CURRENT HOUSING REPORTS



MARKET ABSORPTION OF APARTMENTS

ANNUAL: 1975 ABSORPTIONS

(Completions in 1974)

H-130-75-5 Issued April 1975

Figure A. Absorption Rates by Rent Class, Apartments Completed During 1974



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U.S. Department of Commerce BUREAU OF THE CENSUS U.S. Department of Housing and Urban Development During 1974, completions of privately financed, nonsubsidized and unfurnished apartments in buildings of 5 or more units totaled about 390,000. Of these, 68 percent were rented within the first 3 months of completion, 83 percent were rented within 6 months, and 94 percent within 12 months.

Forty-nine percent of these new apartments had 2 bedrooms, 45 percent had less than 2, and 6 percent had 3 or more bedrooms. Monthly rents for 8 percent of the new units had rents of less than \$150 and those renting for \$150 to \$199 were approximately the same (45 percent) as those renting for \$200 or more (47 percent). Three out of 4 (77 percent) included swimming pools in rental payments, and 1 out of 2 (52 percent) included air conditioning at no extra cost.

Three months after completion of these apartments, the absorption rates were generally lower for units with higher rents. Of the apartments renting for less than \$125, approximately 92 percent were rented within 3 months, while those renting for \$250 or more had an absorption rate of 56 percent within the same period. The absorption rates for the higher-priced units remained generally lower than for the less expensive units as their market exposure continued.

The majority (90 percent) of these unfurnished apartments were constructed inside standard metropolitan statistical areas, with 48 percent located outside central cities and 42 percent inside central cities. Regional differences were apparent. A regional comparison of the total shows that almost half (49 percent) were built in the South, with a 3-month absorption rate of 65 percent, compared to the Northeast region in which only 9 percent were built with 68 percent rented within 3 months (see table 2).

The data are based on a sample survey and consequently the figures cited above are subject to sampling variability. Sampling errors (i.e., standard errors) for the figures that follow are indicated in parentheses.¹ These standard errors imply there are about 2 chances out of 3 that a complete count would be contained in the interval around the estimate defined by the standard error.

Throughout all of 1974 a total of about 660,200 privately-financed apartments were completed in buildings with 5 or more units, of which 59 percent (\pm 0.9 percentage points) were nonsubsidized unfurnished apartments. Of the remainder, 23 percent (\pm 0.8 percentage points) are cooperatives and condominiums with a 3-month absorption rate of 57. Cooperatives and condominiums are predominately 2 bedrooms or larger and 58 percent of them are located in the South region of the United States (see table 9).

Furnished rental units accounted for 3 percent (\pm 0.3 percentage points) of the total number of privately financed apartments. Three months after completion of these units, 73 percent were absorbed. While about one-half of all unfurnished units are the 2-bedroom type, only one out of five of the furnished are 2-bedroom units. The survey indicates that a furnished apartment is likely to be smaller than an unfurnished one, with the one and no bedroom categories accounting for 80 percent of the furnished units while these categories are 45 percent of the unfurnished (see tables 7 and 8).

Excluded from the survey are units in federally subsidized properties, 11 percent (\pm 0.6 percentage points), 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 221 BMIR), FHA interest supplements on rental mortgages (Section 236) and all units in buildings containing apartments in the FHA rent supplement program. However, the data include privately owned housing, subsidized by State and local governments. In addition, 3 percent (\pm 0.3 percentage points) are excluded for other reasons including turnkey housing (privately built and sold to local public housing authorities subsequent to completion).

SAMPLE DESIGN

The Market Absorption Survey (SOMA) is designed to provide data concerning the rate at which nonsubsidized and unfurnished privately financed units in buildings with 5 or more units 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 5 or more units 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.

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 comple-

¹See Reliability of Estimates.

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



Figure B. Number of Apartments Absorbed, by Months on the Market: 1974

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tions obtained from the Housing Completions Survey. As the Housing Completions Survey is based on a larger sample than the Market Absorption Survey, 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 the Market Absorption Survey, 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. 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 $2\frac{1}{2}$ times the standard error.

The figures presented in tables A and B are approximations to the standard errors of various estimates shown in the report. 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.

The reliability of an estimated absorption rate (i.e., a percentage) computed by using sample data for both the numerator and the 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 rate, particularly if the rates are 50 percent or more. Table B contains the standard errors of the estimated rates.

