

Background

SUMMARY

A significant number of Minnesota households spend more than 30 percent of their income on housing. Low-income, rental, single-parent, minority, and older households are more likely to lack affordable housing than others. While household income in Minnesota increased rapidly in the past decade, home prices have increased even faster. Nonetheless, many of the existing homes for sale are still affordable. Vacant apartments are difficult to find in the Twin Cities, and average rents have increased considerably in recent years. New housing of all types is expensive to build and is often not affordable without subsidies. In recent years local builders and developers produced a lot of new single-family housing, but little multifamily housing.

In this chapter, we examine the current state of affordable housing in Minnesota. We address the following questions:

- **What is the need for affordable housing in Minnesota?**
- **How has the cost of housing changed over the last decade compared with household incomes?**
- **How much does it cost to build new housing, and how much new housing is Minnesota producing?**

To answer these questions, we reviewed the housing literature and analyzed data related to the current housing market.

“Affordable housing” means different things to different people. We relied on the definition used by the United States Department of Housing and Urban Development (HUD) and others, which defines housing as affordable if it costs less than 30 percent of a household’s income. We focused on housing that is affordable to lower-income households. We define lower-income households as those with incomes at or below 80 percent of the median family income if they own their home and at or below 50 percent of the median if they rent.¹

¹ This definition compares *household* income to median *family* income. Although many households are not families (e.g., single persons living alone or with roommates), we relied on the definition because housing data often use the 80 percent and 50 percent income limits.

Housing is generally considered affordable if it costs less than 30 percent of a household's income.

Table 1.1 shows the income and housing cost limits for 2000 under our definition of affordability.² For example, the most expensive home a metropolitan-area household earning \$52,480 (80 percent of the median income) could afford without assistance is \$140,000. Therefore, we consider metropolitan-area homes selling for \$140,000 or less affordable. Similarly, we consider non-metropolitan area homes selling for \$95,000 or less affordable.

Affordable home values depend on a variety of factors, including the size of the down payment, the available mortgage interest rate, and whether the purchaser qualifies for governmental assistance programs. For example, MHFA offered qualified households a mortgage interest rate of 6.5 percent in 2000. At this lower rate, rather than the 8.0 percent rate used in Table 1.1, a non-metropolitan area household earning 80 percent of the median income could afford a \$106,000 home. In Chapter 2, we discuss interest rates and other financial issues in more detail.

Table 1.1: Minnesota's Income and Cost Limits for Affordable Housing, 2000

	Metropolitan Areas ^a	Non-Metropolitan Areas
Median family income ^b	\$65,600	\$44,300
Owner-Occupied Housing		
80 Percent of median family income	52,480	35,440
Affordable home value ^c	140,000	95,000
Rental Housing ^d		
50 Percent of median family income	32,800	22,150
Affordable monthly rent for an efficiency	574	388
Affordable monthly rent for a one-bedroom apartment	615	415
Affordable monthly rent for a two-bedroom apartment	738	498
Affordable monthly rent for a three-bedroom apartment	853	576

NOTE: These figures are different than those published by the United States Department of Housing and Urban Development (HUD). First, HUD provides data for individual metropolitan areas and counties. Second, when HUD calculates incomes at 80 and 50 percent of median family income, the formula includes factors other than just multiplying the median income by 0.8 or 0.5.

^aIncludes the metropolitan statistical areas of the Minneapolis-St. Paul, Duluth-Superior, Fargo-Moorhead, Grand Forks, LaCrosse, Rochester, and St. Cloud.

^bMedian family incomes are higher than median household incomes. Based on the 1990 Census, the median family income in Minnesota was \$36,916 in 1989, while the median household income was \$30,909.

^cAssumes a 10 percent down payment and a standard 30-year mortgage with an 8 percent interest rate.

^dRental costs are adjusted for family size. For example, HUD adjusts the income limit for three-person households by 10 percent ($\$32,800 \times .90 = \$29,520$) and sets the limit for a two-bedroom apartment based on the adjustment ($\$29,500 \times .30 = \$8,850$ annually or \$738 per month).

SOURCE: Office of the Legislative Auditor's analysis of data from HUD, *FY 2000 HUD Income Limits: Briefing Material* (Washington DC: HUD, February 20, 2000).

² Government agencies like HUD and the Minnesota Housing Finance Agency (MHFA) use more complex criteria than the limits noted in Table 1.1, including the median incomes estimated for each metropolitan area or county as well as for different household sizes.

THE NEED FOR AFFORDABLE HOUSING IN MINNESOTA

Many media reports and advocacy groups have recently asserted a crisis-level need for affordable housing in Minnesota.³ We do not dispute that affordable housing is a considerable problem for some Minnesotans, but we found little recent data that precisely identify the size of the problem and who it affects most, especially outside the Twin Cities metropolitan area. Part of the difficulty is that the best source of information on Minnesota's housing needs is the decennial U.S. Census. Unfortunately, data from the 2000 Census are not yet available.

According to the 1990 census, 23 percent of Minnesota's households spent at least 30 percent of their income on housing in 1989.⁴ This percentage excludes those that may have lived in substandard or over-crowded housing to save money as well as homeless individuals and families. On the other hand, the 23 percent includes some households—including those with higher incomes—that chose to live in housing costing more than 30 percent of their income although they have access to less expensive homes.

Some households in Minnesota are more likely to lack affordable housing than others. Using 1990 census data, we found that:

- **Low-income, rental, single-parent, older, and Twin Cities metropolitan area households were more likely than other households in Minnesota to spend at least 30 percent of their income on housing in 1989.**

Figure 1.1 summarizes the percentage of selected Minnesota households that spent at least 30 percent of their income on housing in 1989. The ability to afford housing is obviously related to household income. As shown in the figure, 53 percent of households with annual incomes below \$20,000 spent more than 30 percent of their income on housing in 1989. By comparison, only 3 percent of those earning \$50,000 or more in 1989 spent at least 30 percent.⁵

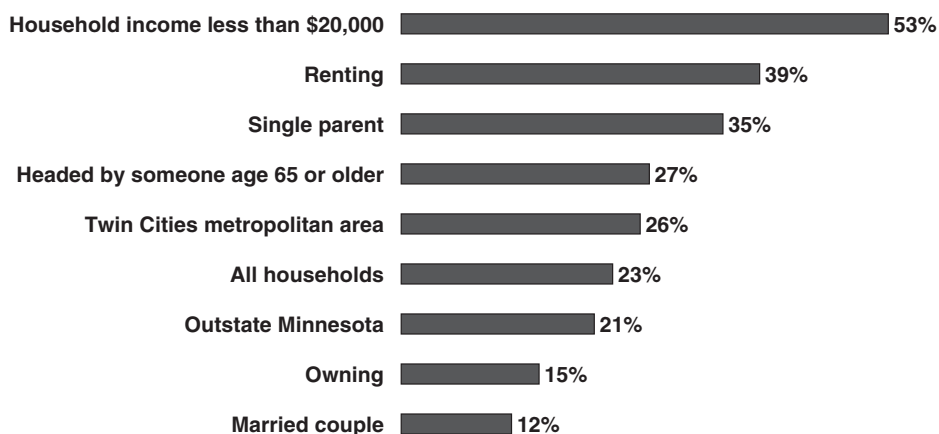
Twenty-three percent of Minnesota households spent at least 30 percent of their income on housing in 1989.

