

## COMPREHENSIVE MARKET ANALYSIS REPORTS



Policy Development & Research

# Analysis of the Hamilton-Middletown, Ohio

## Housing Market As of April 1, 2005



### 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 may also 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 mortgage insurance proposals that may be under consideration by the Department.

The factual framework for this analysis follows the guidelines and methods 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 local and national sources. As such, 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—April 1, 2005 (Current date)—and from the Current date to a Forecast date—April 1, 2008. In the analysis, 1990 and 2000 refer to the dates of the decennial census—April 1 unless specified otherwise. This 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 purposes of this analysis, the forecast period is 36 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 the demand-supply relationship given the market conditions on the as-of date of the analysis. This analysis was prepared by Sondra King, the Division's field economist in HUD's Ohio State Office, based on fieldwork conducted in May 2005. Questions regarding the findings and conclusions of the analysis may be addressed to Mrs. King at 614-469-5737, ext. 8135, and at [sondra\\_king@hud.gov](mailto:sondra_king@hud.gov).

## **Housing Market Area**

The Hamilton-Middletown Housing Market Area (HMA) is defined as Butler County, Ohio. Located in the southwestern region of Ohio, the HMA is approximately 25 miles north of Cincinnati and 30 miles south of Dayton. Interstate 75 (I-75) runs through the eastern portion of Butler County and links Middletown, as well as developing suburban areas including Liberty Township and West Chester, with Cincinnati and Dayton. Hamilton, located in the center of Butler County, is the county seat and has access to I-75 and other employment centers through U.S. and Ohio highways. The western portion of the HMA contains the city of Oxford, which is home to Butler County's leading employer, Miami University (MU).

## **Summary**

Through the 1990s, the economy of the Hamilton-Middletown HMA grew rapidly because of an influx of commuters seeking affordable housing and an expansion in employment. Resident employment and nonfarm employment both recorded increases that continued until the economic slowdown in 2002. Since 2002, resident and nonfarm employment have both recovered and now exceed their highest levels recorded in 2001. Over the forecast period, resident employment and nonfarm employment are expected to continue to grow moderately.

Net in-migration and net natural change (resident births minus resident deaths) each accounted for half the population increase through the 1990s. Since 2000, population growth has been slightly slower as net in-migration and nonfarm job growth have declined. The current population of the HMA is estimated to be 350,800. The population is expected to grow 1.1 percent annually through the Forecast date as net in-migration increases due to continued job growth.

Low mortgage interest rates and population growth have contributed to a strong home sales market in the HMA. From 2000 to the Current date, single-family home sales, as well as the median single-family home price, have increased by almost 4 percent annually.

Conditions in much of the rental market are competitive. As an increasing number of renter households have become homeowner households and renter household growth has slowed, vacancy rates have increased. Rents remain nearly constant in most submarkets.

Demand for development of 6,500 new housing units is expected over the forecast period, including 6,000 sales units and 500 rental units.

## **Economy of the Area**

The economy of the Hamilton-Middletown HMA was historically based in steel and paper production. While both of these industries continue with a reduced presence in the area, employment in the HMA has become more diversified. Construction, finance, health care, and government have been the growth sectors of the past 5 years. Employers

in the service-providing sectors such as MU continue to create jobs and the economy becomes more service-oriented.

The leading employer in the Hamilton-Middletown HMA is MU with 4,250 faculty and staff. The university has more than 17,000 students at the main campus in Oxford and 3,500 students at each of the regional campuses in Middletown and Hamilton. MU continues to be a stabilizing force in the local economy. The impact of MU on the local and state economies is estimated to be triple the university's budget, which is approximately \$591 million for the 2005–06 academic year.

Manufacturing continues to play a dominant role in the economy, although the sector has lost 2,600 jobs since 2000. AK Steel is the second leading employer in the HMA with 3,800 employees in Middletown. Although the number of jobs at AK Steel has decreased over the years, employment by contractors providing services for the steel producer have helped offset some of the losses. Pacific Manufacturing, a Toyota component supplier, will make a \$25.7 million expansion in Fairfield, adding 250 jobs. Dayton Technologies in Monroe will invest \$7.0 million in its plant, adding 45 new jobs and retaining 345 existing jobs.

