U.S. Department of Commerce
BUREAU OF THE CENSUS

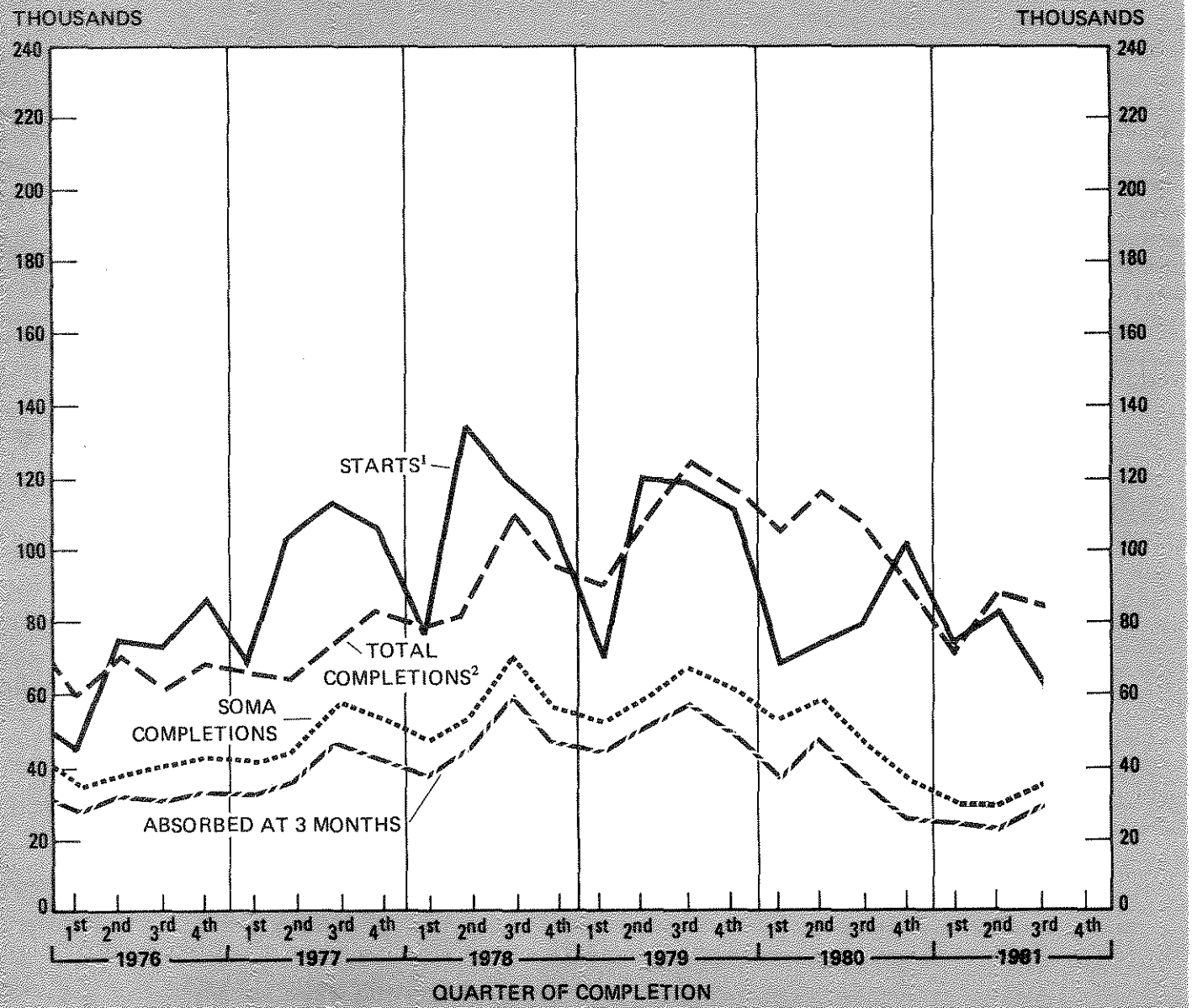
U.S. Department of Housing
and Urban Development

H-130-81-Q4
Issued March 1982

Market Absorption of Apartments

Fourth Quarter 1981 Absorptions (Completions in Third Quarter 1981)

Figure 1. Units in Apartment Buildings Started, Completed, and Absorbed: 1976 to 1981



Note: Limited to buildings with five units or more in permit-issuing places.
1. Source: Construction Report, C20-81-11(November 1981) table 2.
2. Source: Construction Report, C22-81-11(November 1981) table 1.