3 Kristin Gustafson, "An Invisible Crisis," *St. Paul Pioneer Press*, December 27, 2000, 1A; Karl J. Karlson, "\$10 Million Fund OK'D for Affordable Housing," *St. Paul Pioneer Press*, November 29, 2000, 1A; St. Paul Pioneer Press, "Mayors Unite: Many Hands Needed in Quest for Housing," *St. Paul Pioneer Press*, November 30, 2000, 18A; Deborah Locke, "Handful of Hope," *St. Paul Pioneer Press*, November 30, 2000, 19A; Minnesota Housing Partnership, "About MHP," <http://www.mhponline.org/>; accessed December 26, 2000; Family Housing Fund, "The Need for Affordable Housing in the Twin Cities," <http://www.fhfund.org/Research/need.htm>; accessed December 26, 2000; Metropolitan Interfaith Council on Affordable Housing, "From the Director," http://www.micah.org/Newsletter%20Articles/from_the_director3.htm; accessed December 26, 2000.

4 United States Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3, matrixes H050 and H059, http://factfinder.census.gov/java_prod/dads.ui.pbq.PopBuildQueryPage; accessed September 13, 2000.

5 Office of the Legislative Auditor's analysis of data from United States Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3, matrixes H050 and H059, http://factfinder.census.gov/java_prod/dads.ui.pbq.PopBuildQueryPage; accessed September 13, 2000.

Figure 1.1: Percentage of Selected Minnesota Households Lacking Affordable Housing, 1989



NOTE: Percentages represent those spending at least 30 percent of household income on housing.

SOURCE: Office of the Legislative Auditor's analysis of data from United States Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3, matrixes H050, H051, H058, H059, H060, http://factfinder.census.gov/java_prod/dads.ui.pbq.PopBuildQueryPage; accessed December 5, 2000.

Households that rent are more likely to lack affordable housing.

In 1989, the median income for households that rented (\$17,800) was one-half the median income for home-owning households (\$35,900). As shown in the Figure 1.1, 39 percent of rental households in Minnesota spent more than 30 percent of their household income on housing, compared with 15 percent of homeowners. Similarly, the median household income for single-parent families in 1989 (\$22,100) was much lower than that of married-couple families (\$39,400), and single parent families were much more likely to lack affordable housing.⁶

Older households were also somewhat more likely to lack affordable housing. As shown in Figure 1.1, 27 percent of all households headed by someone age 65 or older spent at least 30 percent of their income on housing, compared with 23 percent among all households statewide. Older homeowners lacked affordable housing at the same rate as all homeowners (15 percent). However, 55 percent of older households that rented spent at least 30 percent of their income on housing, compared with 37 percent of younger renting households.⁷

On a regional basis, households in the Twin Cities metropolitan area were more likely to lack affordable housing than households in most other parts of the state. Twenty-six percent of households in the seven-county metropolitan area spent at

⁶ Minnesota Housing Finance Agency (MHFA), *An Assessment of Minnesota's Housing Needs* (St. Paul, July 1995), 1-11, 1-13, 2-4, 2-9, 3-4, 3-9, 4-4, 4-9, 5-4, 5-9, 6-4, 6-9, 7-4, 7-9, 8-4, 8-9. MHFA inflated 1989 median household incomes using the CPI-U; we deflated back to 1989 dollars using the same index.

⁷ Office of the Legislative Auditor's analysis of data from United States Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3, matrixes H051 and H060, http://factfinder.census.gov/java_prod/dads.ui.pbq.PopBuildQueryPage; accessed December 5, 2000. Older households accounted for 27 percent of all households in Minnesota in 1990.

Many minority households lack affordable housing.

least 30 percent of their income on housing in 1989, compared with 21 percent in outstate Minnesota. On the county level, the proportion of households spending at least 30 percent of their income on housing ranged from 27 percent or more in Beltrami, Ramsey, Clearwater, Blue Earth, and Hennepin counties to less than 15 percent in Swift, Lake, Rock, Lake of the Woods, Watonwan, and Traverse counties.⁸

Finally, minority-headed households were also more likely to lack affordable housing than non-minority households. The 1989 median income of Minnesota households headed by whites was about \$30,600, compared with \$21,700 for Asian-American households, \$18,500 for Hispanic households, \$16,800 for African-American households, and \$16,000 for Native-American households.⁹ According to the Minnesota Housing Finance Agency's (MHFA) analysis of 1990 census data covering northwestern Minnesota, 35 percent of households headed by Native Americans spent at least 30 percent of their income on housing, compared with 20 percent of white-headed households.¹⁰ In a similar analysis of southeastern Minnesota, MHFA found that 22 percent of Hispanic-headed households lacked affordable housing, compared with 18 percent of non-Hispanic households.¹¹ A Census Bureau survey of the Twin Cities metropolitan area found that 46 percent of households headed by African Americans spent at least 30 percent of their income on housing, compared with 25 percent for the region as a whole.¹²

To estimate the magnitude of Minnesota's housing need for lower-income households, we relied on the definition of lower income noted previously—homeowners earning 80 percent or less of the median family income, and renters earning 50 percent or less of the median income. Based on summary data from the 1990 census, we estimated that:

8 Office of the Legislative Auditor's analysis of data from United States Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3, matrixes H050 and H058, http://factfinder.census.gov/java_prod/dads.ui.pbq.PopBuildQueryPage; accessed December 5, 2000.

9 MHFA, *An Assessment of Minnesota's Housing Need*, 1-13. The incomes reported by MHFA were inflated to 1994 dollars using the CPI-U. We deflated the incomes back to 1989 dollars, also using CPI-U, and rounded to the nearest \$100.

10 MHFA, *An Assessment of Minnesota's Housing Needs*, 2-5, 2-9, 2-10. Northwestern Minnesota includes Beltrami, Clearwater, Hubbard, Kittson, Lake of the Woods, Mahnommen, Marshall, Norman, Pennington, Polk, Red Lake, and Roseau counties. This region had a higher proportion of Native-American households than any other region of the state (4 percent, compared with less than 1 percent statewide).

11 MHFA, *An Assessment of Minnesota's Housing Needs*, 7-4, 7-9. Southeast Minnesota includes Blue Earth, Brown, Dodge, Faribault, Fillmore, Freeborn, Goodhue, Houston, Le Sueur, Martin, Mower, Nicollet, Olmsted, Rice, Sibley, Steele, Wabasha, Waseca, Watonwan, and Winona counties. This region had a higher proportion of Hispanic households than any other region of the state (5 percent compared with 4 percent statewide).

12 Office of the Legislative Auditor's analysis of data from the United States Bureau of the Census and United States Department of Housing and Urban Development, *American Housing Survey for the Minneapolis—St. Paul Metropolitan Area in 1993* and *American Housing Survey for the Minneapolis—St. Paul Metropolitan Area in 1998* (Washington, DC: United States Bureau of the Census), Tables 2-20 and 5-20. Percentages are based on data combined from both years since relatively few African-American households are reported in either 1993 or 1998. The "current income" reported in Tables 2-20 and 5-20 of the American Housing Survey (AHS) differs slightly from the definition of household income.

- **Approximately 18 percent of *all* Minnesota households have lower incomes *and* spent at least 30 percent of their income on housing in 1989.**¹³

The Greater Minnesota Housing Fund conducted a similar analysis of 1990 census data and estimated that 18 percent of all Minnesota households—including 18 percent of households in the Twin Cities seven county metropolitan area and 17 percent of households outside the Twin Cities metropolitan area—earned less than 50 percent of the state median family income and spent more than 30 percent of their income on housing.¹⁴ Using more recent housing and income data, the Metropolitan Council estimated that 22.6 percent of all households in the 13-county Twin Cities metropolitan statistical area have both lower incomes and spent at least 30 percent of their income on housing in 1998.¹⁵

RECENT TRENDS IN HOUSING COSTS AND INCOME

There are few recent statistics precisely identifying how many lower-income households lack affordable housing.

As mentioned earlier, there are little recent data precisely identifying how many lower-income households lack affordable housing; however, in this section we provide information on recent trends in home prices, rents, and income. As shown in Figure 1.2, home sales prices increased faster than household income during the last decade. Average rent in the Twin Cities metropolitan area increased faster than renters' incomes, which fell compared with inflation. We discuss these trends in greater detail in the following sections.

