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## Market Absorption of Apartments

## Second Quarter 1985-Absorptions <br> (Completions in First Quarter 1985)

fighe 1
Units in Apartment Buildings Started, Completed, and Absorbed: 1980 to 1985


Note: "imited to bultdings with five units or more in pernit-issuing places:

1. Source: Construction Reparts, (20-85-5 (May 1985) table 2.
2. Source: Construction Reports, C22-85-5 (Hay 1985) table 1.
3. Privateiy financed, ponsubsidized, unfurnished apartments.

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

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## SUMMARY OF FINDINGS

Privately financed, nonsubsidized, unfurnished apartments completed during the January-March 1985 quarter were 67 percent absorbed (seasonally adjusted) 3 months after their completion. This is about the same as the 3 -month seasonally adjusted rate of 66 percent for apartments completed during the fourth quarter of 1984. Apartments which have been on the market for 9 months, those completed during July-September 1984, were 91 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 67-and 91 -percent figures are subject to sampling errors (i.e., standard errors) of 1.5 and 1.4 percentage points, respectively. This means that there are about 2 chances out 3 that a complete count would be in the range of $67( \pm 1.5)$ percentage points and $91( \pm 1.4)$ percentage points. Sampling errors for the figures that follow are indicated in parenthesis.'

A total of $117,900( \pm 6,290)$ apartments were completed during the first quarter of 1985 . This is a $14( \pm 7.0)$ percent decrease from fourth quarter 1984 completions but is an increase of $13( \pm 7.8)$ percent over first quarter 1984 completions. The number of privately financed, nonsubsidized, unfurnished apartments completed was $75,000( \pm 3,260)$, a decrease of about 14 ( $\pm 5.7$ ) percent from fourth quarter 1984 completions but about the same as completions of similar apartments in the first quarter of 1984.

The median asking rent for newly constructed units was \$411 ( $\pm 8.0$ ) in the first quarter of 1985 which is not significantly different from the $\$ 404$ median for fourth quarter 1984 completions. Apartments renting for less than $\$ 300$ accounted for only $9( \pm 1.8)$ percent of total completions. Those renting for $\$ 300$

[^0]to $\$ 399$ were $37( \pm 2.6)$ percent of the total, $\$ 400$ to $\$ 499$ were $30( \pm 2.6)$ percent, , and those renting for $\$ 500$ or more accounted for $23( \pm)$ percent of all completions. A majority of newly constructed apartments, 51 ( $\pm 2.4$ ) percent, were built with two bedrooms, about the same, $46( \pm 2.5)$ percent had less than two, and only $3( \pm 1.1)$ percent of new apartments had three or more bedrooms.

Approximately $32,300( \pm 2,840)$ cooperative and condominium apartments were completed in the first quarter of 1985, which is not significantly different from the 38,400 units completed in the fourth quarter of 1984 but $37( \pm 15.1)$ percent higher than first quarter 1984. This number represents 27 $( \pm 2.0)$ percent of total first quarter 1985 completions.

The 3-month absorption rate for cooperative and condominium apartments during the first quarter was 64 ( $\pm 4.4$ ) percent. The median asking price for condominium units was $\$ 87,900$ ( $\pm 4,070$ ), considerably higher than the revised median of $\$ 76,000( \pm 2,730)$ for condominium apartments completed in the fourth quarter of 1984.

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 $2( \pm 0.7)$ percent of total completions.

Furnished rental units accounted for $1( \pm 0.5)$ percent of apartment completions. The remaining $6( \pm 1.2)$ percent of the units are not in scope for 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 governments.

Table 1. Characteristics of Apartments Completed During the First Quarter of 1985 and Rented Within 3 Months
(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 are not seasonally adjusted. Data may not add to total due to rounding. Medians are computed using unrounded data)


[^1](X) Not applicable.

FIGURE 2.
Median Rent of Apartments Completed in the United States: 1982 to 1985


Note: Limited to buildings with five or nore units in permit-issuing places.

FIGURE 3.
Cooperative and Condominium Apartment Completions as Percent of
Total Apartment Completions 1982 - 1985


Note: Limited to bujldings with five or more units in permit-issuing places.

## SAMPLE DESIGN

The 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 for 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) ${ }^{2}$. 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 foür quarters.

