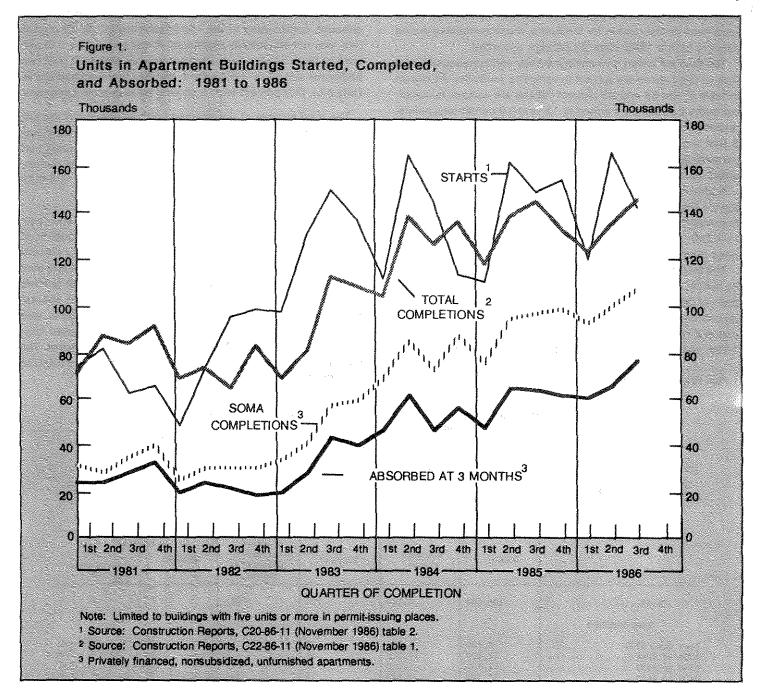
# Market Absorption of Apartments

Fourth Quarter 1986 – Absorptions (Completions in Third Quarter 1986)



Questions regarding these data maybe directed to Charles Clark, Housing Division, Telephone 301-763-2866.

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U.S. Department of Commerce BUREAU OF THE CENSUS

U.S. Department of Housing and Urban Development

H130-86-Q4 Issued March 1987

# SUMMARY OF FINDINGS

Privately financed, nonsubsidized, unfurnished rental apartments completed during the July-September 1986 quarter were 69 percent absorbed (seasonally adjusted) 3 months after their completion. This is significantly higher than the 3-month seasonally adjusted rate of 63 percent for apartments completed during the second quarter 1986. The not seasonally adjusted 3-month rate of 71 percent is also higher than the similar rate of 66 percent for second quarter completions. Apartments which have been on the market for 9 months, those completed during January-March 1986 were 93 percent absorbed.

The data are based on a sample survey and consequently the figures cited above are subject to sampling variability. As shown in table 3, the 69 and 93 percent figures are subject to sampling errors (i.e., standard errors) of 1.8 and 0.9 percentage points, respectively. This means that there are about 2 chances out of 3 that a complete count would be in the range of 69 ( $\pm$  1.8) percentage points and 93 ( $\pm$  0.9) percentage points. Sampling errors for the figures that follow are indicated in parenthesis.<sup>1</sup>

A total of 145,900 ( $\pm$  8,640) apartments were completed during the third quarter of 1986. The number of privately financed, nonsubsidized, unfurnished apartments completed was 106,800 ( $\pm$  4,190), about 73 ( $\pm$  1.7) percent of total apartment completions during the quarter.