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SUMMARY OF FINDINGS

Privately financed, nonsubsidized, unfurnished apartments completed during the July-September 1981 quarter were 79 percent absorbed (seasonally adjusted) 3 months after their completion. This is about the same as both the seasonally adjusted 3-month rate of 81 percent for apartments completed during the second quarter of 1981 and the seasonally adjusted rate of 76 percent for third quarter 1980 completions. Apartments which have been on the market for 9 months, those completed during January-March 1981, were 98 percent absorbed.

The median asking rent for newly constructed units was $345 in the third quarter which was about the same as the $356 median for the second quarter of 1981. Apartments renting for less than $200 accounted for 5 percent of the total, while rent classifications of $200-$299, $300-$399, and $400 or more each accounted for 32 percent.

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 79 and 98 percent figures are subject to sampling errors (i.e., standard errors) of 2.7 and 1.0 percentage points, respectively. This means that there are about 2 chances out of 3 that a complete count would be in the range of 79 (±2.7) percentage points and 98 (±1.0) percentage points. Sampling errors for the figures that follow are indicated in parenthesis.

[1] See reliability of estimates on page 5.

A total of 84,200 (±3,770) apartments were completed during the third quarter of 1981. Of the total, 35,200 (±1,930) or 42 percent (±2.1) were privately financed, unfurnished rental units built without Federal subsidy in buildings with five or more apartments. This represents an increase of about 24 percent over completions of comparable units in the second quarter of 1981, but is 26 percent less than completions of these types of units in the third quarter of 1980.

Cooperative and condominium apartment completions remain at about one third—36 percent (±2.0) of all apartments completed during the third quarter. The 3-month absorption rate for cooperatives and condominiums during the third quarter was 60 percent (±3.5).

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 19 percent (±1.7) of completions.

Furnished rental units accounted for 1 percent (±0.4) of apartment completions. The remaining 2 percent (±0.6) include turnkey housing (privately built 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.

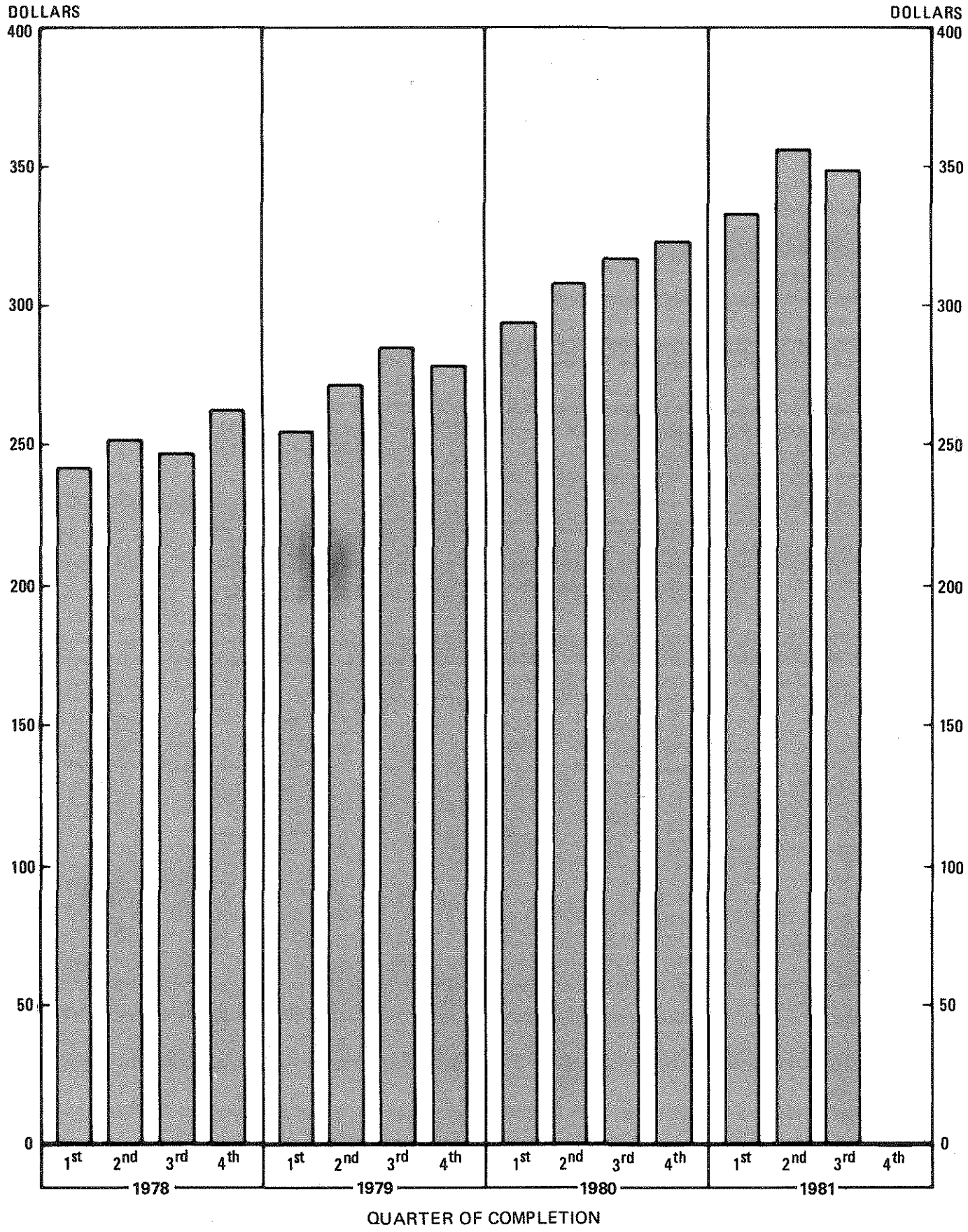
Table 1. CHARACTERISTICS OF APARTMENTS COMPLETED DURING THE THIRD QUARTER OF 1981 AND RENTED WITHIN 3 MONTHS