The Cost of Purchasing an Existing Home

The majority of housing transactions involve existing homes, as opposed to new homes which are typically more expensive. (We discuss new construction toward the end of the chapter.) We found that:

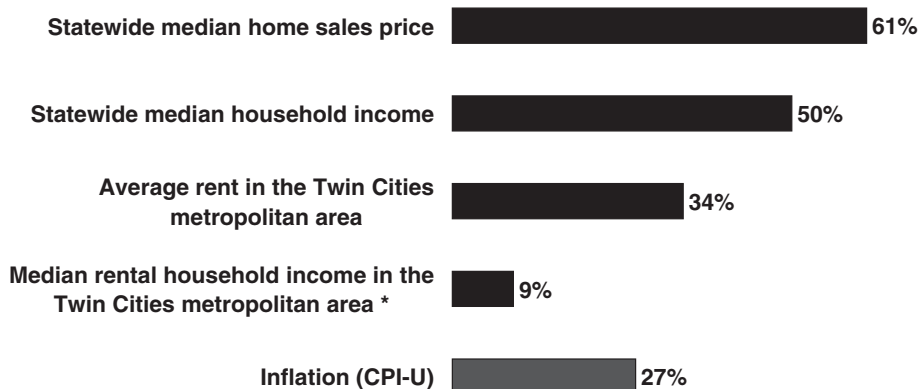
- **The sales prices of existing homes have increased substantially since 1990.**

¹³ Data indicating housing costs as a proportion of income and the proportion of renter and ownership households were taken from United States Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3, matrixes H050 and H059, http://factfinder.census.gov/java_prod/dads.ui.pbq.PopBuildQueryPage; accessed September 13, 2000. Data indicating the proportion of households below the 50 and 80 percent thresholds were taken from Minnesota Housing Finance Agency, *An Assessment of Minnesota's Housing Needs*, 2-6, 3-6, 4-6, 5-6, 6-6, 7-6, 8-6.

¹⁴ Greater Minnesota Housing Fund, *Facets of the Housing Need* (St. Paul, March 1999). The Greater Minnesota Housing Fund credits MHFA for supplying data used in their analysis.

¹⁵ Kathy Johnson (Metropolitan Council), memoranda to the Legislative Auditor's Office (November 11, 2000 and January 4, 2001). Ms. Johnson's analysis was based on the United States Bureau of the Census's *American Housing Survey for the Minneapolis—St. Paul Metropolitan Area in 1998*. Lower income was defined as below 80 percent of the 1998 area median family income for homeowners (\$48,640), and below 50 percent of area median income for renters (\$30,400).

Figure 1.2: Selected Economic Trends in Minnesota, Percentage Change 1990-99



* Median rental household income is for 1989 to 1998. Additionally, 1989 data covers the 11-county metropolitan statistical area (MSA; including 1 Wisconsin county), whereas 1998 data covers the 13-county MSA (including 2 Wisconsin counties).

SOURCES: Minnesota State Demographic Center, United States Bureau of the Census, Apartment Search, United States Bureau of Labor Statistics, United States Department of Housing and Urban Development.

Statewide, home sales prices at the lower end of the market grew faster than the rest of the market.

According to the Office of Federal Housing Enterprise Oversight, Minnesota's housing price index (HPI) increased 70 percent from 1990 to 2000, compared with a 41 percent increase nationally.¹⁶ The HPI is a strong indicator of the housing market since it is based on re-sales of the same homes over the years and is not affected by other factors, such as the increasing size of new homes or changing consumer preferences.

In addition, a recent analysis by the State Demographic Center showed that the median sales price of existing homes in Minnesota grew 61 percent from 1990 to 1999.¹⁷ In contrast, statewide median household income increased 50 percent. Furthermore, sales prices at the lower end of the market grew even faster, potentially making it more difficult for lower-income households to buy a home. For example, the sales price at the tenth percentile (the price below which only 10 percent of homes were sold) grew 80 percent between 1990 and 1999. But in the Twin Cities metropolitan area, the pattern was reversed, with the price at the tenth percentile growing only 39 percent while the median sales price grew 51 percent.

¹⁶ Office of the Legislative Auditor's analysis of data from the Office of Federal Housing Enterprise Oversight, "Housing Price Index," <http://www.ofheo.gov/house/download.html>; accessed November 29, 2000.

¹⁷ Martha McMurry, *Sales Prices of Existing Housing in Minnesota, 1998-1999* (St. Paul: State Demographic Center, June 2000). The data used in the report are from the Department of Revenue, and represent "arms length sales of existing homes" (excluding sales to family members and newly constructed homes). The median sales prices represent transactions over 21-month periods (i.e., January 1989 to September 1990 and January 1998 to September 1999).

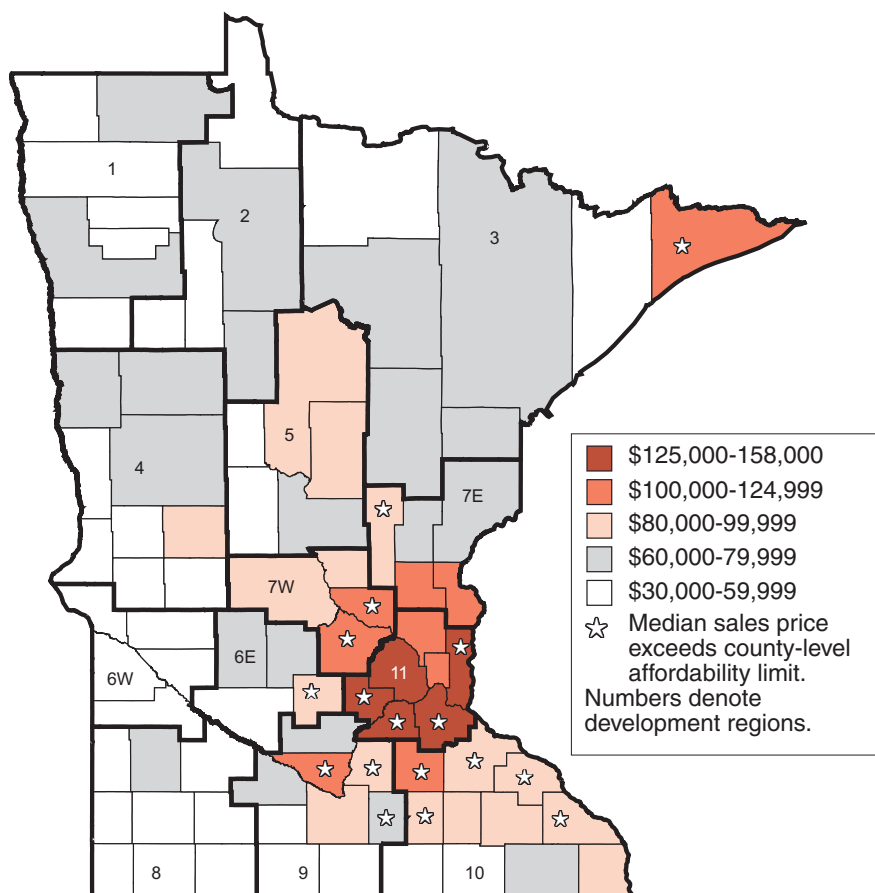
We found that:

- **Despite the rapid growth in sales prices, existing homes often sell for prices that are affordable to many lower-income households.**

Figure 1.3 shows the 17 counties where homes selling for the median sales price are unaffordable to households earning 80 percent of the county's median family income.¹⁸ In most counties, the median home sales price was below the affordability limit. Figure 1.3 also shows that home sales prices vary widely across Minnesota. On the county level, median sales prices in 1999 ranged from a low of \$31,000 in Kittson County to a high of \$158,000 in Carver County. As shown in Figure 1.4, the Twin Cities seven-county area had the highest prices, and

