U.S. DEPARTMENT OF COMMERCE
Bureau of the Census

U.S. DEPARTMENT OF HOUSING
and URBAN DEVELOPMENT

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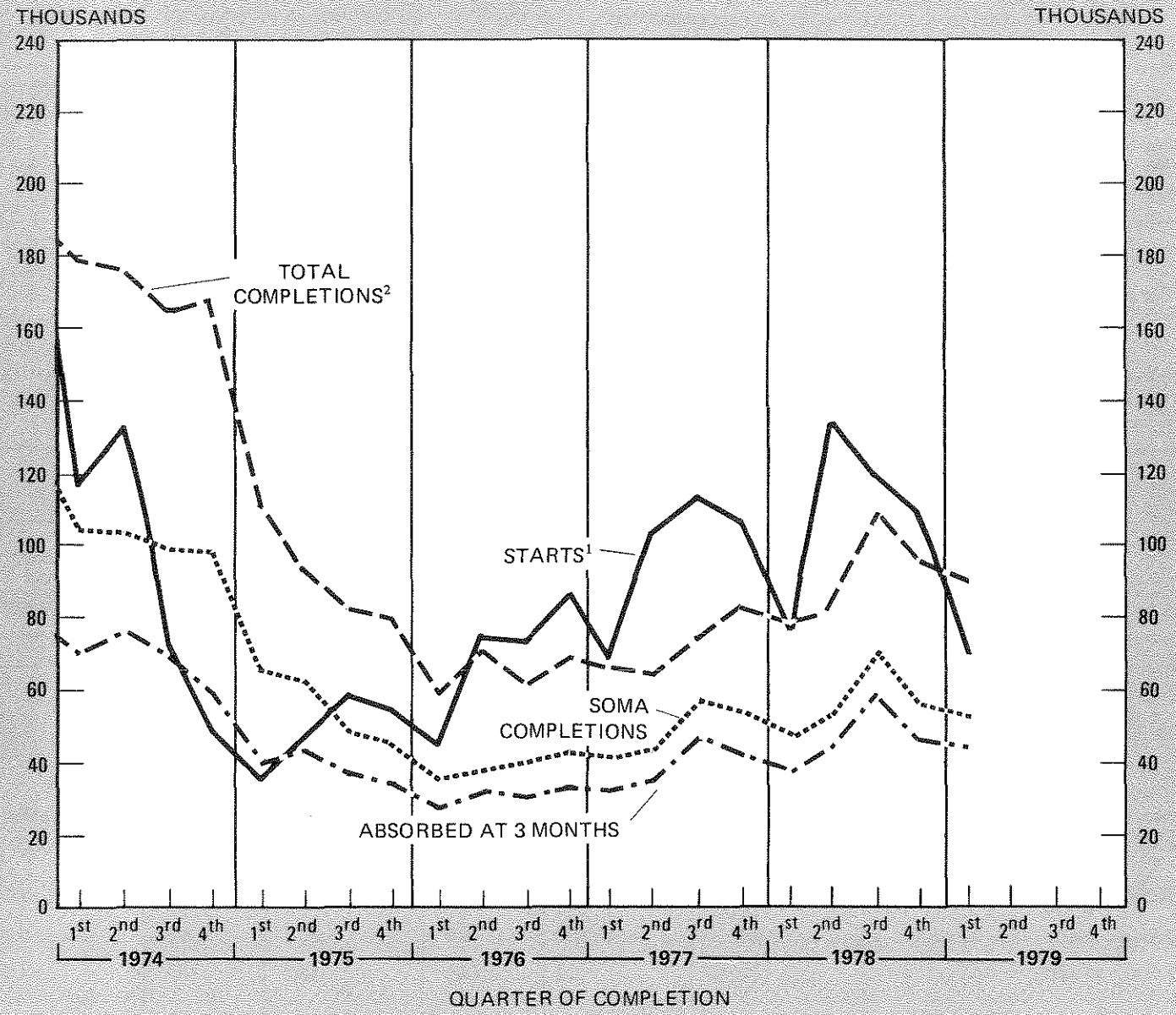
Market Absorption of Apartments

Second Quarter 1979 Absorptions (Completions in First Quarter 1979)

Figure 1. Units in Apartment Buildings Started, Completed, and Absorbed: 1974 to 1979



Note: Limited to building with five units or more in permit-issuing places.
1. Source: Construction Report, C-20-79-5 (May 1979) Table 2.
2. Source: Construction Report, C-22-79-5 (May 1979) Table 1.

