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Analysis of the Madison, Wisconsin Housing Market

As of October 1, 2003



ECONOMIC RESEARCH

U.S. Department of Housing and Urban Development

Foreword

This analysis has been prepared for the assistance and guidance of the U.S. Department of Housing and Urban Development (HUD) in its operations. The factual information, findings, and conclusions also may be useful to builders, mortgagees, and others concerned with local housing market conditions and trends. The analysis does not purport to make determinations regarding the acceptability of any particular mortgage insurance proposals that may be under consideration in a particular locality or the housing market area.

The factual framework for this analysis follows the guidelines developed by HUD's Economic and Market Analysis Division. The analysis and findings are as thorough and current as possible based on information available on the "as-of" date from both local and national sources. As such, any findings or conclusions may be modified by subsequent developments. HUD wishes to express its appreciation to those industry sources and state and local government officials who provided data and information on local economic and housing market conditions.

This analysis takes into consideration changes in the economic, demographic, and housing inventory characteristics of the market area during three periods: from 1990 to 2000, from 2000 to the as-of date of the analysis (Current date), and from the Current date to a Forecast date. The analysis presents counts and estimates of employment, population, households, and housing inventory as of the 1990 Census, 2000 Census, Current date, and Forecast date. For the purposes of this analysis the forecast period is 24 months.

The prospective demand expressed in the analysis should not be construed as a forecast of building activity; rather, it presents the prospective housing production that would maintain a reasonable balance in demand-supply relationships given the market's condition on the as-of date of the analysis. This analysis was prepared by Dennis Shegos, one of the Division's Field Economists in the Minneapolis Field Office, based on fieldwork conducted in November 2003. Questions regarding the findings and conclusions of the analysis may be addressed to Mr. Shegos at 612-370-3000, ext. 2283, and at Dennis_Shegos@hud.gov.

Housing Market Area

The Madison, Wisconsin Housing Market Area (HMA) is defined as the Madison Metropolitan Statistical Area and includes Dane County in its entirety. For purposes of this analysis, the HMA has been divided into two submarkets, the City of Madison and the remainder of Dane County, referred to in this report as the Remainder of the HMA.

Summary

The Madison HMA has a diverse and vital economy that has registered strong, steady job growth since 1990. Between 1990 and 2000, resident employment increased by an average of 4,950 annually, or 2.3 percent. Since 2000, resident employment has grown by 6,900 annually. In 2002, the unemployment rate was at 2.7 percent.

The population of the HMA has increased at an annual rate of 1.6 percent since 1990 to total 450,000 as of the Current date. In-migration has been responsible for slightly more than half of the increase in population.

Since 1990, the number of households has increased at an annual rate of 2.1 percent, with households reaching 186,000 as of the Current date.

As a result of a strong job market and historically low home mortgage interest rates, the percent of owner-occupied units increased from 55 percent in 1990 to 59 percent as of October 1, 2003. Conditions in the Madison HMA sales market continue to be very strong for both new and existing homes.

Economy of the Area

The Madison HMA has a diverse and growing economy. Government and education, however, are still the major forces of the local economy. Madison is the home of the state capital and the University of Wisconsin, which together are responsible for about a quarter of the jobs in the HMA. Nearly 8 percent of the employment in the area is in high technology. The University of Wisconsin has the third highest research expenditure of any university in the nation, more than \$370 million annually. In June 2003, a university-commissioned study estimated that the annual economic impact of the university on the local economy was \$4.3 billion.

From 1990 to 2000, total resident employment increased at a rate of 2.3 percent annually. Resident employment has increased every year since 1990, with the exception of 1999, when the number of persons employed in the HMA declined by 2,500. During the first half of the 1990s, the unemployment rate was between 2.1 and 2.4 percent. Throughout the second half of the decade, the unemployment rate was less than 2.0 percent, reaching a low of 1.4 percent in 1999. Between 1990 and 2000, resident employment increased annually by 4,950, a rate of 2.3 percent. Between 2000 and 2002, employment increased by 6,900 annually, or a rate of 2.6 percent. During the most recent 12-month period, employment has increased by 10,400 jobs. The unemployment rate during the 12 months

averaged 3.0 percent, an increase over the comparable period a year earlier. The increase reflects the substantial growth in the labor force in response to the rapid increase in employment opportunities.