The median rent asked for newly constructed units was \$455 ( $\pm$  6.4) in the third quarter of 1986. Apartments renting for less than \$300 accounted for 8 ( $\pm$  1.0) percent of unfurnished rental unit completions. Apartments renting for \$300 to \$399 accounted for 26 ( $\pm$  1.7) percent and those renting for \$400 to \$499, and \$500 or more each accounted for about one-third of

'See Reliability of Estimates on page 5.

the unfurnished rental unit completions with  $30 (\pm 1.7)$  and  $36 (\pm 1.8)$  percent, respectively. The overall increase in the 3-month absorption rate is attributable to the high rates in both the low and high end of the rent distribution. Apartments completed in the third quarter renting for less than \$350 had a 3-month rate of 76 (± 6.2) percent compared to a 59 (± 7.8) percent rate for similar units completed in the second quarter. Units renting for \$500 or more had a 3-month third quarter rate of 73 (± 4.3) percent compared to  $66 (\pm 4.9)$  percent in the second quarter. The difference in absorption rates for the \$500 or more units, although contributing to the overall increase in the absorption rate, was not statistically significant. About half, 52 (± 1.9) percent, of these newly constructed apartments were built with two bedrooms and 44 (± 1.9) percent, had less than two bedrooms. Only 4 (± 0.7) percent were built with three or more bedrooms.

The total number of unfurnished units completed in the last 12 months reported as rented in the fourth quarter of 1986 was 104,200 ( $\pm$  6,000). The median rent asked for these units was \$455 ( $\pm$  10.6). The total number of similar apartments remaining for rent at the end of the fourth quarter was 56,800 ( $\pm$  4,660) with a median asking rent of \$453 ( $\pm$  13.9).

Approximately 27,300 (± 3,340) cooperative and condominium apartments were completed in the third quarter of 1986. This represents a decrease of about 30 (± 12.5) percent from the third quarter 1985 completions. Cooperative and condominium apartments accounted for about 19 (± 4.8) percent of total third quarter 1986 completions. The 3-month absorption rate for cooperative and condominium apartments was 75 (± 5.3) percent. The majority of newly constructed condominium apartments, 67 (± 5.9) percent, had 2 bedrooms. The median asking price for condominium units was over \$100,000 (± 1,620).

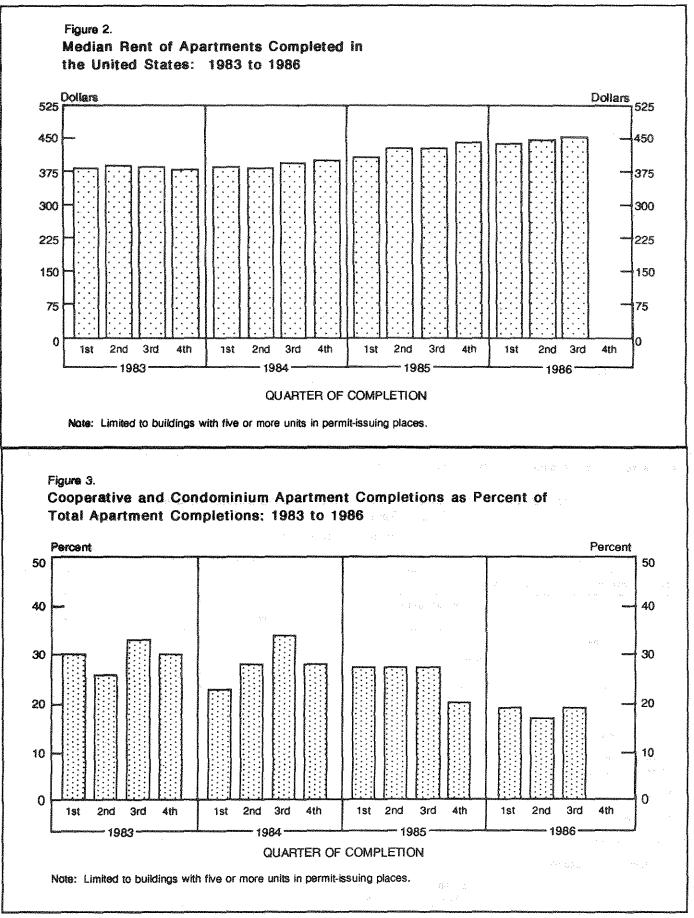
## Table 1. Characteristics of Apartments Completed During the Third Quarter of 1986 and Rented Within 3 Months

Not Seasonally Adjusted

(Privately financed, nonsubsidized, unfurnished apartments. Data regarding number of bedrooms and asking rent are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding. Medians are computed using unrounded data.)