Resident population growth has stimulated the construction industry as new households continue to spur residential construction. This population and household growth also created the need for new commercial, retail, and industrial space that houses providers of services and goods to the expanding resident base. In the past 5 years, construction employment grew 1.5 percent annually.

Between 1990 and 2000, nonfarm employment grew by 3,600 annually, with 87 percent of the gain attributable to service-providing employment focused on meeting needs of the expanding population. Through the 1990s, resident employment increased annually by an average of approximately 4,400. Many of those employed moved to the HMA from adjacent metropolitan areas, while retaining their jobs in Cincinnati and Dayton.

Since 2000, resident employment growth has slowed to approximately 0.5 percent annually, compared with 2.8 percent in the 1990s. Current employment is 188,000 and has fallen slightly over the past 2 years. In the same 2-year period, nonfarm employment has held steady at 135,200. The unemployment rate is currently 4.7 percent. The trends in labor force, resident employment, and nonfarm employment by industry are presented in Tables 1 and 2.

The 3-year forecast for the HMA anticipates continued employment growth, centered around the finance, transportation, and healthcare sectors. Most other sectors are expected to either remain essentially unchanged or expand at a moderate pace. Employment losses are expected to continue in the manufacturing sector.

## **Household Incomes**

According to HUD's Economic and Market Analysis Division, the fiscal 2005 median family income in the Hamilton-Middletown HMA was \$66,400. This median income is

the highest of all metropolitan areas in the state of Ohio. The median income of the HMA has increased by 3.2 percent annually since 1999.

## **Population**

The current population in the Hamilton-Middletown HMA is estimated to be 350,800, an average annual gain of 3,600 since the 2000 Census. From 1990 to 2000, the population grew an average of 4,125 annually. Population trends from 1990 through the Forecast date for the HMA are presented in Table 3.

Between 1990 and 2000, population growth attributable to net natural change averaged 2,100 annually, or 51 percent of the annual growth. By the current period, average annual net natural change had fallen to 2,000, although it accounted for 55 percent of the annual growth as net in-migration slowed due to the economy. The decline in net natural change is primarily due to an increase in resident deaths.

Through the 1990s, net in-migration was heavily influenced by both relatively affordable new housing development and job creation. Former Cincinnati and Dayton residents found the commute acceptable in exchange for newer, larger homes. As the population grew, so did the need for local services contributing to the net in-migration of job seekers to the HMA. In-migration averaged more than 2,000 people annually and accounted for 49 percent of the change in population.

Based on the level of economic growth anticipated for the forecast period, an expected increase in absolute net in-migration will offset the anticipated decrease in net natural change. By the Forecast date, the population is expected to reach 362,100, with average annual population increases of 3,775 each year.

## **Households**

From 1990 to 2000, the growth in the number of households in the Hamilton-Middletown HMA was slightly above the rate of population growth, averaging 1.7 percent, or 1,850 households, annually. Between 2000 and the Current date, household formation slowed slightly to 1,800 annually, based largely on the economic situation of the early 2000s, which slowed net in-migration. As of the Current date, 132,100 households reside in the HMA.

Based on the anticipated population growth, estimates indicate the number of households will increase by 2,000 annually during the 3-year forecast period and total 138,100 by the Forecast date. Table 3 presents trends in households from 1990 through the forecast period.

## **Housing Inventory**

The strong population and household growth between 1990 and 2000 caused the housing unit inventory in the Hamilton-Middletown HMA to grow by 1.6 percent annually, to 129,793 units. Currently, the HMA has an estimated 140,000 housing units. Table 4

presents housing inventory, tenure, and vacancy trends from 1990 to the Current date for the HMA.

