other Findings On Housing Demand and Needs

This chapter presents additional significant findings related to understanding housing demand and needs based on the data generated by the random sample surveys of Naperville residents and of workers in Naperville. Appendix B presents the results from both surveys, including the questions asked along with the number of responses to each question.

## Residents and employees

One of the goals of this study was to identify the similarities and differences in the housing needs of Naperville residents and those of the people who work in Naperville. This chapter presents the significant comparable data that identifies these similarities and differences.

Readers should be aware that aggregate figures may mask the characteristics of more narrowly-defined categories of residents or employees. So some of the data presented here will further divide the employee sample into those who work for the largest Naperville employers and those who work for the smaller employers including retail shops, auto dealerships, restaurants, and similar establishments.

## Residence and household characteristics

Nearly all residents and employees would prefer to own their home (97 and 98 percent respectively). The overwhelming majority (85 percent) of both groups would prefer a single-family house if resources were not an issue.

While roughly the same percentages of residents (78 percent) and employees (74 percent) live in single-family houses, residents are twice as likely to live in multifamily housing (20 percent to 10 percent employees) while employees are eight times as likely to live in townhouses (16 percent compared to 2 percent residents).

About 8 percent more Naperville residents (20 percent) than employees (12

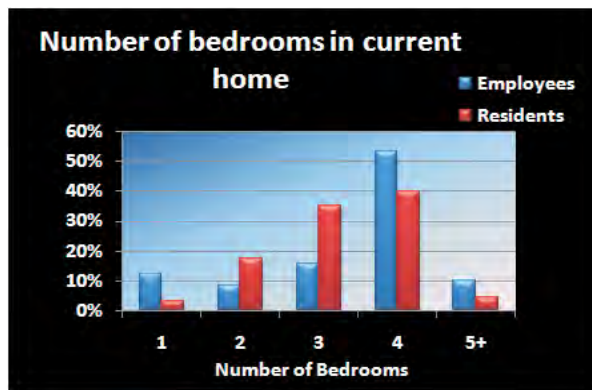
percent) rent. However, 21 percent of the employees who work at the smaller businesses rent compared to just 9 percent of those at the largest businesses.

**Table 20: Housing tenure**

Rent or own current home	Residents	All Employees	Smaller Businesses	Largest Businesses
Own	80%	88%	79%	91%
Rent	20%	12%	21%	9%

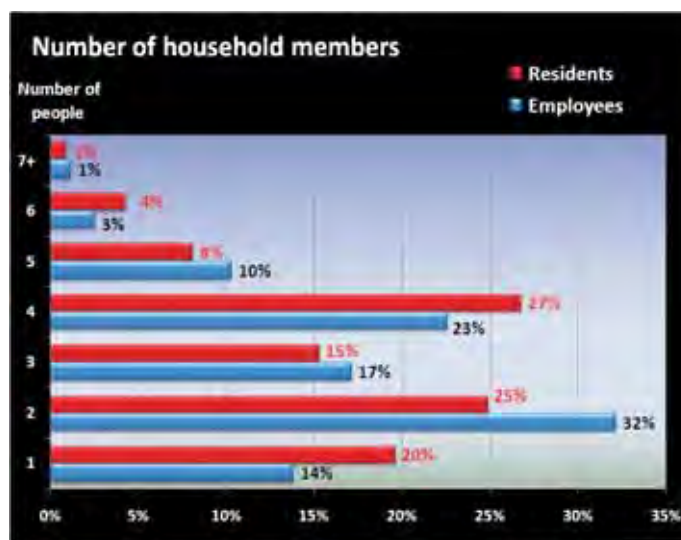
A greater proportion of employees than residents live in homes with one bedroom and with four or five bedrooms (63 percent to 44 percent) while the reverse is true for two and three bedroom homes. The age distribution of the respondents from the two groups are very similar except that 13 percent of residents are 65 or over while only 4 percent of employees are. That is not surprising since the Employee Survey, by definition, did not include retired people without jobs. In all other age cohorts, any differences between the two groups was no more than 4 percent, well within the margin of error.

**Figure 19: Number of bedrooms in resident and employee homes**



**Figure 20: Sizes of resident and employee households**

While there are more single-person households among residents than employees, there are more two-person households among employees, suggesting more roommates and/or married couples without children among the employee population. The proportions of larger households are pretty much the same for both populations.



### Household mobility

Household mobility influences demand for housing in a community. As noted early in this report, the population of a city is dynamic, not static. Residents move for a variety of reasons including changes in their lives and the lives of their family members, changes in their preferences of residence, changes in the location of their jobs, and changes in income and age. The two surveys conducted for this study sought to identify factors that help determine where a household wishes to live and why.

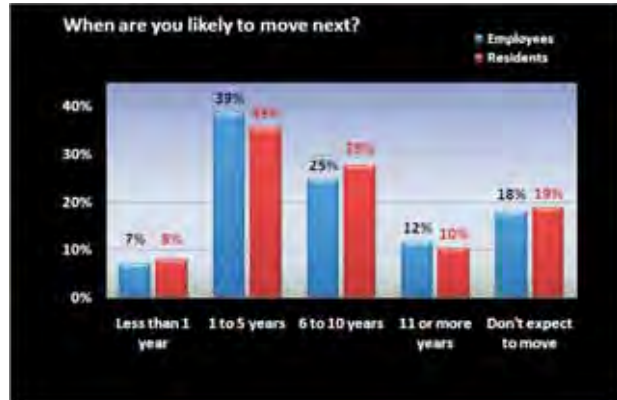
The vast majority of residents and employees are unlikely to change jobs during the next five years to reduce their commute time. However, residents (24 percent) report they are more likely than employees (15 percent) to make this change. Among Naperville residents, the proportion of owners (23 percent) and tenants (26 percent) who are “somewhat likely” or “very likely” to change jobs within the next five years is statistically the same.

**Table 21: Likelihood of changing jobs in the next five years to reduce commute time**

Likelihood	Employees	Residents
Very likely	5%	10%
Somewhat likely	10%	14%
Somewhat unlikely	16%	18%
Very unlikely	68%	58%

There are no significant differences in the plans of residents and employees as to when they are likely to move to another home. The data shown in the bar graph on the right reflect the findings of the Resident Survey that the median length of residency in Naperville is 12 years and the average length of time living in Naperville is 14 years.<sup>1</sup> People move in and out of every community; mobility is simply a fact of life.

**Figure 21: Timing of next move**



While more than half of both samples do not know where they will move to next, only 3 percent of the employees sampled expect to move

1. See the responses to Question 15 of the Resident Survey in Appendix B. A comparable question was not posed in the Employee Survey.

to Naperville. Sixteen percent of residents expect to move elsewhere in Naperville, the same proportion of employees who expect to move within the town in which they now live. Nearly a third of Naperville residents expect to move out of Naperville.<sup>2</sup> Four and a half as many employees expect to move further from Naperville than expect to move closer.

Disaggregating the responses by where respondents now live reveals that 30 percent of the employees who currently live in Naperville intend to move elsewhere within Naperville.<sup>3</sup> That is nearly double the proportion of members of the resident sample who intend to move within Naperville.

One-third more Naperville residents who work in Naperville plan to move within Naperville than do residents who do *not* work in Naperville.

When asked where they would most prefer to live while they have their job in Naperville and if they had the resources, 60 percent of the employee sample reported they would prefer to live in Naperville. Another 19 percent preferred with ten miles of Naperville.<sup>4</sup>

**These findings suggest that most people who work in Naperville — but certainly not all — would prefer to live in Naperville, fairly close to their jobs.**

Thirty-nine percent of the employees live in Naperville.<sup>5</sup> Eighty-seven percent of them picked Naperville as their preference compared to half as many, 42 percent, of the employees who do *not* live in Naperville. Three in ten of the

Place	Employees	Place	Residents
Don't know	58%	Don't know	52%
Further from Naperville	18%	More than 10 miles from Naperville	21%
Same town as now	17%	Elsewhere in Naperville	16%
Closer to Naperville	4%	Within 10 miles of Naperville	11%
Naperville from somewhere else	3%	—	—

2. There is nothing alarming about 30 percent anticipating to move out of Naperville given that the Resident Survey found that 99 percent of Naperville's residents moved there from elsewhere and the average length time living in Naperville is 14 years.

3. Twenty-three percent expect to move out of Naperville while 46 percent do not know where they will move.

4. See Question 31 of the Employee Survey in Appendix B to see the full range of responses.

5. Forty-six percent of employee tenants live in Naperville while 38 percent of employee homeowners do.

employees who do not live in Naperville prefer a home within ten miles of Naperville and 13 percent prefer a home over ten miles from Naperville.

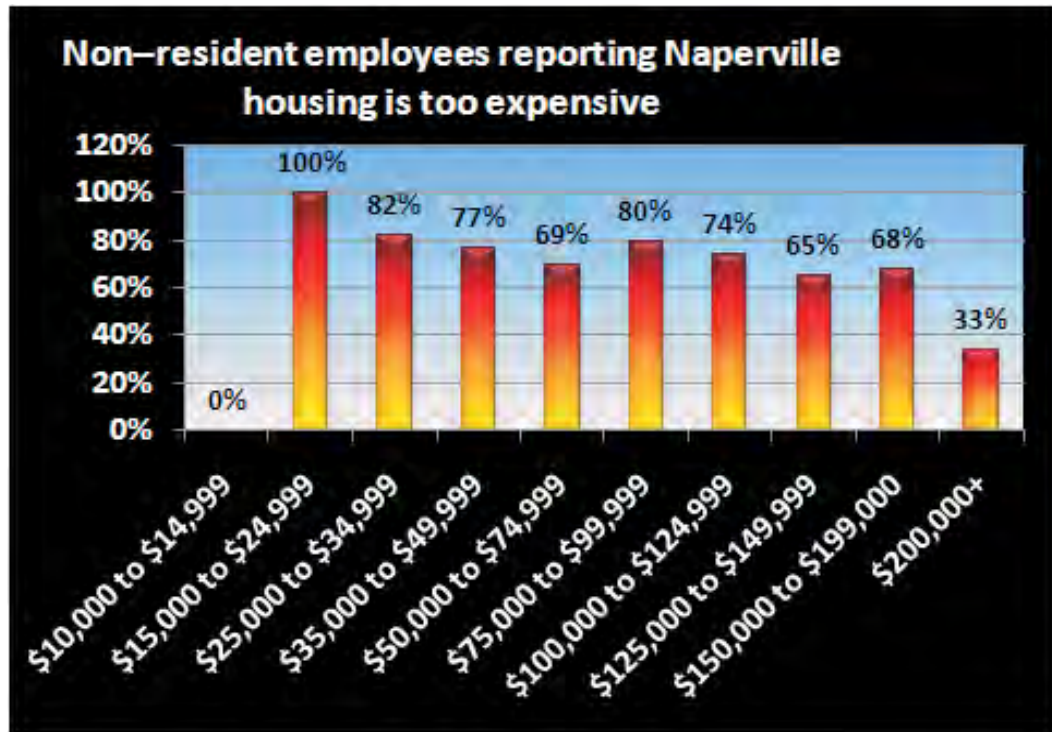
**This collection of data suggests that there is substantial demand for Naperville housing among the people who work in Naperville.**

**But more than any other factor, the cost of housing discourages employees from moving to Naperville.**

When those employees who do not live in Naperville were asked why they don't live here, 70 percent chose "Housing is too expensive in Naperville." Thirty-eight percent selected "Property taxes are too high" with 23 percent stating they "Prefer where I live over Naperville" and 13 percent picking "I just don't want to live in Naperville."<sup>6</sup>

In nearly every income range, an overwhelming majority of employees who live outside Naperville report that Naperville housing is too expensive. As the data reported in this study suggest, this perception is not ill-founded. Their viewpoint suggests that they can get more home for the money living outside Naperville and/or that they cannot find housing they consider affordable in Naperville.