	Total compl		Percent uni			Percent rented within 3 months		
Item	Number	Standard error*	Percent	Standard error* (percentage points)	Percent	Standard error* (percentage points)		
Total	106,800	4,190	100	(x)	71	1.7		
RENT CLASSES								
Less than \$300 \$300 to \$349 \$350 to \$399 \$400 to \$449 \$450 to \$499 \$500 or more	8,700 11,600 15,900 15,600 16,100 38,900	1,990 2,280 2,640 2,610 2,650 3,840	8 11 15 15 15 36	1.0 1.2 1.4 1.4 1.4 1.4	80 74 67 67 67 73	9.1 8.6 7.8 7.8 7.7 4.3		
Median asking rent	\$455	6.4	(X)	(X)	(X)	(x)		
	16.000	( 100	44	1.9	71	3.9		
Less than 2 2 3 or more	46,800 56,000 4,000	4,100 4,320 1,360	44 52 4	1.9 1.9 0.7	71 71 78	3.9 3.4 14.1		

\*Standard error within range of about 2 chances out of 3. (X) Not applicable.



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The total number of condominium apartments completed in the last 12 months reported as sold in the fourth quarter of 1986 was 23,100 ( $\pm$  3,070). The median price asked for these units was \$97,000 ( $\pm$  6,020). The total number of condominium apartments remaining for sale at the end of the fourth quarter was 16,500 ( $\pm$  2,610). These units had a median asking price of over \$100,000 ( $\pm$  1,230).

Units in federally subsidized properties built under programs of the Department of Housing and Urban Development (Low Income Housing Assistance (Section 8), Senior Citizens Housing Direct Loans (Section 202), and all units in buildings containing apartments in the FHA rent supplement program) accounted for only 5 ( $\pm$  1.0) percent of total completions.

Furnished rental units accounted for 2 ( $\pm$  0.8) percent of apartment completions. The remaining units, 1 ( $\pm$  0.5) percent, are not in the scope of the survey and include time-sharing units, continuing care retirement units, and turnkey housing (privately built for and sold to local public housing authorities subsequent to completion). The data on privately financed units include privately owned housing subsidized by State and local government.

# SAMPLE DESIGN

The Survey of Market Absorption (SOMA) is designed to provide data concerning the rate at which nonsubsidized and unfurnished privately financed units in buildings with five or more units are rented (or absorbed). In addition, data on characteristics of the units, such as rent and number of bedrooms, are collected. The buildings selected for SOMA are those included in the Census Bureau's Survey of Construction (SOC)<sup>2</sup>. For this survey, the United States is first divided into primary sampling units (PSU's) which are sampled on the basis of population. Next, a sample of permit-issuing places is selected within each sample PSU. Finally, all buildings within sampled places with five or more units as well as a subsample of buildings with one to four units are selected.

Each quarter, a sample of buildings with five or more housing units in the SOC sample reported as completed during that quarter come into sample for SOMA. Buildings completed in nonpermit-issuing areas are excluded from consideration. Information on the proportion of units absorbed 3, 6, 9, and 12 months after completion is obtained for units in buildings selected in a given quarter in each of the next four quarters.

Each quarter the absorption data for some buildings are received too late for inclusion in the report. These late data will be included in a revised table in the next quarterly report. (See table 2.)

# ESTIMATION

Unbiased quarterly estimates are formed by multiplying the counts for each building by its base weight (the inverse of its

<sup>2</sup>See "Housing Starts," Construction Reports, Series C20, for details of this survey.

# Table 2. Characteristics of Apartments Completed During the Second Quarter of 1986 and Rented Within 3 Months (Revised)

#### Not Seasonally Adjusted

(Privately financed, nonsubsidized, unfurnished apartments. Data regarding number of bedrooms and asking rent are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding. Medians are computed using unrounded data.)