Nonfarm employment has shown a similar pattern of growth, with an annual increase of 3.0 percent between 1990 and 2000. Employment increased every year during this period, adding 6,700 jobs on an annual basis. More than 80 percent of these jobs were in the services-producing sector with state and local government, health services, professional and business services, and retail responsible for most of those jobs; all sectors, however, experienced growth during the decade. The goods-producing sector, primarily manufacturing, added 1,200 jobs annually for a 3.4 percent annual increase. Table 1 shows trends in the labor force and total employment from 1992 to the Current date; Table 2 presents the nonfarm employment trends for the same period.

Household Incomes

The estimated median family income in the Madison HMA is estimated to be \$71,100 in 2003, which is an 11.7 percent increase over the \$63,677 figure as of the 2000 Census. The Madison area has the highest median family income of any metropolitan area in Wisconsin.

Population

Between 1990 and 2000, the population in the Madison HMA increased at an annual rate of 1.6 percent, with a population of 426,526 in 2000. Since that time, population has continued growing at the same 1.6-percent rate, reaching an estimated 450,000 persons as of October 1, 2003. During the 1990s, the City of Madison grew at a rate of 0.9 percent, increasing to 208,054 persons; over this same period, the population for the Remainder of the HMA grew by 2.4 percent, reaching 218,472 persons in 2000. As of the Current date, it is estimated that the population in the City of Madison is 217,000, and the population in the Remainder of the HMA totals 232,000 persons.

During the 1990s, net natural increase (resident births minus resident deaths) accounted for 46 percent of the population increase in the HMA; in-migration was responsible for the rest of the growth. Between 2000 and the Current date, net natural increase accounted for 42 percent of the population growth for the HMA.

The University of Wisconsin, whose main campus is located in the City of Madison, has had only modest increases in enrollment during the past several years. Student enrollment as of the Current date stands at approximately 41,600 students, compared with 41,300 students in 2000. Approximately 11,000 students live on campus in various types of student housing. Table 3 presents population change trends from 1990 to the Forecast date for the HMA and the two submarkets.

Households

Growth in the number of households parallels growing employment. The number of households has increased at a faster rate than the population. As a result, average household size in the HMA dropped from 2.46 in 1990 to 2.31 as of the Current date. Since 1990, the number of households in the HMA has been growing at an annual rate of 2.1 percent. Households in the HMA increased from 142,766 in 1990 to 173,484 in 2000. As of the Current date, 186,300 households are in the HMA. Approximately 60 percent of the increase in households since 1990 has occurred in the Remainder of the HMA. This proportion is expected to remain the same through the forecast period. It is estimated that approximately 9,000 households, or slightly less than 5 percent of all households in the HMA, are composed solely of university students. Table 3 presents trends in households from 1990 through the Forecast date for the HMA and the two submarkets.

Housing Inventory

Since 1990, the healthy economy of the Madison HMA has led to substantial increases in household growth and demand for new housing. As of the Current date, the HMA has 195,200 housing units. Between 1990 and 2000, the number of housing units increased 3,205 annually, or a rate of 2.2 percent. Since 2000, the inventory has increased by 4,230 units annually. As of the Current date, an estimated 186,300 occupied housing units are in the HMA. Of an estimated 8,900 vacant units, 6,225 are available for sale or rent, with the remaining 2,675 units being kept off the market for various reasons. In 1990, housing tenure was 55 percent owner and 45 percent renter. It is estimated that as of the Current date, ownership has increased to nearly 59 percent. Table 4 presents trends in housing inventory, tenure of occupancy, and housing vacancy from 1990 to the Current date.

From 1990 through 1999, single-family permits averaged 1,770 per year in the HMA, although total permits varied considerably by year. Single-family permits reached a low of slightly less than 1,500 homes in 1995 and 1997; since 1997, the number of single-family permits has steadily increased each year, with 2,472 permits issued in 2002. From 2000 to 2002, single-family permit activity in the HMA averaged 2,260 homes annually. The strong demand for new homes continued in 2003. For the first 9 months of 2003, 1,761 single-family permits were issued. The most active areas of the HMA outside the City of Madison include the cities of Sun Prairie, Fitchburg, Waunakee, and Middleton.

Multifamily building permit activity between 1990 and 1999 averaged 1,550 units annually. The level of activity increased to an average of 2,150 units a year between 2000 and the Current date. The increase in construction was the result of low interest rates and a strong real estate lending market. Since 2000, nearly 60 percent of the multifamily permits were issued in the City of Madison. The cities of Fitchburg, Middleton, Sun Prairie, and Verona account for the bulk of the remaining multifamily permits. Since 1990, approximately 15 percent of the multifamily units built in the City of Madison have been condominiums, many of which are located in the downtown area. Table 5 presents

trends in building permit activity from 1990 through the Current date for single-family and multifamily housing in the HMA and both submarkets.