(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	35,200	1,930	100	(X)	80	2.7
RENT CLASSES						
Less than $200	1,600	500	5	1.5	70	14.4
$200 to $249	3,400	720	10	2.0	88	7.0
$250 to $299	7,900	1,080	22	2.7	88	4.6
$300 to $349	5,300	890	15	2.4	89	5.4
$350 to $399	6,000	950	17	2.5	87	5.5
$400 or more	11,100	1,260	32	3.1	64	5.7
Median asking rent	$345	11.5	(X)	(X)	(X)	(X)
NUMBER OF BEDROOMS						
Less than 2	19,900	1,610	57	3.3	75	3.9
2	14,200	1,400	40	3.3	87	3.5
3 or more	1,000	400	3	1.1	79	16.2

*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: 1978 to 1981



Note: Limited to buildings with five units or more 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 (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.

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

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:

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

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 1. 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]

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

Table 2. CHARACTERISTICS OF APARTMENTS COMPLETED DURING THE SECOND QUARTER OF 1981 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)

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	28,300	1,830	100	(X)	84	2.7
RENT CLASSES						
Less than $200	200	180	1	0.7	100	44.1
$200 to $249	2,000	560	7	1.9	85	10.0
$250 to $299	5,500	910	19	2.9	87	5.7
$300 to $349	5,900	940	21	3.0	83	6.1
$350 to $399	5,100	880	18	2.9	84	6.4
$400 or more	9,700	1,190	34	3.5	81	5.0
Median asking rent	$356	9.5	(X)	(X)	(X)	(X)
NUMBER OF BEDROOMS						
Less than 2	12,800	1,340	45	3.7	82	4.3
2	14,400	1,410	51	3.7	85	3.7
3 or more	1,100	420	4	1.5	78	15.7

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

Table 3. ABSORPTION RATES OF PRIVATELY FINANCED NONSUBSIDIZED UNFURNISHED APARTMENTS: 1978 TO 1981

(Structures with five units or more).