Figure 1.3: Median Sales Prices of Existing Homes by County, 1999

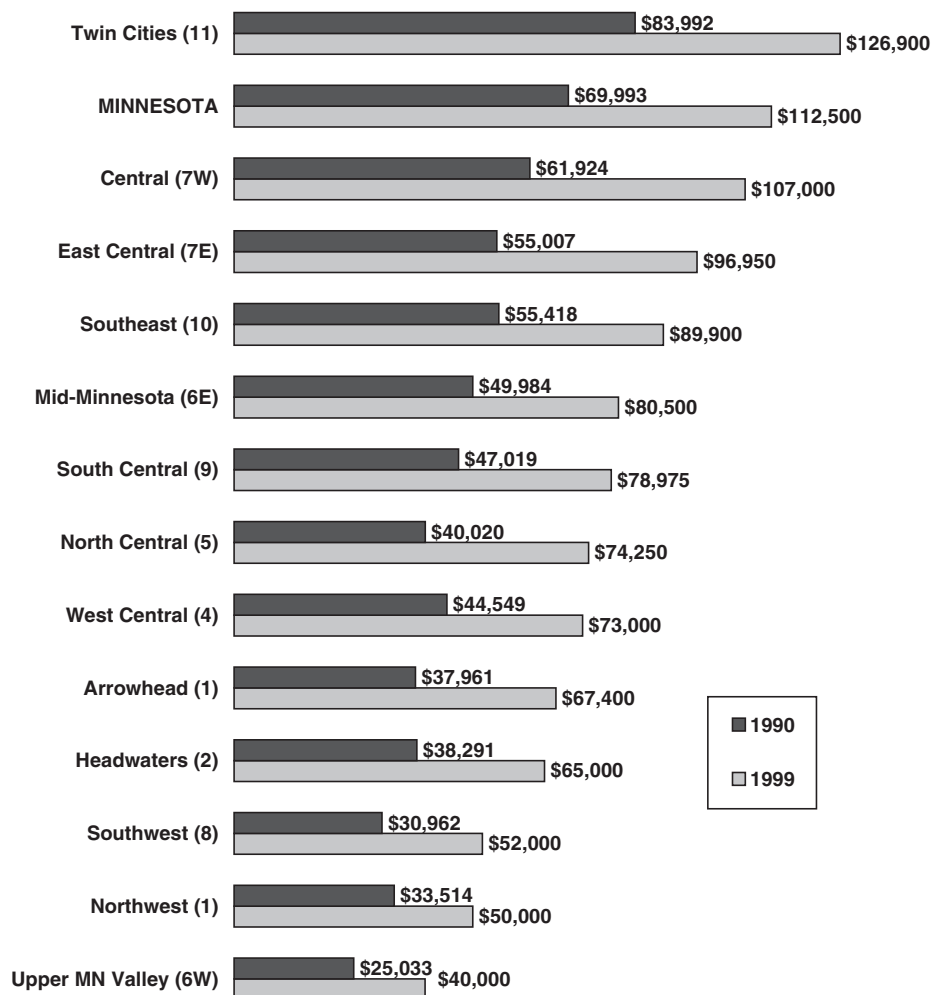
Home sales prices are generally the highest around the Twin Cities.



SOURCE: Martha McMurry, *Sales Prices of Existing Housing in Minnesota, 1998-1999* (St. Paul: State Demographic Center, June 2000), United States Department of Housing and Urban Development.

¹⁸ HUD estimates median incomes for metropolitan areas and individual counties outside of metropolitan areas (see Figure 1.8 on page 17).

Figure 1.4: Median Sales Prices of Existing Homes by Region, 1990-99



NOTE: The numbers next to each regional name correspond to the regional boundaries shown in Figure 1.3.

SOURCE: Martha McMurry, *Sales Prices of Existing Housing in Minnesota, 1998-1999* (St. Paul: State Demographic Center, June 2000).

Home sales prices grew rapidly in every region of the state.

regions bordering the seven-county area (central, east central, southeast, mid-Minnesota, and south central) had the next highest prices. As indicated in the figure, median sales prices increased significantly from 1990 to 1999 in every region of the state, with the north-central region showing the largest increase (86 percent).

Median sales prices are related to population size and growth rates. Table 1.2 shows median sales prices in Minnesota's largest and fastest growing cities. In 1999, all of the listed Twin Cities suburbs had median home sales prices above the statewide median (\$112,500). Eden Prairie, Lakeville, Plymouth, and Woodbury had median sales prices above \$150,000. Outside the Twin Cities

Table 1.2: Median Home Sales Prices for Minnesota's Largest and Fastest Growing Cities, 1999

	Median Home Sales Price		Population	
	1999	Percentage Change 1990-99	10 Largest, 1999	10 Fastest Growing, 1990-99
Twin Cities Seven-County Metropolitan Area				
Apple Valley	\$132,900	42%		✓
Bloomington	132,000	40	✓	
Brooklyn Park	119,529	44	✓	
Coon Rapids	112,900	46	✓	✓
Eagan	136,000	45	✓	✓
Eden Prairie	165,000	49		✓
Lakeville	153,050	66		✓
Maple Grove	139,900	57		✓
Minneapolis	100,000	43	✓	
Plymouth	176,000	47	✓	✓
St. Paul	95,000	37	✓	
Woodbury	155,000	57		✓
Outside Seven-County Metropolitan Area^a				
Austin	\$ 57,900	60%		
Duluth	73,000	74	✓	
Mankato	88,250	63		
Moorhead	79,500	39		
Owatonna	96,000	63		
Rochester	97,500	48	✓	✓
St. Cloud	84,900	54	✓	✓
Winona	88,250	92		
Minnesota	\$112,500	61%		

^aIncludes all cities outside the Twin Cities metropolitan area with 1999 estimated population size greater than 20,000.

NOTE: "Fastest Growing" refers to the change in number of households from 1990 to 1999.

SOURCE: Martha McMurry, *Sales Prices of Existing Housing in Minnesota, 1998-1999* (St. Paul: State Demographic Center, June 2000).

Large and fast-growing cities often have high home sales prices.

seven-county area, median home sales prices for existing homes approached \$100,000 in Owatonna and Rochester in 1999 and grew particularly rapidly in Winona.

