# Market Absorption of Apartments

ANNUAL 1991 ABSORPTIONS (Apartments Completed in 1990)

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U.S. Department of Commerce Economics and Statistics Administration BUREAU OF THE CENSUS

U.S. Department of Housing and Urban Development

#### NOTE TO DATA USERS

The Survey of Market Absorption has adopted new ratio estimation procedures to derive more accurate estimates of completions at the regional level (see page 4, ESTIMATION). This new procedure was used for the first time for the processing of annual data for 1990. Caution must be used when comparing data for this and future years to any year prior to 1990.

#### SUMMARY

During 1990, a total of 214,300 privately financed, nonsubsidized, unfurnished rental apartments in buildings of five units or more were completed in permit-issuing areas in the United States. This is a decrease of about 13 percent (± 2 percent) from the 246,400 such units completed in 1989. Sixty-seven percent of these units were rented (absorbed) within the first 3 months of completion, 85 percent within 6 months, 93 percent within 9 months, and 96 percent were rented within a year of completion (table 1).

About 6 percent of the 214,300 new unfurnished rental apartments were built in the Northeast. They were 66 percent absorbed in their first 3 months on the market, and by the end of 12 months they were 92 percent absorbed.

Approximately 21 percent were built in the Midwest, and they had a 3-month absorption rate of about 75 percent and a 12-month absorption rate of 97 percent. About 36 percent were built in the South with a 64 percent 3-month rate and a 95 percent 12-month rate. The 37 percent built in the West were about 65 percent absorbed in 3 months and 97 percent absorbed in 12 months.

A majority (54 percent) of new apartments were built in the suburbs, while 40 percent were built in the nation's central cities, and 6 percent were built outside Metropolitan Statistical Areas (MSAs). New apartments in central cities and were absorbed at a significantly higher ( $\pm$  6 percent) rate than those in the suburbs after 3 months on the market (71 and 65 percent respectively).

All statistics in this report are limited to apartments in newly constructed buildings with five units or more. Absorption rates are based on the first time an apartment offered for rent is rented after completion, or the first time a cooperative or condominium apartment is sold after completion. If apartments intended to be sold as cooperative or condominium units are offered by the builder or building owner for rent, they are counted as rental apartments.

Tables 1 through 4 are restricted to privately financed, nonsubsidized, unfurnished rental apartments. Table 5 is restricted to privately financed, nonsubsidized, cooperative and condominium apartments. Table 6 is restricted to

Table 1. Absorption Rates for Unfurnished Apartments Completed, by Geographic Area: 1990

(Privately financed, nonsubsidized, unfurnished, rental apartments in buildings with five units or more. Data may not add to total due to rounding.)

	Total		Percent absorbed within-			
Geographic areas	Number	Percent	3 months	6 months	9 months	12 months
United States, total	214,300	100	67	85	93	96
	201,400	94	68	85	93	96
	86,700	40	71	86	93	97
	114,700	54	65	84	93	96
	12,900	6	53	88	94	94
Northeast. Midwest. South West.	12,700	6	66	85	91	92
	44,300	21	75	87	94	97
	77,200	36	64	81	91	95
	80,000	37	65	87	94	97

privately financed, nonsubsidized condominium apartments. Table 7 is restricted to privately financed, nonsubsidized, furnished, rental apartments. Table 8 is an historical summary table which includes all newly constructed apartments in buildings with five units or more.

All statistics in this report are based on a sample survey and consequently they are subject to sampling variability.1 Estimates derived from different samples would differ from one another. The standard error of a survey estimate is a measure of the variation among the estimates from all possible samples. Estimates of standard errors can be calculated by using tables A and B. They allow us to construct interval estimates with prescribed confidence that the interval includes the average of the estimates from all possible samples. For all the change statements made in this report, 90-percent confidence intervals for statistical comparisons can be constructed by using the 90-percent deviate shown in parentheses after the change; however, when a 90-percent confidence interval contains zero, we are uncertain whether or not the change has occurred. In addition, some of the statistical findings which are not part of the tables are also provided with a 90-percent deviate.