Housing Vacancy

The healthy local economy and low mortgage interest rates have resulted in a strong sales market for single-family homes. The sales vacancy rate for the HMA in 1990 was 0.8 percent; this rate increased slightly to 1.0 in 2000, which is also the estimated current sales vacancy rate. The rental vacancy rate, which was 4.2 percent at the time of the 2000 Census, has risen to an estimated rate of 6.3 percent in the HMA and 7 percent in the City of Madison.

Sales Market Conditions

Conditions in the Madison HMA sales market continue to be very strong for both new and existing homes. According to the Realtors® Association of South Central Wisconsin, between 1997 and 2002, on average, 4,750 homes were sold annually in the HMA. During 2002, a record 5,226 homes were sold. In the first 9 months of 2003, sales reached 4,316, on pace to set a new record. The median sales price has increased from \$132,900 in 1997 to \$178,000 in 2002, an annual increase of 5.7 percent.

According to the Madison Area Builders Association, the average cost for a typical single-family home built in the HMA during 2002 was approximately \$162,000. Very few homes larger than 3,500 square feet are being built. The condominium market is strong with new projects being built in Madison and surrounding suburbs such as Fitchburg. Prices start at \$125,000, with some units selling for more than \$500,000.

As housing prices in the City of Madison continue to increase, many first-time homebuyers who work in the City of Madison are purchasing homes in the Remainder of the HMA or in adjacent counties. The 2000 Census indicates that 37,000 people commuted into the HMA from other counties such as Rock County. According to data from the South Central Multiple Listing Service, the median sales price in the HMA in 2002 was \$178,000, compared with \$129,000 in Columbia County and less than \$100,000 in Rock County.

Rental Market Conditions

The rental market has historically had a very low vacancy rate. A recent surge in the construction of new rental projects, along with a number of former renters taking advantage of low mortgage interest rates to purchase homes, has caused the vacancy rate in several locations to rise. Despite certain rental projects and areas experiencing double-digit vacancy rates, the overall rental market is balanced. At the time of the 1990 Census, the rental vacancy rate in the HMA was 3.7 percent, and conditions throughout much of the market were very tight. As of the 2000 Census, the vacancy rate had increased to 4.2 percent, and the market remained tight. The University of Wisconsin has not increased its on-campus housing stock since 1986, while enrollment has increased at a modest but

steady rate. These factors, combined with the significant employment growth, resulted in an increased demand for rental units in the City of Madison, especially in the downtown area near the campus.

Beginning in 2000, multifamily building activity increased in the HMA. Between 1990 and 1999, multifamily construction, as measured by building permits, averaged 1,550 units, half of which were in the City of Madison. Since 2000, multifamily building activity has increased to 2,150 units annually, while the city's rental inventory has increased by 1,275 units each year. Because of the increase, the vacancy rate has risen above its historical low average.

Madison Gas & Electric conducts a quarterly survey that estimates the number of vacant rental units. The survey covers only larger apartment buildings and thus does not include the entire rental inventory. The surveys indicate the vacancy rate increasing steadily since 2000. During the first quarter of 2000, the rate was 3.4 percent; this increased to 5.8 percent during the third quarter of 2003.

The completion of several large rental developments in the City of Madison and the Remainder of the HMA is the primary cause of the recent increase in the rental vacancy rate. A contributing factor is the low home mortgage interest rates that have caused former renting households to purchase a home. In the downtown area, many older rental properties that typically are rented by students are experiencing vacancies for the first time in years. In the suburban areas, newer higher end projects are experiencing difficulty maintaining full occupancy. The strong, diverse economy should continue to create jobs and result in continued demand for rental units. Units currently under construction and those in the later stages of planning should result in a rental market that will continue to be balanced over the forecast period.

Forecast Housing Demand

Based on anticipated household growth and current market conditions, it is projected that there will be a demand for an estimated 8,100 new housing units during the 2-year forecast period ending October 1, 2005. Sales housing will account for 5,700 units of the total demand. The continued growth in employment along with historically low mortgage interest rates should result in a continued tenure shift from rental to homeownership and keep demand for new sales housing strong. For rental housing, demand during the forecast period will be 2,400 units. Annual demand is projected for 480 one-bedroom units with monthly gross rents starting at \$600, 600 two-bedroom units with gross rents beginning at \$700, and 120 three-bedroom units with rents starting at \$850. Table 6 presents detailed data on rental demand for the forecast period by bedroom size and rent.

