Volume Title: Residential Real Estate, Its Economic Position as Shown by Values, Rents, Family Incomes, Financing, and Construction, Together with Estimates for All Real Estate

Volume Author/Editor: David L. Wickens

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Chapter Author: David L. Wickens

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1935. In Minnesota sales prices could not be directly compared with census estimates since the former were given for crop years. However, the estimates seem to be from 4 to 10 per cent higher than the sales prices in the four Census years 1920, 1925, 1930, and 1935. These differences may be accounted for by the fact that the properties sold were probably the less valuable ones, especially in depression years, since "distress" properties are likely to be less productive.

Estimates of farm values by farm operators may not be strictly comparable with estimates by urban families of the values of the houses they own and occupy since farmers operate their farms for profit and are more likely to have a business outlook, whereas the owner-occupant of an urban dwelling derives only a use value from the property. However, landlords who lease their properties for a cash rent also have the business man's outlook, and the relative changes in their estimates of the value of nonfarm residential real estate and in the estimates of owner-occupant families during the same period are very similar. Evidence from the Financial Survey of Urban Housing indicates that in 37 cities from 1930 to 1934 the percentage decline in values as estimated by landlords did not differ more than 5 per cent from owner-occupants' estimates. In 2 cities the percentage changes were identical; in 32 cities landlords' estimates of values showed percentage declines greater than the estimates of owner-occupants, but the declines in 4 cities of the 32 differed less than 1 per cent, in 11 cities less than 2 per cent, in 19 cities less than 3 per cent, in 25 cities less than 5 per cent, and in only 1 city more than 10 per cent (10.5). Of the 10 cities in which owner-occupant estimated values indicated greater percentage declines than landlord estimated values, only 1 city showed a difference of more than 3 per cent (3.9) and for 7 of the 10 cities the difference was less than 2 per cent. It is quite possible that rented properties may have declined somewhat more in value than owner-occupied.

CHAPTER II

Value and Rent of Nonfarm Residential Real Estate, 1930 and 1934

The estimated total value of nonfarm residential real estate in the United States in 1930 is presented in Part Three, section A, Tables A 1–5. Table A 1 shows the number of dwelling units, Table A 2 their value by geographic division, state, tenure, and population group, and Table A 3 the average values per dwelling unit. Tables A 4 and 5 give the number of dwelling units and their values for each geographic division by type of dwelling. The value estimates for 1934 are presented by geographic division and tenure in Table A 8.

1 General Problems and Information Utilized in the 1930 Estimates

The total value of nonfarm residential real estate in the United States had to be estimated because the Census of Population returns for 1930 show only the number of nonfarm families occupying dwelling units distributed by value or rent classes. Median values and rents but no totals or arithmetic average values or rents are given.

In the 1930 Census families are distributed by value of dwelling unit classes whenever a related member of the family owned the structure or dwelling unit occupied by the family. The dwelling units occupied by these families constitute the tenure class "owner-occupied dwellings."[1] When a residential structure contained more than one dwelling unit and one of the dwelling units was inhabited by the family owning the structure, the Census enumerator obtained the value of the unit, not the value of the entire structure.[2] Families are distributed by rent classes when the dwelling unit

[1] Census of Population, 1930, *VI, 6. Under the heading "Tenure of home" the following explanation is given: "Since a home is defined as the living quarters occupied by a family, the number of homes is always the same as the number of families. In the classification by tenure a home is counted as owned if it is owned wholly or in part by any related member of the family."*

[2] Ibid., *p. 6. Under the heading "Value or rental of home," the following statement appears: "The enumerator was instructed to report on the population schedule for each nonfarm family returned as owning its home, the approximate current market value of the home, and for each nonfarm family returned as occupying rented quarters the monthly rental, or if rental was not paid by the month, then the equivalent monthly rental or the approximate rental value per month." Information obtained from the special tabulations of census data undertaken by this project and by inquiry from the Bureau of the Census indicates that "home" as used here refers to dwelling unit and not structure. Leon E. Truesdell of the Census Bureau in a letter reply to an inquiry from this project states: "The owners were expected to return, in cases where they occupied only a part of the structure, the value of that part occupied by the owner's family. Specific instructions to this effect were given wherever the question was raised, though this point was unfortunately not covered in the printed instruction pamphlet. Because of this there are doubtless some cases in which the owner returned the entire value of the structure rather than only that part which he occupied as a residence."*

is rented, i.e., not owned by a related member of the occupant family. For multiple dwelling units the Census enumerator was instructed to secure the estimated rent for the dwelling unit actually occupied by the primary lessee and the actual rents paid by the secondary lessee families for the dwelling units they occupy.[3] Dwelling units occupied by families that do not own them constitute the tenure class "rented dwelling units" or "tenant-occupied dwelling units." [3]