The median asking rent for unfurnished apartments completed in 1990 was \$600. About 40 percent rented for less than \$550 and were absorbed at a 3-month rate of 73 percent and a 12-month rate of 99 percent. The units with asking rents of \$550 to \$749, about 36 percent of the total, were 65 percent absorbed in 3 months and 96 percent absorbed in 12 months. The 25 percent of the 1990 completions with an asking rent of \$750 or more were 59 percent and 93 percent absorbed in 3 and 12 months respectively (table 2).

One- and two-bedroom apartments accounted for 89 percent of all new apartment construction. One-bedroom apartments had a median asking rent of \$526 and two-bedroom units rented for \$620. These units were absorbed at a 3-month rate of about 67 percent, about the same as more expensive (\$732) three-bedroom apartments which were absorbed at a rate of 61 percent after 3 months (table 3).

About 12 percent ( $\pm$  4 percent) fewer cooperative and condominium apartments were completed in 1990 (52,600 units) than in 1989 (59,700 units). The percent share in the Northeast declined ( $\pm$  7) from 32 percent in 1989 to 18 percent in 1990 while the South's participation rose ( $\pm$  8) from 29 percent to 41 percent (table 5). Only 28 percent of the cooperatives and condominiums constructed in the Northeast in 1990 were absorbed by the end of 3 months on the market. The 3-month rates for the Midwest, South, and West, 64, 67, and 69 percent respectively, were not significantly different from each other. The absorption rate for Northeast units after 1 year on the market was only 65 percent.

The median asking price for all condominium apartments built in 1990 was \$117,200, not significantly different from the \$122,300 median in 1989 (table 6).

Completions of apartments in all residential buildings with five units or more decreased by about 43,500 ( $\pm$  21,600) units from 337,900 in 1989 to 294,400 in 1990 (table 8). Seventy-three percent of 1990 completions were nonsubsidized, unfurnished rental apartments, 18 percent were cooperatives and condominiums, and about 1 percent were furnished rental units.

About 5 percent of all apartments built in 1990 were in federally subsidized properties. These units are built under the following 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. The data on privately financed units include privately owned housing subsidized by State and local governments.

An additional 4 percent of all newly constructed units included time-sharing units, continuing care retirement units, and turnkey units (privately built for and sold to local public housing authorities subsequent to completion).

#### SAMPLE DESIGN

The Survey of Market Absorption (SOMA) is designed to provide data concerning the rate at which unfurnished, nonsubsidized, privately financed units in buildings with five or more units are rented or sold (absorbed). In addition, data on characteristics of the units, such as rent or price 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 SOC, the United States is first divided into primary sampling units (PSU's) which are sampled on the basis of population and permits. Next, a sample of permit-issuing places is selected within each sample PSU. Finally, all buildings with five units or more within sampled places, as well as a subsample of buildings with one to four units, are selected.

Each quarter, a sample of buildings with five units or more 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.

#### **ESTIMATION**

Beginning with the fourth quarter of 1990 completions data (the first quarter of 1991 absorptions), the estimation procedure was modified. The modified estimation procedure was also applied to the first, second, and third

<sup>&</sup>lt;sup>1</sup>See Reliability of Estimates on page 3.

<sup>&</sup>lt;sup>2</sup>See the January issue of "Housing Starts," Construction Reports, Series C20, for details of this survey.

quarters of 1990 completions data so that 1990 annual estimates could be derived using the same methodology for four quarters. No additional re-estimation of the past data is planned.

Prior to this change in the estimation procedure, unbiased quarterly estimates were formed by multiplying the counts for each building by its base weight (the inverse of its probability of selection) and then summing over all buildings. The final estimate was then obtained by multiplying the unbiased estimate by the following ratio estimate factor for the Nation as a whole:

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

total units in 5+ buildings as estimated by SOMA for that guarter

For the modified estimation procedure, instead of applying a single ratio-estimate factor for the entire nation, separate ratio-estimate factors shown as above are computed for each of the four Census regions. The final estimates for regions are obtained by multiplying the unbiased regional estimates by the corresponding ratio estimate factors. The final national estimate is obtained by summing the final regional estimates.