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Privately financed apartments completed during the January-March 1979 quarter were absorbed after 3 months following completion at an estimated seasonally adjusted rate of 86 percent. This is about the same as the seasonally adjusted rate of 85 percent for apartments completed during the fourth quarter of 1978. The nonseasonally adjusted rate of 83 percent does not differ significantly from the seasonally adjusted rate. Apartments which have been on the market for 9 months—those completed during July-September 1978—were 97 percent rented (see table 3).

The median asking rent for newly constructed units was $254. Apartments renting for less than $150 accounted for 2 percent while those renting for $150 to $199 accounted for 13 percent. In comparison, 32 percent rented for $200 to $249 and 52 percent rented for $250 or more (see table 1).

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 86 and 97 percent figures are subject to sampling errors (i.e., standard errors) of 1.9 and 0.8 percentage points, respectively. This means that there are about 2 chances out of 3 that a complete count would be in the range of 86 (±1.9) percentage points and 97 (±0.8) percentage points. Sampling errors for the figures that follow are indicated in parenthesis.[1]

A total of 89,400 (±3,890) apartments were completed during the first quarter of 1979. Of this total, some 53,300 (±2,040) or 60 percent (±2.1) 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 40 percent (±2.1), cooperatives and condominiums account for 18 percent (±1.6) of the total with a 3-month absorption rate of 80 percent (±3.9) – see table 4. Furnished rental units account for 4 percent (±0.6). 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 (±1.5). The remainder are excluded for other reasons, including turnkey housing (privately built and sold to local public housing authorities subsequent to completion). The data, however, include privately owned housing subsidized by State and local governments.

[1] See Reliability of Estimates on page 5.

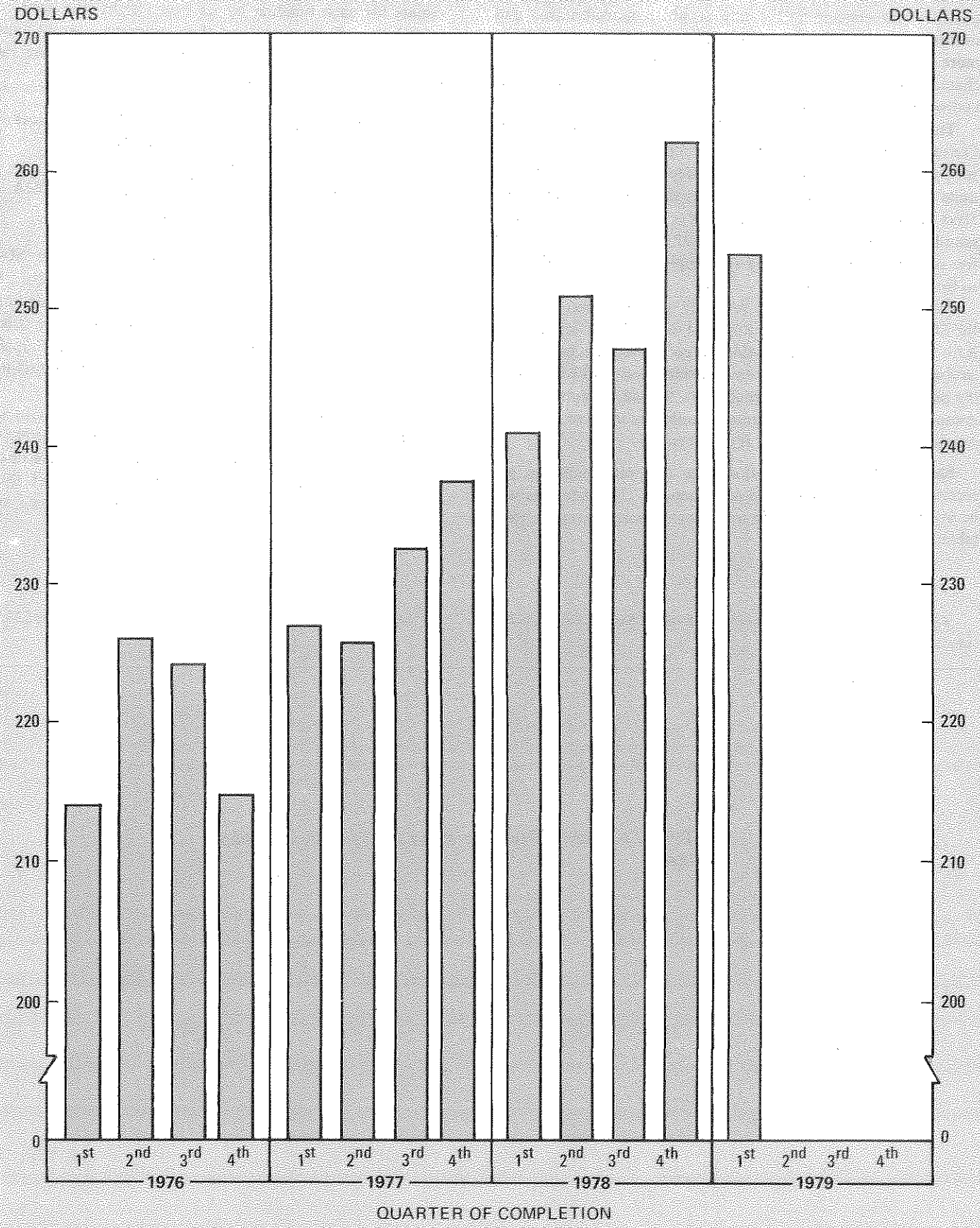
Table 1. CHARACTERISTICS OF APARTMENTS COMPLETED DURING THE FIRST QUARTER OF 1979 AND RENTED WITHIN 3 MONTHS