Table 1
Labor Force and Total Employment
Madison HMA
1992 to October 1, 2003

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Prior 12 Mos.	Current 12 Mos.
Labor Force	229,100	237,600	242,800	248,000	257,700	259,900	261,600	258,600	266,500	277,500	280,300	279,800	291,600
Employment	224,100	232,400	237,200	243,600	253,400	255,400	257,600	255,100	262,200	271,900	272,700	272,400	282,800
Unemployment	5,000	5,175	5,575	4,425	4,300	4,450	4,025	3,525	4,450	5,600	7,575	7,400	8,800
Rate (%)	2.2	2.2	2.3	1.8	1.7	1.7	1.5	1.4	1.7	2.0	2.7	2.6	3.0

Note: Numbers may not add to totals because of rounding.
 Source: State of Wisconsin Department of Workforce Development

Table 2
Nonfarm Employment
Madison HMA
1992 to October 1, 2003

Employment Sector	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Prior 12 Mos.	Current 12 Mos.
Total	233,100	242,500	248,700	255,200	261,400	267,500	275,500	282,700	288,600	294,900	296,300	295,400	301,400
Goods-Producing	33,600	35,300	36,800	37,400	38,900	40,600	42,000	43,400	45,000	43,100	42,300	42,100	43,600
Nat. Res./Construct./Mining	9,300	9,700	10,200	10,400	11,500	12,200	12,700	13,800	14,100	14,500	14,600	14,600	14,600
Manufacturing	24,300	25,600	26,600	27,000	27,400	28,400	29,200	29,600	30,900	28,600	27,700	27,500	29,000
Service-Providing	199,400	207,200	211,900	217,900	222,500	226,900	233,500	239,300	243,500	251,800	253,900	253,200	257,800
Trade, Trans., & Utilities	39,700	40,700	42,300	43,700	44,000	45,000	46,200	47,800	48,900	50,200	49,100	49,300	52,500
Wholesale Trade	7,900	8,300	8,800	8,800	8,800	9,200	9,500	10,000	10,500	10,500	10,300	10,300	10,700
Retail Trade	25,600	26,100	27,200	28,600	28,900	29,400	29,900	30,700	31,200	32,300	31,400	31,700	31,500
Trans./Warehousing/Utilities	6,200	6,300	6,300	6,300	6,200	6,300	6,700	7,100	7,200	7,400	7,300	7,400	7,400
Information	4,900	4,900	5,000	5,400	5,700	6,000	7,000	7,100	7,000	6,800	6,400	6,400	6,500
Financial Activity	19,800	20,700	20,400	20,700	20,400	20,800	21,500	22,000	22,500	23,200	24,400	24,300	25,300
Prof. & Business Services	21,400	22,600	23,500	25,100	26,000	27,400	27,400	28,500	29,000	30,400	32,400	32,000	33,800
Educ. & Health Services	18,900	20,600	21,500	22,600	24,600	25,100	25,700	26,300	26,700	27,100	28,000	27,900	28,700
Leisure & Hospitality	19,700	20,300	20,900	21,200	21,300	21,300	21,700	21,800	22,500	23,300	23,700	23,700	23,900
Other Services	10,000	10,600	10,600	10,800	10,900	11,300	12,300	12,800	13,600	14,100	14,700	14,600	15,200
Government	65,100	66,800	67,800	68,400	69,600	69,900	71,900	73,100	73,400	76,700	75,000	75,000	74,700
Federal	3,700	3,800	3,700	3,800	4,000	4,300	4,300	4,300	4,500	4,500	4,500	4,500	4,600
State	44,600	46,300	46,600	46,800	47,100	47,000	48,000	48,600	47,800	49,400	47,400	47,500	47,800
Local	16,900	16,800	17,400	17,900	18,500	18,600	19,600	20,200	21,100	22,800	22,900	23,100	22,300

Source: State of Wisconsin Department of Workforce Development

Table 3
Population and Household Trends
Madison HMA
April 1, 1990 to October 1, 2003

	April 1, 1990	April 1, 2000	Current Date	Forecast Date	Average Annual Change					
					1990 to 2000		2000 to Current		Current to Forecast	
					Number	Rate (%)	Number	Rate (%)	Number	Rate (%)
Population										
Madison HMA	367,085	426,526	450,400	463,500	5,944	1.6	6,821	1.6	6,550	1.5
City of Madison submarket	191,262	208,054	217,800	223,100	1,679	0.9	2,785	1.3	2,650	1.2
Remainder of HMA submarket	175,823	218,472	232,600	240,400	4,265	2.4	4,037	1.8	3,900	1.7
Households										
Madison HMA	142,786	173,484	186,300	193,700	3,070	2.1	3,662	2.1	3,700	2.0
City of Madison submarket	77,361	89,019	94,200	96,900	1,166	1.5	1,480	1.7	1,350	1.4
Remainder of HMA submarket	65,425	84,465	92,100	96,700	1,904	2.9	2,181	2.6	2,300	2.5