Strong single-family development occurred in the HMA in the 1990s. Job growth and commuters looking to relocate from Cincinnati or Dayton increased the demand for single-family homes. With its abundance of land and reasonable housing prices, the HMA became a center of homebuilding in the region. Building activity peaked in 1999 with 2,200 building permits issued for single-family residences. Single-family building permit activity continued to be strong between 2000 and the Current date, averaging 2,124 units annually. Low mortgage interest rates and household growth continue to stimulate demand for new housing production. Although some new single-family homes are being built in the cities of Hamilton and Middletown, most new single-family construction is happening in the southeastern unincorporated townships. During 2003 and 2004, unincorporated areas of Butler County accounted for more than two-thirds of single-family permits issued. The West Chester/Liberty Township area has more than 25 new single-family developments currently under construction. Single-family construction is limited in the western portion of Butler County by the lack of sewer connections. Trends in residential building permit activity from 1990 through April 1, 2005, are presented in Table 5.

Paralleling the strong single-family development in the HMA, the homeownership rate increased between 1990 and 2000. In 1990, 69.2 percent of all occupied housing was owner occupied. By 2000, this percentage had increased to 71.6 percent. From 2000 to the Current date, the rate increased to 73.4 percent.

Multifamily development was also strong throughout the 1990s, averaging more than 500 units permitted a year. From 1995 to 1999, 3,325 multifamily units were permitted, including a record 1,200 units in 1999. Multifamily developers responded to demand as rapid net in-migration from adjacent metropolitan areas and strong job growth stimulated renter household growth. Although multifamily development has continued at a rate of 430 units annually since 2000, some of these permits are for condominiums.

## **Housing Vacancy**

The sales and rental vacancy rates both have increased since 2000. The vacancy rate for the sales market was 1.6 percent in 2000 and is estimated at 1.7 percent as of the Current date. The increase in the vacancy rate since 2000 reflects increased home production by builders to satisfy the demand for new homes. Between 2000 and the Current date, the rental vacancy rate increased from 7.3 to 8.5 percent as additions to the rental inventory exceeded the growth of renter households. The large number of new rental units permitted in 1999 that entered the market after the spring of 2000 initially caused the market to become more competitive in 2001. Since then, the vacancy rate has remained relatively high due to competition from the sales market. Low mortgage interest rates, making homeownership affordable, mean more renters have become owners at a faster rate. Also, developers have continued to add new units to the rental stock.

## **Sales Market Conditions**

The sales market has remained strong as evidenced by the relatively large volume of homebuilding. Low mortgage interest rates continue to enable renter households to buy and current owner households to move up. According to the Greater Cincinnati Multiple Listing Service, which handles predominantly existing home sales, both the sales volume and the median sales price have increased significantly between 2000 and the Current date. The volume of total sales, which includes single-family homes and condominiums, has increased by 4 percent annually since 2000. Condominiums represent approximately 11 percent of total sales.

Since 2000, the median sales price has increased for both single-family residences and condominiums. Between 2000 and 2004, median single-family home prices in Butler County increased from \$138,924 to \$160,000, a 3.6-percent annual increase. Comparing the current 12-month period with the previous 12-month period, the median sales price increased from \$154,720 to \$161,783. Median days on the market for both 12-month periods were 42 days. Between 2000 and 2004, the median condominium sales price increased from \$75,500 to \$92,900, or 5.3 percent annually. The current 12-month median sales price is \$93,000, an increase of 1 percent from the previous 12-month period. Condominiums have mainly attracted empty-nester homeowners seeking more affordable housing opportunities in higher income areas.

Butler County has a varied stock of housing that ranges in price. New and existing housing prices in the older, more established cities such as Hamilton and Middletown range from \$70,000 to \$400,000 for homes that include older row houses as well as historic mansions. In the newer suburban developments in West Chester and Liberty Township, the median sales price ranges from \$250,000 to \$800,000.

## **Rental Market Conditions**

Conditions in the rental market in the Hamilton-Middletown HMA are currently competitive with an 8.5-percent vacancy rate. Through the 1990s, the rental market in the HMA was strong. Steady job growth and net in-migration of households supported increases in rental demand that were matched by apartment production. Beginning in the early 2000s, however, low mortgage interest rates provided more homeownership opportunities and rental demand has increased at a slower rate. Continued development of new apartments and the slower growth of renter households have created the current surplus of vacant units.