This procedure produces estimates of the units completed in a given quarter which are consistent with unpublished figures from the SOC and also reduces, to some extent, the sampling variability of the estimates of totals. Annual estimates are obtained by computing a weighted average of the four quarterly estimates.

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 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 in the sample; definitional difficulties; differences in interpretation of questions; inability or unwillingness of respondents to provide correct information; and errors made in processing the data. These nonsampling errors also occur in complete censuses. Although no direct measurements of the biases have been obtained, it is

believed that most of the important response and operational errors were detected in the course of reviewing the data for reasonableness and consistency.

#### 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.

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 (i.e., 68-percent confidence interval) 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 (i.e., 90-percent confidence interval) 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 (i.e., 95-percent confidence interval) would include the average result of all possible samples.

For very small estimates, the lower limit of the confidence level 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 may be 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 90-percent confidence level.

The reliability of an estimated absorption rate (i.e., a percentage) computed by using sample data for both the numerator and denominator depends upon both the size of the rate and the size of the total on which the rate is based. Estimated rates of this kind are relatively more reliable than the corresponding estimates of the numerators of the rates, particularly if the rates are 50 percent or more.

The figures presented in tables A and B are approximations to the standard errors of various estimates shown in the report. Table A presents standard errors for estimated totals, and table B presents standard errors of estimated percents. In order to derive standard errors that would be applicable to a wide variety of items and could be prepared at a moderate cost, a number of approximations were required. As a result, the tables of standard errors provide an indication of the order of magnitude of the standard errors rather than the precise standard error for any specific item. Standard errors for values not shown in tables A or B can be obtained by linear interpolation.

### ILLUSTRATIVE USE OF STANDARD ERROR TABLES

Table 2 of this report shows that 25,300 units completed in 1990 rented for \$350 to \$449. Table A-1 shows the standard error of an estimate of this size to be approximately 2,700. To obtain a 90-percent confidence interval, multiply 2,700 by 1.6 and add and subtract the result from 25,300 yielding limits of 29,620 and 20,980. The average estimate of units completed in 1990 renting for \$350 to

\$449 may or may not be included in this computed interval, but one can say that the average is included in the constructed interval with a specified confidence of 90 percent.

Table 2 also shows that the rate of absorption after 3 months for these units is 83 percent. Table B-1 shows the standard error on a 83 percent rate on a base of 25,300 to be approximately 4.0 percent. Multiply 4.0 by 1.6 (yielding 6.4) and add and subtract the result from 83. The 90-percent confidence interval for the absorption rate of 83 percent is from 76.6 to 89.4.

Table 2 also shows that the median asking rent in the Midwest for unfurnished rental apartments was \$511. The standard error of this median is about \$17. This estimate is obtained by using the following approximation:

[standard error of median] =  $\sigma$  50% x

[estimated proportion of the base falling within the interval containing the sample median]

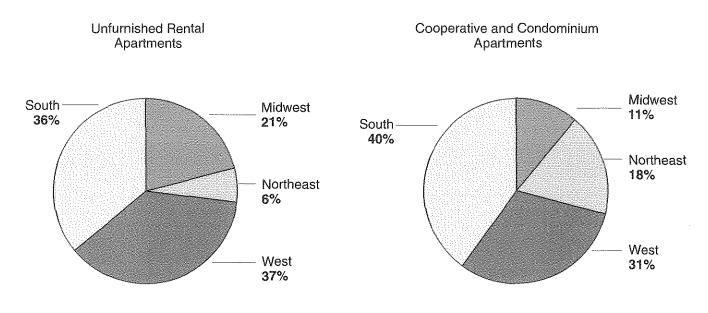
where  $\sigma$  50% is the estimated standard error of the 50-percent characteristic on the base of the median. In this example, the estimated median, \$511, lies between \$450 and \$549. The length of the interval is \$100. The estimated proportion of the base (total units completed) of 44,300 falling within this rent class is about 24 percent. Table B-1 shows the estimated error of a 50-percent characteristic with the base of 44,300 to be about 4.0 percent. Hence, the standard error of the sample median from the above formula is:

$$4.0 \times \frac{100}{24} = \$17$$

Therefore, 1.6 standard errors equals \$27. This means that an approximate 90-percent confidence interval for the median asking rent of \$511 would be between \$468 and \$554 (\$511 plus or minus \$27).

