

**MHP'S TRENDS IN HOUSING AFFORDABILITY TECHNICAL NOTES**  
**January, 2009**

**I. Notes on Trend Charts**

***Number of Extremely Cost Burdened Households***

- Data for owners is based on the ACS data table "Selected Monthly Owner Costs as a Percentage of Household Income". Selected monthly owner costs include mortgage payments plus real estate taxes, various insurances, utilities, fuels, mobile home costs, and condominium fees.
- Data for renters is based on the ACS data table "Gross Rent as a Percentage of Household Income". Gross rent includes the amount of the contract rent plus the costs of utilities and fuels, if these are paid for by the renter.
- ACS data became available at the MSA level for major metros in Minnesota starting in 2005; therefore data points for 2005 through 2007 only are included for the metros.

***Share of Extremely Cost Burdened Households***

- In the American Community Survey (ACS) data, a small portion of households (i.e. 1.6% of all households in 2006) did not report the amount of income spent on housing. When calculating data for this chart, the number of households spending 50% or more of income on housing is divided by the total number of households, which includes those that did not report amount spent on housing. Thus, this chart makes a conservative estimate of the actual percentage of severely cost-burdened households.
- All notes for "Number of Extremely Cost Burdened Households" (above) also apply to this item.

***Income Gap: Occupations***

- The four most common occupations in Minnesota are identified by data from the Bureau of Labor Statistics (BLS) Occupational Employment Statistics (OES) salary tool for the second quarter of 2007.
- See notes on calculating earnings needed to afford median-priced homes (see Section II).
- The methodology for calculating amounts needed to afford rental units is consistent with the method used by the National Low Income Housing Coalition's *Out of Reach* report. This method calculates the annual salary a full-time worker would need to earn so that payment of rent is no more than 30% of his or her income.
- The rental lines in the State charts are based on median gross rent data from ACS, while the rental lines in the MSA charts are based on HUD's 2-bedroom Fair Market Rent (FMR) data, which is the 40<sup>th</sup> percentile rent for a 2-bedroom apartment.
- For the Rochester MSA, the HUD geography differs slightly from the American Community Survey (ACS) and BLS geographies, which match each other. For the Minneapolis-St. Paul and Duluth MSAs, Department of Revenue geographies do not include the Wisconsin counties used by HUD, ACS, and BLS (see Section IV).

***Rental Affordability Index***

- The renter index compares 30% of income earned by a household or family (what renters can comfortably afford to pay for their housing) to what renters actually pay (median gross rent).
- Households that benefit from subsidized housing, such as the Section 8 program, are included in calculations of median gross rent. Without the existence of subsidized housing programs in which many renters are required to pay only 30% of their income for rent, the index figures would be smaller, because the median gross rent figures would be larger. Thus, this index may overstate rental affordability.
- ACS data became available at the MSA level for major metros in Minnesota starting in 2005; therefore data points for 2005 through 2007 only are included for the metros.

***Owner Affordability Index***

- See notes on calculating earnings needed to afford median-priced homes (see Section II).
- Home price data from the Minnesota Department of Revenue is based on the calendar year, except for 2007, which is January through September only due to unavailability of data until 2009.
- The state chart uses ACS median family income data, while the MSA charts are based on HUD median family income data. This is because ACS data is not available for the MSAs prior to 2005.

- For the Rochester MSA, American Community Survey (ACS) and HUD geographies differ slightly. For the Minneapolis-St. Paul and Duluth MSAs, Department of Revenue geographies do not include the Wisconsin counties used by HUD and ACS (see Section IV).

### **Homelessness**

- For the most recent Wilder Research Center homelessness survey in 2006, there was increased outreach to locate people outside of formal shelter programs. Due to this change, a much larger number of people without permanent housing outside of formal shelters was reported, though there is no evidence that the total number of such people actually increased from 2003 to 2006.
- The Wilder data is not available by MSA level; it is only available by HUD-defined Continuum of Care Regions. The Southeast, Central and St. Louis County Continuum of Care (COC) Regions are used as proxies for Rochester, St. Cloud, and Duluth respectively. The Twin Cities or the 7 County Metro Area represents the following 6 Continuum of Care Regions: Anoka, Dakota, Hennepin, Ramsey, Scott/Carver, and Washington counties.
- Wilder data for Southeast, Central and St. Louis County COC Regions (Rochester, St. Cloud and Duluth) includes shelter and transitional housing census counts, but not counts for non-shelter locations. For Southeast and Central COC regions, data is available for 2003 and 2006 only. For St. Louis County, data is available for 2006 only. Data for shelter and non-shelter locations is available for 1991, 1994, 1997, 2000, 2003, and 2007 the Twin Cities and Minnesota.
- Hennepin County data (not Wilder) excludes family shelters not contracted by Hennepin County.