ILLUSTRATIVE USE OF THE TABLE OF STANDARD ERRORS

Table 1 of this report shows that 78,643 units completed in 1974 rented for \$150-\$174. Table A shows the standard error of an estimate of this size to be approximately 3,537. The chances are 68 out of 100 the estimate differs from a complete census by less than 3,537. The chances are 95 out of 100 that the estimate differs from a complete census by less than 7,074 (twice the standard error).

Table A.	Standa	ard Erro	rs of	Estímated	Totals :
Janua	rv to De	ecember	· 1974	4 Completi	ions

(1 standard error)						
Estimated total	Standard error					
5,000 10,000 15,000 20,000 25,000 35,000	850 1,210 1,480 1,730 1,930 2,300					
75,000. 100,000. 150,000. 250,000. 350,000. 450,000. 600,000.	2,780 3,450 4,050 5,090 6,860 8,160 10,290 11,760					

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

Table 1 shows the rate of absorption after three months for these 78,643 units is 75 percent. Table B shows the standard error of a 75 percent rate on a base of 78,643 to be approximately 2.3 percent. Consequently, chances are 68 out of 100 that the estimated

rate would be within 2.3 percentage points of a complete census figure and chances are 95 out of 100 that the estimated rate would be within 4.6 percentage points of a census figure; i.e., the 95 percent confidence interval would be from 70.4 to 79.6 percent.

Table B.-Standard Errors of Estimated Percentages: January to December 1974 Completions

			Estimated	percentage		
Base of percentage	98 or 2	95 or 5	90 or 10	80 or 20	75 or 25	50
5,000	2.9	4.6	6.2	8.2	9.0	10.4
10,000	2.1	3.2	4.4	5.8	6.3	7.4
15,000	1.7	2.6	3.6	4.8	5.2	6.0
20,000	1.4	2.2	3.1	4.2	4.5	5.2
25,000	1.3	2.0	2.8	3.7	4.0	4.6
35,000	1.1	1.7	2.3	3.1	3.4	3.9
50,000	0.9	1.4	2.0	2.6	2.9	3.3
75,000	0.7	1.2	1.6	2.2	2.3	2.6
100,000	0.6	1.0	1.4	1.8	2.0	2.3
150,000	0.6	0.8	1.1	1.5	1.7	1.9
250,000	0.4	0.6	1.0	1.2	1.4	1.5
350,000	0.4	0.6	0.8	1.0	1.1	1.3
450,000	0.3	0.5	0.6	0.9	1.0	1.1
300,000	0.2	0.4	0.6	0.7	0.8	1.0

(1 standard error)

Table 1. Absorption Rates for Apartments Completed During 1974, by Number of Bedrooms and Rent Classes, for the United States

(Privately financed, nonsubsidized, unfurnished apartments in buildings with 5 or more units. Data regarding number of bedrooms and asking rent are collected at the initial interview; i.e., 3 months following completion)

Manastani ati az	Tota	.1		Percent abso	rbed after	
Characteristics	Number	Percent	3 months	6 months	9 months	12 months
Total	390,430	100	68	83	90	94
Less than \$125	4,389	1	92	96	97	97
\$125 to \$149	27,944	7	82	94	96	97
\$150 to \$174	78,643	20	75	88	94	97
\$175 to \$199	97,824	25	70	84	91	94
\$200 to \$249	107,166	27	65	82	90	94
\$250 or more	74,465	19	56	73	84	90
No bedroom	16,803	4	77	88	94	97
Less than \$125	1.351	(Z)	85	90	90	91
\$125 to \$149	5,035	1	84	92	95	96
\$150 to \$174	3,963	1	73	88	95	99
\$175 to \$199	3,850	1	77	87	96	99
\$200 to \$249	1,026	(Z)	63	82	90	92
\$250 or more	1,578	(Z)	68	83	90	95
1 bedroom	160,715	41	72	86	92	96
Less than \$125	2,537	1	97	99	100	100
\$125 to \$149	18,693	5	82	94	97	98
\$150 to \$174	46,751	12	77	89	94	97
\$175 to \$199	50,312	13	72	87	93	96
\$200 to \$249	31,556	8	65	81	90	95
\$250 or more	10,866	3	51	69	81	88
2 bedrooms	189,578	49	65	81	89	93
Less than \$125	454	(Z)	91	99	100	100
\$125 to \$149	4,187	1	76	96	97	98
\$150 to \$174	27,866	7	72	87	94	97
\$175 to \$199	42,058	11	66	81	88	91
\$200 to \$249	69,427	18	65	83	90	95
\$250 to \$299	31,670	8	59	75	84	91
\$300 or more	13,917	4	52	72	83	90
3 bedrooms or more	23,335	6	57	75	84	90
Less than \$175	139	(乙)	78	95	100	100
\$175 to \$199	1,605	(Z)	89	93	96	96
\$200 to \$249	5,157	1	58	77	80	86
\$250 to \$299	7,927	2	56	75	87	93
\$300 or more	8,507	2	51	70	81	89