Figure 1.

Percent Distribution of New Unfurnished Rental and New Cooperative and Condominium Units Completed, by Region: 1990



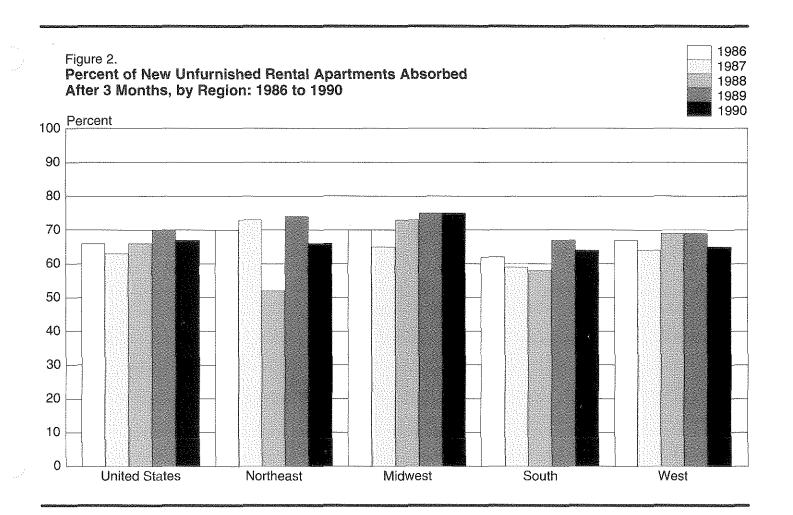


Table 1. Absorption Rates for Unfurnished Apartments Completed, by Geographic Area: 1990

(Privately financed, nonsubsidized, unfurnished, rental apartments in buildings with five units or more. Data may not add to total due to rounding.)

	Total		Percent absorbed within—			
Geographic areas	Number	Percent	3 months	6 months	9 months	12 months
United States, total	214,300	100	67	85	93	96
	201,400	94	68	85	93	96
	86,700	40	71	86	93	97
	114,700	54	65	84	93	96
	12,900	6	53	88	94	94
Northeast	12,700	6	66	85	91	92
	44,300	21	75	87	94	97
	77,200	36	64	81	91	95
	80,000	37	65	87	94	97

Table 2. Absorption Rates for Unfurnished Apartments Completed, by Rent, for the United States and Regions: 1990

(Privately financed, nonsubsidized, unfurnished, rental apartments in buildings with five units or more. Data regarding 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			Percent absorb	ed within	
Item	Number	Percent	3 months	6 months	9 months	12 months
Total	214,300	100	67	85	93	96
Less than \$350	14,000	7	66	94	99	99
\$350 to \$499	25,300	12	83	95	98	99
\$450 to \$549	45,700	21	70	89	96	98
\$550 to \$649	43,900	21	67	84	93	97
\$650 to \$749	32,300	15	63	81	91	95
\$750 or more	53,000	25	59	76	87	93
Median asking rent	\$600	(X)	(X)	(X)	(X)	(X)
Northeast	12,700	100	66	85	91	92
Less than \$350	600	5	100	100	100	100
\$350 to \$499	3,300	26	90	98	100	100
\$450 to \$549	3,800	30	51	94	100	100
\$550 to \$649	900	7	62	78	88	91
\$650 to \$749	1,300	10	52	60	64	65
\$750 or more	2,800	22	60	67	79	82
Median asking rent	\$512	(X)	(X)	(X)	(X)	(X)
Midwest	44,300	100	75	87	94	97
Less than \$350	5,200	12	93	97	99	99
\$350 to \$499	10,300	23	87	97	99	100
\$450 to \$549	10,700	24	78	93	98	99
\$550 to \$649	7,100	16	77	89	96	97
\$650 to \$749	4,800	11	65	86	97	99
\$750 or more	6,200	14	41	54	71	89
Median asking rent	\$511	(X)	(X)	(X)	(X)	(X)
South	77,200	100	64	81	91	95
Less than \$350	5,100	7	69	88	99	99
\$350 to \$499	8,300	11 (	78	91 (	97	99
\$450 to \$549	18,600	24	66	85	93	97
\$550 to \$649	19,000	25	63	81	92	97
\$650 to \$749	11,700	15	59	77	89	95
\$750 or more	14,500	19	55	72	83	89
Median asking rent	\$584	(X)	(X)	(X)	(X)	(X)
West	80,000	100	65	87	94	97
Less than \$350	3,000	4	9	100	100	100
\$350 to \$499	3,400	4	77	94	96	98
\$450 to \$549	12,600	16	75	91	97	99
\$550 to \$649	16,900	21	67	87	94	98
\$650 to \$749	14,600	18	66	85	93	96
\$750 or more	29,500	37	64	84	93	96
Median asking rent	\$678	(X)	(X)	(X)	(X)	(X)