The preceding explanation indicates that values and rents are for dwelling units, not structures (dwellings), unless the structure contains only one dwelling unit. When residential real estate is classified by "class of dwelling" (Census terminology) or by "type of dwelling" (terminology in this volume) reference is made to the number of dwelling units contained in the structure, e.g., 1-family, 2-family dwelling, etc.[4]

The Census enumeration of families by value and rent classes does not include vacant units. Furthermore, it was impossible to secure values or rents from every occupant family reporting tenure, and some famlies were enumerated as "not reporting value" or "not reporting rent." Similarly, since reports on tenure were incomplete some families are listed as "not reporting tenure." Attention has already been called to the fact that the data are presented in the form of frequency distributions; it should be noted also that the frequency distributions have open ends, that is, no definite limits are assigned to the end classes.

[3] Ibid., *p. 6.* "*A home is counted as rented if it is not owned by any member of the family even though no cash rental is paid.*"
[4] Ibid., *p. 10.* "*Dwellings. A dwelling, for Census purposes, is a place in which one or more persons regularly sleep. It need not be a house in the usual sense of the word. A boat, a tent, or a room in a factory or office building, although occupied by only one person, is also counted as a dwelling; while, on the other hand, an entire apartment house, although containing many families, constitutes but one dwelling. Dwellings have been classified for 1930 into three groups, namely, (a) those occupied by one family only, (b) those occupied by two families, and (c) those occupied by three or more families. It has been found difficult in some cases, particularly in cities where the houses are built in solid blocks, to make this classification. The enumerators were instructed to return as 1 dwelling a 2-family house with one apartment above the other, even though there was a separate front door for each apartment. On the other hand, where two families occupied parts of a building separated by a solid wall running up through the building, each part was counted as a 1-family dwelling, and likewise each 'house' in a section of 'row' houses.*" *The number of dwellings of the three classes or types noted does not correspond to the number of standing structures, since only occupied units are enumerated. Furthermore, the statement as quoted, and further information received by correspondence with the Bureau of Census, indicates that when a multiple dwelling structure is occupied by only one family it is enumerated as a 1-family dwelling. This tends to give an excess number of occupied 1-family dwellings from the standpoint of class of structure (dwelling), an understated number of multiple family dwellings, and an understated number of 2-family dwellings. It also explains why the 2-family dwellings are shown as housing exactly two families per dwelling.*

To estimate the total value of all nonfarm residential real estate in the United States in 1930 three major steps are necessary. First, total values or rents must be obtained from the frequency distributions as published in the *Census of Population, 1930,* VI, for those families reporting value or rent. Second, to the total value or rent derived for those families reporting must be added the value or rent of (1) dwelling units occupied by families that reported tenure but not value or rent; (2) dwelling units occupied by families not reporting tenure; (3) vacant units. Third, the total rent thus derived for the rented dwelling units must be converted to values by the use of value-rent ratios.

The estimation of total values and rents was facilitated by the 139 city special tabulation, which provided average values or rents for each Census value and rent group for each city.[5] This tabulation made possible the computation of average values or rents for the open end classes in the published Census distributions, that is, the two value groups reported as "under $1000" and "$20,000 and over," and the rent groups "under $10" and "$200 and over." Furthermore, it made unnecessary the use of mid-point values or rents as representative averages for those classes with specified boundaries. Moreover, it showed clearly that actual values and rents as reported cluster near the lower limits of the Census value or rent boundaries, so that if mid-points had been used as averages they would have given the estimates an upward bias.

To allow for the value or rent of those dwelling units for which tenure was designated but no values or rents given some representative value or rent had to be assigned to the known number of such units. Since few units are involved they were assigned the average value or rent derived from the frequency distributions for those units reporting values or rents.

Those dwelling units for which tenure, value, or rent was not reported had first to be allocated to the two tenure classes. This was done by assuming that the proportions of the two tenures for those dwelling units for which tenure was reported applied to those units for which tenure was not reported. This seemed reasonable since the number of units for which tenure was not designated was small and any error arising from this apportionment would not be significant. To the units thus allocated were assigned the average values and rents determined for those units reporting values and rents.