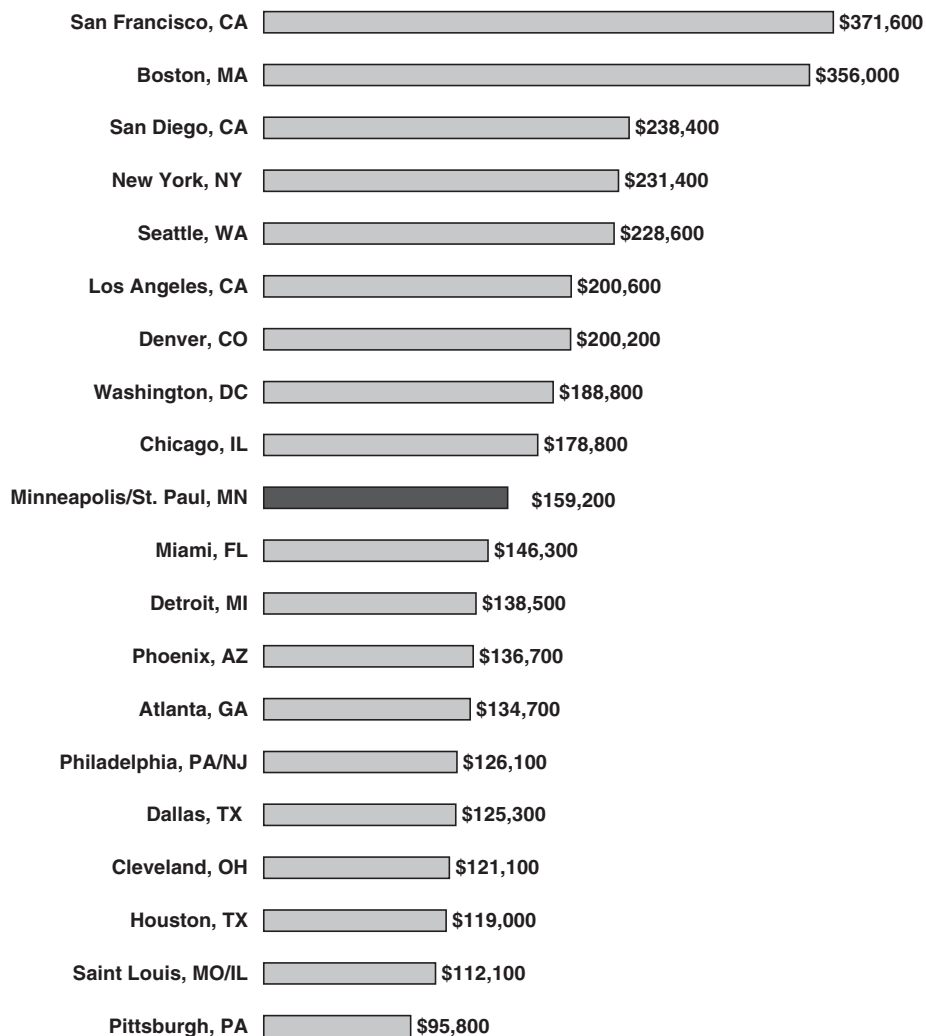
Figure 1.5 shows the median sales price of existing homes for the 20 largest metropolitan areas nationwide. We found that:

- **In 2000, home sales prices in the Twin Cities metropolitan area were average compared with other large metropolitan areas.**

The median sales price in the Twin Cities metropolitan area for the third quarter of 2000 was in the middle of the rankings—the tenth highest of the 20 largest

Home sales prices for the Twin Cities area are typical for a large metropolitan area in the U.S.

Figure 1.5: Median Sales Price of Existing Homes for the 20 Largest Metropolitan Areas, 2000



SOURCE: National Association of Realtors, *Existing Home Sales, Metropolitan Prices, Third Quarter, 2000*, <http://nar.realtor.com/databank/ehsmet.htm>; accessed November 7, 2000.

metropolitan areas.¹⁹ Sales prices for the Twin Cities area were somewhat lower than in Chicago and somewhat higher than in Detroit. Median sales prices of other midwestern metropolitan areas included \$154,900 in Madison, \$143,300 in Milwaukee, and \$120,500 in Des Moines. Despite having a typical median sales

¹⁹ The median sales price indicated for the Twin Cities in Figure 1.4 is from a 21-month period during 1998 and 1999. The median sales price indicated in Figure 1.5 is for July through September of 2000. Although the two figures have different data sources, and the data cover somewhat different areas (7 counties in Figure 1.4 versus 13 counties in Figure 1.5), the main reason for the difference appears to be inflation. The data source for the Figure 1.5 reported median sales prices of \$128,000 in 1998 and \$137,800 in 1999, which is closer to the \$126,900 sales price shown in Figure 1.4.

price, the Twin Cities had the third highest growth rate among large metropolitan areas between 1997 and the third quarter of 2000.²⁰

Despite Minnesota's rapid increase in home sales prices in recent years:

- **Minnesota has one of the highest rates of homeownership in the country.**

According to census data, 76 percent of all households in Minnesota and 73 of households in the Twin Cities metropolitan area owned their homes in 1999.²¹ Minnesota, along with Maine, South Carolina, and Michigan, had the highest rate of homeownership in the nation. In addition, only 3 of the country's 75 major metropolitan areas had a higher homeownership rate than the Twin Cities area.²²

Rental Costs and Availability

The best data on rental costs since the 1990 census are limited to the Twin Cities area. Based on these data, we found that:

- **Rental prices grew much faster than renter incomes in the Twin Cities metropolitan area over the last decade.**

Average rent in the Twin Cities area grew 11 percent between 1999 and 2000.

As shown earlier in Figure 1.2, average rent in the Twin Cities metropolitan area increased 34 percent between 1990 and 1999, while the median income for rental households grew by only 9 percent over roughly the same period. The trend in rising rental prices accelerated in the past year, with an 11 percent increase in average rent from June 1999 to June 2000, as shown in Table 1.3. Average rent grew rapidly for all sizes of apartments over the last year, and rents for all sizes of apartments except efficiencies are above the affordability limits for metropolitan area lower-income households (see Table 1.1). Currently, average rents in the Twin Cities area are highest in Minneapolis and the western suburbs and lowest in the northern suburbs.²³

20 Office of the Legislative Auditor's analysis of data from the National Association of Realtors, *Existing Home Sales, Metropolitan Prices, Third Quarter, 2000*, <http://nar.realtor.com/databank/ehsmet.htm>; accessed November 7, 2000. The annual median sales price in 1997 was \$118,400.

21 United States Bureau of the Census, "Table 13. Homeownership Rates by State, 1984 to 1999" and "Table 14. Homeownership Rates for the 75 Largest Metropolitan Areas, 1986 to 1999" (standard errors are noted in tables B-3 and B-4), <http://www.census.gov/hhes/www/housing/hvs/annual99/ann99ind.html>; accessed September 13, 2000. Over the past decade homeownership rates have grown somewhat faster in Minnesota (4 to 8 percentage points) compared to the nation (2.9 percentage points). On October 26, 2000, the Census Bureau released a nationwide homeownership estimate of 66.7 percent, the highest nationwide rate ever estimated.

22 The three metropolitan areas with significantly higher rates of homeownership are Monmouth-Ocean, New Jersey (83.4 percent homeownership); Grand Rapids, Michigan (79.8 percent); and Nassau-Suffolk, New York (78.6 percent). Looking only at estimated homeownership rates, Minnesota ranks fourth and the Twin Cities metropolitan area ranks ninth. However, these rankings disregard the margin of error in Census Bureau estimates; once sampling error is taken into account the "rankings" are as noted.

23 Minneapolis Star-Tribune, "Rent Sampler," November 11, 2000 (data from Apartment Search, *Profiles 2000 Quarterly Review*). As of third quarter 2000, the average one bedroom rented for \$680 per month in the western suburbs, compared with \$602 in the northern suburbs; the average two bedroom rent was \$876 in Minneapolis, compared with \$709 in the northern suburbs.

Table 1.3: Average Rents for Twin Cities Area Apartments, 1999 and 2000

	Average Rent		Percentage Change
	1999	2000	
All sizes	\$678	\$751	11%
Efficiency	465	504	8
One-Bedroom	603	664	10
Two-Bedroom	753	815	8
Three-Bedroom	1,002	1,090	9

NOTE: Starting in 2000, apartments with dens were noted separately from other apartments, and are only included in the average rent for apartments of all sizes. Including apartments with dens increases the average rent for one- to three-bedroom apartments by approximately \$10.

SOURCE: Apartment Search, *Profiles 2000 Quarterly Review* (Edina, Minnesota: Second Quarter, 1999 and 2000).