X Not applicable.

Table 3. Absorption Rates for Unfurnished Apartments Completed, by Number of Bedrooms and Rent, for the United States: 1990

(Privately financed, nonsubsidized, unfurnished, rental apartments in buildings with five units or more. 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.)

14	Total			Percent absorb	ed within	
Item	Number	Percent	3 months	6 months	9 months	12 months
Total	214,300	100	67	85	93	96
Less than \$350	14,000	7	66	94	99	99
\$350 to \$499	25,300	12	83	95	98	99
\$450 to \$549	45,700	21	70	89	96	98
\$550 to \$649	43,900	21	67	84	93	97
\$650 to \$749	32,300	15	63	81	91	95
\$750 or more	53,000	25	59	76	87	93
Median asking rent	\$600	(X)	(X)	(X)	(X)	(X
No Bedroom	4,100	100	72	86	94	97
Less than \$350	500	12	100	100	100	100
\$350 to \$499	700	17	77	94	99	100
\$450 to \$549	500	12	71	88	98	99
\$550 to \$649	800	20	57	72	89	96
\$650 to \$749	700	17	79	90	94	96
\$750 or more	900	22	63	81	90	95
Median asking rent	\$593	(X)	(X)	(X)	(X)	(X)
1 Bedroom	77,000	100	68	84	93	96
Less than \$350	7,200	9	75	95	99	99
\$350 to \$499	14,100	18	81	94	98	99
\$450 to \$549	22,400	29	67	86	95	98
\$550 to \$649	12,000	16	65	84	93	97
\$650 to \$749	9,400	12	56	75	87	91
\$750 or more	11,800	15	59	71	82	92
Median asking rent	\$526	(X)	(X)	(X)	(X)	(X
2 Bedrooms	114,200	100	67	85	94	97
Less than \$350	5,400	5	59	91	99	99
\$350 to \$499	10,300	9	86	95	99	99
\$450 to \$549	22,100	19	72	92	97	98
\$550 to \$649	27,400	24	69	86	94	98
\$650 to \$749	17,300	15	63	83	92	96
\$750 to \$849	12,500	11	60	81	92	97
\$850 or more	19,200	17	58	76	87	92
Median asking rent	\$620	(X)	(X)	(X)	(X)	(X
3 Bedrooms or more	19,000	100	61	82	89	90
Less than \$350	900	5	26	100	100	100
\$350 to \$499	200	1	78	95	95	95
\$450 to \$549	700	4	78	91	98	99
\$550 to \$649	3,600	19	57	80	90	93
\$650 to \$749	4,900	26	74	88	95	98
\$750 to \$849	2,300	12	66	84	94	98
\$850 or more	6,300	33	55	73	81	96 85
Median asking rent	\$732	(X)	(X)	(X)	(X)	
Wedian asking tent	Ψ102	(^)	(^)	(^)	(v)	(X

X Not applicable.

Table 4. Absorption Rates for Unfurnished Apartments Completed, by Presence of Selected Features and Utilities, for the United States: 1990

(Privately financed, nonsubsidized, unfurnished, rental apartments in buildings with five units or more. Data regarding features and utilities are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding.)