Vacant units and the values or rents assigned to them were estimated from sources described in further detail in sections 2 c and 3 a and c of this chapter.

[5] *For cities with populations under 100,000 the average values or rents were obtained for 10 value or rent classes rather than the 6 classes in the Census volume; see explanation in sec. 2 a of this chapter.*

2 Nonfarm Dwelling Units, 1930, Details of the Estimates

The *Census of Population, 1930,* VI, shows for each state, in frequency distribution form, the number of nonfarm families reporting values and rents in each population group of 2,500 or more. It shows also, without reference to tenure, values or rents, the number of occupied residential structures in each city and town by type of structure, i.e., 1-, 2-, and 3-or-more family dwellings (footnote 4 above).

Since the Census does not cover vacant units it was necessary to estimate the number of units before estimating value. It was possible to group the units and estimate their values for population groups of different sizes from Census data, but it was not possible to make the further important breakdown by metropolitan and nonmetropolitan areas. The significance of this shortcoming of the estimates is discussed on the half-title page to section A, Part Three. The estimates were prepared so as to show (Tables A 1–3) the number of dwelling units and their value by geographic division, state, tenure, and population group, and also by type of dwelling (Tables A 4–5).

Nonfarm dwelling units were estimated first by geographic division, state, tenure, and population group, without respect to type of dwelling. In some instances information by type of dwelling was used but in general the procedure followed the pattern outlined.

a Transcription of Number of Families reporting Value or Rent by Value or Rent Group for each Geographic Division by Population Group

For each state, and for each population group of 2,500 or more within the state, the number of nonfarm owner-occupant and tenant families was transcribed in separate tabulations for each tenure by the Census value and rent group classifications. Within each state five population classifications were arranged in descending order: 100,000 or more; 25,000–100,000; 10,000–25,000; 5,000–10,000; and 2,500–5,000. State subtotals by value or rent groups were obtained for each population group. The distribution for places under 2,500 in population was derived by obtaining totals in each value or rent group for places with populations above 2,500 and subtracting them from those for the state as a whole as given in the Census. A tabulation for Connecticut is given in Table ABM 1. Although statistically possible to provide for an additional classification showing metropolitan and nonmetropolitan areas, this was not practicable.

When the tabulations were complete for each state the states were grouped into the nine Census geographic divisions and subtotals prepared for each division having the same classification as the states. Table ABM 2 presents a complete recapitulation for the New England division.

TABLE ABM 1

Occupied Dwelling Units, Number reporting Value or Rent by Value or Rent Group, State, Tenure, and Population Group, April 1, 1930

Connecticut (similar tabulation for each state)

VALUE OR RENT GROUP	STATE TOTAL	POP. GROUP 100,000 AND OVER	VALUE OR RENT GROUP	POPULATION GROUP 25,000–100,000	10,000–25,000	5,000–10,000	2,500–5,000	Under 2,500
			A OWNER-OCCUPIED					
All groups	154,880	31,611	All groups	38,930	23,671	3,610	1,579	55,479
Under $1,000	1,254	64	Under $1,500	278	322	29	31	2,370
1,000– 1,499	1,990	150	1,500–2,999	1,310	1,635	285	123	6,162
1,500– 1,999	2,392	201	3,000–4,999	5,852	4,996	984	474	12,267
2,000– 2,999	8,095	771	5,000–7,499	11,745	6,963	1,028	585	14,845
3,000– 4,999	28,210	3,637	7,500–9,999	7,096	3,386	352	174	7,025
5,000– 7,499	42,541	7,375	10,000 and over	11,925	5,977	903	185	11,974
7,500– 9,999	23,201	5,168	Not reported	724	392	29	7	836
10,000–14,999	24,653	7,018						
15,000–19,999	10,190	3,850						
20,000 and over	9,879	2,890						
Not reported	2,475	487						
			B RENTED					
All groups	210,605	83,167	All groups	54,281	24,667	4,757	2,285	41,448
Under $10	7,528	561	Under $15	2,715	2,712	1,106	513	11,923
10– 14	16,125	4,123	15–29	24,569	12,226	2,409	1,336	17,064
15– 19	26,695	8,556	30–49	20,234	7,191	646	406	8,244
20– 29	64,047	24,582	50–99	5,747	2,032	375	21	2,983
30– 49	68,478	31,757	100 and over	462	277	181	4	609
50– 74	19,822	10,423	Not reported	554	229	40	5	625
75– 99	3,208	1,449						
100–149	1,773	748						
150–199	383	144						
200 and over	378	109						
Not reported	2,168	715						