**Figure 22: Non-resident employees by income who say Naperville housing is too expensive**



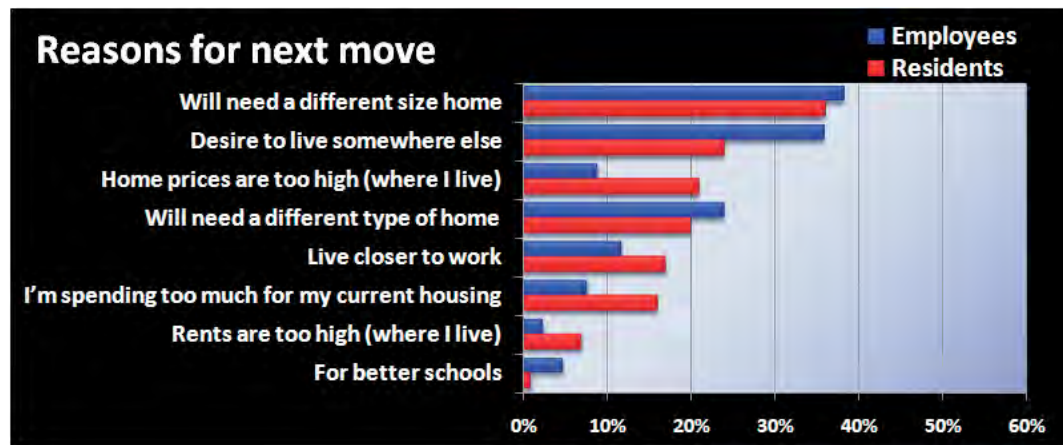
6. For the full list of reasons and responses, see the results to Question 15 of the Employee Survey in Appendix B. Respondents to this question were able to select as many choices as applied.



While both residents and employees will move largely because they will need a different size home and/or wish to live elsewhere (36 percent of employees compared to 24 percent of residents), a significantly higher percentage of Naperville residents than employees will move because home prices are too high where they live (21 percent of residents versus 9 percent of employees), they are spending too much of their income on housing (16 percent versus 8 percent), or rents are too high (7 percent versus 2 percent).

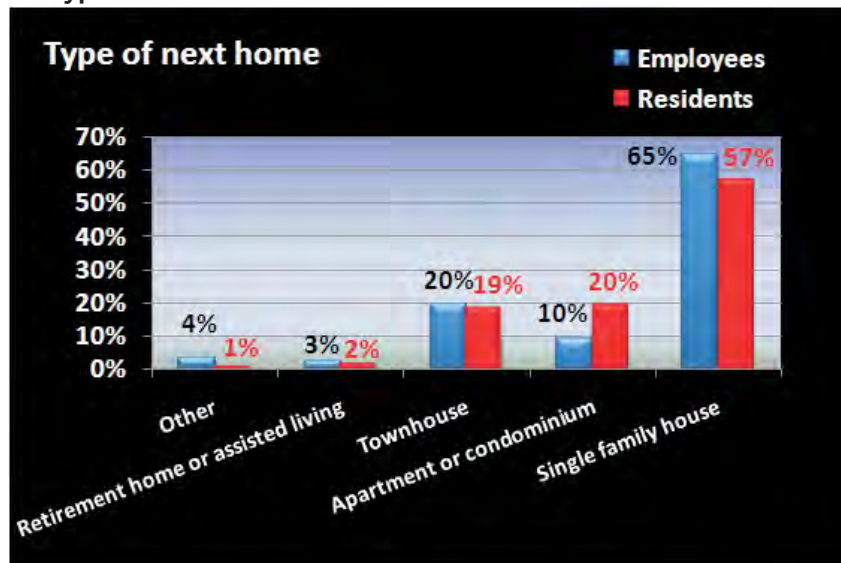
**The data suggest that the disparity between income and housing costs may be greater among Naperville residents than among employees who live outside Naperville.**

Figure 23: Reasons for next residential move



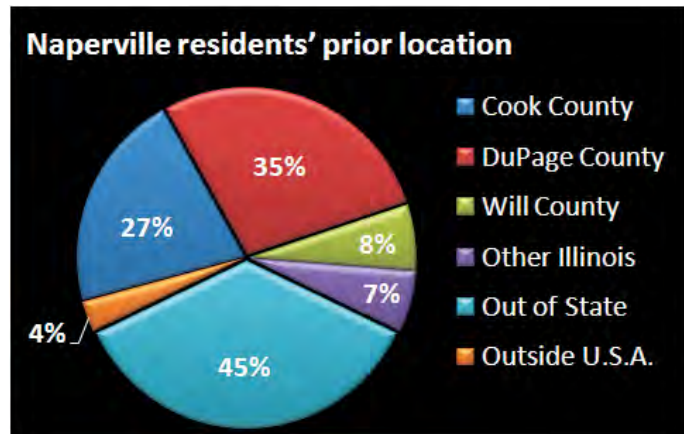
But in terms of the type of home to which they'll move, twice as many residents (20 percent) expect to move to multifamily housing (apartment or condominium) while more employees (65 percent to 57 percent of residents) expect to move to a single family house. Preferences among Naperville's senior citizens are discussed on page 29.

Figure 24: Type of next home



As the following figure shows, more households move to Naperville from outside Illinois than from any other location. It would not be surprising if a large proportion of the households that move to Naperville from other states move due to a new job or job transfer.

**Figure 25: Location of Naperville residents' previous home**



The next highest proportion of Naperville residents comes from DuPage County, with 7 percent of all residents moving from adjacent Lisle. Eleven percent of Naperville's population hails from Chicago with another 16 percent from elsewhere in Cook County.

## Employment and income

Eighty-eight percent of the respondents in the employee sample and 80 percent of the resident sample hold a full-time job.<sup>7</sup> Of those residents and employees who have a full-time job, about 15 percent of each group also has at least one part-time position. Twenty-five percent of all employees held at least one part-time job compared to 18 percent of all resident respondents.

Among those who had at least one part-time position, 14 percent of the employees had two part-time jobs and 4 percent held three. Fewer residents — 11 percent — held a second part-time position; none held three.

Naperville's single largest employer, Edward Hospital, employs nearly twice as many people (4,600) as the next largest, Naperville Community Unit School District 203 (2,435). The third largest is Indian Prairie Community Unit School District 204 (2,015). The City of Naperville (1,043) is the eighth largest employer. The rest of the largest ten Naperville employers are for-profit private sector businesses.<sup>8</sup>

Employees were asked to specify the type of employer for which they worked: for-profit business, nonprofit or charitable organization, government, school or school district, or their own business including self-employment. The five bar

7. By definition, everybody within the universe from which the employee sample was drawn is employed full-time or part-time. The universe from which the resident sample was drawn included individuals who are retired, homemakers, students, and unemployed.

8. The complete list of the city's 17 largest employers appears in Appendix A in the "Employee Survey Distribution" table.

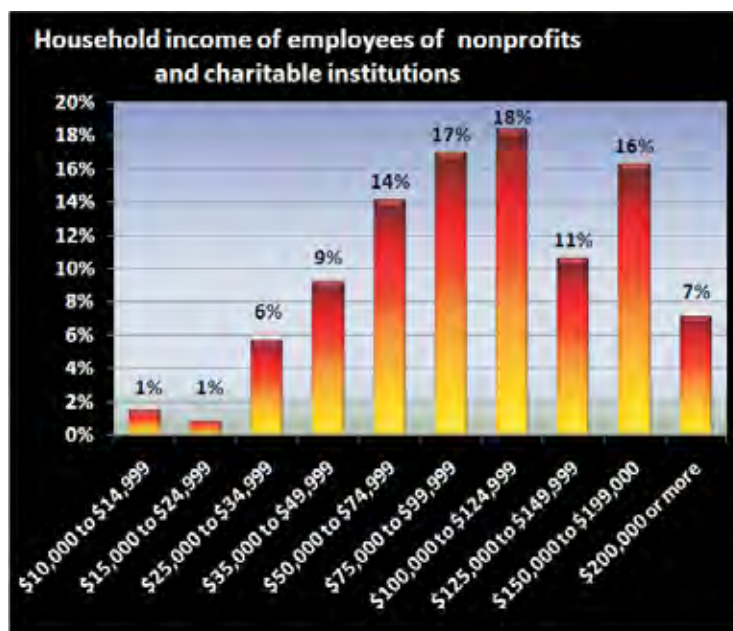
graphs that follow display the *household* income of employees of these five categories, not just the employee’s salary.

Figure 26: Household income of employees of private sector for-profit businesses



There are more similarities than differences in the distribution of household income of those employees who work for private sector for-profit businesses and those employed by nonprofits and charitable institutions. Remember that these nonprofits include employers such as Edward Hospital.

Figure 27: Household income of employees of nonprofits and charitable institutions



Government employees are not compensated as well as those in the other sectors. Government employees who wish to live within Naperville would generally need housing that is less expensive than what workers in the other employment sectors can afford.