	Tota	al		Percent abso	orbed within-	Address of the State of the Sta
ltem -	Number	Percent	3 months	6 months	9 months	12 months
Total	214,300	100	67	85	93	96
SELECTED FEATURES						
Swimming pool Available Included in rent At extra cost Not available	147,500	69	65	83	92	96
	900	(Z)	70	85	97	99
	65,800	31	70	89	95	97
Parking Available Included in rent At extra cost Not available	208,600	97	67	85	93	96
	2,600	1	80	88	95	97
	3,100	1	50	69	85	90
Air-conditioning Available Not available	180,300	84	66	84	92	96
	34,000	16	73	89	95	98
Dishwasher	198,600	93	67	84	92	96
Available	15,600	7	63	91	98	98
UTILITIES		TRANSMAAAAA			- I	
Electricity Included in rent Not included in rent	6,200	3	57	72	78	85
	208,100	97	67	85	93	97
Gas Available Included in rent At extra cost. Not available	18,100	8	76	85	90	93
	87,500	41	62	85	93	97
	108,600	51	69	84	93	96

X Not applicable.

Z Fewer than 50 units or less than one half of one percent.

## Table 5. Absorption Rates for Cooperative and Condominium Apartments Completed, by Number of Bedrooms and Regions: 1990

(Privately financed, nonsubsidized apartments in buildings with five units or more. Data regarding number of bedrooms are collected at the initial interview, i.e., 3 months following completion. Data may not add to total due to rounding.)

	To	tal	Percent absorbed within—			
ltem	Number	Percent	3 months	6 months	9 months	12 months
Total	52,600	100	60	74	80	85
BEDROOMS						
No bedroom	600 9,800 35,700 6,500	1 19 68 12	43 65 59 61	59 76 73 77	64 81 80 84	66 87 85 89
REGION						
Northeast	9,300 5,600 21,300 16,300	18 11 41 31	28 64 67 69	47 76 79 83	56 82 83 90	65 87 87 94

Table 6. Absorption Rates for Condominium Apartments Completed, by Asking Price and Number of Bedrooms, for the United States: 1990

(Privately financed, nonsubsidized apartments in buildings with five units or more. 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.)

lh and	Tota	ı	Percent absorbed within—			
Item	Number	Percent	3 months	6 months	9 months	12 months
Total	52,400	100	60	74	80	85
PRICE CLASS						
Less than \$50,000 \$50,000 to \$74,999. \$75,000 to \$99,999. \$100,000 to \$149,999 \$150,000 to \$199,999 \$200,000 or more. Median asking price	1,600 7,200 12,900 13,200 8,100 9,500 \$117,200	3 14 25 25 16 18 (X)	56 63 69 64 54 49 (X)	64 80 82 76 69 63 (X)	72 87 87 82 76 70 (X)	82 90 91 85 84 75 (X)
BEDROOMS				-		
No bedroom	600 9,800 35,500 6,500	1 19 68 12	44 65 59 61	60 76 73 77	66 81 80 84	68 87 85 89

X Not applicable.

Table 7. Absorption Rates for Furnished Apartments Completed, by Rent and Number of Bedrooms, for the United States: 1990

(Privately financed, nonsubsidized, furnished, rental apartments in buildings with five units or more. 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.)

ltore	Total		Percent absorbed within—			
ltem —	Number	Percent	3 months	6 months	9 months	12 months
Total	2,900	100	70	96	99	99
RENT CLASS						
Less than \$350 \$350 to \$449 \$450 to \$549 \$550 to \$649 \$6500 to \$749 \$750 or more Median asking price	800 200 400 300 1,200 \$674	29 6 13 10 42 (X)	(X) 42 22 60 94 93 (X)	(X) 95 94 99 100 96 (X)	(X) 99 100 99 100 98 (X)	(X) 100 100 100 100 98 (X)
BEDROOMS						
No bedroom	300 1,100 500 1,000	11 37 17 35	31 45 88 100	85 96 97 100	97 98 99 100	100 98 100 100

<sup>-</sup> Represents zero.

X Not applicable.