Experts define 5 percent vacancy as the desirable “market equilibrium” for the rental market.²⁴ Vacancy rates lower than 5 percent can lead to higher rents as property owners respond to increased demand. According to Apartment Search (a market research company):

- **Rental vacancy rates are extremely low in the Twin Cities area—estimated at 1.5 percent during 2000.**²⁵

As shown in Figure 1.6, vacancy rates in the Twin Cities area dropped steadily over the last decade, but average rents did not rise dramatically until the last few years. Local rental market analysts suggest that the Twin Cities rental market could become even tighter over the next decade as the number of young adults and seniors, the two groups most likely to rent, increase.²⁶

Rental vacancy rates in the Twin Cities area and Minnesota as a whole are among the lowest in the nation. According to Census Bureau estimates,

- **Only 3 of the nation’s 75 largest metropolitan areas had significantly lower rental vacancy rates than the Twin Cities metropolitan area in 1999, and only two states, Vermont and New Jersey, had lower rental vacancy rates than Minnesota.**

Vacancy rates in the Twin Cities area and the state as a whole have been below the national vacancy rates for the last decade, indicating that Minnesota’s rental

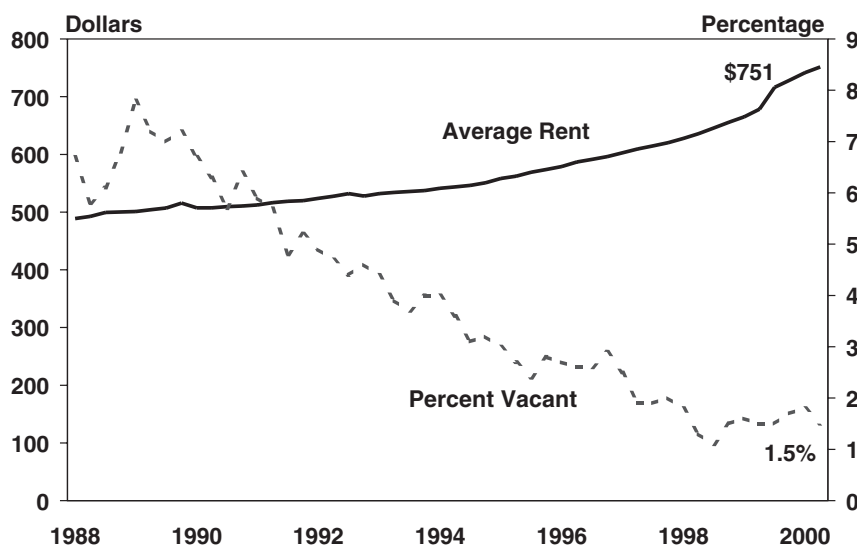
24 Laurence C. Harmon, *Apartment Market Report 2000* (Minneapolis: Maxfield Research, Incorporated, 2000), 11.

25 Apartment Search, *Profiles 2000 Quarterly Review* (Edina, Minnesota: Apartment Search, Second Quarter 2000).

26 Harmon, *Apartment Market Report 2000*, 11-12. Metropolitan Council, *Opening Doors to Affordable/Life Cycle Housing* (St. Paul, March 1995), 20.

Experts define a 5 percent rent vacancy rate as the desirable market equilibrium.

Figure 1.6: Vacancy Rates and Average Rent for Twin Cities Area Apartments, 1988-2000



SOURCE: Office of the Legislative Auditor's analysis of data from Apartment Search, *Profiles 2000 Quarterly Review* (Edina, Minnesota).

market has been tighter than most other markets for at least ten years.²⁷

Income, Jobs, and Wages

Minnesota has a robust economy. As shown earlier in Figure 1.2:

- The state's median household income increased significantly in the last decade.

Minnesota has a robust economy, but incomes vary widely.

Median household income in Minnesota grew 50 percent over the last decade, to \$47,240 in 1999.²⁸ By comparison, median household income for the entire nation grew only 36 percent although the median household income of nearby states (Iowa, South Dakota, and Wisconsin) also grew approximately 50 percent. According to Census Bureau estimates, only three states, Alaska, Maryland, and

27 United States Bureau of the Census, "Table 3. Rental Vacancy Rates, by State: 1986 to 1999" and "Table 5. Rental Vacancy Rates for the 75 Largest Metropolitan Areas: 1986 to 1999" (standard errors listed in tables B-3 and B-4), <http://www.census.gov/hhes/www/housing/hvs/annual99/ann99ind.html>; accessed September 13, 2000. The three metropolitan areas with significantly lower vacancy rates are Ventura, California (1.3 percent vacancy); Nassau-Suffolk, New York (1.9 percent); and San Jose, California (2.1 percent). (Ignoring sampling error, the Twin Cities is tied for the ninth lowest rental vacancy rate of all major metropolitan areas, and Minnesota has the eighth lowest rental vacancy rate of all states.)

28 United States Bureau of the Census, "Table H-8. Median Household Income by State: 1984 to 1999," <http://www.census.gov/hhes/income/histinc/h08.html>; accessed November 10, 2000.

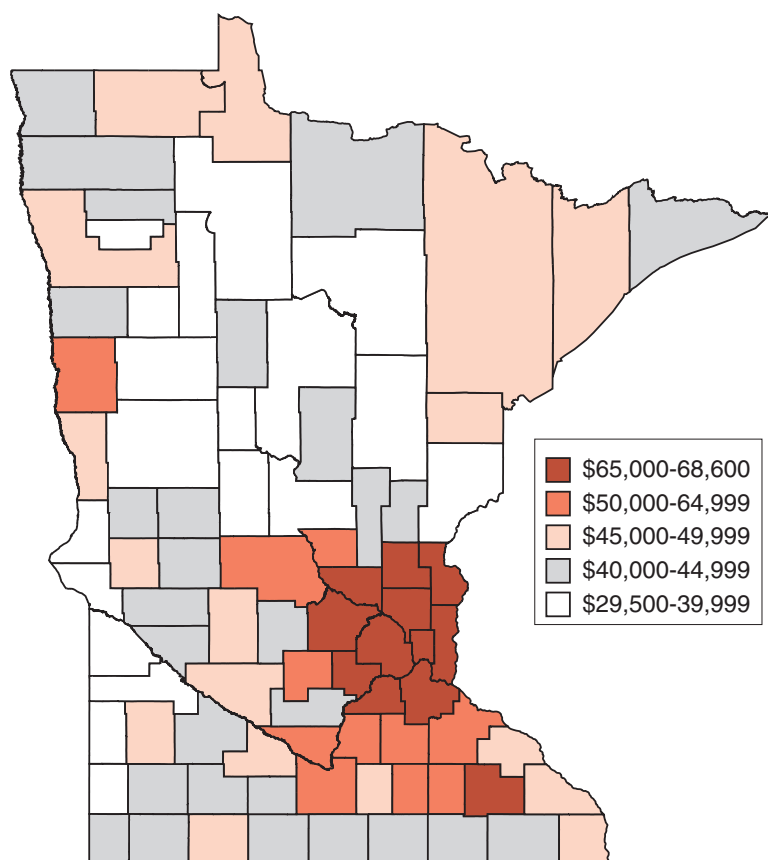
New Jersey, had significantly higher median household incomes than Minnesota in 1999.²⁹

Income levels vary widely within Minnesota. As shown in Figure 1.7, the Twin Cities metropolitan area had the state's highest estimated median family income (\$68,600), while Mahanomen County, most of which is in the White Earth Reservation, had the lowest (\$29,500).³⁰

The relatively high family and household incomes in much of the state are partially due to Minnesota's high rate of labor force participation. Minnesota's unemployment rate is consistently among the lowest in the nation. The

Figure 1.7: Median Family Income by County, 2000

Family incomes are generally the highest around the Twin Cities.



SOURCE: United States Department of Housing and Urban Development.

29 United States Bureau of the Census, "Table H-8B. Median Household Income by State: 1984 to 1999," <http://www.census.gov/hhes/income/histinc/h08.html>; accessed November 10, 2000. We used three year moving averages (Table H-8B) and included standard errors in our state to state comparisons. (Ignoring sampling error, Minnesota ranks sixth highest in median income, 1997-99.)