Figure 28: Household income of local, state, and federal government employees

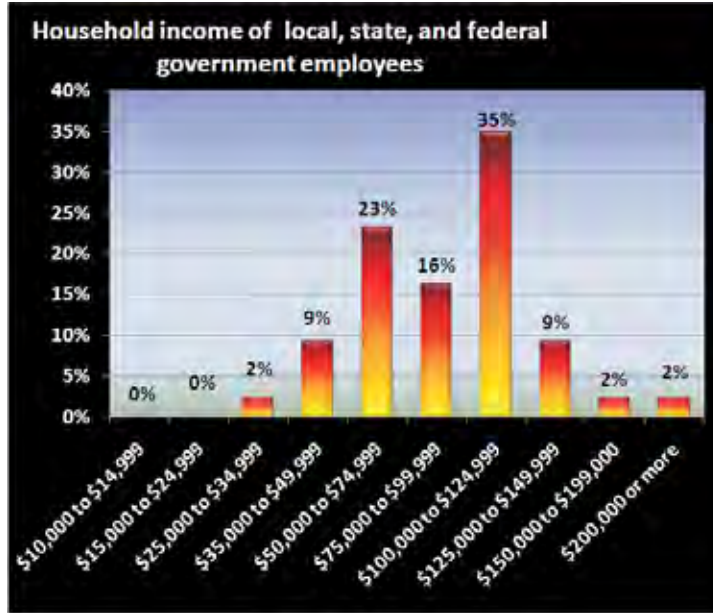
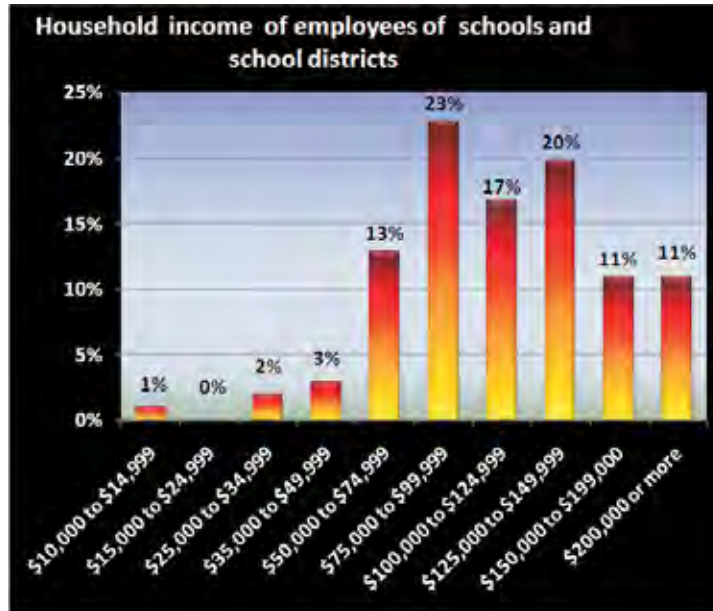
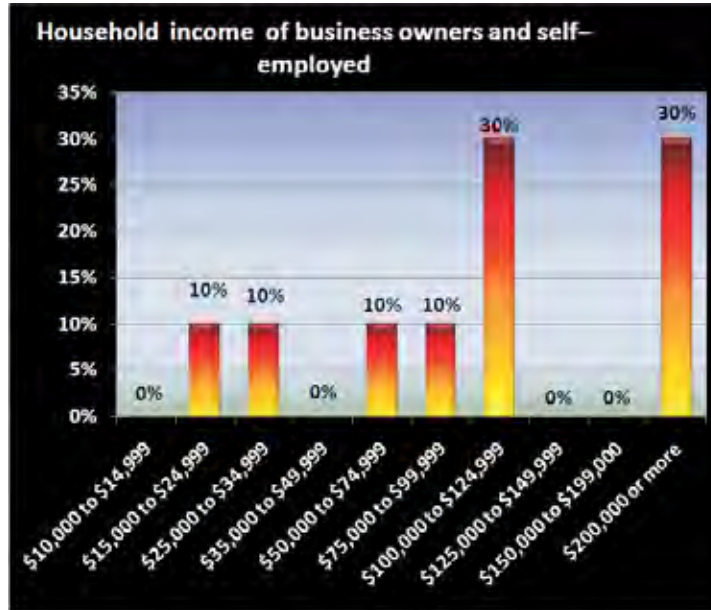


Figure 29: Household income of employees of schools and school districts



The household income of business owners including the self-employed varies wildly compared to any of the other employment sectors.

Figure 30: Household income of business owners including self-employed



Of all the sectors in which members of the employee sample work, the households of government employees have the lowest incomes and necessarily have fewer units of housing that is affordable to them in Naperville and elsewhere.

## Commuting practices and preferences

### Mode of transportation

Both residents and employees overwhelmingly drive alone (94 percent and 83 percent respectively). While no employees report riding Metra, 10 percent of residents do. Car pooling is nearly nonexistent with just 2 percent of residents and 4 percent of employees.<sup>9</sup> Nearly all of the Metra riders commute at least 26 miles one way. Of those commuters who travel 26 to 35 miles, 41 percent ride Metra; the rest drive

Mode	Employees	Residents
Drive alone	94%	83%
Car pool	4%	2%
Pace bus	0%	0%
Metra train	0%	10%
Walk	1%	1%
Bicycle	1%	1%

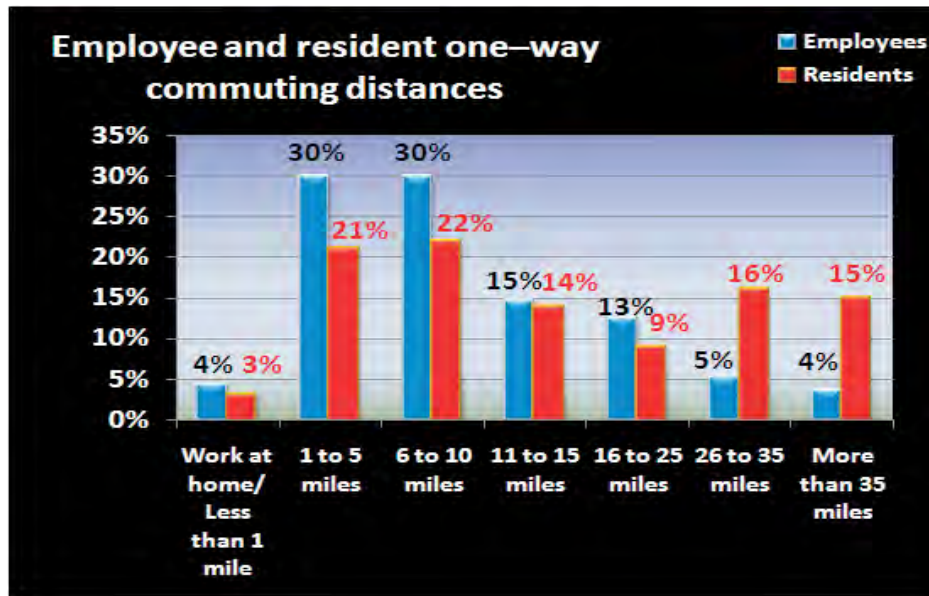
9. These findings of the Residents Survey are nearly identical to those in the “Selected Economic Characteristics: 2007” for Naperville in the *2007 American Community Survey*.

alone. Among those who commute more than 35 miles, 20 percent ride Metra; the rest drive alone.

### Commute distance and time

Overall, Naperville residents tend to travel further to work than employees with 54 percent of residents and just 37 percent of employees traveling more than 10 miles. A significantly higher percentage of residents (31 percent) than employees (9 percent) commute more than 25 miles.

Figure 31: Employee and resident one-way commuting distance



Residents spend more time commuting than do employees. Seventy-two percent of employees and just 54 percent of residents get to work in 30 minutes or less while 28 percent of employees and 46 percent of residents commute for more than 30 minutes. About 92 percent of employees and 67 percent of residents live within 45 minutes of their jobs.

### Naperville residents' commuting preferences

Among residents, 74 percent would prefer to commute no more than 10 miles but only 46 percent actually do.

Time	Employees	Residents
15 minutes or less	32%	27%
16 to 30 minutes	40%	27%
31 to 45 minutes	20%	13%
46 to 60 minutes	6%	18%
61 to 75 minutes	2%	10%
76 to 90 minutes	1%	3%
More than 90 minutes	0.6%	3%
<b>More than 30 minutes</b>		
More than 30 minutes	28%	46%

While 54 percent actually commute no more than 30 minutes, 91 percent

**Table 25: Residents who prefer to commute 10 miles or less compared to those who actually do**

Commute distance reality	Percent of Residents	Commute distance preference	Percent of Residents
1 to 5 miles	24%	1 to 5 miles	47%
6 to 10 miles	22%	6 to 10 miles	27%
11 to 15 miles	14%	11 to 15 miles	12%
16 to 25 miles	9%	Less than 1 mile	10%
26 to 35 miles	16%	16 to 25 miles	2%
More than 35 miles	15%	25 to 35 miles	1%

would prefer that quicker a commute.

**Table 26: Residents’ preferred and actual commuting times**

Time Range	Residents actual commute time	Residents preferred commute time
15 minutes or less	27%	66%
16 to 30 minutes	27%	25%

This data suggest that while about 39 percent of the people who work in Naperville also live in Naperville, they tend to work closer to their jobs than do Naperville residents, 61 percent of whom work outside Naperville. While the vast majorities of residents and employees are not likely to change jobs in the next five years to reduce their commute time, it’s not surprising that 9 percent more residents report they are likely to make this change.

It appears that Naperville residents are willing to live further from their jobs and commute longer times and distances than employees — the benefits of living in Naperville appear to be worth the extra time and cost to them.

# Appendix A

## Survey methodology

To generate survey results that accurately reflect the populations surveyed, we followed the surveying practices recommended in Dr. Don Dillman's *Mail and Internet Surveys: The Tailored Design Method*.<sup>1</sup> Dr. Dillman's approach tends to produce surveys that generate response rates of 50 percent and higher. High response rates like these help assure that a sample accurately represents the entire population from which it was drawn.