Table 8. Apartments Completed in Buildings With Five Units or More: 1970 to 1990

(Data may not add to total due to rounding)

Year		Unfurn	ished	Furnished		Cooperatives and condominiums		Federally subsidized		Other <sup>1</sup>	
	Total	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1990	294,400	214,300	73	2,900	1	52,600	18	13,800	5	10,800	4
1989'	337,900	246,400	73	4,900	1	59,700	18	19,800	6	7,200	2
1988	388,600	284,500	73	4,300	4	76,200	20	15,200	4	8,400	2
1987	474,200	345,600	73	7,900	2	92,300	19	17,000	4	11.300	
1986	550,200	407,600	74	11,600	2	101,700	18	23,300	4	6,000	1
1985	533,300	364,500	68	7,400	1	135,800	25	12,000	2	13,700	3
1984	506,000	313,200	62	9,800	2	143,600	28	28,500	6	10,700	2
1983	370,700	191,500	52	4,700	1	111,800	30	47,700	13	15,100	4
1982	288,200	117,000	41	5,400	2	107,900	37	48,000	17	10,000	3
1981	332,500	135,400	41	6,000	2	112,600	34	66,100	20	12,500	4
1980	418,900	196,100	47	9,700	2	122,800	29	79,900	19	10,500	3
1979	439,300	241,200	55	12,100	3	91,800	21	87,500	20	6,700	2
1978	362,700	228,700	63	11,200	3	54,500	15	54,100	15	14,300	4
1977	289,400	195,600	68	16,200	6	43,000	15	26,000	9	8,700	3
1976	258,200	157,000	61	12,800	5	46,300	18	32,000	12	10,000	4
1975	371,400	223,100	60	11,100	3	84,600	23	38,900	10	13,800	4
1974	685,400	405,500	59	20,700	3	159,000	23	75,400	11	25,000	4
1973	774,800	531,700	69	36,200	5	98,100	13	82,000	11	26,800	3
1972	718,200	497,900	69	37,700	5	57,300	8	93,800	13	31,400	4
1971	583,400	334,400	57	32,200	6	49,100	8	104,800	18	63,000	11
1970	526,000	328,400	62	48,200	9	72,500	14	55,900	11	21,000	4

<sup>&</sup>lt;sup>1</sup>Other includes time-sharing units, continuing-care retirement units, and turnkey units (privately built for and sold to local public housing authorities

subsequent to completion).
These estimates were incorrectly published as 337,600, 246,200 and 59,500 in the H130/90A, Annual 1990 Absorptions (Apartments completed in 1989).

Table A-1. Standard Errors of Estimated Totals: Completions in 1986 to 1990

(2 chances out of 3)

Estimated total	Standard error	Estimated total	Standard error
1,000 2,000 3,000 4,000 5,000 10,000 15,000 20,000 25,000	800 900 1,100 1,200 1,700 2,100 2,400	35,000 50,000 75,000 100,000 150,000 250,000 350,000 450,000 600,000	3,200 3,800 4,700 5,400 6,600 8,500 10,100 11,400 13,200

Note: See page 4 for information on the use of this table.

Table B-1. Standard Errors of Estimated Percentages: Completions in 1986 to 1990

(2 chances out of 3)

Base of percentage	<del>9</del> 8 or 2	95 or 5	90 or 10	80 or 20	75 or 25	60 or 40	50
1,000	7.5	11.7	16.1	21.5	23.3	26.3	26.9
2,000	5.3	8.3	11.4	15.2	16.5	18.6	19.0
3,000	4.3	6.8	9.3	12.4	13.4	15.2	15.5
4,000	3.8	5.9	8.1	10.8	11.6	13.2	13.4
5,000	3.4	5.2	7.2	9.6	10.4	11.8	12.0
10,000	2.4	3.7	5.1	6.8	7.4	8.3	8.5
15,000	1.9	3.0	4.2	5.6	6.0	6.8	6.9
20,000	1.7	2.6	3.6	4.8	5.2	5.9	6.0
25,000	1.5	2.3	3.2	4.3	4.7	5.3	5.4
35,000	1.3	2.0	2.7	3.6	3.9	4.5	4.5
50,000	1.1	1.7	2.3	3.0	3.3	3.7	3.8
75,000	0.9	1.4	1.9	2.5	2.7	3.0	3.1
100,000	0.8	1.2	1.6	2.2	2.3	2.6	2.7
150,000	0.6	1.0	1.3	1.8	1.9	2.2	2.2
250,000	0.5	0.7	1.0	1.4	1.5	1.7	1.7
350,000	0.4	0.6	0.9	1.1	1.2	1.4	1.4
450,000	0.4	0.6	0.8	1.0	1.1	1.2	1.3
600,000	0.3	0.5	0.7	0.9	1.0	1.1	1.1