### **Foreclosures**

- Sheriff's sales are used as a proxy to measure foreclosure in Minnesota. Some properties auctioned in a sheriff's sale are successfully redeemed during the 6-month redemption period following the auction, so this count may overestimate actual foreclosures.
- 2008 projections are based on actual sheriff's sales for the first three quarters of the year.
- May reflect missing county data for some counties in some years or quarters.

### **Senior Housing Cost Burden**

- A small number of households in the American Community Survey (ACS) did not report income, so cost burden for these households could not be determined. In these charts, senior households that did not report the percentage of income spent on housing are counted as NOT cost-burdened. Thus, the chart gives a conservative estimate of numbers of cost-burdened senior households.
- Data excludes people living in group quarters, which would include nursing homes.

### **Winter Heating Costs**

- Calculations are based on STEO figures reported for the Midwest Census Region (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri Nebraska, N. Dakota, Ohio, S. Dakota, and Wisconsin). Minnesota heating costs may be higher due to a colder than average climate.
- Data for this chart is based on a weighted average of the cost of heating for the four major heating fuels: gas, electricity, propane, and heating oil in the STEO data. Other heating fuels' costs are not included. The weight is based on the proportion of households in Minnesota using those four fuels as their primary winter heating source in the [Minnesota State Energy Profile](#) of the EIA.

## **II. Calculating Earnings Needed to Afford Median-priced Homes**

For associated charts (*the Ownership Affordability Index and the Housing Affordability by Occupation (Common and Essential Services)*) the income needed to afford a median-priced home was calculated based on the National Housing Conference's [Paycheck to Paycheck methodology](#). The criteria used in this methodology are also similar to the National Association of Home Builders (NAHB)-Wells Fargo [Housing Opportunity Index \(HOI\)](#).

Calculations assume that a family can affordably pay no more than 28% of their income for home costs including mortgage, interest, taxes and insurance with a 10% down payment and a 30-year conventional mortgage. These criteria are consistent with industry standards. MHP's calculations use average annual contract mortgage rates available from the Federal Housing Finance Board. Forty-five basis points (0.45%) are added to the mortgage rate because the down payment is less than 20%. The monthly tax and insurance rate is assumed to be 0.18% of the median home value (2.16% annually).