Z Indicates less than one-half of one percent.

Table 2. Absorption Rates for Apartments Completed During 1974, by Geographic Area

Geographic areas	Tota	al		Percent abso	rbed after	
Geographic areas	Number	Percent	3 months	6 months	9 months	12 months
United States, total	390,430	100		83	90	94
Inside SMSA's: In central city Not in central city Outside SMSA's	164,967 187,978 37,485	42 48 10	66 68 73	83 83 85	90 90 89	95 95 91
Northeast North Central South West	36,149 88,296 190,513 75,472	9 23 49 19	68 72 65 69	84 87 81 84	91 93 89 91	95 96 93 96

(Privately financed, nonsubsidized, unfurnished apartments in buildings with 5 or more units)

Table 3. Absorption Rates for Apartments Completed During 1974, by Presence of Air Conditioning and Swimming Pool, for the United States

(Privately financed, nonsubsidized, unfurnished apartments in buildings with 5 or more units)

Chamastanistics	Tota	1	I	Percent abso	rbed after	
Characteristics	Number	Percent	3 months	6 months	9 months	12 months
Unfurnished total	390,430	100	68	83	90	94
Air conditioning:						
Included in rent	201,487	52	68	83	90	94
Available at extra cost	155,627	40	67	83	90	94
Not available	32,358	8	70	85	92	96
Not reported	959	(Z)	(NA)	(NA)	(NA)	(NA)
Swimming pool:						
Included in rent	300,375	77	66	82	89	94
Available at extra cost	9,983	3	71	85	92	97
Not available	79,232	20	74	88	93	96
Not reported	840	(Z)	(NA)	(NA)	(NA)	(NA)

NA Not available because data was not computed. Z Indicates less than one-half of one percent.

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Table 4. Apartments Completed During 1974, by Inside and Outside SMSA's, for the United States

(Privately financed, nonsubsidized, unfurnished apartments in buildings with 5 or more units. 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)

CLUTCH				Inside	SMSA's	*******	Outside	SMSA's
Characteristics	Total	Percent	In cen cit	tral y	Not central	in city	Number	Percent
	(number)		Number	Percent	Number	Percent		
Tota1	390,430	100	164,967	100	187,978	100	37,485	100
Less than \$125	4,389	1	843	1	936	(Z)	2,610	7
\$125 to \$149	27,944	7	14,313	9	9,600	5	4,030	11
\$150 to \$174	78,643	20	34,123	21	32,750	17	11,771	31
\$175 to \$199	97,824	25	39,609	24	48,499	26	9,716	26
\$200 to \$249	107,166	27	43,363	26	57,141	30	6,663	18
\$250 or more	74,465	19	32,717	20	39,053	21	2,696	7
No bedroom	16,803	4	8,322	5	8,228	4	253	1
Less than \$125	1,351	(Z)	548	(Z)	565	(Z)	239	1
\$125 to \$149	5,035	1	2,969	2	2,066	1	-	
\$150 to \$174	3,963	1	2,149	1	1,800	1	14	(Z)
\$175 to \$199	3,850	1	1,083	1	2,767	1	-	-
\$200 to \$249	1,026	(Z)	438	(Z)	588	(Z)		
\$250 or more	1,578	(Z)	1,135	1	443	(Z)	-	
1 bedroom	160,715	41	71,562	43	76,109	40	13,044	35
Less than \$125	2,537	1	176	(Z)	229	(Z)	2,133	6
\$125 to \$149	18,693	5	10,387	6	6.927	4	1.380	4
\$150 to \$174	46,751	12	23,400	14	18.686	10	4.666	12
\$175 to \$199	50,312	13	21,616	13	24.692	13	4,004	11
\$200 to \$249	31,556	8	10,861	7	19,927	11	768	2
\$250 or more	10,866	3	5,123	3	5,648	3	95	(Z)
2 bedrooms	189,578	49	74,898	45	92,171	49	22,509	60
Less than \$125	454	(Z)	87	(Z)	128	(7.)	239	1
\$125 to \$149	4,187		929	1	608	(Z)	2,650	7
\$150 to \$174	27.866	7	8.560	5	12,264	7	7.042	19
\$175 to \$199	42,058	11	16,670	10	19,795	11	5,593	ĩś
\$200 to \$249	69,427	18	29.846	18	34,620	18	4,960	13
\$250 to \$299	31,670	8	11,928	7	18,110	10	1,632	4
\$300 or more	13,917	4	6,877	4	6,648	4	392	1
3 bedrooms or more	23,335	6	10,185	6	11,471	6	1,679	4
Less than \$175	139	(Z)	75	(7.)	15	(7.)	49	(7.)
\$175 to \$199	1.605	(Z)	240	(z)	1.246	1	119	(Z)
\$200 to \$249	5.157	1	2,217	1	2,006	1	935	2
\$250 to \$299	7.927	2	3.645	2	3,899	2	384	1
\$300 or more	8.507	2	4.008	2	4.306	2	192	1
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- Represents zero.