Source: Census, 1930, *VI*

TABLE ABM 2

Dwelling Units, Number reporting Value or Rent by Value or Rent Group, Geographic Division, Tenure, and Population Group, April 1, 1930

New England (similar tabulation for each geographic division)

VALUE OR RENT GROUP	GEOGRAPHIC DIVISION	POP. GROUP 100,000 OR MORE	VALUE OR RENT GROUP	POPULATION GROUP 25,000–100,000	10,000–25,000	5,000–10,000	2,500–5,000	Under 2,500
			A OWNER-OCCUPIED					
All groups	802,593	175,601	All groups	193,293	151,456	61,245	14,971	206,027
Under $1,000	21,612	451	Under $1,500	2,782	4,058	3,512	1,435	33,118
1,000– 1,499	25,422	1,678	1,500–2,999	12,659	16,073	9,552	3,023	45,279
1,500– 1,999	26,304	2,344	3,000–4,999	37,588	38,288	18,489	4,018	51,498
2,000– 2,999	70,795	8,169	5,000–7,499	58,409	46,485	16,817	3,497	38,810
3,000– 4,999	179,693	29,812	7,500–9,999	30,659	18,218	5,104	979	12,637
5,000– 7,499	212,943	48,925	10,000 and over	49,016	26,385	6,932	1,786	19,902
7,500– 9,999	97,294	29,697	Not reported	2,180	1,949	839	233	4,783
10,000–14,999	96,496	32,084						
15,000–19,999	31,003	10,684						
20,000 and over	28,194	8,904						
Not reported	12,837	2,853						
			B RENTED					
All groups	1,025,519	414,343	All groups	267,515	139,228	53,141	14,129	137,163
Under $10	46,608	4,877	Under $15	21,645	20,395	13,606	4,578	58,221
10– 14	102,656	25,942	15–29	118,111	70,248	27,893	7,111	54,732
15– 19	139,308	43,696	30–49	92,505	36,222	8,875	1,916	15,584
20– 29	299,291	116,808	50–99	28,713	10,188	1,841	292	4,315
30– 49	309,949	154,847	100 and over	4,358	782	339	39	821
50– 74	87,816	49,770	Not reported	2,183	1,393	587	193	3,490
75– 99	16,396	9,093						
100–149	7,996	3,469						
150–199	1,872	809						
200 and over	1,481	732						
Not reported	12,146	4,300						

In order that the value or rent classes might be the same for all population groups (for differences see Tables ABM 1 and 2) cumulative frequency curves were prepared for each population group under 100,000 in each geographic division covering the value classes up to $3,000 and the rental classes up to $100. Intermediate values or rentals in line with the group limits for cities with populations of 100,000 or more were read from the graphs and first differences taken so as to determine the frequencies in the finer breakdown of value and rent classes for the largest city group. In order to distribute the frequencies above the level of $10,000 for values and $100 for rents so as to obtain value and rent classes comparable to those for the largest cities it was necessary to use a slightly different expedient than the one outlined above, since the small numbers made interpolation from graphs very difficult. The frequencies in these classes for all places under 100,000 in population were obtained by subtraction and the percentage in each derived. These percentages were then used to distribute the number above the specified value ($10,000) and rent ($100) levels among the proper value or rent class for each population group under 100,000.

When this process had been completed the tabulations contained, for each geographic division by the six nonfarm population groups, (1) owner-occupied dwelling units for which values were reported, distributed by ten value classes, and the number not reporting value; (2) rented dwelling units for which rents were reported, distributed by ten rent classes and the number not reporting rent (see Table ABM 7). To obtain total nonfarm dwelling units in each geographic division by population groups the dwelling units not classified by tenure and the vacant dwelling units were added to the totals described above for each geographic division by population groups.

b Addition of Dwelling Units for which Tenure was not reported

The Census enumeration of the number of dwellings by type and the number of families occupying them (Table ABM 10) makes it possible, as will be shown later, to obtain by population groups total occupied nonfarm dwelling units for each geographic division (see Table ABM 3). From tabulations for each geographic division, e.g., Table ABM 2 for New England, were obtained the number of dwelling units for which tenure was reported. The totals for the two tenure classes are shown in Table ABM 3, column 2. A simple subtraction indicates the number of dwelling units in each population group for which tenure was not reported, and the ratio of total occupied units (col. 1) to those reporting tenure (col. 2) is shown in column 4.