Note: See page 4 for information on the use of this table.

Table A-2. Standard Errors of Estimated Totals: Completions in 1985

(2 chances out of 3)

Estimated total	Standard error	Estimated total	Standard error
5,000 10,000 15,000 20,000 25,000 35,000 50,000	2,030 2,500 2,880 3,240 3,830	75,000 100,000 150,000 250,000 350,000 450,000 600,000	5,720 6,650 8,310 11,110 13,590 15,890 19,180

Note: See page 4 for information on the use of this table.

Table B-2. Standard Errors of Estimated Percentages: Completions in 1985

(2 chances out of 3)

Base of percentage	98 or 2	95 or 5	90 or 10	80 or 20	75 or 25	50
5,000	4.0	6.3	8.5	11.4	12.4	14.3
10,000	2.9	4.3	6.1	8.1	8.7	10.0
15,000	2.3	3.5	5.0	6.6	7.1	8.2
20,000	1.9	3.1	4.3	5.8	6.1	7.1
25,000	1.8	2.7	3.9	5.2	5.5	6.4
35,000	1.5	2.4	3.2	4.3	4.7	5.5
50,000	1.3	1.9	2.7	3.5	3.9	4.5
75,000	1.0	1.6	2.3	2.9	3.2	3.7
100,000	1.0	1.5	1.9	2.6	2.7	3.2
150,000	8.0	1.1	1.6	2.1	2.3	2.6
250,000	0.6	8.0	1.3	1.6	1.8	2,1
350,000	0.5	0.8	1.0	1.3	1.5	1.8
450,000	0.5	0.6	1.0	1.1	1.3	1.5
600,000	0.3	0.6	8.0	1.0	1.1	1.3

Note: See page 4 for information on the use of this table.

Table A-3. Standard Errors of Estimated Totals: Completions in 1970 to 1984

(2 chances out of 3)

Estimated total	Standard error	Estimated total	Standard error
5,000 10,000 15,000 20,000 25,000 35,000 50,000	1,500 1,840 2,130 2,390 2,830	75,000 100,000 150,000 250,000 350,000 450,000 600,000	4,220 4,910 6,140 8,210 10,040 11,750 14,160

Note: See page 4 for information on the use of this table.

Table B-3. Standard Errors of Estimated Percentages: Completions in 1970 to 1984

(2 chances out of 3)

Base of percentage	98 or 2	95 or 5	90 or 10	80 or 20	75 or 25	50
5,000	3.0	4.6	6.3	8.4	9.2	10.6
10,000	2.1	3.2	4.5	6.0	6.4	7.4
15,000	1.7	2.6	3.7	4.9	5.2	6.1
20,000	1.4	2.2	3.2	4.3	4.5	5.2
25,000	1.3	2.0	2.9	3.8	4.0	4.8
35,000	1.1	1.8	2.4	3.2	3.5	4.0
50,000	1.0	1.4	, 2.0	2.6	2.9	3.3
75,000	0.7	1.2	1.7	2.1	2.4	2.7
100,000	0.7	1.1	1.4	1.9	2.0	2.4
150,000	0.6	0.8	1.2	1.5	1.7	1.9
250,000	0.5	0.6	1.0	1.2	1.3	1.5
350,000	0.4	0.6	0.7	1.0	1.1	1.3
450,000	0.4	0.5	0.7	8.0	1.0	1.1
600,000	0.2	0.5	0.6	0.7	0.8	0.8

Note: See page 4 for information on the use of this table.

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