Z Indicates less than one-half of one percent.

Table 5. Apartments Completed During 1974, by Regions, for the United States

(Privately financed, nonsubsidized, unfurnished apartments in buildings with 5 or more units. 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)

·	r	T	·		<u> </u>		2		· · · · · · · · · · · · · · · · · · ·	······
Characteristics	Total	Percent	North	neast	North (Central	Sou	ith	W	est
	(number)		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	390,430	100	36,149	100	88,296	100	190,513	100	75,472	100
Less than \$125	4.389	1	-	_	1.053	1	2.867	2	469	1
\$125 to \$149	27,944	7	378	1 1	7,556	9	15,187	8	4 823	6
\$150 to \$174	78,643	20	2,548	7	21,557	24	40.717	21	13.821	18
\$175 to \$199	97,824	25	5,564	15	20,809	24	52,629	28	18,822	25
\$200 to \$249	107,166	27	14,643	41	25,186	2.9	46,399	24	20,938	28
\$250 or more	74,465	19	13,016	36	12,136	14	32,714	17	16,599	22
No bedroom	16,803	4	2,497	7	2,995	3	6,524	3	4,787	6
Less than \$125	1.351	(Z)	_	_	382	(7.)	704	(\mathbf{Z})	266	(7)
\$125 to \$149	5,035	1	284	1	1.496	2	2,133	1	1 123	1
\$150 to \$174	3,963	1	233	1	684	ĩ	1.754	1	1,293	2
\$175 to \$199	3,850	1	405	1	382	(Z)	1,240	1	1.822	$\tilde{2}$
\$200 to \$249	1,026	(Z)	325	1			466	(Z)	235	(Z)
\$250 or more	1,578	(Z)	1,250	3	52	(Z)	229	(Z)	47	(Z)
l bedroom	160,715	41	16,372	45	36,065	41	72,961	38	35,317	47
Less than \$125	2,537	1		_]	415	(7)	2 015	1	109	(7)
\$125 to \$149	18,693	5	94	(7)	5.177	6	10,094	5	3 3 28	
\$150 to \$174	46.751	12	2.116	6	12,050	14	22.843	12	9 7 4 3	13
\$175 to \$199	50,312	13	3,670	10	11,809	13	25,158	13	9.675	13
\$200 to \$249	31,556	8	6,660	18	6,127	7	9,804	5	8,966	12
\$250 or more	10,866	3	3,832	11	488	1	3,047	2	3,498	5
2 bedrooms	189,578	49	14,965	41	46,187	52	95,842	50	32,584	43
Less than \$125	454	(7.)		_]	221	(7)	14.2	(7)	00	(77)
\$125 to \$149	4,187	1		_	884	1	2 932	2)	372	(2)
\$150 to \$174	27,866	7	200	1	8,809	10	16.072	8	2 785	4
\$175 to \$199	42,058	11	1,488	4	8,601	ĩõ	24.728	13	7 240	10
\$200 to \$249	69,427	18	7,150	20	18,696	21	32,410	17	11 172	15
\$250 to \$299	31,670	8	3,177	9	6,860	8	15,602	8	6,031	8
\$300 or more	13,917	4	2,950	8	2,116	2	3,957	2	4,894	6
3 bedrooms or										
more	23,335	6	2,315	6	3,050	3	15,186	8	2,784	4
Less than \$175	139	(Z)	_{	_	50	(Z)	84	(Z)	5	(7.)
\$175 to \$199	1,605	(Z)	-		17	(Z)	1,504	1	85	(Z)
\$200 to \$249	5,157	1	508	1	364	(Z)	3,719	2	567	1
\$250 to \$299	7,927	2	776	2	1,323	1	4,895	3	934	1
\$300 or more	8,507	2	1,031	3	1,297	1	4,984	3	1,195	2
	, ,						1			