[^2]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 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:

$$
\begin{gathered}
\text { total units in } 5+\text { buildings in permit-issuing areas } \\
\text { as estimated by the SOC } \\
\text { for that quarter } \\
\text { total units in } 5+\text { buildings as estimated by SOMA } \\
\text { for that quarter }
\end{gathered}
$$

This procedure produces estimates of the units completed in a given quarter which are consistent with the published figures from the Housing Completions Series, ${ }^{3}$ and also reduces, to some extent, the sampling variability of the estimates of totals.
${ }^{3}$ See "Housing Completions," Construction Reports, Series C22.

## Table 2. Characteristics of Apartments Completed During the Fourth Quarter of 1984 and Rented Within 3 Months (Revised)

(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 not seasonally adjusted. Data may not add to total due to rounding. Medians are computed using unrounded data.)

| Item | Total units completed |  | Percent of total units |  | Percent rented within 3 months |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Sampling errors* | Percent | ```Sampling error* (percentage points)``` | Percent | ```Sampling error* (percentage points)``` |
| Total. | 87,400 | 3,730 | 100 | (X) | 64 | 2.0 |
| Less than \$300. | 10,000 | 1,800 | 11 | 1.9 | 73 | 8.1 |
| \$300 to \$349. | 12,100 | 1,960 | 14 | 2.1 | 71 | 7.5 |
| \$350 to \$399. | 20,300 | 2,440 | 23 | 2.4 | 60 | 6.1 |
| \$400 to \$449 | 14,600 | 2,130 | 17 | 2.2 | 62 | 7.2 |
| \$450 to \$499. | 12,800 | 2,010 | 15 | 2.1 | 58 | 7.9 |
| \$500 or more. | 17,500 | 2,300 | 20 | 2.3 | 63 | 6.5 |
| Median asking rent. | \$404 | 6.0 | (X) | (X) | (X) | (x) |
| Less than 2. | 42,700 | 3,010 | 49 | 2.4 | 64 | 3.8 |
| 2. | 41,600 | 3,000 | 48 | 2.4 | 63 | 3.9 |
| 3 or more. | 3,000 | 1,020 | 3 | 1.0 | 77 | 14.2 |

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

Table 3. Absorption Rates of Privately Financed Nonsubsidized Unfurnished Apartments: 1982 to 1985

| Quarter of completion | Total <br> units completed |  | Seasonally adjusted rented within 3 months |  | Not seasonally adjusted .- rented within-- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 3 months | 6 months |  | 9 months |  | 12 months |  |
|  | Number | Sam- <br> pling <br> error* |  |  | Percent | ```Sampling error* (per- centage points)``` | Percent | ```Sampling error* (per- centage points)``` | Percent | ```Sampling error* (per- centage points)``` | Percent | ```Sampling error* (per- centage points)``` | Percent | ```Sampling error* (per- centage points)``` |
| 1.982 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March........ | 25,400 | 1,680 | 78 | 3.2 | 76 | 3.4 | 90 | 2.4 | 96 | 1.5 | 97 | 1.3 |
| April-June........... | 30,900 | 1,800 | 76 | 3.1 | 79 | 2.9 | 92 | 1.9 | 95 | 1.6 | 97 | 1.2 |
| July-September....... | 29,900 | 1,710 | 72 | 3.2 | 73 | 3.2 | 85 | 2.6 | 92 | 2.0 | 96 | 1.4 |
| October-December.... | 30,800 | 1,860 | 63 | 3.5 | 61 | 3.5 | 80 | 2.9 | 90 | 2.1 | 95 | 1.6 |
| 1983 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March........ | 33,100 | 1,780 | 61 | 3.4 | 59 | 3.4 | 81 | 2.7 | 90 | 2.1 | 94 | 1.6 |
| April-June........... | 41,600 | 1,940 | 65 | 2.9 | 69 | 2.8 | 87 | 2.1 | 93 | 1.6 | 96 | 1.2 |
| July-September....... | 57,200 | 2,310 | 74 | 2.3 | 76 | 2.2 | 87 | 1.8 | 93 | 1.3 | 96 | 1.2 |
| October-December..... | . 59,500 | 2,270 | 71 | 2.3 | 68 | 2.4 | 84 | 1.9 | 93 | 1.6 | 97 | 1.3 |
| 1.984 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March........ | 68,900 | 2,620 | 71 | 2.6 | 68 | 2.7 | 88 | 1.9 | 94 | 1.4 | 96 | 1.1 |
| April-June........... | 84,800 | 3,790 | 68 | 2.5 | 72 | 2.4 | 88 | 1.7 | 93 | 1.3 | 96 | 0.9 |
| July-September...... | 72,200 | 3,700 | 63 | 2.2 | 64 | 2.2 | 82 | 1.9 | 91 | 1.4 | (NA) | (NA) |
| October-1December ${ }^{\text {r }}$.... | 87,400 | 3,730 | 66 | 2.0 | 64 | 2.0 | 81 | 1.6 | (NA) | (NA) | (NA) | (NA) |
| 1985 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March....... | 75,000 | 3,260 | 67 | 1.5 | 64 | 2.1 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| April-June............ July-Septembex....... October-flecember..... |  |  |  |  |  |  |  |  |  |  |  |  |