The goal of these two random sample surveys was to identify the housing needs of both Naperville residents and of people who work in Naperville. To achieve that goal, the surveys sought to identify information about each responding household regarding housing, jobs, and income including:

- ◆ Housing costs
- ◆ Total income from all sources (earnings, profits, retirement and disability benefits, veterans benefits, etc.)
- ◆ Source of income (residents only)
- ◆ Household size, ages, and number of working adults in the household
- ◆ Current employment situation (full-time and part-time jobs)
- ◆ Current and future housing tenure and tenure (own or rent) preferences
- ◆ Future housing plans
- ◆ Work and home location
- ◆ Actual and desired commuting distances and time

The results of these surveys provide the City of Naperville with the most current profile of the housing needs of Naperville residents and employees.

### Survey design and construction

The manner in which a self-administered survey is organized and questions worded has a major influence on the validity of responses and response rates. We worked closely with city staff and our partner, Jim Eshelman of Vantage Marketing Research, to review questions and survey structure to eliminate potential bias in the survey questions and assure that the questions were consistent with the survey objectives. We remained focused on the purpose of this

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1. Don A. Dillman, *Mail and Internet Surveys: The Tailored Design Method*, Second edition, John Wiley & Sons, 2007. Dillman's work has guided the design and implementation of countless surveys including many of those U.S. Census Bureau uses. At Washington State University, he serves as Regents Professor and Thomas S. Foley Distinguished Professor of Government and Public Policy, on the faculty of the Social and Economic Sciences Research Center, and in the Department of Sociology.



research and restricted the questions to only elicit data needed to determine housing needs and factors that examine why residents and employees live where they do.

Questions were designed to ask for information that respondents could produce from memory, without having to look into their financial records and bills. When we asked about housing costs, we sought only costs that were consistent throughout the year, namely rent or mortgage and property tax payments (plus monthly assessments from homeowner or condominium associations). People tend to remember the amount of their monthly mortgage and property tax check or rent check. We excluded utilities because they vary by month. We excluded homeowner or renter insurance because few respondents would be likely to know what those monthly costs are without having to look them up.

When it came to income, we asked in Question 37 of both surveys for the total 2007 gross income of the respondent's household. We sought 2007 income rather than 2008 data because respondents would know their 2007 income while their total 2008 income would be unknown to most when they were surveyed last spring and summer. In addition, the 2007 income figures would align with the 2007 housing costs as well as the actual housing sales that the Multiple Listing Service reported for 2007. In the Residents Survey, we also asked respondents to identify in Question 38 their household's largest source of income. This enabled us to identify households that were primarily dependent on retirement income rather than salary.

Rather than ask respondents to write in specific amounts of income, we offered ranges from which to choose throughout the survey. People are more likely to answer questions about their income when given ranges to select from rather than writing in a specific amount. When analyzing the data, we followed the commonly-accepted practice of using the middle of a range to calculate averages, percentiles, and to apply statistical tests.

Most questions were written to generate a "forced response" in which respondents select their answer or answers from a list of possible answers rather than filling in a blank. In some instances, a blank was provided if the respondents' answer did not fit any of the options proffered.

While the vast majority of questions were identical on both the residents and employee surveys, a small number were worded differently to make them appropriate for the different populations sampled by the two surveys.

We made the surveys easy to navigate, especially since some questions would be answered only by homeowners and other by tenants. Navigational guides were provided throughout the survey so that a respondent would answer only those questions that applied to his situation.

The questions were ordered so that the most sensitive and personal — income and household composition — were at the end of the surveys. Research on surveys shows that respondents are much more likely to answer such personal questions when they are at the end of a survey because they have invested time

in completing the survey and, by answering the earlier questions they have a better understanding and appreciation of why these personal questions are asked.

The surveys were subjected to review by our partner, Jim Eshleman. In addition, we pretested both surveys on a diverse group of City of Naperville employees. Based on written and oral feedback from survey testers, we revised questions and answers, adjusted the order of questions, and tweaked the navigational aids.

## Survey of Naperville residents

### Generating the random sample

Because the City of Naperville operates its own electric utility, city staff was able to build a stratified random sample from the utility's billing database. This database includes all single- and multi-family homes within the city.

Since the *2007 American Community Survey* shows that homeowners constitute 81 percent of Naperville's population and tenants 19 percent, city staff drew a stratified random sample intended to produce results that would reflect this ratio. A sample that would reflect these proportions would consist of 240 homeowners and 60 tenants. However, to reduce possible sampling error because tenants respond to surveys at a lower rate than homeowners, we over-sampled renters by including 100 tenants in the sample instead of just 60.<sup>2</sup>

### Survey distribution

The survey sample totaled 340 Naperville households. Each step and tool in Dillman's "Tailored Design Method" contributed to generating the Resident Survey's high 66 percent response rate.<sup>3</sup> Throughout this process, all mailings were addressed by name to the actual individual or individuals found in the city's electric utility database and mailed with the City of Naperville's return address. All mailings were sent via first class mail from the City of Naperville.

**First Contact: The Prenotice Letter.** We initially contacted recipients with a prenotice letter from Mayor Pradel which provided a concise, personalized, timely, and positive advance notice that the recipient will receive a request to help with an important study or survey in a few days.

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2. This oversampling resulted in a sample of 21.1 percent tenants and 78.9 percent homeowners, closely reflecting the figures the U.S. Census Bureau reported in its *2007 American Community Survey*. In 2000, the U.S. Census reported the composition of Naperville's population as 20.3 percent tenants and 79.7 percent homeowners.
  3. The typical response rate for other surveys conducted by the City of Naperville has been 25 percent and less.

**Second Contact: Survey Mailing.** Three days later we mailed the survey to each household in the sample. The mailing included a cover letter from Mayor Pradel that reiterated the purpose and importance of the survey, explained that the recipient was a member of a relatively small random sample which made her response very important, stressed that all responses were anonymous and confidential, and provided specific contact information to reach city staff if the recipient had any questions. Also included was a stamped envelope addressed to Planning/Communications, the consultant conducting the survey. Each envelope had a code number in its address so the recipient would not be sent another survey as described below under “Fourth Contact.” Returned surveys were then separated from their envelopes so the responses would remain anonymous and confidential.

**Third Contact: Postcard Thank You and Reminder.** Nearly half of the people who complete surveys, especially general public questionnaires such as the Resident Survey, return them within a few days after receiving them. A week after mailing the initial survey, we mailed an individually-addressed postcard reminder to each sample member who had not returned his survey. The postcard thanked those who had returned the completed survey and reminded those who had not to please complete the survey and return it “today.” Contact information for city staff was provided so recipients could request another questionnaire if they had misplaced theirs.

**Fourth Contact: Reminder Letter and Replacement Survey.** Two weeks later we mailed a second survey to each sample member who had not returned her questionnaire. Another letter from Mayor Pradel reminded recipients of the importance of completing the survey, how important the recipient is because he was part of a small random sample, and the survey’s confidentiality. A stamped return envelope was also included.

**Fifth Contact: Invoking Special Procedures.** Dillman’s “Tailored Design Method” provides for making additional contacts when the response rate is not high enough to produce reliable results. However, there was no need for additional contacts because the response rate for the Resident Survey following the fourth contact had topped 60 percent, eventually rising to 66 percent.

**Maintaining the promised confidentiality and anonymity.** Because this survey deals with sensitive questions of income, housing costs, and employment, it was vital to keep the individual survey responses confidential and anonymous. The return envelope included the code assigned to each recipient. Once we received a completed survey, it was marked as received in our database of the sample’s names and addresses. These recipients were excluded from subsequent contacts.

We printed the code number of the recipient on the survey so we could double check the data we entered into the “coding” spreadsheet of results. After double checking the results entered into the coding spreadsheet, we cut off the code number from the survey to assure permanent anonymity and confidentiality.

## Survey of employees of Naperville businesses

### Survey design

The same principles applied to the Resident Survey guided the construction and design of the Employee Survey. The vast majority of questions were the same in both surveys. Some questions and navigational instructions were altered to reflect the different universes sampled. Questions about where the respondent lives were changed. A question about why the respondent does not live in Naperville was added. The question about the respondent's household income source was removed.

### Generating the random sample and survey distribution

Surveying the people who work in any city — whether or not they also live in that city — is a more complex and difficult task than surveying a city's residents. There is no perfect way to create a random sample of employees within any city. No database exists of the people who work in Naperville. Distributing a survey poses additional challenges. We used a variety of methods to select as random a sample as possible and distribute the survey as effectively as possible.

**Building the employee sample.** To sample employees of large, medium, and smaller-size businesses, we drew our sample from a list of the 17 largest employers in Naperville compiled by city staff and from a door-to-door distribution of surveys to a random sample of employees in small and medium-size businesses throughout Naperville.<sup>4</sup> This approach is the most practical and efficient method for surveying workers in any jurisdiction.

To minimize coverage errors, we surveyed workers at employers of all sizes and types. We surveyed employees at private sector for-profit businesses, non-profits, public schools, and government.

We sought to generate a sample of at least 300 respondents. Because the typical response rate of employees is usually around 21 percent,<sup>5</sup> we initially planned to distribute about 960 questionnaires to people who work in Naperville. To achieve proportionality based on the distribution of workers among Naperville's employers, about 80 percent of the sample needed to be generated from the city's largest employers. Jim Eshelman identified the sample size to seek at each of the largest employers as noted in the following table.

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4. Throughout this report, the small and medium-sized businesses are called "smaller businesses." The 17 large businesses are referred to as the "largest businesses."
  5. A study of 183 surveys conducted of people at businesses published since 1990 found an average response rate of 21 percent. M.C. Paxson, [Response Rates for 183 Studies]. Unpublished data. Pullman, WA: Washington State University, Hotel and Restaurant Administration Program, 1992.

