U.S. DEPARTMENT OF COMMERCE Bureau of the Census

## U.S. DEPARTMENT OF HOUSING and URBAN DEVELOPMENT

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## Market Absorption of Apartments

## Second Quarter 1978 Absorptions

 (Completions in First Quarter 1978)Figure 1. Units in Apartment Building Started, Completed, and Absorbed: 1973 to 1978


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

1. Source: Construction Report, C-20-78-5 (May 1978) Table 3.
2. Source: Construction Report, C-22-78-5 (May 1978) Table 1.
[^0]Privately financed apartments completed during the Janu-ary-March 1978 quarter were absorbed after 3 months following completion at an estimated seasonally adjusted rate of 83 percent. This is about the same as the seasonally adjusted rate of 82 percent for apartments completed during the fourth quarter of 1977 (see table 3). The nonseasonally adjusted rate of 80 percent does not significantly differ from the seasonally adjusted rate. The median asking rent for these units was $\$ 241$. Apartments which have been on the market for 9 months (those completed during July-September 1977) were 97 percent rented.

Apartments renting for less than $\$ 150$ accounted for only 1 percent of the first quarter completions, compared to 19 percent renting for $\$ 150$ to $\$ 199$. Percentages of units renting for $\$ 200$ to $\$ 249$ and $\$ 250$ or more were 37 and 44 , respec. tively, and were not statistically different.

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 83 and 97 percent figures are subject to sampling errors (i.e., standard errors) of 2.2 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 $83(+2.2)$ per-
centage points and $97(+0.9)$ percentage points. Sampling errors for the figures that follow are indicated in parentheses. ${ }^{1}$

A total of $77,200( \pm 1,930)$ apartments were completed during the first quarter of 1978. Of this total, some $47,800( \pm$ $1,880)$ or 62 percent $( \pm 2.2)$ were the type covered by the Survey of Market Absorption (SOMA), i.e., privately financed, unfurnished rental units built without Federal subsidy in buildings with five or more apartments.

Of the remaining 38 percent $( \pm 2.2)$, cooperatives and condominiums account for 12 percent $( \pm 1.5)$ of the total with a 3-month absorption rate of 74 percent $( \pm 5.7)$ see table 4. Furnished rental units account for 4 percent $( \pm 0.9)$. Also excluded from the survey are units in federally subsidized properties built under these programs of the Department of Housing and Urban Development: Senior Citizens Housing direct loans (Section 202), FHA below market interest rate mortgages (Section 236), and all units in buildings containing apartments in the FHA rent supplement program, which together account for 16 percent $( \pm 1.7)$. The remainder are excluded for other reasons, including turnkey housing (privately
${ }^{1}$ See Reliability of Estimates on page .

## Table 1. CHARACTERISTICS OF APARTMENTS COMPLETED DURING THE FIRST QUARTER OF 1978 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 not seasonally adjusted)

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

Figure 2. Median Rent of Apartment Completed in the United States: 1975 to 1978


built and sold to local public housing authorities subsequent to completion). The data, however, include privately owned housing subsidized by State and local governments.

## SAMPLE DESIGN

SOMA is designed to provide data concerning the rate at which nonsubsidized and unfurnished privately financed units in buildings with five units or more are rented (or absorbed). In addition, data on characteristics of the units, such as rent and number of bedrooms, are collected.

In each quarter, a sample of about 2,000 buildings with five units or more completed during that quarter, is selected. The sample is selected from buildings reported as completed in a sample of building permits in the Census Bureau's Housing Starts Survey. ${ }^{2}$ Buildings completed in nonpermit-issuing areas are excluded from consideration in this survey.

Information is obtained for the units in the buildings selected in a given quarter in each of the next four quarters on the proportion of units occupied $3,6,9$, and 12 months after completion.

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

The estimation procedure used in the survey involves, as a final step, the inflation of the weighted sample results to the quarterly estimates of housing completions obtained from the Housing Completions Survey. As the Housing Completions Survey is based on a larger sample than SOMA, it provides a more stable set of controls for estimates which can be obtained from both surveys. In addition to reducing the sampling variability of the estimates of totals from SOMA, the ratio estimation procedure, as a useful byproduct, produces estimates of the units completed in a given quarter which are consistent with the published figures from the Housing Completions series. ${ }^{3}$

The absorption rates assume that the absorption rates of units not included in the interviewed group or not accounted for are identical to rates for units where data were obtained.

[^1]${ }^{3}$ See "Housing Completions," Construction Reports, Series C22.