*Standard error within range of about 2 chances out of 3 .
(NA) Not available. revised.

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, 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.

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-

1. 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.
2. 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.
3. Approximately 95 percent of the intervals from two standard errors below the estimate to two standard error 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 38,300 apartments with two bedrooms in the first quarter of 1985. The standard error of this estimate is 2,630 . The 68 percent confidence interval as shown by these data is from 35,670 to 40,930 . 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 33,040 to 43,560 (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: 1982 to 1985

| Quarter of completion | Total <br> units completed |  | Percent of all 5+ units |  | Percent absorbed within-- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 3 months | 6 months |  | 9 months |  | 12 months |  |
|  | Number | Sampling error* |  |  | $\begin{aligned} & \text { Per- } \\ & \text { cent } \end{aligned}$ | Sampling error* (percentage points) | Percent | Sampling <br> exror* (per-centage points) | Percent | Sampling <br> error* <br> (per- <br> centage <br> points) | Percent | ```Sampling error* (per- centage points)``` | Percent | ```Sampling error* (per- centage points)``` |
| 1982 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March................. | 25,600 | 1,690 | 37 | 2.3 | 57 | 4.0 | 69 | 3.7 | 76 | 3.4 | 81 | 3.1 |
| Aprim-June.................... | 27,200 | 1,740 | 37 | 2.2 | 52 | 3.9 | 66 | 3.7 | 77 | 3.3 | 86 | 2.7 |
| July-September................ | 24,600 | 1,640 | 38 | 2.4 | 52 | 4.1 | 67 | 3.8 | 77 | 3.4 | 83 | 3.0 |
| October-December.............. | 30,400 | 1,850. | 37 | 2.1 | 55 | 3.7 | 73 | 3.3 | 82 | 2.8 | 87 | 2.5 |
| 1983 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March............... | 20,900 | 1,590 | 30 | 2.2 | 55 | 4.6 | 69 | 4.2 | 78 | 3.8 | 81 | 3.6 |
| April-June..................... | 20,700 | 1,620 | 26 | 1.9 | 69 | 4.4 | 82 | 3.7 | 88 | 3.1 | 93 | 2.4 |
| July-september................. | 37,700 | 2,110 | 33 | 1.8 | 73 | 3.0 | 84 | 2.5 | 91 | 1.9 | 94 | 1. 6 |
| October-December............. | 32,500 | 2,010 | 30 | 1.8 | 62 | 3.6 | 84 | 2.7 | 90 | 2.2 | 93 | 1.9 |
| 1984 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March. . . . . . . . . . . . . | 23,600 | 2,250 | 23 | 2.0 | 64 | 4.4 | 78 | 3.7 | 84 | 3.3 | 88 | 2.9 |
| April-June | 38,500 | 3,290 | 28 | 2.0 | 72 | 3.8 | 82 | 3.2 | 86 | 2.9 | 90 | 2.5 |
| July-September ${ }^{\text {c }}$............. | 43,200 | 3,360 | 34 | 2.1 | 74 | 3.4 | 84 | 2.8 | 88 | 2.5 | (NA) | (NA) |
| Octoher.-December ${ }^{2} . . . . . . . .$. | 38,400 | 3,280 | 28 | 2.0 | 64 | 4.1 | 81. | 3.3 | (NA) | (NA) | (NA) | (NA) |
| 1985 |  |  |  |  |  |  |  |  |  |  |  |  |
| January March. . . . . . . . . . . . . . | 32,300 | 2,840 | 27 | 2.0 | 64 | 4.4 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| April-June. $\qquad$ July-September. |  |  |  |  |  |  |  |  |  |  | . |  |
| October-December.............. |  |  |  |  |  |  |  |  |  |  |  |  |