**Table 27: Employee survey distribution**

Employer	Number of Employees	Target Sample Size	Number of Surveys Returned	“Response Rate”	Survey Method	Notes
Edward Hospital	4,600	186	140	75%	Tailored Design Method	Distributed survey via email to all 4,600 employees
School District 203	2,435	104	74	71%	Tailored Design Method	
Indian Prairie School District 204	2,015	40	22	55%	Tailored Design Method	Sample drawn only from employees at Naperville locations
Alcatel-Lucent	1,943	78	24	31%	Modified Tailored Design Method	Distributed survey via email to all 1,943 employees
bp Amoco	1,800	73		0%	N/A	Did not participate
OfficeMax	1,500	60	22	37%	Tailored Design Method	
Tellabs	1,383	54	47	87%	Mail to us	
City of Naperville	1,043	42	39	93%	Tailored Design Method	
ONEDO Nalco Company	1,000	40		0%	N/A	Did not participate
Nicor Gas	725	35	24	69%	Tailored Design Method	Distributed via intraoffice mail
North Central College	450	18	11	61%	Tailored Design Method	
Con Agra	380	15		0%	N/A	Did not participate
Calamos Investments	265	11		0%	N/A	Did not participate
Phoenix Closures	230	9		0%	N/A	Did not participate
Solor Communications	230	9		0%	N/A	Did not participate
Trizetto Group	225	9		0%	N/A	Did not participate
Kraft Foods	200	8		0%	N/A	Did not participate
Smaller Businesses	Unknown	282	131	46%	Surveys with stamped return envelope distributed to employees door to door	
Totals	20,424	1,073	534	50%	N/A	N/A

Most of the largest employers that participated in the survey worked with us to produce a random sample of their employees and apply the Tailored Design Method. This approach helped to ensure that a proportionate number of management and non-management workers would be surveyed. Two employers emailed a PDF file of the survey to all employees who printed out the survey form and returned it as instructed at the end of the survey.

To include a proportional number of employees at Naperville’s many smaller businesses, we built a database of these businesses and developed a sample representative of the many types of businesses in Naperville. A team from Planning/Communications and the city’s Transportation/Engineering/Development Business Group (“TED Group”) spent several days going door-to-door to the selected representative businesses in downtown Naperville where surveys and stamped return envelopes were distributed to randomly chosen employees. The team also went to businesses in the city’s outlying business districts. All of the envelopes were coded to show the survey came from somebody at a smaller business. The team was trained to distribute the survey to employees at all levels within a business. To help build cooperation from local businesses, the Downtown Naperville Alliance very graciously published two announcements of the upcoming survey. More than 46 percent of those employees reached in the door-to-door effort returned a completed questionnaire.

About 76 percent of responses came from employees at large businesses (404) with 24 percent of the responses (131) from employees at the small and medium sized businesses, very close to the proportionality we had sought. Overall we achieved a response rate much greater than the 25 percent we had every reason to anticipate. Some large employers, — the City of Naperville (92.9 percent), Tellabs (87 percent), School District 203 (71.2 percent), and NiCor Gas (68.6 percent), North Central College (61.1 percent) — implemented every step in the Tailored Design Method to achieve extremely high response rates from random samples. Two large employers (Edward Hospital and Alcatel-Lucent) distributed the survey via email to all of their employees.<sup>6</sup>

Overall, we received completed surveys from about half of the 1,073 employees proportional sample, representing all sectors of the economy and all levels of employment.

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6. The response rates shown in the “Employee Survey Distribution” table above were calculated based on the sample size that would have been needed to obtain proportional representation of their employees within the total employee sample. Both employers notified employees by email that they would be surveyed. Our contact at Alcatel-Lucent had cautioned us that the return rate from her employees would be relatively low due to the nature of the company’s employees.

# Appendix B

This is where all of the data generated by the resident and employee surveys appears. The percentage of respondents who selected each answer is printed along with the questions posed. In those cases where percentages do not tell the story, the actual number of respondents who chose each answer is given. The number of responses to each question appears at the end of the question in the form of "N=XXX."

The surveys are identical to the surveys distributed to respondents except that the navigational aids and instructions have been removed to make the results easier to read.

The margin of error for all questions is 5 percent.

Survey methodology is discussed at length in Appendix A.



Total number of surveys returned in time to be included in the results: 210

The number of surveys returned that responded to an item is shown as N=xxx.

## Naperville Resident Survey with Responses

- 1 What is your current employment situation?**  
*Check all situations that apply.* N=210

  - 80% Employed full-time
  - 18% Employed part-time
  - 7% Homemaker
  - 12% Retired
  - 8% Self-employed, full or part-time
  - 2% Student, full or part-time
  - 1% Unemployed
  
- 2 Number of full-time jobs you currently have (among the 80% above with full-time jobs):**  
 N=210

  - 97% 1 full-time job
  - 3% 2 full-time jobs
  
- 3 Number of part-time jobs you currently have:** N=210

Percent of the 18% who have a part-time job (see question 1)

  - 89% 1 part-time job
  - 11% 2 part-time jobs

Percent of the 80% employed full-time (see question 1)

  - 84% Zero part-time jobs
  - 15% 1 part-time job
  - 1% 2 part-time jobs
  
- 4 In what zip code is your place of work located? If you have more than one job, answer for the job at which you work the most hours.** N=159

  - 13% 60540 (Naperville)
  - 12% 60563 (Naperville)
  - 6% 60532 (Lisle)
  - 4% 60564 (Naperville)
  - 3% in each of: 60440 (Bolingbrook); 60555 (Warrenville); 60187 (Wheaton); 60565 (Naperville); Chicago: 60601, 60606
  - 2% in each of 60439 (Lemont); 60515 Downers Grove); Chicago: 60603, 60661;
  - 1% each in 47 other zip codes (totals over 100% due to rounding)
  
- 5 Please specify the area where your job is located. If you have more than one job, answer for the job at which you work the most hours.** N=174

  - 61% Outside Naperville
  - 6% Downtown Naperville
  - 17% I-88 Corridor (Diehl Road / Warrenville Road areas, etc.)
  - 4% On or near Route 59
  - 3% On or within a block of Ogden venue
  - 9% Elsewhere in Naperville
  
- 6 How do you usually get to and from work? If you have more than one job, answer for the job at which you work the most hours. If you usually use more than one travel mode, please select the one mode you use for most of your usual trip.** N=174

  - 83% Drive alone
  - 2% Car pool (as driver or passenger)
  - 0% Pace bus
  - 10% Metra train
  - 1% Walk
  - 1% Bicycle
  - 3% I work at home, so I don't commute
  - 0% Other
  
- 7 How many miles do you usually travel to work (one way)? If you have more than one job, answer for the job at which you work the most hours.** N=178

  - 3% Zero — work at home
  - 0% Less than 1 mile
  - 21% 1 to 5 miles
  - 22% 6 to 10 miles
  - 13% 11 to 15 miles
  - 9% 16 to 25 miles
  - 16% 26 to 35 miles
  - 15% More than 35 miles



- 8** How long does your one-way trip from your home to work usually take? *If you have more than one job, answer for the job at which you work the most hours.* N=176
- 3% Zero — work at home
  - 23% 15 minutes or less
  - 27% 16 to 30 minutes
  - 13% 31 to 45 minutes
  - 18% 46 to 60 minutes
  - 10% 61 to 75 minutes
  - 3% 76 to 90 minutes
  - 3% More than 90 minutes
- 9** How likely is it that you will change jobs in the next 5 years to reduce your commuting time? N=176
- 58% Very unlikely
  - 18% Somewhat unlikely
  - 14% Somewhat likely
  - 10% Very likely
- 10** How close to work would you most prefer to live? N=175
- 10% Less than 1 mile
  - 47% 1 to 5 miles
  - 27% 6 to 10 miles
  - 12% 11 to 15 miles
  - 2% 16 to 25 miles
  - 1% 25 to 35 miles
  - 0% More than 35 miles
- 11** How much time would you most prefer to spend traveling (one way) to a job outside your home? N=175
- 6% Zero — I prefer to work at home
  - 66% 15 minutes or less
  - 25% 16 to 30 minutes
  - 3% 31 to 45 minutes
  - 1% 46 to 60 minutes
  - 0% 61 to 75 minutes
  - 0% More than 75 minutes
- 12** In your job (the one at which you work the most hours if you hold more than one job), do you work for: N=177
- 70% For-profit business
  - 9% Nonprofit or charitable organization
  - 5% Local, state, or federal government
  - 8% School or school district
  - 8% Your own business, i.e. self-employed
- 13** What is your job title? *If you have more than one job, answer for the job at which you work the most hours.* N=164
- 14** What zip code do you live in? N=210
- 28% 60540
  - 23% 60563
  - 22% 60564
  - 27% 60565
- 15** How many years have you lived in Naperville? N=209
- Mean: 14.4 years
  - Median: 12 years
- 16** Where did you live before moving to Naperville, or have you lived here all your life? N=210
- 1% I've lived in Naperville all my life
  - 99% Came from another city
- 17** Which type of home do you currently live in? N=209
- 78% Single family house
  - 2% Townhouse
  - 20% Apartment or condominium in a multifamily building
- 18** How many bedrooms are in your current home? N=210
- 0% 0 (includes studio apartments)
  - 12% 1 bedroom
  - 9% 2
  - 16% 3
  - 53% 4
  - 10% 5 or more
- 19** Do you rent or own your current home? N=208
- 80% Own
  - 20% Rent
- 20** How much is your monthly rent? N=40
- 5% Less than \$300 per month
  - 0% \$300 through \$499 per month
  - 3% \$500 through \$749 per month
  - 53% \$750 through \$999 per month
  - 38% \$1,000 through \$1,499 per month
  - 3% \$1,500 through \$1,999 per month
  - 0% \$2,000 or more per month
- 21** Why do you currently rent? Check all that apply. N=41
- 15% Simply prefer to rent rather than own
  - 24% The kind of home I'd like to own costs too much

- 15% Owning doesn't make sense at my age
- 32% Prefer flexibility of being able to move when I want
- 15% Don't want responsibilities of home ownership
- 37% Don't have enough income to buy a home
- 44% Don't have enough money for a down payment
- 5% Unable to obtain a mortgage
- 2% in each: I expect to leave in less than 10 years; I have a subsidy; In the process of looking for a home; student.