(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)

Item	Total units completed		Percent of total units		Percent rented within 3 months	
	Number	Sampling error*	Percent	Sampling error* (percentage points)	Percent	Sampling error* (percentage points)
Total	53,300	2,040	100	(X)	83	2.0
RENT CLASSES						
Less than $150	1,300	450	2	0.8	100	10.8
$150 to $174	1,600	500	3	0.9	94	8.3
$175 to $199	5,500	910	10	1.6	83	6.4
$200 to $249	16,900	1,520	32	2.6	85	3.5
$250 to $299	17,000	1,520	32	2.6	82	3.7
$300 or more	10,900	1,250	20	2.2	78	5.0
Median asking rent	$254	4.3	(X)	(X)	(X)	(X)
NUMBER OF BEDROOMS						
Less than 2	26,600	1,800	50	2.7	85	2.8
2	25,300	1,770	47	2.7	81	3.1
3 or more	1,400	470	3	0.9	80	13.4

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

Figure 2. Median Rent of Apartments Completed in the United States: 1976 to 1979



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

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)[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, all 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.)

[2] See "Housing Starts," Construction Reports Series C20, for details of this survey.

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:

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

When all the completed 5+ buildings in the SOC are designated for SOMA, as is currently the case, this ratio estimate factor will be close to one. 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.

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 comprise less than 2 percent of the sample housing units in this survey.

[3] See "Housing Completion," Construction Reports, Series C22.

Table 2 is omitted. Data were not received in time for publication.

Table 3. ABSORPTION RATES OF PRIVATELY FINANCED NONSUBSIDIZED UNFURNISHED APARTMENTS: 1976 TO 1979

(Structures with five or more units)

Quarter of completion	Total units completed		Seasonally adjusted rented within 3 months		Not seasonally adjusted - rented within--							
					3 months		6 months		9 months		12 months	
	Number	Sampling error*	Percent	Sampling error* (percentage points)	Percent	Sampling error* (percentage points)	Percent	Sampling error* (percentage points)	Percent	Sampling error* (percentage points)	Percent	Sampling error* (percentage points)
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	56,000	1,680	79	2.2	83	2.0	93	1.4	97	0.9	99	0.5
October-December	54,800	1,940	82	2.1	78	2.2	94	1.3	98	0.8	99	0.5
1978												
January-March	47,200	1,880	82	2.2	79	2.4	94	1.4	98	0.8	98	0.8
April-June	53,600	1,890	80	2.2	84	2.0	95	1.2	98	0.8	99	0.5
July-September	71,500	2,220	80	1.9	83	1.8	92	1.3	97	0.8	(NA)	(NA)
October-December	56,400	2,140	85	1.9	81	2.1	95	1.2	(NA)	(NA)	(NA)	(NA)
1979												
January-March	53,300	2,040	86	1.9	83	2.0	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
April-June												
July-September												
October-December												

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

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 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 25,300 apartments with two bedrooms in the first quarter of 1979. The standard error of this estimate is 1,770. The 68 percent confidence interval as shown by these data is from 23,530 to 27,070. 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 21,830 to 28,840 (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. COOPERATIVE AND CONDOMINIUM APARTMENTS: TOTAL COMPLETED, PERCENT OF ALL 5+ UNITS AND ABSORBED WITHIN 3 MONTHS: 1976 TO 1979