	Total compl		Percent uni	of total ts	Percent rented within 3 months		
Item	Number	Standard error*	Percent	Standard error* (percentage points)	Percent	Standard error* (percentage points)	
Total	99,600	4,020	100	(X)	66	1.9	
Less than \$300 \$300 to \$349 \$350 to \$399 \$400 to \$449 \$450 to \$499 \$500 or more Median asking rent	8,300 8,100 16,300 16,900 13,900 36,200 \$451	1,940 1,920 2,660 2,700 2,470 3,700 9.8		1.1 1.1 1.4 1.5 1.4 1.9 (X)	57 61 70 66 66 66 (X)	4.8	
NUMBER OF BEDROOMS           Less than 2	47,900 49,400 2,300	4,060 4,100 1,040	50	2.0 2.0 0.5	64 67 70	4.0 3.8 20.7	

\*Standard error within range of about 2 chances out of 3.

(X) Not applicable.

probability of selection) and then summing over all buildings. The final estimate is then obtained by multiplying the unbiased estimate by the following ratio estimate factor:

total units in 5 + buildings in permit-issuing areas
as estimated by the SOC
for that quarter
total units in 5 + buildings as estimated by SOMA
for that guarter

This procedure produces estimates of the units completed in a given quarter which are consistent with the published figures from the Housing Completions Series,<sup>3</sup> and also reduces, to some extent, the sampling variability of the estimates of totals.

It is assumed that the absorption rates and other characteristics of units not included in the interviewed group or not accounted for are identical to rates for units where data were obtained. The noninterviewed and not-accounted-for cases constitute less than 2 percent of the sample housing units in this survey.

# **RELIABILITY OF THE ESTIMATES**

There are two types of possible errors associated with data from sample surveys: sampling and nonsampling errors. The

<sup>3</sup>See "Housing Completions," Construction Reports, Series C22.

following is a description of the sampling and nonsampling errors associated with SOMA.

#### **Nonsampling Errors**

In general, nonsampling errors can be attributed to many sources: inability to obtain information about all cases, definitional difficulties, differences in the interpretation of questions, inability or unwillingness to provide correct information on the part of respondents, mistakes in recording or coding the data, and other errors of collection, response, processing, coverage, and estimation for missing data.

# **Sampling Errors**

The particular sample used for this survey is one of a large number of possible samples of the same size that could have been selected using the same sample design. Even if the same questionnaires, instructions, and interviewers were used, estimates from each of the different samples would differ from each other. The deviation of a sample estimate from the average of all possible samples is defined as the sampling error. The standard error of a survey estimate attempts to provide a measure of this variation among the estimates from the possible samples and, thus, is a measure of the precision with which an estimate from a sample approximates the average result of all possible samples.

# Table 3. Absorption Rates of Privately Financed Nonsubsidized Unfurnished Apartments: 1983 to 1986

	To	tal		onally d rented	Not seasonally adjusted - rented within-							
	units co	ompleted		d rented 3 months	3 m.c	onths	6 m.	onths	9 at	onths	12 m	onths
Quarter of completion	Number	Standard error*	Per- cent	Standard error* (per- centage points)	Per- cent	Standard error* (per- centage points)	Per- cent	Standard error* (per~ centage points)	Per- cent	Standard error* (per- centage points)	Per- cent	Standard error* (per- centage points)
1983												
January-March April-June July-September October-December	33,100 41,600 57,200 59,500	1,780 1,940 2,310 2,270	61 65 74 71	3.4 2.9 2.3 2.3	59 69 76 68	3.4 2.8 2.2 2.4	81 87 87 84	2.7 2.1 1.8 1.9	90 93 93 93	2.1 1.6 1.3 1.6	94 96 96 97	1.6 1.2 1.2 1.3
1984												
January-March April-June July-September October-December	68,900 84,800 72,200 87,400	2,620 3,790 3,700 3,730	71 68 63 66	2.6 2.5 2.2 2.0	68 72 64 64	2.7 2.4 2.2 2.0	88 88 82 81	1.9 1.7 1.9 1.6	94 93. 91 90	1.4 1.3 1.4 1.0	96 96 96 94	1.1 0.9 0.8 0.8
1985												
January-March April-June July-September October-December	74,800 94,200 97,100 98,300	3,260 4,080 3,900 3,420	67 65 64 65	1.5 2.0 1.9 1.6	64 68 65 62	2.1 2.0 1.9 1.6	84 85 83 82	1.6 1.5 1.5 1.3	91 92 91 93	1.2 1.1 1.1 0.9	94 95 96 96	1.2 0.9 0.8 0.7
1986										1		
January-March April-June <sup>r</sup> July-September October-December	92,700 99,600 106,800	3,430 4,020 4,190	67 63 69	1.7 1.9 1.8	65 66 71	1.7 1.9 1.7	86 84 (NA)	1.3 1.4 (NA)	93 (NA) (NA)	0.9 (NA) (NA)	(NA) (NA) (NA)	(NA) (NA) (NA)