- 22 Would you say:** N=40
- 58% You will be able to buy a home in the next 5 years
  - 23% It may take more than 5 years, but you intend to buy a home one day
  - 18% You are not sure if you will ever be able to buy a home
  - 3% You never want to buy a home

- 23 Is this the first home you have owned?**  
N=168
- 23% Yes
  - 77% No

- 24 How much are your monthly ownership costs (include only your monthly mortgage payment and property tax; do not include condominium or homeowner association monthly assessment)?** N=163
- 9% Less than \$500 per month
  - 7% \$500 through \$699 per month
  - 4% \$700 through \$999 per month
  - 12% \$1,000 through \$1,499 per month
  - 23% \$1,500 through \$1,999 per month
  - 18% \$2,000 through \$2,499 per month
  - 21% \$2,500 through \$3,999 per month
  - 7% \$4,000 or more per month

- 25 Is your current home part of a condominium or homeowners association:** N=164
- 41% Yes
  - 59% No

- 26 How much is your condominium or homeowners association monthly assessment?**  
N=64

- 91% Less than \$200 per month
- 9% \$200 through \$399 per month
- 0% \$400 through \$599 per month
- 0% \$600 through \$799 per month
- 0% \$800 through \$999 per month
- 0% \$1,000 or more per month

- 27 When do you think you are likely to move next:** N=203

- 8% In less than a year from today
- 35% 1 to 5 years
- 28% 6 to 10 years
- 10% 11 or more years
- 19% I do not expect to move again

- 28 What type of home do you expect to move to next?** N=162

- 20% Apartment or condominium in a multifamily building
- 19% Townhouse
- 57% Single family house
- 0% Mobile home
- 2% Retirement home or assisted living for senior citizens
- 0% Nursing home or group home for senior citizens
- 1% Other

- 29 Do you expect to rent or own the home you move to next?** N=163

- Rent 17%
- Own 83%

- 30 Where do you expect to move next?** N=163

- 16% Elsewhere in Naperville
- 11% Within 10 miles of Naperville
- 21% More than 10 miles from Naperville
- 52% Don't know

- 31 Why do you expect to move next? Check all that apply.** N=173

- 17% To live closer to work
- 24% Desire to live somewhere else
- 20% Will need a different type of home
- 36% Will need a different size home
- 7% Rents are too high in Naperville
- 21% Home prices are too high in Naperville
- 1% For better schools
- 16% I'm spending too much for my current housing

**32** If you had the resources and could choose any type of home in which to live, which one type from those listed below would you most prefer? N=208

- 6% Apartment or condominium in a multifamily building
- 9% Townhouse
- 85% Single family house
- 0% Mobile home

**33** Would you prefer to rent or own the type of home you chose in your answer to Question 32 above? N=206

- 3% Rent
- 97% Own

**34** How old are you? N=208

- 0% Under 18
- 3% 18–25
- 40% 26–45
- 44% 46–64
- 13% 65 and over

**35** How many people, including yourself, live in your household in each age group? N=209

The answer refers to the number of respondents living with people in the following age groups:

- 101 Under 18
- 41 18–25
- 104 26–45
- 97 46–64
- 32 65 and over

**36** How many adults in your household are employed full or part-time (includes owning a business or self-employment)? N=206

- 11% Zero adults
- 43% 1
- 40% 2
- 5% 3
- 1% 4 or more

**37** Which of the ranges below best represents your household's total gross income from all sources in 2007? N=201

- 3% Less than \$10,000
- 1% \$10,000 through \$14,999
- 2% \$15,000 through \$24,999
- 3% \$25,000 through \$34,999
- 6% \$35,000 through \$49,999
- 11% \$50,000 through \$74,999
- 10% \$75,000 through \$99,999
- 19% \$100,000 through \$124,999
- 8% \$125,000 through \$149,999
- 15% \$150,000 through \$199,999
- 21% \$200,000 or more

**38** What was your household's largest source of income in 2007? N=203

- 87% Wages, salary, and/or profits from a business
- 12% Retirement income such as Social Security, pensions, IRAs, KEOUGHS, 401(k)(3), annuities, railroad retirement benefits, and veterans benefits
- 1% Other



Total number of surveys returned in time to be included in the results: 534  
 Number of surveys excluded because respondent lived with his or her parents: 15  
 Total number of useable surveys: 519

The number of surveys returned that responded to an item is shown as N=xxx.

## Naperville Employee Survey with Responses

### 1 Number of full-time jobs you currently have: N=518

11% Zero full-time jobs  
 88% 1  
 1% 2

### 2 Number of part-time jobs you currently have: N=515

75% Zero part-time jobs  
 21% 1  
 4% 2  
 1% 3 or more

### 3 In what zip code is this job located? *If you have more than one job, answer for the job at which you received this survey.* N=507

56% 60540  
 25% 60563  
 8% 60564  
 4% 60566  
 4% 60565  
 2% 60532  
 1% 60355  
 Other zip codes were less than 0.5 %

### 4 Please specify the area in Naperville where this job is located. *If you have more than one job, answer for the job at which you received this survey.* N=516

29% Downtown Naperville  
 21% I-88 Corridor (Diehl Road / Warrenville Road areas, etc.)  
 10% On or near Route 59  
 8% On or within a block of Ogden Avenue  
 33% Elsewhere in Naperville

### 5 How do you usually get to and from this job? *If you usually use more than one travel mode, please select the one mode you use for most of your usual trip. If you have more than one job, answer for the job at which you received this survey.* N=518

94% Drive alone

4% Car pool (as driver or passenger)  
 0.2% Pace bus  
 0.2% Metra train  
 1.2% Walk  
 0.8% Bicycle  
 0% I work at home, so I don't commute

### 6 How many miles do you usually travel to this job (one way)? *If you have more than one job, answer for the job at which you received this survey.* N=519

0% Zero — I work at home  
 4% Less than 1 mile  
 30% 1 to 5 miles  
 30% 6 to 10 miles  
 15% 11 to 15 miles  
 13% 16 to 25 miles  
 5% 26 to 35 miles  
 4% More than 35 miles

### 7 How long does your one-way trip from your home to this job usually take? *If you have more than one job, answer for the job at which you received this survey.* N=518

0% Zero — I work at home  
 32% 15 minutes or less  
 40% 16 to 30 minutes  
 20% 31 to 45 minutes  
 6% 46 to 60 minutes  
 2% 61 to 75 minutes  
 0.6% 76 to 90 minutes  
 0.6% More than 90 minutes

### 8 How likely is it that you will change jobs in the next 5 years to reduce your commuting time? N=517

68% Very unlikely  
 16% Somewhat unlikely  
 10% Somewhat likely  
 5% Very likely

### 9 How close to work would you most prefer to live? N=518

12% Less than 1 mile  
 55% 1 to 5 miles

- 27% 6 to 10 miles
- 4% 11 to 15 miles
- 2% 16 to 25 miles
- 0% 25 to 35 miles
- 0.2% More than 35 miles

**10 How much time would you most prefer to spend traveling (one way) to work?** N=518

- 4% Zero — I prefer to work at home
- 79% 15 minutes or less
- 16% 16 to 30 minutes
- 0.8% 31 to 45 minutes
- 0% 46 to 60 minutes
- 0% 61 to 75 minutes
- 0% More than 75 minutes

**11 Is your employer from which you received this survey:** N=511

- 39% A for-profit business
- 29% A nonprofit or charitable organization
- 9% A local, state, or federal government
- 21% A school or school district
- 2% Your own business, including self-employed

**12 What is your job title? If you have more than one job, answer for the job at which you received this survey.** N=500

**13 What zip code do you live in?** N=513

Number of respondents living in Naperville and other cities/towns:

- 200 Naperville
- 69 Aurora
- 32 Plainfield
- 29 Bolingbrook
- 13 Joliet
- 12 Lisle
- 12 Woodridge
- 10 Downers Grove

Another 141 respondents live in 57 other cities/towns.

**14 What city and state do you live in?** N=513

- 39% Naperville
- 62% Other (please print city, state)

**15 Why don't you live in Naperville? Check all that apply.** N=313

- 4% Naperville doesn't have the kind of housing I want
- 3% Not enough apartments in Naperville
- 1% Not enough condominiums in Naperville
- 70% Housing is too expensive in Naperville
- 7% Family considerations beyond my control
- 23% Prefer where I live over Naperville
- 10% Prefer more rural setting
- 2% Prefer more urban setting
- 38% Property taxes too high
- 13% Just don't want to live in Naperville

**16 Which type of home do you currently live in?** N=516

- 74% Single family house
- 16% Townhouse
- 10% Apartment or condominium in a multifamily building
- 0.2% Other

**17 How many bedrooms are in your current home?** N=516

- 0.2% 0 (includes studio apartments)
- 3% 1 bedroom
- 17% 2
- 35% 3
- 40% 4
- 4% 5 or more

**18 Does your household rent or own your current home?** N=517

- 88% Own
- 12% Rent

**19 How much is your monthly rent?** N=61

- 3% Less than \$300 per month
- 5% \$300 through \$499 per month
- 13% \$500 through \$749 per month
- 36% \$750 through \$999 per month
- 28% \$1,000 through \$1,499 per month
- 13% \$1,500 through \$1,999 per month
- 2% \$2,000 or more per month

**20 Why do you currently rent? Check all that apply.** N=61

- 8% Simply prefer to rent rather than own
- 36% The kind of home I'd like to own costs too much
- 21% Owning doesn't make sense at my age

- 16% Prefer flexibility of being able to move when I want
- 13% Don't want responsibilities of home ownership
- 51% Don't have enough income to buy a home
- 61% Don't have enough money for a down payment
- 12% Unable to obtain a mortgage
- 11% Other

- 21 Would you say:** N=59
- 58% You will be able to buy a home in the next 5 years
  - 24% It may take more than 5 years, but you intend to buy a home one day
  - 14% You are not sure if you will ever be able to buy a home
  - 5% You never want to buy a home

- 22 Is this the first home you have owned?**  
N=450
- 29% Yes
  - 71% No

- 23 How much are your monthly ownership costs (include only your monthly mortgage payment and property tax; do not include condominium or homeowner association monthly assessment)?** N=436
- 3% Less than \$500 per month
  - 6% \$500 through \$699 per month
  - 8% \$700 through \$999 per month
  - 26% \$1,000 through \$1,499 per month
  - 25% \$1,500 through \$1,999 per month
  - 19% \$2,000 through \$2,499 per month
  - 10% \$2,500 through \$3,999 per month
  - 2% \$4,000 or more per month

- 24 Is your current home part of a condominium or homeowners association:** N=454
- 44% Yes
  - 56% No

- 25 How much is your condominium or homeowners association monthly assessment?**  
N=200
- 82% Less than \$200 per month
  - 17% \$200 through \$399 per month
  - 1% \$400 through \$599 per month
  - 0% \$600 or more per month

- 26 When do you think you are likely to move next:** N=509
- 7% In less than a year from today
  - 39% 1 to 5 years

- 25% 6 to 10 years
- 12% 11 or more years
- 18% I do not expect to move again

- 27 What type of home do you expect to move to next?** N=418
- 10% Apartment or condominium in a multifamily building
  - 20% Townhouse
  - 65% Single family house
  - 0.5% Mobile home
  - 3% Retirement home or assisted living for senior citizens
  - 0.2% Nursing home or group home for senior citizens
  - 3% Other