On the assumption that the dwelling units for which tenure was not reported are distributed between the two tenure classes in the same proportion as those reporting tenure the number of dwelling units reporting tenure in each tenure group (Table ABM 2) was multiplied by the factors in Table ABM 3, column 4. This

TABLE ABM 3

Dwelling Units, Total Occupied, Number reporting and not reporting Tenure; Ratio of Total to those reporting Tenure: by Geographic Division and Population Group

New England (similar tabulation for each geographic division)

POPULATION GROUP	TOTAL [1] (1)	REPORTING TENURE [2] (2)	NOT REPORTING TENURE (3) = (1) − (2)	RATIO OF TOTAL TO THOSE REPORTING TENURE (4) = (1) ÷ (2)
All groups	1,848,887	1,828,112	20,775	1.0113642
100,000 and over	597,405	589,944	7,461	1.0126470
25,000–100,000	465,812	460,808	5,004	1.0108592
10,000– 25,000	293,422	290,684	2,738	1.0094192
5,000– 10,000	115,622	114,386	1,236	1.0108055
2,500– 5,000	29,496	29,100	396	1.0136082
Under 2,500	347,130	343,190	3,940	1.0114805

[1] *From Table ABM 10, col. 3.* [2] *Table ABM 2.*

procedure adds to the number reporting tenure in each tenure group the number not reporting tenure assignable to the tenure group on the basis of the above assumption.

c Addition of Vacant Dwelling Units

The data for 1930 on vacant dwelling units by geographic division and population group are few. The differences in vacancies among 1-, 2-, and 3-or-more family dwellings, however, are sufficiently marked to furnish a basis for estimating vacancies by type of dwelling that indicate roughly the vacancies by geographic division and population group on the assumption that vacancies are by and large related to the type of dwelling. The information used consisted of: (1) vacancy data for 1930 for all types of dwellings in 42 cities, and for 1-family dwellings in 37 cities (Residential Vacancy Surveys in the United States, 1930–34, Federal Housing Administration, March 1935); (2) vacancies in apartments in New York City (New York Tenement House Department), Washington, D. C. (Federal Housing Administration), and Los Angeles (Eberle Economic Service, unpublished data); (3) detailed data on relative vacancies by type of dwelling in 64 cities in 1934 (Federal Real Property Inventory).

The vacancy data from the Real Property Inventory are presented in Table ABM 4 with a reclassification according to the three Census types of dwelling. The residential vacancy surveys in 37 cities showed modal groups for 1-family dwellings ranging from 2 to 4 per cent in 1930; the median vacancy was 3.4, the arithmetic mean, 4.1. The median vacancy for 1-family dwellings, as shown by the 64 Real Property Inventory cities in 1934, was 5.1 and the arithmetic mean, 5.2, or nearly the same as the median. A vacancy figure of 3.5 per cent was therefore taken for 1-family dwellings for the country as a whole for 1930. Since the vacancy

TABLE ABM 4

Vacant Dwelling Units, Number as Percentage of Total, by Type, 64 Real Property Inventory Cities by Geographic Division, January 1, 1934

A REAL PROPERTY INVENTORY CLASSIFICATION

	NO. OF CITIES	PERCENTAGE VACANCY: 1-family	2-family	3-family	4-family	5-or-more family	Row house	Other	All types
New England	6	3.8	8.1	7.5	15.3	15.0	15.8	13.3	8.4
Middle Atlantic	5	3.8	7.3	9.7	13.5	13.9	7.9	14.2	7.2
East North Central	8	4.2	10.3	11.8	16.9	15.8	21.4	14.6	8.7
West North Central	10	4.1	8.5	10.4	12.3	10.7	17.7	10.6	6.3
South Atlantic	11	6.3	8.1	9.1	12.2	11.1	5.6	9.2	7.5
East South Central	4	5.8	11.2	8.1	12.1	11.3	18.2	8.4	7.5
West South Central	7	5.6	7.2	6.3	11.4	9.6	16.5	8.7	6.4
Mountain	9	6.3	11.5	18.6	16.2	12.3	25.3	12.7	8.8
Pacific	4	6.8	17.8	18.2	21.7	12.9	16.9	15.4	9.3
Total	64	5.2	9.3	8.1	14.7	12.9	10.7	12.7	7.8