- Represents zero.

Z Indicates less than one-half of one percent.

Table 6. Absorption Rates for Apartments Completed During 1974. 3 Months Following Completion, by Regions, for the United States

(Privately financed, nonsubsidized, unfurnished apartments in buildings with 5 or more units. 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)

	Tota	al	Northe	ast	North C	entral	Sou	th	Wes	t
Rent classes	Number	Per- cent	Number	Per- cent	Number	Per- cent	Number	Per- cent	Number	Per- cent
Total	390,430	68	36,149	68	88,296	72	190,513	65	75,472	69
Less than \$125	4,389	92	-		1,053	93	2,867	92	469	93
\$125 to \$149	27,944	82	378	92	7,556	83	15,187	82	4,823	78
\$150 to \$174	78,643	75	2,548	91	21,557	82	40,717	68	13,821	81
\$175 to \$199	97,824	70	5,564	77	20,809	75	52,629	65	18,822	76
\$200 to \$249	107,166	65	14,643	71	25,186	65	46,399	63	20,938	64
\$250 or more	74,465	56	13,016	56	12,136	56	32,714	56	16,599	54

Table 7.Furnished Apartments Completed During1974, by Number of Bedrooms and Rent Classes,for the United States

(Privately financed, nonsubsidized, furnished apartments in buildings with 5 or more units. Data regarding number of bedrooms and asking rent are collected at the initial interview; i.e., 3 months following completion.)

Pont ologoog	Tot	al
Rent classes	Number	Percent
Total	19,874	100
Rent classes:		
Less than \$125	998	5
\$125 to \$149	2,878	14
\$150 to \$174	5,592	28
\$175 to \$199	5,691	29
\$200 to \$249	3,438	17
\$250 or more	1,277	6
Bedrooms:		
None	6,179	31
1 bedroom	9,725	49
2 bedrooms	3,719	19
3 bedrooms or more	2.52	1

Table 8. Absorption Rates for Furnished Apartments Completed During 1974, by Rent Classes, for the United States

(Privately financed, nonsubsidized, furnished apartments in buildings with 5 or more units. 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)

		Percent absorbed after					
Rent classes	Total	3 months	6 months	9 months	12 months		
Total	19,874	73	88	95	97		
Less than \$125 \$125 to \$149 \$150 to \$174 \$175 to \$199 \$200 to \$249 \$250 or more	998 2,878 5,592 5,691 3,438 1,277	68 75 83 66 65 76	96 96 96 79 76 90	100 100 98 92 89 98	100 100 99 95 90 90		

Table 9. Cooperative and Condominium Apartments Completed and Absorbed After 3 Months During 1974, by Number of Bedrooms and Geographic Regions, for the United States

(Privately financed, nonsubsidized, apartments in buildings with 5 or more units. 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.)

	Total con	Percent absorbed	
	Number	Percent	after 3 months
Total	153,055	100	57
Bedrooms:			
None	3,502	2	83
l bedroom	37,572	25	63
2 bedrooms	91,020	59	55
3 bedrooms or more	20,961	14	47
Region:			
Northeast	15,810	10	58
North Central	17,149	11	48
South	88,098	58	57
West	31,999	21	60

U.S. DEPARTMENT OF COMMERCE

Bureau of the Census Washington, D.C. 20233

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