(Structures with five units or more.)

As calculated for this survey, the standard error also partially measures the variation in the estimates due to response and interviewer errors (nonsampling errors), but it does not measure, as such, any systematic biases in the data. Therefore, the accuracy of the estimates depends on both the sampling and nonsampling error measured by the standard error, biases, and some additional nonsampling errors not measured by the standard error.

The sample estimate and its estimated standard error enable the user to construct confidence intervals, ranges that would include the average result of all possible samples with a known probability. For example, if all possible samples were selected, each of these were surveyed under essentially the same general conditions, and an estimate and its estimated standard error were calculated from each sample, then—

- Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average result of all possible samples.
- Approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the average result of all possible samples.
- Approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average result of all possible samples.

For very small estimates, the lower limit of the confidence interval may be negative. In this case, a better approximation to the true interval estimate can be achieved by restricting the interval estimate to positive values, that is, by changing the lower limit of the interval estimate to zero.

The average result of all possible samples either is or is not contained in any particular computed interval. However, for a particular sample, one can say with specified confidence that the average result of all possible samples is included in the constructed interval.

The conclusions stated in this report are considered significant at the 95 percent confidence level.

For example, table 1 of this report shows that there were 56,000 apartments with two bedrooms in the third quarter of 1986. The standard error of this estimate is 4,320. The 68 percent confidence interval as shown by these data is from 51,680 to 60,320. Therefore, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 68 percent of all possible samples. Similarly, we could conclude that the average estimate derived from all possible samples lies within the interval from 47,360 to 64,640 (using twice the standard error) with 95 percent confidence.

The data in this report are preliminary and subject to slight changes in the annual report.

### Table 4. Absorption Rates of Cooperative and Condominium Apartments: 1983 to 1986

			(Stru	ctures wit	h five un	its or more	e)											
	To	tal	Perce	ent of			Per	rcent absor	bed with	.n								
	units c	ompleted	all 5-	units	3 m.c	onths	6 months		9 months		12 months							
Quarter of completion	Number	Standard error*	Per- cent	Standard error* (per- centage points)	Per- cent	Standard error* (per- centage points)	·Per- cent	Standard error* (per- centage points)	Per- cent	Standard error* (per- centage points)	Per- cent	Standard error* (per- centage points)						
1983																		
January-March. April-June. July-September. October-December.	20,900 20,700 37,700 32,500	1,590 1,620 2,110 2,010	30 26 33 30	2.2 1.9 1.8 1.8	55 69 173 62	4.6 4.4 3.0 3.6	69 82 84 84	4.2 3.7 2.5 2.7	78 88 91 90	3.8 3.1 1.9 2.2	81 93 94 93	3.6 2.4 1.6 1.9						
1984											141							
January-March. April-June July-September October-December	23,600 38,500 43,200 38,400	2,150 3,290 3,360 3,280	23 28 - 34 28	2.0 2.0 2.1 2.0	64 72 74 64	4.4 3.8 3.4 4.1	78 82 84 81	3.7 3.2 2.8 3.3	84 86 88 88	3.3 2.9 2.5 2.2	88 90 92 91	2.9 2.5 1.7 1.9						
1985							· .											
January-March. Apríl-June July-September October-December	32,700 36,600 39,000 27,400	2,850 3,570 3,510 - 2,870	28 26 27 21	2.0 6.0 4.0 4.2	65 69 59 69	4.1 4.3 4.4 4.8	81 78 70 81	3.4 3.8 4.1 4.1	86 82 84 85	3.0 3.7 3.3 3.7	90 87 89 90	- 3.0 3.2 2.8 3.1						
1986																		
January-March April-June <sup>r</sup> . July-September. October-December	23,300 23,700 27,300	$2,830 \\ 3,130 \\ 3,340$	19 17 19	4.7 4.9 4.8	75 72 75	5.1 5.9 5.3	86 80 (NA)	4.2 5.3 (NA)	90 (NA) (NA)	3.8 (NA) (NA)	(NA) (NA) (NA)	(NA) (NA) (NA)						