B CENSUS CLASSIFICATION

	PERCENTAGE VACANCY: 1-FAMILY [1]	2-FAMILY	3-OR-MORE FAMILY [2]	ALL TYPES
New England	4.0	8.1	10.6	8.4
Middle Atlantic	4.3	7.3	13.5	7.2
East North Central	4.4	10.3	15.4	8.7
West North Central	4.1	8.5	11.0	6.3
South Atlantic	6.2	8.1	10.6	7.5
East South Central	5.9	11.2	10.8	7.5
West South Central	5.6	7.2	9.9	6.4
Mountain	7.1	11.5	13.2	8.8
Pacific	6.9	17.8	14.2	9.3
Total, 64 Cities	5.4	9.3	12.5	7.8

[1] *1-family and row houses combined.* [2] *3-, 4-, 5-or-more families, and other combined.*

TABLE ABM 5

Dwelling Units, Number Occupied, Vacancy Factor, and Total by Geographic Division, Population Group, and Type of Dwelling, April 1, 1930

New England (similar tabulation for each geographic division)

TYPE OF DWELLING	ALL POPULATION GROUPS	100,000 OR OVER	25,000–100,000	10,000–25,000	5,000–10,000	2,500–5,000	UNDER 2,500
1 1-family							
a Occupied dwelling units [1]	991,754	182,451	225,764	192,146	84,026	22,486	284,881
b Vacancy factor	1.037	1.037	1.037	1.037	1.037	1.037	1.037
c Total dwelling units (a × b)	1,028,449	189,202	234,117	199,255	87,135	23,318	295,422
2 2-family							
a Occupied dwelling units [2]	448,510	170,432	133,294	69,008	21,980	5,002	48,794
b Vacancy factor	1.065	1.065	1.065	1.065	1.065	1.065	1.065
c Total dwelling units (a × b)	477,663	181,510	141,958	73,493	23,409	5,327	51,966
3 3-or-more family							
a Occupied dwelling units [3]	408,623	244,522	106,754	32,268	9,616	2,008	13,455
b Vacancy factor	1.088	1.088	1.088	1.088	1.088	1.088	1.088
c Total dwelling units (a × b)	444,582	266,040	116,148	35,108	10,462	2,185	14,639
4 All types							
a Occupied dwelling units [4]	1,848,887	597,405	465,812	293,422	115,622	29,496	347,130
b Vacant dwelling units	101,807	39,347	26,411	14,434	5,384	1,334	14,897
c Total dwelling units	1,950,694	636,752	492,223	307,856	121,006	30,830	362,027

[1] *Table ABM 10, col. 4.*
[2] *Table ABM 10, col. 6.*
[3] *Table ABM 10, col. 8.*
[4] *Table ABM 10, col. 2.*

TABLE ABM 6

Total Dwelling Units, including Vacant, by Geographic Division, Population Group, Type of Dwelling, and Tenure, April 1, 1930

New England (similar tabulation for each geographic division)

TYPE OF DWELLING	ALL POPULATION GROUPS (1)	100,000 OR MORE (2)	25,000–100,000 (3)	10,000–25,000 (4)	5,000–10,000 (5)	2,500–5,000 (6)	UNDER 2,500 (7)
1 1-family							
a Total [1]	1,028,449	189,202	234,117	199,255	87,135	23,318	295,422
b Percentage of owner-occupied [2]	.....	61.9	65.9	67.9	66.0	58.5	68.4
c No. owner-occupied or for sale (a × b)	679,930 [9]	117,127	154,344	135,239	57,473	13,639	202,108
d No. rented or for rent (a − c)	348,519	72,075	79,773	64,016	29,662	9,679	93,314
2 2-family							
a Total [3]	477,663	181,510	141,958	73,493	23,409	5,327	51,966
b Percentage of owner-occupied [4]	.....	23.8	26.7	27.2	26.0	33.2	23.4
c No. owner-occupied or for sale (a × b)	121,089 [9]	43,200	37,917	19,956	6,076	1,769	12,171
d No. rented or for rent (a − c)	356,574	138,310	104,041	53,537	17,333	3,558	39,795
3 3-or-more family							
a Total [5]	444,582	266,040	116,148	35,108	10,462	2,185	14,639
b No. owner-occupied [6]	42,363	24,311	10,956	3,735	782	362	2,217
c No. rented or for rent (a − b)	402,219	241,729	105,192	31,373	9,680	1,823	12,422
4 All types							
a Total [7]	1,950,694	636,752	492,223	307,856	121,006	30,830	362,027
b No. owner-occupied or for sale [8]	843,382	184,638	203,217	158,930	64,331	15,770	216,496
c No. rented or for rent [8]	1,107,312	452,114	289,006	148,926	56,675	15,060	145,531