Rents within the HMA vary significantly depending on location. The older cities of Hamilton and Middletown have one-bedroom units that rent in the \$450 to \$500 range, two-bedroom units that rent in the \$550 to \$600 range, and three-bedroom units that rent in the \$650 to \$750 range. Rents in the West Chester/Liberty Township area, where much of the apartment production occurred in the past 15 years, tend to be much higher. West Chester/Liberty Township one-bedroom rents average close to \$650 and two-bedroom rents are around \$785, while townhouse units with two or three bedrooms range from \$800 to \$1,100. Rents in most parts of the HMA have remained unchanged or have

decreased slightly over the past 12 months as a response to the competitive rental market conditions. Typical concessions are 1 to 2 months of free rent or a reduced security deposit.

Tight conditions in Oxford are the exception to the competitive rental market in much of the HMA. Approximately 6,600 of the 17,000 MU students reside on campus, leaving more than 10,000 students seeking housing, predominately rental housing, in and around the Oxford area. MU student housing demand keeps the rental vacancy rate in the 3- to 5-percent range. Typical monthly rents run between \$700 and \$1,000 a student. Most off-campus rents do not include utilities.

Multifamily rental construction in the HMA continues at a moderate pace. The newest market-rate development in the HMA is renting two-bedroom units between \$625 and \$755 and is currently 94 percent occupied. When a second phase is completed in 2006, this project will contain more than 200 units. A new tax credit-financed development will begin lease up in late summer. The 150-unit project is income restricted and will market primarily to family households. A new student-targeted apartment complex near Oxford is scheduled to begin construction with occupancy anticipated for the fall of 2006. Although rents for the approximately 300 units have not been set, each unit will include three bedrooms, all containing private baths.

## **Forecast Housing Demand**

Based on anticipated household growth, replacement needs, and current market conditions, estimates indicate a demand during the 3-year forecast period for approximately 6,500 new housing units. Demand for sales housing is estimated to total 6,000 units, or 2,000 units a year. Construction is expected to keep pace with demand, resulting in a balanced sales market in 2008.

Demand for rental units is expected to be close to 500 units in the 3-year forecast period. Much of this demand is expected to occur during the second half of the forecast period. The number of units currently under construction and in the pipeline is expected to be sufficient to meet demand over the next 18 months. This level of construction should allow for a balanced rental market by April 1, 2008. In addition, an estimated 300 units of rental housing exclusively for student households are expected to be built during the forecast period.

A qualitative distribution of forecast demand for new market-rate rental units for the general market by bedroom size and rent levels is shown in Table 6. The distribution of net demand, including units under construction for this market, is by bedroom size based on the characteristics of updated rental households and rental inventory from the 2000 Census.

**Table 1**  
**Labor Force and Employment**  
**Hamilton-Middletown HMA**  
**1990 to March 2005**

	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Labor Force	149,000	152,000	155,000	158,000	161,000	166,000	168,000	175,000	181,000	186,000
Employment	140,000	143,000	145,000	147,000	153,000	159,000	161,000	169,000	175,000	180,000
Unemployment	9,000	9,000	10,000	11,000	9,000	7,000	7,000	6,000	6,000	6,000
Rate (%)	5.7	5.9	6.6	6.8	5.3	4.0	4.2	3.5	3.4	3.2

	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>Previous 12 Mos.<sup>a</sup></b>	<b>Current 12 Mos.<sup>b</sup></b>
Labor Force	189,000	193,000	196,000	200,000	203,000	201,000	198,000
Employment	184,000	187,000	187,000	191,000	194,000	192,000	188,000
Unemployment	5,000	7,000	9,000	9,000	9,000	9,000	9,000
Rate (%)	2.8	3.4	4.7	4.6	4.5	4.6	4.7

<sup>a</sup> April 2003 through March 2004.

<sup>b</sup> April 2004 through March 2005.

Note: U.S. Bureau of Labor revisions through the Current date.