Sources: U.S. Census Bureau, 1990 and 2000 Censuses
 Current and Forecast: Estimates by analyst

Table 4
Housing Inventory Tenure and Vacancy
Madison HMA
April 1, 1990 to October 1, 2003

	Madison HMA			City of Madison Submarket			Remainder of HMA Submarket		
	1990	2000	Current	1990	2000	Current	1990	2000	Current
Total Housing Inventory	147,851	180,398	195,200	80,047	92,394	99,400	67,084	88,004	95,800
Occupied Units	142,786	173,484	186,300	77,361	89,019	94,200	65,425	84,465	92,150
Owners	78,821	99,895	109,500	36,305	42,4960	46,400	42,516	57,3990	63,100
%	55.2	57.6	58.8	46.9	47.7	49.3	65.0	68.0	68.5
Renters	63,965	73,589	76,800	41,056	46,523	47,800	22,909	27,066	29,050
%	44.8	42.4	41.2	53.1	52.3	50.7	35.0	32.0	31.5
Vacant Units	5,065	6,914	8,900	2,686	3,375	5,200	2,379	3,539	3,650
Available Units	3,061	4,274	6,225	1,844	2,240	4075	1,217	2,034	2,150
For Sale	631	1,028	1,100	336	329	475	295	699	630
Rate (%)	0.8	1.0	1.0	0.9	0.8	1.0	0.7	1.2	1.0
For Rent	2,430	3,246	5,125	1,508	1,911	3600	922	1,335	1,520
Rate (%)	3.7	4.2	6.3	3.5	4.0	7.0	3.9	4.7	5.0
Other Vacant	2,004	2,640	2,675	842	1,135	1,125	1,162	1,505	1,500

Sources: U.S. Census Bureau, 1990 and 2000 Censuses
 Current: Estimates by analyst

Table 5
Residential Building Permit Activity
Madison HMA
1992 to 2002

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Madison HMA											
Total	3,379	3,915	3,809	3,394	3,009	2,995	3,554	3,626	3,986	4,825	4,335
Single-family	2,142	2,214	1,854	1,495	1,760	1,490	1,704	1,831	1,992	2,317	2,472
Multifamily	1,237	1,701	1,955	1,899	1,249	1,505	1,850	1,795	1,994	2,508	1,863
City of Madison											
Total	1,192	1,687	1,553	1,381	1,011	1,053	1,385	1,444	1,781	2,492	1,999
Single-family	544	597	475	440	528	362	410	552	638	843	998
Multifamily	648	1,090	1,078	941	483	691	975	892	1,143	1,649	1,001
Remainder of HMA											
Total	2,187	2,228	2,256	2,013	1,998	1,942	2,169	2,182	2,205	2,333	2,336
Single-family	1,598	1,617	1,379	1,055	1,232	1,128	1,294	1,279	1,354	1,474	1,474
Multifamily	589	611	877	958	766	814	875	903	851	859	86

Note: Multifamily is defined as two or more units per structure.

Source: U.S. Census Bureau, C-40 Construction Series

Table 6
Estimated Qualitative Annual Demand for New Market-Rate Rental Housing
Madison HMA
October 1, 2003 to October 1, 2005

One Bedroom		Two Bedrooms		Three Bedrooms	
Monthly Gross Rent (\$)	Units of Demand	Monthly Gross Rent (\$)	Units of Demand	Monthly Gross Rent (\$)	Units of Demand
600	480	700	600	850	120
650	410	750	500	900	100
700	380	800	450	950	90
750	330	850	380	1,000	80
800	280	900	320	1,050	70
850	230	950	250	1,100	60
900	180	1,000	200	1,150	55
1,000	140	1,100	160	1,250	50
1,100	100	1,200	120	1,350	40
1,200	80	1,300	95	1,450	25
1,300	60	1,400	70	1,550	10
1,400	40	1,500	15	1,650	0
1,500 or more	30	1,600 or more	0	1,750 or more	0

Notes: Distribution above is noncumulative.
Demand of fewer than 10 units is shown as 0.
Source: Estimates by analyst