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)
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	99	0.5
October-December	56,400	2,140	85	1.9	81	2.1	93	1.2	97	0.9	98	0.7
1979												
January-March	53,900	2,060	86	1.9	83	2.0	95	1.2	99	0.5	99	0.5
April-June	59,900	2,260	80	2.1	84	1.9	94	1.2	97	0.9	98	0.7
July-September	66,700	2,430	81	1.9	82	1.9	91	1.4	97	0.8	99	0.5
October-December	60,600	2,360	84	1.9	81	2.0	93	1.3	97	0.9	99	0.5
1980												
January-March	51,900	2,220	74	2.4	72	2.5	89	1.7	95	1.2	97	0.9
April-June	58,800	2,340	76	2.2	79	2.1	93	1.3	96	1.0	98	0.7
July-September[r]	47,400	2,210	76	2.5	77	2.4	90	1.7	96	1.1	98	0.8
October-December[r]	37,900	2,000	74	2.8	71	2.9	86	2.2	94	1.5	97	1.1
1981												
January-March[r]	31,600	1,780	78	2.9	77	3.0	94	1.7	98	1.0	(NA)	(NA)
April-June[r]	28,300	1,830	81	2.9	84	2.7	95	1.6	(NA)	(NA)	(NA)	(NA)
July-September	35,200	1,930	79	2.7	80	2.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
October-December												

*Standard error within range of about 2 chances out of 3. (NA) Not available. [r]Revised. An error in processing buildings containing both unfurnished units and other types of units resulted in a few units being misclassified as to type of unit. The revisions in this table reflect the correction of that error.

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 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 14,200 apartments with two bedrooms in the third quarter of 1981. The standard error of this estimate is 1,400. The 68 percent confidence interval as shown by these data is from 12,800 to 15,600. 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 11,400 to 17,000 (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: 1978 TO 1981

(Privately financed, nonsubsidized apartments in buildings with five units or more. 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)
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	16,700	1,510	18	1.6	80	3.9
April-June	23,200	1,760	22	1.6	73	3.6
July-September	23,300	1,790	19	1.4	76	3.4
October-December	28,600	1,930	24	1.6	72	3.3
1980						
January-March	28,400	1,900	27	1.7	73	3.3
April-June	32,600	2,020	28	1.7	72	3.1
July-September[r]	34,200	2,030	32	1.8	72	3.1
October-December[r]	27,700	1,830	31	1.9	70	3.5
1981						
January-March[r]	22,400	1,630	32	2.2	68	3.9
April-June[r]	30,700	1,880	35	2.0	67	3.3
July-September	30,100	1,850	36	2.1	60	3.5
October-December						

*Standard error within range of about 2 chances out of 3. [r]Revised. An error in processing buildings containing both unfurnished units and other types of units resulted in a few units being misclassified as to type of unit. The revisions in this table reflect the correction of that error.

Table 5. HOUSING UNITS COMPLETED IN BUILDINGS WITH FIVE UNITS OR MORE: 1979 TO 1981

(Limited to buildings in permit-issuing places)

Quarter of completion	Total		Unfurnished apartments		Furnished apartments		Cooperatives and condominiums		Federally subsidized		Other[1]	
	Number	Sampling error*	Number	Sampling error*	Number	Sampling error*	Number	Sampling error*	Number	Sampling error*	Number	Sampling error*
1979												
January-March	91,000	3,930	53,900	2,060	3,500	730	16,700	1,510	14,800	1,440	2,000	560
April-June	107,600	4,300	59,900	2,260	1,900	540	23,200	1,760	21,700	1,710	900	380
July-September	123,400	4,630	66,700	2,430	3,700	760	23,300	1,790	27,100	1,900	2,600	640
October-December	117,300	4,510	60,600	2,360	3,000	680	28,600	1,930	23,900	1,800	1,200	430
1980												
January-March	105,200	4,250	51,900	2,220	3,200	700	28,400	1,900	20,300	1,660	1,400	470
April-June	115,600	4,470	58,800	2,340	2,800	660	32,600	2,020	20,200	1,670	1,200	430
July-September[r]	107,700	4,300	47,400	2,210	1,400	470	34,200	2,030	19,500	1,640	5,200	890
October-December[r]	90,500	3,920	37,900	2,000	2,300	600	27,700	1,830	19,900	1,620	2,700	650
1981												
January-March[r]	70,600	3,430	31,600	1,780	1,400	470	22,400	1,630	10,400	1,210	4,900	860
April-June[r]	86,700	3,830	28,300	1,830	1,200	430	30,700	1,880	24,000	1,730	2,500	620
July-September	84,200	3,770	35,200	1,930	1,000	400	30,100	1,850	16,200	1,480	1,700	510
October-December												

*Standard error within range of about 2 chances out of 3. [r]Revised. An error in processing buildings containing both unfurnished units and other types of units resulted in a few units being misclassified as to type of unit. The revisions in this table reflect the correction of that error.

[1]Other includes turnkey housing (privately built and sold to local public housing authorities subsequent to completion).

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