Source: U.S. Bureau of Labor

**Table 2**  
**Nonfarm Employment by Industry**  
**Hamilton-Middletown HMA**  
**1990 to March 2005 (1 of 2)**

<b>Employment Sector</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Total Nonfarm	96,000	96,500	98,000	99,900	104,700	110,500	112,400	118,900	124,200	129,000
Goods-Producing	25,200	24,000	23,600	22,700	24,100	25,200	25,100	27,000	28,900	30,300
Construction	5,000	4,400	4,900	5,000	5,400	5,800	6,000	6,700	7,400	8,200
Manufacturing	20,200	19,600	18,700	17,700	18,700	19,400	19,200	20,300	21,500	22,100
Service-Providing	70,800	72,500	74,400	77,200	80,600	85,300	87,300	91,900	95,300	98,700
Trade	15,700	15,800	16,000	16,800	17,900	19,500	20,500	22,100	22,700	23,200
Wholesale Trade	4,900	5,000	5,200	5,500	5,700	6,100	6,300	7,000	7,400	8,300
Retail Trade	10,800	10,800	10,800	11,300	12,200	13,400	14,200	15,100	15,300	14,900
Transport. & Utilities	2,800	2,600	2,800	3,100	3,800	4,000	4,100	4,200	4,200	4,600
Information	700	800	800	800	800	800	1,000	900	900	1,000
Financial Activities	6,800	6,800	6,700	6,600	6,800	6,900	7,100	7,400	7,700	8,300
Prof. & Bus. Svcs.	6,000	6,400	6,800	7,800	8,100	9,100	9,200	9,900	11,400	12,100
Edu. & Health Svcs.	10,500	11,400	11,700	11,900	12,000	12,000	11,800	12,500	12,900	13,400
Leisure & Hospitality	7,700	7,500	8,200	8,200	8,800	9,700	9,800	10,200	10,600	10,800
Government	17,100	17,600	17,800	18,200	18,500	19,000	19,300	20,000	20,400	20,700
Federal	600	600	500	500	500	500	700	500	600	600
State	6,700	6,900	6,900	6,900	7,300	7,400	7,400	7,400	7,800	7,700
Local	9,800	10,100	10,400	10,800	10,700	11,100	11,200	11,700	12,000	12,400

Notes: Figures are in thousands.

Numbers may not add to totals due to rounding.

Source: U.S. Department of Labor, Bureau of Labor Statistics—North American Industry Classification System (NAICS)

**Table 2**  
**Nonfarm Employment by Industry**  
**Hamilton-Middletown HMA**  
**1990 to March 2005 (2 of 2)**

<b>Employment Sector</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>Previous 12 Mos.<sup>a</sup></b>	<b>Current 12 Mos.<sup>b</sup></b>
Total Nonfarm	131,600	133,800	132,500	134,700	134,800	135,200	135,200
Goods-Producing	30,100	29,000	27,700	27,700	28,000	27,800	28,300
Construction	8,100	8,200	8,000	8,100	8,600	8,200	8,900
Manufacturing	22,000	20,800	19,800	19,600	19,400	19,500	19,400
Service-Providing	102,600	104,800	104,800	107,000	106,800	107,500	107,000
Trade	24,200	25,700	25,500	25,300	25,500	25,500	25,500
Wholesale Trade	9,600	10,900	10,700	10,700	11,200	10,900	11,200
Retail Trade	14,600	14,800	14,800	14,600	14,300	14,600	14,300
Transport. & Utilities	5,000	5,200	5,300	6,000	6,300	6,000	6,400
Information	1,200	1,000	700	800	800	800	800
Financial Activities	8,500	8,800	9,100	9,600	9,600	9,800	9,600
Prof. & Bus. Svcs.	12,200	11,700	10,200	10,200	9,800	10,200	9,700
Edu. & Health Svcs.	13,800	13,600	14,200	14,700	14,900	14,800	14,900
Leisure & Hospitality	11,300	11,900	12,200	12,900	12,700	13,100	12,700
Government	21,600	22,100	22,600	22,500	22,500	22,400	22,300
Federal	700	600	600	500	500	400	400
State	7,800	8,000	8,200	8,300	8,400	8,300	8,300
Local	13,100	13,500	13,800	13,700	13,600	13,700	13,600

<sup>a</sup> April 2003 through March 2004.