- 28 Do you expect to rent or own the home you move to next?** N=413
- 10% Rent
  - 89% Own

- 29 Where do you expect to move next?** N=412
- 17% Same town I live in now
  - 3% To Naperville from elsewhere
  - 4% Closer to Naperville
  - 18% Further from Naperville
  - 58% Don't know

- 30 Why do you expect to move next? Check all that apply.** N=422
- 12% To live closer to work
  - 36% Desire to live somewhere else
  - 24% Will need a different type of home
  - 38% Will need a different size home
  - 2% Rents are too high where I live
  - 9% Home prices are too high where I live
  - 5% For better public schools
  - 8% I'm spending too much for my current housing

- 31 If you had the resources and could choose any place to live while you have this job, which one location would you most prefer?**  
N= 511
- 60% In Naperville
  - 19% Within 10 miles of Naperville
  - 9% More than 10 miles from Naperville
  - 12% Don't know

- 32 If you had the resources and could choose any type of home in which to live, which one type from those listed below would you most prefer?** N=507
- 2% Apartment or condominium in a multifamily building

- 12% Townhouse
- 85% Single family house
- 0% Mobile home
- 1% Other

**33** **Would you prefer to rent or own the type of home you chose in your answer to Question 32 above?** N=503

- 2% Rent
- 98% Own

**34** **How old are you?** N=514

- 0.2% Under 18
- 6% 18–25
- 42% 26–45
- 48% 46–64
- 4% 65 and over

**35** **How many people, including yourself, live in your household in each age group?** N=514

The answer refers to the number of respondents living with people in the following age groups:

- 214 Under 18 years old
- 137 18–25
- 261 26–45
- 275 46–64
- 46 65 and over

**36** **How many adults in your household are employed full or part-time (includes owning a business or self-employment)?** N=511

- 0.4% Zero adults
- 27% 1
- 57% 2
- 12% 3
- 4% 4 or more

**37** **Which of the ranges below best represents your household's total gross income from all sources in 2007?** N=485

- 0% Less than \$10,000
- 0.6% \$10,000 through \$14,999
- 0.8% \$15,000 through \$24,999
- 4% \$25,000 through \$34,999
- 8% \$35,000 through \$49,999
- 16% \$50,000 through \$74,999
- 17% \$75,000 through \$99,999
- 22% \$100,000 through \$124,999
- 14% \$125,000 through \$149,999
- 11% \$150,000 through \$199,999
- 7% \$200,000 or more

# Appendix C

## Cross tabulations

This appendix includes the cross tabulations referenced in the text of this report. Additional cross tabulations are available in Excel spreadsheets from the City of Naperville’s Planning Services Team at 630/420–6694.

**Table 28: Cross Tab DL T28 Q38: “Largest source of income by q37 income and q34 age — Income**

			Household income											Total
			Less than \$10,000	\$10,000 to \$14,999	\$15,000 to \$24,999	\$25,000 to \$34,999	\$35,000 to \$49,999	\$50,000 to \$74,999	\$75,000 to \$99,999	\$100,000 to \$124,999	\$125,000 to \$149,999	\$150,000 to \$199,999	\$200,000+	
Largest source of 2007 income	Wages, salaries, business profits	Count	2	1	3	4	10	15	17	36	16	29	39	172
		% within Largest source of 2007 income	1.2%	0.6%	1.7%	2.3%	5.8%	8.7%	9.9%	20.9%	9.3%	16.9%	22.7%	100.0%
		% within Household income	40.0%	50.0%	60.0%	66.7%	83.3%	68.2%	85.0%	94.7%	100.0%	96.7%	92.9%	86.9%
	Retirement income	Count	2	1	1	2	2	7	3	2	0	1	3	24
		% within Largest source of 2007 income	8.3%	4.2%	4.2%	8.3%	8.3%	29.2%	12.5%	8.3%	0.0%	4.2%	12.5%	100.0%
		% within Household income	40.0%	50.0%	20.0%	33.3%	16.7%	31.8%	15.0%	5.3%	0.0%	3.3%	7.1%	12.1%
	Other	Count	1	0	1	0	0	0	0	0	0	0	0	2
		% within Largest source of 2007 income	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
		% within Household income	20.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%
Total	Count	5	2	5	6	12	22	20	38	16	30	42	198	
	% within Largest source of 2007 income	2.5%	1.0%	2.5%	3.0%	6.1%	11.1%	10.1%	19.2%	8.1%	15.2%	21.2%	100.0%	
	% within Household income	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	



**Table 29: Cross Tab DL T28 Q38: "Largest source of income by q37 income and q34 age — Age**

			Age				
			18 to 25	26 to 45	46 to 64	65 and over	Total
Largest source of 2007 income	Wages, salaries, business profits	Count	4	82	81	7	174
		% within Largest source of 2007 income	2.3%	47.1%	46.6%	4.0%	100.0%
		% within Age	80.0%	100.0%	91.0%	28.0%	86.6%
	Retirement income	Count	0	0	7	18	25
		% within Largest source of 2007 income	0.0%	0.0%	28.0%	72.0%	100.0%
		% within Age	0.0%	0.0%	7.9%	72.0%	12.4%
	Other	Count	1	0	1	0	2
		% within Largest source of 2007 income	50.0%	0.0%	50.0%	0.0%	100.0%
		% within Age	20.0%	0.0%	1.1%	0.0%	1.0%
Total		Count	5	82	89	25	201
		% within Largest source of 2007 income	2.5%	40.8%	44.3%	12.4%	100.0%
		% within Age	100.0%	100.0%	100.0%	100.0%	100.0%

**Table 30: Cross Tab DL T11 Q9: Likelihood of changing jobs in the next 5 years — Commuting distance**

			Commute distance							Total
			Work at home	1 to 5 miles	6 to 10 miles	11 to 15 miles	16 to 25 miles	26 to 35 miles	More than 35 miles	
File: DL T11 Q9 Change jobs by Q7 commute distance.xls										
How likely to change jobs in next 5 years?	Very unlikely	Count	4	27	27	13	8	12	11	102
		% within How likely to change jobs in next 5 years?	3.9%	26.5%	26.5%	12.7%	7.8%	11.8%	10.8%	100.0%
		% within Commute distance	80.0%	71.1%	71.1%	54.2%	50.0%	41.4%	42.3%	58.0%
	Somewhat unlikely	Count	0	4	8	6	3	7	4	32
		% within How likely to change jobs in next 5 years?	0.0%	12.5%	25.0%	18.8%	9.4%	21.9%	12.5%	100.0%
		% within Commute distance	0.0%	10.5%	21.1%	25.0%	18.8%	24.1%	15.4%	18.2%
	Somewhat likely	Count	1	3	1	3	4	6	7	25
		% within How likely to change jobs in next 5 years?	4.0%	12.0%	4.0%	12.0%	16.0%	24.0%	28.0%	100.0%
		% within Commute distance	20.0%	7.9%	2.6%	12.5%	25.0%	20.7%	26.9%	14.2%
	Very likely	Count	0	4	2	2	1	4	4	17
		% within How likely to change jobs in next 5 years?	0.0%	23.5%	11.8%	11.8%	5.9%	23.5%	23.5%	100.0%
		% within Commute distance	0.0%	10.5%	5.3%	8.3%	6.3%	13.8%	15.4%	9.7%
Total		Count	5	38	38	24	16	29	26	176
		% within How likely to change jobs in next 5 years?	2.8%	21.6%	21.6%	13.6%	9.1%	16.5%	14.8%	100.0%
		% within Commute distance	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**Table 31: Cross Tab DL T11 Q9: Likelihood of changing jobs in the next 5 years — Household income**

How likely to change jobs in next 5 years? * Household income Crosstabulation														
File: DL T11 Q9 Change jobs by Q37 income level.xls			Household income											
			Less than \$10,000	\$10,000 to \$14,999	\$15,000 to \$24,999	\$25,000 to \$34,999	\$35,000 to \$49,999	\$50,000 to \$74,999	\$75,000 to \$99,999	\$100,000 to \$124,999	\$125,000 to \$149,999	\$150,000 to \$199,999	\$200,000+	Total
How likely to change jobs in next 5 years?	Very unlikely	Count	1	1	1	2	5	10	13	16	10	18	21	98
		% within How likely to change jobs in next 5 years?	1.0%	1.0%	1.0%	2.0%	5.1%	10.2%	13.3%	16.3%	10.2%	18.4%	21.4%	100.0%
		% within Household income	50.0%	50.0%	50.0%	50.0%	45.5%	62.5%	68.4%	44.4%	62.5%	69.2%	58.3%	57.6%
	Somewhat unlikely	Count	0	1	1	0	2	0	4	9	2	3	8	30
		% within How likely to change jobs in next 5 years?	0.0%	3.3%	3.3%	0.0%	6.7%	0.0%	13.3%	30.0%	6.7%	10.0%	26.7%	100.0%
		% within Household income	0.0%	50.0%	50.0%	0.0%	18.2%	0.0%	21.1%	25.0%	12.5%	11.5%	22.2%	17.6%
	Somewhat likely	Count	1	0	0	0	1	5	0	7	2	4	5	25
		% within How likely to change jobs in next 5 years?	4.0%	0.0%	0.0%	0.0%	4.0%	20.0%	0.0%	28.0%	8.0%	16.0%	20.0%	100.0%
		% within Household income	50.0%	0.0%	0.0%	0.0%	9.1%	31.3%	0.0%	19.4%	12.5%	15.4%	13.9%	14.7%
	Very likely	Count	0	0	0	2	3	1	2	4	2	1	2	17
		% within How likely to change jobs in next 5 years?	0.0%	0.0%	0.0%	11.8%	17.6%	5.9%	11.8%	23.5%	11.8%	5.9%	11.8%	100.0%
		% within Household income	0.0%	0.0%	0.0%	50.0%	27.3%	6.3%	10.5%	11.1%	12.5%	3.8%	5.6%	10.0%
Total	Count	2	2	2	4	11	16	19	36	16	26	36	170	
	% within How likely to change jobs in next 5 years?	1.2%	1.2%	1.2%	2.4%	6.5%	9.4%	11.2%	21.2%	9.4%	15.3%	21.2%	100.0%	
	% within Household income	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

# Appendix D

## Impact of the recession

Housing prices fluctuated substantially during the January 1, 2007 through March 31, 2008 study period. This volatility continues today and is unlikely to disappear for years to come. But any research effort and survey must have a beginning and an end. The surveys conducted for this study in late spring and early summer 2008 capture many of the impacts of these market fluctuations. To help assure consistency and accuracy, the surveys asked respondents to report their 2007 gross income and their current housing costs, information they would know without looking up financial records. The rent figures of the 27 largest Naperville rental complexes are from 2007 while the data on the sale prices of homes cover January 1, 2007 through March 2008.