## Table 2. CHARACTERISTICS OF APARTMENTS COMPLETED DURING THE FOURTH QUARTER OF 1977 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)

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

Table 3. ABSORPTION RATES OF PRIVATELY FINANCED NONSUBSIDIZED UNFUNHSHED AFA緒THENTS: 1975 TO 1978

| 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 | Samm pling error* |  |  | Percent | $\begin{gathered} \text { Sampling } \\ \text { error* } \\ \text { (per- } \\ \text { centage } \\ \text { points) } \end{gathered}$ | Percent | ```Sampling error* (per- centage points)``` | Percent | Sampling error* (percentage points) | Percent | ```Sampling error* (per- centage points)``` | Percent | ```Sampling error* (per- centage points)``` |
| 1975 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March | 65,600 | 2,320 | 66 | 2.8 | 61 | 2.8 | 80 | 2.3 | 90 | 1.7 | 93 | 1.5 |
| April-June......... | 62, 100 | 1,930 | 68 | 2.8 | 72 | 2.7 | 86 | 2.1 | 91 | 1.7 | 94 | 1.2 |
| July-September..... | 49,800 | 1,910 | 69 | 3.1 | 75 | 2.8 | 86 | 2.3 | 92 | 1.5 | 97 | 1.0 |
| October-December... | 45,600 | 1,900 | 81 | 2.3 | 75 | 2.5 | 91 | 1.7 | 96 | 1.1 | 98 | 0.8 |
| 1976 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March..... | 35,300 | 1,660 | 85 | 2.4 | 79 | 2.7 | 92 | 1.8 | 96 | 1.3 | 97 | 1.1 |
| April-June......... | 38,300 | 1,730 | 81 | 2.6 | 86 | 2.3 | 96 | 1.3 | 98 | 0.9 | 99 | 0.6 |
| July-September.... | 40,300 | 1,610 | 75 | 2.7 | 79 | 2.6 | 92 | 1.7 | 96 | 1.2 | 99 | 0.6 |
| October-December... | 43,200 | 1,750 | 84 | 2.2 | 78 | 2.5 | 92 | 1.7 | 98 | 0.9 | 99 | 0.6 |
| 1977 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March. . . . . | 41,700 | 1,730 | 81 | 2.4 | 77 | 2.6 | 92 | 1.7 | 97 | 1.1 | 97 | 1.0 |
| April--June......... | 43,100 | 1,670 | 78 | 2.5 | 83 | 2.3 | 97 | 1.0 | 98 | 0.8 | 99 | 0.6 |
| July-September.. ${ }_{\text {r }}$. ${ }^{\text {. }}$ | 56,000 | 1,680 | 79 | 2.2 | 83 | 2.0 | 93 | 1.4 | 97 | 0.9 | ( NA ) | (NA) |
| October-December ${ }^{\text {r }}$. . | 54,800 | 1,940 | 82 | 2.1 | 78 | 2.2 | 94 | 1.3 | (NA) | (NA) | (NA) | (NA) |
| 1978 |  |  |  |  |  |  |  |  |  |  |  |  |
| January-March. . . . . | 47,800 | 1,880 | 83 | 2.2 | 80 | 2.3 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| $\begin{aligned} & \text { Apri1-June......... } \\ & \text { July-September.... } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| October-December... |  |  |  |  |  |  |  |  |  |  |  |  |

(NA) Not available. ${ }^{r}$ Revised.
*Standard error within range of about 2 chances out of 3 .

The noninterviewed and not accounted for cases comprise less than 2 percent of the sample housing units in this survey.

## RELIABILITY OF ESTIMATES

The sample used for this survey is only one of a large number of possible samples of the same size that could have been selected using the same sample design, sample selection, and measurement procedures. Estimates derived from these samples would differ from each other.

The standard error of a survey estimate is a measure of the variation among the estimates from all possible samples and is, therefore, a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. As calculated for this report, the standard error also partially measures the effect of certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples, between the estimate and the desired value. The accuracy of a survey result depends upon the sampling and nonsampling errors, measured by the standard error, and the bias and other types of nonsampling error, not measured by the standard error.

The estimate and its associated standard error may be used to construct a confidence interval, that is, if all possible samples
were selected, each of these surveyed under essentially the same general conditions and an estimate and its estimated standard error were calculated from each sample, then approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average value of all possible samples.

The average value of all possible samples may or may not be contained in any particular computed interval. But for a particular sample, one can say with specified confidence that the average of all possible samples is included in the constructed interval. Similarly, the chances are about two out of three that the survey estimate will differ from the average result of all possible samples by less than one standard error, and 99 out of 100 that the survey estimate will differ from the average result by less than $21 / 2$ times the standard error. For example, the chances are 95 out of 100 that the number of two-bedroom apartments $(22,600)$ would be no lower than 19,260 or no higher than 25,940 if the data were collected in a complete census. The conclusions stated in this report are considered significant at the 95 percent confidence level.

In addition to sampling error, sample surveys are subject to response and processing errors similar to those experienced in censuses. The data in this report are preliminary and subject to slight changes in the annual report.

Table 4. COOPERATIVE AND CONDOMINIUM APARTMENTS: TOTAL COMPLETED, PERCENT OF ALL $5+$ UNITS AND ABSORBED WITHIN 3 MONTHS: 1975 TO 1978
(Privately financed, nonsubsidized apartments in buildings with five or more units. Data not seasonally adjusted)

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


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[^1]:    ${ }^{2}$ See "Housing Starts," Construction Reports Series C20, for the details of this survey.