<sup>b</sup> April 2004 through March 2005.

Notes: Figures are in thousands.

Numbers may not add to totals due to rounding.

Source: U.S. Department of Labor, Bureau of Labor Statistics—NAICS

**Table 3**  
**Population and Household Trends**  
**Hamilton-Middletown HMA**  
**April 1, 1990 to April 1, 2008**

	April 1, 1990	April 1, 2000	Current Date	Forecast Date	Average Annual Change					
					1990 to 2000		2000 to Current		Current to Forecast	
Population	Number	Rate (%)	Number	Rate (%)	Number	Rate (%)	Number	Rate (%)	Number	Rate (%)
Hamilton-Middletown HMA	291,479	332,807	350,800	362,100	4,125	1.33	3,600	1.06	3,775	1.06
Households										
Hamilton-Middletown HMA	104,535	123,082	132,100	138,100	1,850	1.65	1,800	1.42	2,000	1.49

Notes: Rate of change is calculated on a compound basis.

Average annual changes rounded for comparison.

Averages may not add to HMA total due to rounding.

Sources: 1990 and 2000—U.S. Census Bureau

Current and Forecast—Estimates by analyst

**Table 4**  
**Housing Inventory, Tenure, and Vacancy**  
**Hamilton-Middletown HMA**  
**1990, 2000, and April 1, 2005**

	<b>Hamilton-Middletown HMA</b>		
	<b>1990</b>	<b>2000</b>	<b>Current</b>
<b>Total Housing Inventory</b>	110,353	129,793	140,000
Occupied Units	104,535	123,082	132,100
Owners	72,365	88,083	97,000
%	69.2	71.6	73.4
Renters	32,170	34,999	35,100
%	30.8	28.4	26.6
Vacant Units	5,818	6,711	7,950
For Sale	1,094	1,402	1,675
Rate (%)	1.5	1.6	1.7
For Rent	2,676	2,775	3,275
Rate (%)	7.7	7.3	8.5
Other Vacant	2,048	2,534	3,000

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

**Table 5**  
**Residential Building Permit Activity**  
**Hamilton-Middletown HMA**  
**1990 to March 2005**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Hamilton-Middletown HMA</b>										
Total	1,535	1,708	2,172	2,635	2,439	2,215	2,806	2,454	2,164	3,408
Single-family	1,277	1,519	1,800	2,135	2,040	1,737	2,064	1,772	1,945	2,214
Multifamily	258	189	372	500	399	478	742	682	219	1,194
	2000	2001	2002	2003	2004	2005	Current 12 Mos.			
<b>Hamilton-Middletown HMA</b>										
Total	2,385	2,303	2,496	2,635	3,060	525	3,013			
Single-family	1,887	2,080	2,102	2,298	2,292	494	2,235			
Multifamily	498	223	394	337	768	31	778			

Note: 2005 includes data through March.

Source: U.S. Census Bureau, Building Permits Survey

**Table 6**  
**Estimated Qualitative Demand for New Market-Rate Rental Housing**  
**Hamilton-Middletown HMA**  
**April 1, 2005 to April 1, 2008**

One Bedroom		Two Bedrooms		Three Bedrooms	
Monthly Gross Rent (\$)	Units of Demand	Monthly Gross Rent (\$)	Units of Demand	Monthly Gross Rent (\$)	Units of Demand
700	125	900	300	1,100	75
750	105	950	250	1,150	60
800	95	1,000	225	1,200	55
850	85	1,050	190	1,250	50
900	70	1,100	160	1,300	45
950	60	1,150	125	1,350	40
1,000	45	1,200	100	1,400	35
1,100	35	1,300	80	1,500	30
1,200	25	1,400	60	1,600	25
1,300	20	1,500	45	1,700	15
1,400 and higher	15	1,600 and higher	35	1,800 and higher	10

Notes: Distribution above is noncumulative.  
Demand shown at any rent represents demand at that level and higher.  
Distribution excludes demand for dedicated student housing.

Source: Estimates by analyst