While the data on home sales are accurate, some aspects of the analysis cannot be conducted due to the unavailability of income data for 2008.

### Impacts on the affordability of rental housing

The nationwide collapse of the housing market probably does *not* significantly affect Naperville rents. While there is no evidence that landlords are reducing rents, the opposite is more likely to occur thanks to an increase in demand for rental housing from homeowners who have lost their homes. So it is extremely likely that this report's findings regarding tenants are still current.

To measure any changes in rent levels, the city should conduct a new survey to learn the rents the city's 27 largest landlords are now charging. The data from these landlords were from early 2008 which kept it in sync with the 2007 income residents and employees reported. However, as explained beginning on page 36, rents reported in the random sample survey of Naperville tenants were lower than what the largest landlords charged. At best, a new survey of the largest landlords will give city officials some idea of the percentage rents have risen in the past year.

### Impacts on the affordability of ownership housing

Intuitively one might hypothesize that the substantial nationwide collapse of the housing market would make Naperville housing significantly more affordable.

The National Association of Realtors® reports a record 12.4 percent drop in the median price of single-family homes nationwide during 2008 to \$180,100 from \$206,200. Nationally, the median condominium price fell 15.8 percent.<sup>1</sup>

The median price of all ownership housing in Illinois fell 23.6 percent to \$183,100 in 2008 from \$239,700 in 2007. Within the Chicago–Naperville–Joliet Metropolitan Statistical Area, the median sale price of existing single-family homes slid 11 percent to \$245,600 from \$276,600 while the median sale price of existing condominiums actually rose 1 percent to \$235,700 from \$232,400.<sup>2</sup>

To test the hypothesis that the decline in housing prices would make Naperville housing affordable to more households, we found the mean sale prices for the last half of 2008 and compared them to the mean home sale prices for the study period. We conducted these comparisons for Naperville and four of the communities where high percentages of the people who work in Naperville live.<sup>3</sup>

The two tables and graph that follow show these comparisons.

<b>Jurisdiction</b>	<b>Study period</b>	<b>July 1 – Dec. 31, 2008</b>	<b>Percent change</b>
<b>Naperville</b>	\$509,590	\$491,418	-4%
<b>Aurora</b>	\$239,693	\$216,975	-9%
<b>Downers Grove</b>	\$508,224	\$459,258	-10%
<b>Lisle</b>	\$395,830	\$381,456	-4%
<b>Plainfield</b>	\$299,267	\$265,872	-11%

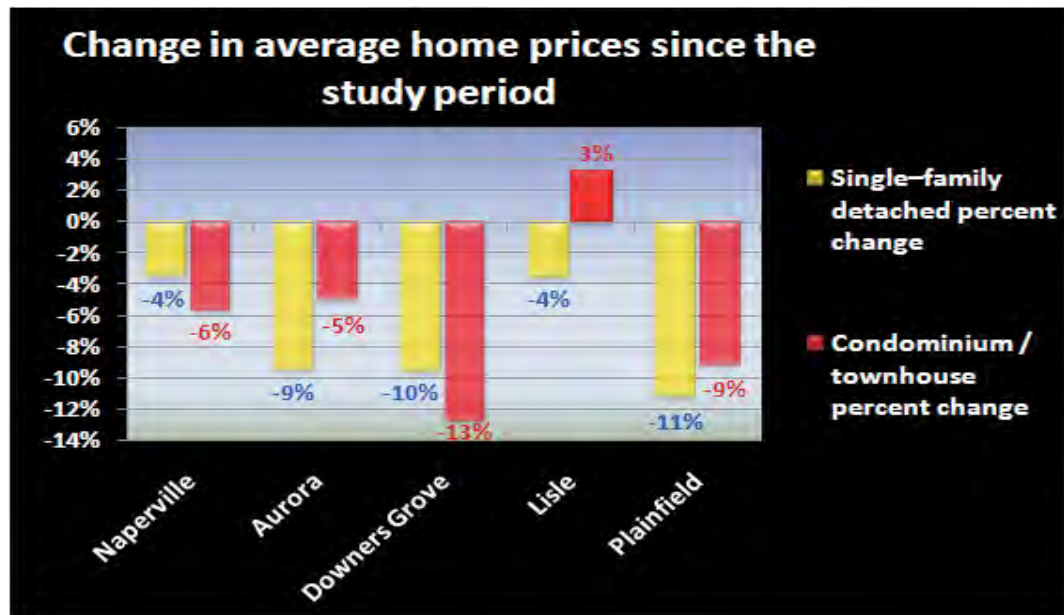
Source: Multiple Listing Service. The “Study period” was January 1, 2007 through March 31, 2008.

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1. This is the largest one-year drop since the National Association of Realtors started collecting this data in 1979. “4th Quarter Metro Area Home Prices Down as Buyers Purchase Distressed Property,” posted at [http://www.realtor.org/press\\_room/news\\_releases/2009/02/4th\\_quarter\\_metro\\_area\\_home\\_prices\\_down](http://www.realtor.org/press_room/news_releases/2009/02/4th_quarter_metro_area_home_prices_down), February 12, 2009.
  2. “Current Report: Single-Family 4th Quarter 2008”, “Current Report: Condo 4th Quarter 2008”, and State Existing-Home Sales “Current Release: 4th Quarter 2008.” Source data files available at <http://www.realtor.org/research/research/metroprice>.
  3. The Multiple Listing Service provided the sales data for the study period and the last half of 2008.

Jurisdiction	Study period	July 1 – Dec. 31, 2008	Percent change
Naperville	\$227,185	\$214,135	-6%
Aurora	\$181,927	\$172,783	-5%
Downers Grove	\$206,042	\$179,856	-13%
Lisle	\$180,130	\$185,948	3%
Plainfield	\$186,613	\$169,450	-9%

Source: Multiple Listing Service. The “Study period” was January 1, 2007 through March 31, 2008.

Figure 32: Change in average home prices since the study period



The graph above shows how much the mean sale price of homes changed in the last half of 2008 compared to the study period January 1, 2007 through March 31, 2008. While the last half of 2008 shows a nearly universal decline in sale prices compared to the study period, the decline for Naperville ownership housing has been less than in most nearby communities, 4 percent for single-family detached homes and 6 percent for condominiums and townhouses.

### Affordability measures and limitations of this analysis

As has been done throughout this report, we use the median to measure affordability. While mean sale prices are useful for comparing housing values in different jurisdictions, the median is the tool used to determine affordability.

**The analysis that follows, however, is incomplete** because there is no reliable data available on the 2008 incomes of Naperville residents and employ-

ees. Consequently, this analysis must assume no change in the household income of employees or Naperville residents — a very risky assumption given the state of the economy and rising unemployment rates. **It is likely that it overestimates changes in affordability.**

## Detached single-family homes

The median-priced Naperville detached single-family house declined from the \$450,000 median of the study period to \$421,000 for the second half of 2008.

The impact this decline in the value of detached single-family homes on affordability is marginal. As explained in the table on page 21, the median income needed to afford the median priced home is one-third the cost of the home. According to Multiple Listing Service data for the second half of 2008, the median annual income needed to afford the median priced single-family detached Naperville house declined 6 percent, from \$150,000 to \$140,333.

**This decline has virtually no effect on the ability of tenants to afford the median-priced single-family detached home.** Only 3 percent of resident and employee tenants earn in the \$125,000 to \$149,999 range. Assuming an even distribution within that range, fewer than 1 percent more tenants can afford to buy these homes.

The impact of this price decline on homeowners is greater because 9 percent of resident homeowners and 15 percent of employee homeowners earn in the \$125,000 to \$149,999 range. Assuming an even distribution within that range, the median-priced detached single-family home becomes affordable to another 4 percent of Naperville homeowners and 6 percent of employee homeowners.

**Even with this reduction in home values from \$450,000 to \$421,000 for the last half of 2008, 77 percent of employees and 61 percent of Naperville residents lack the \$140,333+ annual income needed to afford the \$421,000 median-priced single-family detached house in Naperville.<sup>4</sup>**

## Condominiums and townhouses

According to the Multiple Listing Service data, the value of the median-priced attached ownership home (condominiums and townhouses) fell from \$250,000 to \$197,000. This decline reduces the median annual income needed to afford the median-priced attached home from \$83,333 to \$65,667.

While the vast majority of resident and employee homeowners could afford the median-priced attached ownership home (condominiums and townhouses)

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4. This finding is very speculative because it assumes no reduction in household income, an assumption that may not be accurate.

in Naperville during the study period, this decline makes this median-priced home affordable to another 8 percent of resident homeowners and 9 percent of employee homeowners.

This decline makes the median-priced condominium and townhouse affordable to another 12 percent of both resident and employee tenants.

**With this reduction in home values for the last half of 2008, 18 percent of employees and 24 percent of Naperville residents cannot afford the median-priced Naperville townhouse or condominium.<sup>5</sup>**

First-time home buyers are probably the only beneficiary of these price reductions. However, the current credit crunch may mitigate the lower prices by making it harder for first-time buyers to obtain affordable mortgages.

These price reductions further harm retired homeowners who wish to sell their homes and use the proceeds to live on during retirement. Past generations had been able to move to inexpensive private sector rental housing. But 30 years of massive condominium conversions have eliminated that sector of affordable housing and left the remaining rentals with monthly rents at the same level of the monthly cost of owning a comparable home.

These declines in sale prices are a wash for existing homeowners who wish to buy another home. Existing homeowners often rely on the “profit” from the sale of their homes to buy their next home. When the prices of homes available to purchase in Naperville decline, so do the sale prices of residents’ current homes. Factor in the shortage of available mortgage funds and it is highly unlikely that the decline in housing prices will make ownership housing more affordable in Naperville or anywhere else except for first-time home buyers — and that’s only if their incomes are not decreasing due to the economy and mortgage lending is available to them.

**The decline in housing prices has, at best, only a marginal impact on the affordability of Naperville housing.**

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5. Again, this finding assumes no reduction in household income, an assumption that may not be accurate.