### III. Data Sources for MHP Trends in Housing Affordability (Source citations accompany online charts)

Data Source	Data Provider	Data Type	Years
<b>American Community Survey (ACS)</b>	US Census Bureau	Multiple data elements including income, housing costs, and housing types	2001-2007
<b>Notes:</b> The American Community Survey is a population survey conducted annually by the US Census Bureau which will eventually replace the “long form” of the Decennial Census. The ACS is designed to describe population characteristics (for example, the proportion of people in poverty) rather than actual population counts (the total number of people in poverty). In some cases, large margins of error are associated with these data, particularly for smaller geographic areas. However, the ACS provides the most timely, comprehensive data available for the country, states and for geographical areas with populations above 20,000. More information on the accuracy of the data is available on the <a href="#">ACS home page</a> .			
<b>Apartment Trends</b>	GVA Marquette Advisors	Rents and vacancies	2001-2008
<b>Notes:</b> Data is for the 7-county metro only. Based on surveys of apartment owners and management companies and likely to exclude small, independently owned units.			
<b>Fair Market Rents (FMR)</b>	Housing and Urban Development (HUD)	Fair market rents for MN metropolitan areas	2001-2007
<b>Notes:</b> See notes on geographies for MSAs below. The 2-bedroom FMR is the 40 <sup>th</sup> percentile for rent for 2-bedroom apartments in most HUD metros. For 2006 and beyond, all Minnesota county and metropolitan area FMRs are set at the 40 <sup>th</sup> percentile. However, from 2001 through 2005, the FMRs for the Minneapolis-St. Paul metro were set at the 50 <sup>th</sup> percentile. In 2006, the Minneapolis-St. Paul FMRs reverted to the 40 <sup>th</sup> percentile. More information about FMRs is available at the <a href="#">HUD website</a> .			
<b>Foreclosures</b>	HousingLink	Sheriff's Sales	2005-2008
<b>Hennepin County Contracted Family Shelter usage</b>	Hennepin County	Shelter statistics	2005-2008
<b>Income Limits</b>	Housing and Urban Development (HUD)	Median family income for MN metropolitan areas	2001-2007
<b>Notes:</b> See notes on geographies for MSAs below.			
<b>Local Area Unemployment Statistics (LAUS)</b>	Minnesota Department of Employment and Economic Development (DEED)	Unemployed workers	2002-2008
<b>Notes:</b> Excludes unemployed people not looking for work in the labor market. See <a href="#">MN DEED</a> for more information.			
<b>Monthly Interest Rate Survey (MIRS)</b>	Federal Housing Finance Board (FHFB)	Average annual mortgage contract rate	2001-2007
<b>Notes:</b> Uses data specific to Minnesota for 2001-2006 and data for the Des Moines Federal Home Loan Bank district for 2007, due to declining data reporting in recent years.			
<b>Occupational Employment Statistics (OES) program</b>	Bureau of Labor Statistics (BLS)	Wage estimates by occupation	2002-2007
<b>Notes:</b> For years for which May and November wage data were available, the two estimates were averaged for an annual figure. For years for which only one wage estimate was available, the available estimate was used.			
<b>Sales Ratio Study</b>	Minnesota Department of Revenue	Median sale price of residential properties	2001-2007
<b>Notes:</b> Data for each year is for the calendar year, except 2007, which is for January through September only as this data is not available until 2009. Measures “valid, arms-length” sales prices of residential properties in Minnesota. Excludes home sales that would be biased due to sale to a relative, a foreclosure, divorce, or other circumstance. Excludes properties that were developed on previously undeveloped land since the time an assessor last assessed the property.			
<b>Short-Term Energy Outlook (STEO)</b>	Energy Information Administration (EIA)	Winter Fuels Outlook	2000-2008
<b>Notes:</b> Housing Trends use Midwest estimates based on the 12-state US Census Bureau Midwest Region.			

<b>Data Source</b>	<b>Data Provider</b>	<b>Data Type</b>	<b>Years</b>
<b>Wilder Homelessness Survey</b>	Wilder Research Center	Number of homeless in and outside of formal shelters	1991-2006
<b>Notes:</b> The Wilder Research Center homelessness survey is conducted on a single night once every three years to measure the number and characteristics of people without permanent housing.			

#### **IV. Geographies of Metropolitan Statistical Areas**

Each of the data sources used aggregates data from multiple counties to generate data for metropolitan statistical areas (MSAs). Counties included in MSA calculations by the different data sources are detailed in the table below.

<b>Data Source</b>	<b>Duluth MSA</b>	<b>Minneapolis/St. Paul MSA</b>	<b>Rochester MSA</b>	<b>St. Cloud MSA</b>
<i>American Community Survey (ACS)</i>	St. Louis & Carlton in MN, plus Douglas in WI	Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington, Wright in MN, plus Pierce and St. Croix in WI	Olmsted, Dodge & Wabasha	Benton & Stearns
<i>Bureau of Labor Statistics (BLS) Occupational Employment statistics</i>	St. Louis & Carlton in MN, plus Douglas in WI	Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington, Wright in MN, plus Pierce and St. Croix in WI	Olmsted, Dodge & Wabasha	Benton & Stearns
<i>Housing and Urban Development (HUD) Fair Market Rents and Median Family Income</i>	St. Louis & Carlton in MN, plus Douglas in WI	Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington, Wright in MN, plus Pierce and St. Croix in WI	Olmsted & Dodge	Benton & Stearns
<i>MN Department of Revenue Residential Home Sales Price</i>	St. Louis & Carlton	Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington & Wright	Olmsted, Dodge & Wabasha	Benton & Stearns
<i>HousingLink/GMHF Foreclosure Data</i>	St. Louis & Carlton	Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington & Wright	Olmsted, Dodge & Wabasha	Benton & Stearns

For residential home sales prices, the Wisconsin counties are not included for the Duluth and Minneapolis/St. Paul MSAs because the data is from the Minnesota Department of Revenue. For HUD data, Wabasha County is excluded from the Rochester MSA. These geographical inconsistencies are not likely to cause important inaccuracies for the purpose of the charts, given that the counties in question have small populations in comparison to the MSAs they are associated with. The geographical inconsistencies in the data sets apply only to the following local MSA charts: *Rental Affordability Index, Ownership Affordability Index, and Housing Affordability by Occupation.*

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