[^3]
## Table 5. Characteristics of Condominium Apartments Completed During the First Quarter of 1985 and Sold Within 3 Months

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


*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: 1982 so 1985
(Limited to buildings in permit-issuing places. Data may not add to total due to rounding)

| $\begin{gathered} \text { Quarter } \\ \text { of } \\ \text { completion } \end{gathered}$ | Total |  | Unfurnished apartments |  | Furnished apartments |  | Cooperatives and condomintums |  | Federally subsidized |  | Other ${ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Sampling exror* | Number | $\begin{aligned} & \text { Sampling } \\ & \text { error* } \end{aligned}$ | Number | Sampling error* | Number | Sampling error* | Number | Sampling | Number | Sampling error* |
| 1982 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March...... | 68,500 | 3,380 | 25,400 | 1,680 | 1,800 | 530 | 25,600 | 1,690 | 12,900 | 1,320 | 2,800 | 660 |
| April-June......... | 73,000 | 3,500 | 30,900 | 1,800 | 1,000 | 400 | 27,200 | 1,740 | 11,900 | 1,290 | 2,000 | 560 |
| July-September...... | 64,100 | 3,260 | 29,900 | 1,710 | 1,800 | 530 | 24,600 | 1,640 | 5,500 | 900 | 2,400 | 610 |
| October-December.... | 82,600 | 3,730 | 30,800 | 1,860 | 800 | 350 | 30,500 | 1,850 | 17,700 | 1,530 | 2,800 | 660 |
| 1983 |  |  |  |  |  |  |  |  |  |  |  |  |
| Januarymsarch....... | 69,200 | 3,400 | 33,100 | 1,780 | 300 | 220 | 20,900 | 1,590 | 12,500 | I, 150 | 2,400 | 930 |
| April-June......... | 80,500 | 3,680 | 41,600 | 1,940 | 800 | 350 | 20,700 | 1,620 | 13,400 | 1,310 | 4,000 | 920 |
| July-September...... | 112,600 | 4,410 | 57,200 | 2,310 | 1,700 | 520 | 37,700 | 2,110 | 8,700 | 1,140 | 7,300 | 1,050 |
| October-December.... | 108,400 | 4,320 | 59,500 | 2,270 | 1,900 | 540 | 32,500 | 2,000 | 13,100 | 1,380 | 1,400 | 470 |
| 1984 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March...... | 104,400 | 5,110 | 68,900 | 2,620 | 1,700 | 630 | 23,600 | 2,150 | 6,200 | 1,180 | 4,000 | 960 |
| April-June ${ }^{\text {r }}$......... | 138,100 | 7,260 | 84,800 | 3,790 | 2,700 | 970 | 38,500 | 3,290 | 9,000 | 1,750 | 3,100 | 1,040 |
| July-September ${ }^{r} \ldots \ldots$ | 126,900 | 6,940 | 72,200 | 3,700 | 1,700 | 770 | 43,200 | 3,360 | 9,000 | 1,740 | 800 | 530 |
| October-December ${ }^{r} \ldots$ | 136,600 | 7,220 | 87,400 | 3,730 | 3,700 | 1,140 | 38,400 | 3,280 | 4,300 | 1,220 | 2,800 | 990 |
| 1985 |  |  |  |  |  |  |  |  |  |  |  |  |
| danuary-March...... | 117,900 | 6,290 | 75,000 | 3,260 | 1,200. | 610 | 32,300 | 2,840 | 2,500 | 880 | 6,900 | 1,440 |
| April-June........... July-September...... |  |  |  |  |  |  |  |  |  |  |  |  |
| October-Hecember.... |  |  |  |  |  |  |  |  |  |  |  |  |

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[^0]:    'See Reliability of Estimates on page 5.

[^1]:    *Standard error within range of about 2 chances out of 3 .

[^2]:    ${ }^{2}$ See "Housing Starts," Construction Reports, Series C20, for details of this survey.

[^3]:    *Standard error within range of about 2 chances out of 3. (NA) Not available.