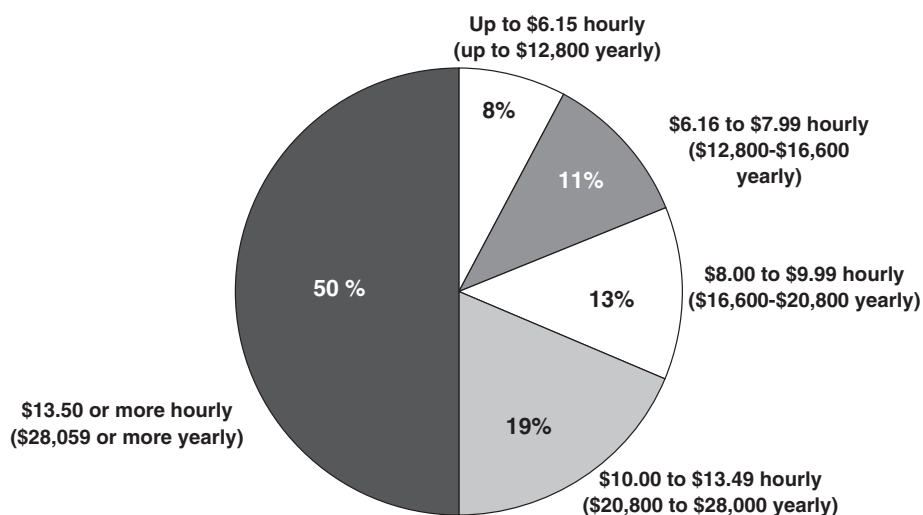
30 United States Department of Housing and Urban Development, "FY 2000 Income Limits and Fair Market Rents," <http://www.huduser.org/datasets/il/fmr00/index.html>; accessed June 19, 2000. HUD-defined median family incomes are adjusted according to family size, using a family of four as the baseline.

Minnesota has a very high rate of labor force participation, but many jobs pay low wages.

unemployment rate in Minnesota has been below 4 percent since 1996 and was at or below 3 percent for three years, starting in October 1997.³¹ According to the Bureau of Labor Statistics' estimates for 1999, Minnesota's unemployment rate (2.8 percent) was the lowest in the nation, and Minnesota's labor force participation rate (73 percent of all adults aged 16 and over) was the highest in the nation.³² Labor force participation for women is also higher in Minnesota (68 percent) than any other state, which indicates that Minnesota may have a large proportion of two-income families.

While Minnesota has high labor force participation rates, many jobs pay relatively low wages. As shown in Figure 1.8, about one-half of all jobs in Minnesota paid less than \$13.50 per hour in 1999, including 32 percent that paid less than \$10.00 per hour. By comparison, in 2000 a single wage-earner had to work full time and make at least \$12.77 per hour to afford an average one-bedroom apartment in the Twin Cities metropolitan area (\$664) and \$15.67 per hour to afford an average two bedroom apartment (\$815).³³

Figure 1.8: Distribution of Hourly Wages in Minnesota, 1999



SOURCE: Minnesota Department of Economic Security, "Table 1: Distribution of Hourly Wages of Minnesota Workers in Second Quarter of 1999" (St. Paul, May 1999).

³¹ Minnesota Department of Economic Security, "Minnesota Unemployment Statistics," http://www.mnworkforcecenter.org/lmi/laus/mn_s_adj.htm; accessed November 22, 2000.

³² United States Bureau of Labor Statistics, "Employment Status of the Civilian Noninstitutional Population in States by Sex, Age, Race, and Hispanic Origin," <http://stats.bls.gov/laus/laustdem.pdf>; accessed November 10, 2000. Labor force participation rates refer to the percentage of the civilian, non-institutionalized population that is age 16 and over and actively involved in the workforce (the percentages reported here include only the employed).

³³ Apartment Search, *Profiles 2000 Quarterly Review* (Edina, Minnesota: Apartment Search, Second Quarter 2000) (average rents).

Furthermore, the Department of Economic Security projects that many of the jobs that will be added to Minnesota's economy in coming years are in low-paying occupations. We found that:

- **People in 13 of the 25 fastest growing occupations, including retail salespersons, cashiers, home health aides, receptionists, and food preparation workers, would have to spend more than 30 percent of their income on rent to live in an average one-bedroom apartment in the Twin Cities area.**

Table 1.4 lists the 25 fastest-growing occupations in Minnesota, the statewide median wages associated with each type of job, and the maximum affordable rents and homes for each occupation, assuming a full-time position at the median wage and only one wage earner in a given household. Sixteen of the occupations could

Table 1.4: Twenty-Five Fastest Growing Occupations in Minnesota, Hourly Wages, Maximum Affordable Rents and Home Values, 2000

	Estimated Employment 1996	Projected Job Growth 1996-2006	Median Hourly Wage	Maximum Affordable Rent	Maximum Affordable Home
General Managers & Top Executives	72,240	13,501	\$28.48	\$1,481	\$159,000
Retail Salespersons	78,857	12,553	8.06	419	45,000
Cashiers	62,350	12,065	7.31	380	41,000
Computer Systems Analysts	10,428	10,227	27.87	1,449	156,000
Home Health Aides	12,506	8,606	8.61	448	48,000
Receptionists & Information Clerks	25,360	6,452	9.92	516	55,000
Computer Engineers	3,986	5,614	30.76	1,599	172,000
General Office Clerks	55,179	5,492	11.00	572	61,000
Supervisors, Sales & Related Workers	36,255	5,480	15.26	793	85,000
Sales Reps, Except Scientific Products	31,119	5,328	21.14	1,099	118,000
Registered Nurses	36,221	5,181	22.50	1,170	126,000
Hand Packers & Packagers	18,875	5,071	8.10	421	45,000
Supervisors, Clerical & Admin. Support	24,762	5,035	16.35	850	91,000
Food Preparation Workers	29,179	4,972	6.61	343	37,000
Human Services Workers	7,249	4,750	11.16	581	62,000
Truck Drivers, Light	23,936	4,749	10.72	557	60,000
Maintenance Repairers, General Utility	23,742	4,686	12.78	664	71,000
Adjustment Clerks	8,767	4,671	11.93	621	67,000
Nursing Aides, Orderlies, & Attendants	31,398	4,389	9.48	493	53,000
Elementary School Teachers	24,807	4,345	18.97	987	106,000
Marketing & Advertising Managers	13,061	4,337	33.00	1,716	184,000
Waiters & Waitresses	47,408	4,327	6.12	318	34,000
Truck Drivers, Heavy	30,300	4,038	14.58	758	81,000
Amusement & Recreation Attendants	14,007	4,019	6.99	363	39,000
Financial Managers	17,413	3,744	30.89	1,606	173,000

NOTE: Median wage is inflated to year 2000 dollars from 1998 wages using CPI-U. "Maximum affordable rent" assumes spending 30 percent of pre-tax income on rent. "Maximum affordable home" assumes a conventional 30 year mortgage with an 8 percent interest rate and 10 percent down. Home values are rounded to nearest thousand and represent approximations. Many lower income families could not afford a 10 percent down payment, and many could qualify for mortgage assistance programs. Both rents and home values assume a household with one wage-earner working full-time.

SOURCE: Office of the Legislative Auditor's analysis of data from Minnesota Department of Economic Security, *Minnesota Employment Outlook to 2006*, and *1998 Minnesota Salary Survey* (St. Paul, May 1999).

Some of the fastest growing occupations pay relatively low wages.

not afford an average two-bedroom apartment in the Twin Cities, including truck drivers and supervisors of sales and clerical workers. Eighteen of the occupations, including elementary school teachers, could not afford mortgage payments on a median-priced existing home (\$112,500).