Not Seasonally Adjusted Structures with five units or more)

\*Standard error within range of about 2 chances out of 3. (NA) Not available. <sup>r</sup>Revised.

# Table 5. Characteristics of Condominium Apartments Completed During the Third Quarter of 1986 and Sold Within 3 Months

Not Seasonally Adjusted

(Privately financed, nonsubsidized, apartments. Data regarding number of bedrooms and asking price are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding. Medians are computed using unrounded data.)

	Total compl	units eted	Percent uni		Percent sold within 3 months		
Item	Number	Standard error*	Percent	Standard error* (percentage points)	Percent	Standard error* (percentage points)	
Total	25,800	3,270	100	(x)	73	5.6	
PRICE CLASSES							
Less than \$40,000 \$40,000 to \$49,999 \$50,000 to \$74,999 \$75,000 to \$99,999 \$100,000 or more Median price asked	400 1,900 4,500 6,100 12,900 \$ <b>100,00</b> 0+	430 940 1,440 1,680 2,390 1,620	2 7 17 24 50 (X)	1.8 3.2 4.7 5.4 6.3 (X)	83 73 71 79 72 (X)	40.8 22.1 14.5 11.2 8.3 (X)	
NUMBER OF BEDROOMS							
Less than 2 2 3 or more	5,400 17,300 3,100	1,580 1,160 1,200	21 67 12	5.1 5.9 4.1	76 75 59	12.5 6.8 19.1	

\*Standard error within range of about 2 chances out of 3. (X) Not applicable.

# Table 6. Housing Units Completed in Buildings With Five Units or More: 1983 to 1986

(Data may not add to total due to rounding)

Quarter Tot		tal	Unfurnished apartments		Furnished apartments		Cooperatives and condominiums		Federally subsidized		Other <sup>1</sup>	
completion	Number	Standard error*	Number	Standard error*	Number	Standard error*	Number	Standard error*	Number	Standard error*	Number	Standard error≻
1983			:									
January-March April-June July-September October-December 1984	69,200 80,500 112,600 108,400	3,400 3,680 4,410 4,320	33,100 41,600 57,200 59,500	1,780 1,940 2,310 2,270	300 800 1,700 1,900	220 350 520 540	20,900 20,700 37,700 32,500	1,590 1,620 2,110 2,000	12,500 13,400 8,700 13,100	1,150 1,310 1,140 1,380	2,400 4,000 7,300 1,400	920 1,050
January-March April-June July-September October-December	104,400 138,100 126,900 136,600	5,110 7,260 6,940 7,220	68,900 84,800 72,200 87,400	2,620 3,790 3,700 3,730	1,700 2,700 1,700 3,700	630 970 770 1,140	23,600 38,500 43,200 38,400	2,150 3,290 3,360 3,280	6,200 9,000 9,000 4,300	1,180 1,750 1,740 1,220	4,000 3,100 800 2,800	1,040 530
1985 January-March Apríl-June July-September October-December 1986	117,900 138,300 144,500 132,600	6,290 8,040 7,850 7,110	74,800 94,200 97,100 98,300	3,260 4,060 3,990 3,420	1,100 1,700 2,100 2,500	590 850 890 940	32,700 36,600 39,000 27,400	2,850 3,570 3,550 2,870	2,500 3,300 2,400 3,800	880 1,190 970 1,160	6,800 2,500 3,900 600	
January-March April-June <sup>r</sup> July-September October-December	123,400 135,500 145,900	7,220 8,300 8,640	92,700 99,600 106,800	3,430 4,020 4,190	1,400 4,600 3,200	710 1,460 1,220	23,300 23,700 27,300	2,830 3,130 3,340	5,300 6,600 6,900	1,440 1,740 1,780	700 900 17,000	530 650 890

\*Standard error within range of about 2 chances out of 3. rRevised.