(Privately financed, nonsubsidized apartments in buildings with five or more units. Data not seasonally adjusted)

Quarter of completion	Total units completed		Percent of all 5+ units		Absorbed within 3 months	
	Number	Sampling error*	Percent	Sampling error* (percentage points)	Percent	Sampling error* (percentage points)
1976						
January-March	13,700	1,340	23	2.1	56	5.2
April-June	11,000	1,230	17	1.8	53	6.0
July-September	9,500	1,150	15	1.8	48	6.6
October-December	12,000	1,280	17	1.8	54	5.8
1977						
January-March	10,200	1,200	15	1.7	74	5.5
April-June	9,200	1,140	15	1.8	77	5.5
July-September	9,700	1,180	13	1.5	59	6.2
October-December	13,900	1,390	17	1.6	76	4.6
1978						
January-March	8,900	1,140	12	1.9	74	5.8
April-June	14,300	1,400	18	1.7	75	4.5
July-September	13,600	1,440	12	1.2	81	4.2
October-December	17,500	1,550	18	1.5	77	4.0
1979						
January-March	16,200	1,490	18	1.6	80	3.9
April-June						
July-September						
October-December						

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

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C22 - Housing Completions

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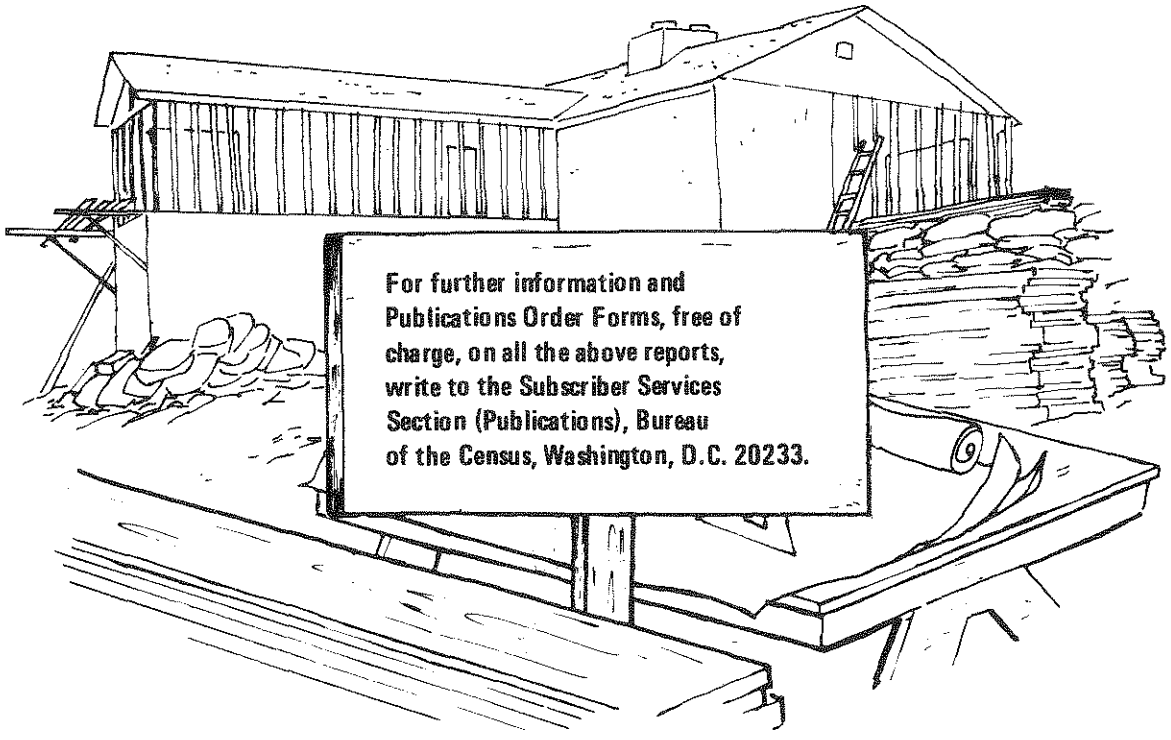
C30 - Value of New Construction Put in Place

C40 - Housing Authorized by Building Permits and Public Contracts

C41 - Authorized Construction—Washington, D.C. Area

C45 - Permits Issued for Demolition of Residential Structures in Selected Cities

C50 - Expenditures on Residential Additions, Alterations, Maintenance and Repairs, and Replacements



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