COST OF BUILDING NEW HOUSING

In general, new housing is more expensive than existing housing. We found that:

- **Without subsidies, new homes and apartments are often unaffordable to lower-income households.**

Data suggest that a new, starter home would have cost at least \$116,000 in 2000.

We estimated that a new, single-family, detached home with 1,100 square feet of finished space would have cost at least \$116,000 in 2000 to develop and build. We based our estimate on the following information:

- According to several builders and developers and trade publications, starter homes generally cost \$105 to \$125 per square foot in 2000 to construct, including land, labor, materials, fees, overhead, and profit. This estimate assumes that land costs accounted for 25 percent of the overall cost, which is a standard assumption in the construction industry.
- Assuming total costs of \$105 per square foot, a 1,100 square foot home would have cost \$116,000.



New starter homes are often unaffordable.

This price is more than the \$95,000 affordability limit listed in Table 1.1 for the state's non-metropolitan areas, but less than the \$140,000 affordability limit for the state's metropolitan areas. However, it would have been very difficult to build such a home in the Twin Cities seven-county area because the price assumed that the land would have cost \$29,000 (which is 25 percent of the overall price). Builders told us that it was very difficult to find a \$29,000 lot in the seven county area in 2000. It would have been easier to build a \$116,000 home in the greater Twin Cities area, including Chisago, Isanti, Sherburne, and Wright counties, where land is less expensive. Within the seven-county area, most of the affordable homes constructed in recent years have been townhomes.³⁴

In addition, we estimated that a basic, new, two-bedroom apartment in a large-scale development would have cost at least \$74,000 in 2000 to develop and construct. We based this estimate on the following information:

- According to several developers and builders that we interviewed and MHFA data, multifamily housing would have generally cost \$70 to \$110 per square foot in 2000 to develop and construct.
- Assuming total costs of \$70 per square foot, a 1,059-square foot apartment (900 square feet of rentable space when common areas are excluded) would have cost \$74,000.

Both the Minnesota Housing Finance Agency (MHFA) and the Metropolitan Council told us that it would have been very difficult to build an apartment in 2000 at this low cost, especially in the Twin Cities metropolitan area. MHFA generally assumes that multifamily housing costs \$75 to \$85 per square foot, but we identified an apartment complex in Rochester that was recently built at a cost of \$70 per square foot. In addition, we present the estimate as an example of the *minimum* cost, not the *typical* cost.

Even basic new apartments are unaffordable without subsidies.

If apartment rent is not high enough to cover operating expenses and provide an adequate rate of return for investors, no one will build the apartment because it will cost more than it is worth. We estimated that this basic apartment would have had to rent for about \$950 per month in order for the market value to at least equal its cost.³⁵ According to our definition of affordability, two-bedroom apartments should have rented for no more than \$738 a month in metropolitan areas and \$498 in other areas. Consequently, even this low-cost, new apartment would have been unaffordable without subsidies.

³⁴ Office of the Legislative Auditor's analysis of data from Metropolitan Council, *Report to the Minnesota Legislature on Affordable and Life-Cycle Housing in the Metropolitan Area* (St. Paul, December 1999). About 71 percent of the new, affordable, owner-occupied homes in the Twin Cities in 1998 were multifamily homes—generally townhouses, quads, and duplexes.

³⁵ This assumes a capitalization rate on net operating income of 8 percent. According to market experts that we interviewed, this is a typical rate for new apartments. We calculated net operating income using information from a couple sources. Data on operating expenses (excluding property taxes) came from the Institute of Real Estate Management, *Income Expense Analysis: Conventional Apartments, 1999 Edition* (Chicago: Institute for Real Estate Management of the National Association of Realtors, 1999), 92-93. They conduct an annual survey of apartment buildings in the Twin Cities area. Data on effective property tax rates came from the Minnesota House of Representatives Research Department, *House Research Issues & Information: Property Tax, Changes in Property Tax Burdens Since 1991* (St. Paul, 2000).

HOUSING PRODUCTION AND DEMOLITION

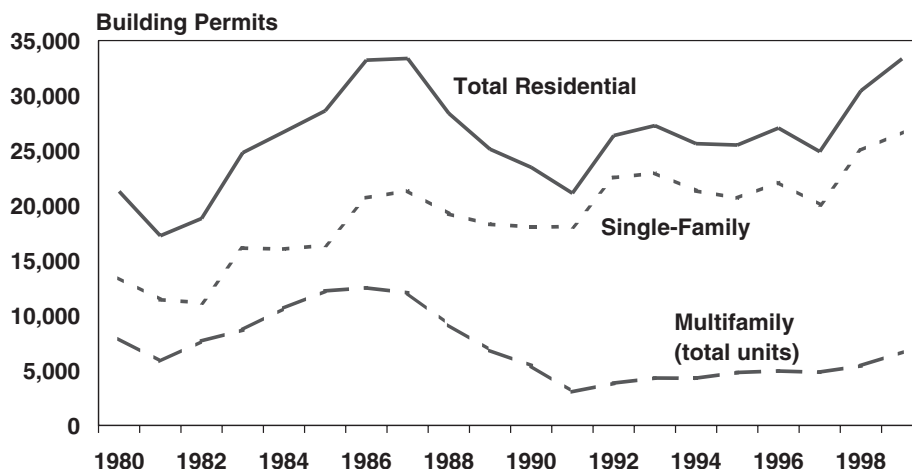
Although it is difficult to construct affordable housing, Minnesota has seen an increase in the production of residential housing in recent years. However, we found that:

- **The production of multifamily housing in Minnesota declined dramatically in the late 1980s and has only partially recovered.**

As shown in Figure 1.9, trends in the production of multifamily housing differ greatly from trends in single-family production. Between 1990 and 1999, the number of permits issued for multifamily units grew at less than half the rate for single-family housing—23 percent compared with 48 percent.

Figure 1.9: Residential Building Permits in Minnesota, 1980-99

During the 1990s, the production of single-family housing grew at twice the rate of multifamily housing.



NOTE: The Census Bureau defines some townhomes as single-family units.

SOURCE: Office of the Legislative Auditor's analysis of data from United States Bureau of the Census, Manufacturing and Construction Division (C40 Series), <http://www.census.gov/const/www/C40/table2.html>; accessed October 14, 2000.

The decline in multifamily housing production after 1986 coincided with the federal Tax Reform Act of 1986, which reduced or eliminated many tax incentives to build multifamily rental housing, such as accelerated depreciation and deductibility of construction-period interest and taxes. (We discuss the 1986 tax act in more detail in Chapter 2.) According to developers, it is difficult to build multifamily housing because market-rate rents may not support development costs. As shown above, we estimated that a new, basic, two-bedroom apartment needed to rent for about \$950 per month in 2000 to be financially viable. However, according to market experts we interviewed, such an apartment would have probably rented for about \$900 per month in 2000, depending on its location.

Consequently, a developer might not have gotten the rent he or she needed to make the apartment viable.

Some housing is lost every year through demolitions. While the Metropolitan Council described much of this housing as uninhabitable prior to demolition, some might be defined as affordable housing. The state lacks good data on the number of units that are demolished annually; however, the Metropolitan Council tracks demolitions in the seven-county Twin Cities area. Its data indicate that the number of units lost through demolitions is a fraction of the number gained through new construction. According to the Council's data, 1,326 housing units were demolished in 1998, compared with the construction of 12,663 new units. Just under half of the demolitions in 1998, were single-family homes. Additionally, in 1998, about two-thirds of all residential demolitions reported for the seven-county region were in either Minneapolis or St. Paul, including 40 percent of all single-family demolitions and nearly all multifamily demolitions.³⁶

³⁶ Kathy Johnson (Metropolitan Council), memorandum to the Legislative Auditor's Office (January 8, 2001).