<sup>1</sup>Other includes turnkey housing (privately built and sold to local public housing authorities subsequent to completion).

Official Business Penalty for Private Use, \$300

#### Table 7. Characteristics of Unfurnished Apartments Completed in the Last 4 Quarters and Reported as Rented and Remaining for Rent in the Fourth Quarter of 1986

(Privately financed, nonsubsidized unfurnished apartments. Data regarding number of bedrooms and asking rent are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding. Medians are computed using unrounded data.)

Item	Total units completed in last 4 quarters	Standard error*	Units rented prior to 4th quarter 1986	Standard error⊀	Number of units rented in 4th quarter 1986	Standard error*	Number of units remaining for rent at end of 4th quarter 1986	Standard error*
Total RENT CLASSES	397,400	14,300	236,400	7,340	104,200	6,000	56,800	4,660
Less than \$300 \$300 to \$349 \$350 to \$399 \$400 to \$449 \$450 to \$499 \$500 or more Median asking rent	28,600 37,800 69,200 66,100 59,400 136,500 \$448	3,410 3,900 5,130 5,030 4,800 6,690 4,9	15,200 21,700 44,700 41,300 35,800 77,700 \$444	3,000 4,210 4,060 3,800 5,390	10,800 15,600 15,000 15,000	1,970 2,130 2,540 2,490 2,490 3,910 10.6	5,200 8,900 9,700 8,600 20,300	1,310 1,480 1,930 2,010 1,900 2,880 13.9
NUMBER OF BEDROOMS								
Less then 2 2 3 or more	185,200 201,300 11,000	7,230 7,320 2,140	111,300 119,200 5,900	6,390	54,000	4,270 4,570 1,250	28,100	3,320 3,370 770

\*Standard error within range of about 2 chances out of 3.

Note: These data are for fourth quarter 1985 and first, second, and third quarter 1986 completions.

 
 Table 8. Characteristics of Condominium Apartments Completed in the Last 4 Quarters and Reported as Sold and Remaining for Sale in the Fourth Quarter of 1986

(Privately, financed, nonsubsidized apartments. Data regarding number of bedrooms and asking price are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding. Medians are computed using unrounded data.)

Item	Total units completed in last 4 quarters	Standard error*	Units sold prior to 4th quarter 1986	Standard error*	Number of units sold in 4th quarter 1986	Standard error*	Number of units remaining for sale at end of 4th quarter 1986	Standard error*
Total	97,800	6,610	58,200	3,480	23,100	3,070	16,500	2,610
Less then \$40,000 \$40,000 to \$49,999 \$50,000 to \$74,999 \$75,000 to \$99,999 \$100,000 or more	3,000 5,900 22,600 29,900 36,300	1,120 1,550 2,810 3,110 3,300	2,500 3,200 14,900 20,300 17,200	1,020 1,150 2,370 2,700 2,520	300 1,600 4,500 5,700 10,900	300 820 1,360 1,530 2,060	100 1,000 3,200 3,800 8,300	200 660 1,150 1,260 1,820
Median price asked	\$89,500	2,410	\$85,400	. 2,100	\$97,000	6,020	\$100,000+	1,230
Less than 2 2 3 or more	21,100 66,400 10,200	2,740 3,360 2,000	12,200 40,500 5,400	2,170 3,390 1,480	5,500 15,500 2,100	: 1,490 2,410 940	10,400 2,700	1,190 2,010 1,050

\*Standard error within range of about 2 chances out of 3.

Note: These data are for fourth quarter 1985 and first, second, and third quarter 1986 completions.