[1] *Table ABM 5, line 1 c.*
[2] *Owner-occupied dwelling units, as shown for 1-family dwellings in Table ABM 11, col. 1, as percentage of total occupied dwelling units (sum of col. 1 and 4 of Table ABM 11, or line 1 a, Table ABM 5).*
[3] *Table ABM 5, line 2 c.*
[4] *Owner-occupied dwelling units, as shown for 2-family dwellings in Table ABM 11, col. 1, as percentage of total occupied dwelling units (sum of col. 1 and 4 of Table ABM 11, or line 2 a, Table ABM 5).*
[5] *Table ABM 5, line 3 c.*
[6] *Table ABM 11, col. 1, 3-or-more family dwellings (see explanation, Ch. II, sec. 2 f).*
[7] *Table ABM 5, line 4 c.*
[8] *Grand totals, Table ABM 7.*
[9] *Obtained by addition of figures for population groups.*

data for 1930, that is, in 37 cities, showed vacancies only for 1-family dwellings and for all types combined, the estimates of vacancy for the 2-family and for the 3-or-more family dwellings were based on the relations of these types to the vacancy of 1-family dwellings as shown in the 64 Real Property Inventory cities.

These estimated percentages are in terms of total

TABLE ABM 7

Dwelling Units, Number reporting Value or Rent by Value or Rent Group; and Number not reporting Value or Rent, Number not reporting Tenure, and Number Vacant: by Geographic Division and Population Group, April 1, 1930

New England (similar tabulation for each geographic division)

VALUE OR RENT GROUP	ALL POPULATION GROUPS (1)	100,000 OR MORE (2)	25,000–100,000 (3)	10,000–25,000 (4)	5,000–10,000 (5)	2,500–5,000 (6)	UNDER 2,500 (7)
			A OWNER-OCCUPIED				
Under $1,000	21,612	451	1,000	1,800	1,500	500	16,361
1,000– 1,499	25,422	1,678	1,782	2,258	2,012	935	16,757
1,500– 1,999	26,304	2,344	2,718	3,942	2,188	865	14,247
2,000– 2,999	70,795	8,169	9,941	12,131	7,364	2,158	31,032
3,000– 4,999	179,693	29,812	37,588	38,288	18,489	4,018	51,498
5,000– 7,499	212,943	48,925	58,409	46,485	16,817	3,497	38,810
7,500– 9,999	97,294	29,697	30,659	18,218	5,104	979	12,637
10,000–14,999	96,496	32,084	30,352	16,338	4,292	1,106	12,324
15,000–19,999	31,003	10,684	9,575	5,154	1,354	349	3,887
20,000 and over	28,194	8,904	9,089	4,893	1,286	331	3,691
Not reporting value	12,837	2,853	2,180	1,949	839	233	4,783
Total reporting tenure [1]	802,593	175,601	193,293	151,456	61,245	14,971	206,027
Not reporting tenure [2]	9,121	2,221	2,090	1,427	662	204	2,517
Total occupied [3]	811,714	177,822	195,383	152,883	61,907	15,175	208,544
Vacancies [4]	31,668	6,816	7,834	6,047	2,424	595	7,952
Grand total [5]	843,382	184,638	203,217	158,930	64,331	15,770	216,496
			B RENTED				
Under $10	46,608	4,877	5,831	6,400	3,200	1,400	24,900
10– 14	102,656	25,942	15,814	13,995	10,406	3,178	33,321
15– 19	139,308	43,696	34,155	23,605	14,994	3,379	19,479
20– 29	299,291	116,808	83,956	46,643	12,899	3,732	35,253
30– 49	309,949	154,847	92,505	36,222	8,875	1,916	15,584
50– 74	87,816	49,770	24,152	8,135	1,526	170	4,063
75– 99	16,396	9,093	4,561	2,053	315	122	252
100–149	7,996	3,469	3,112	558	242	27	586
150–199	1,872	809	732	132	57	7	138
200 and over	1,481	732	514	92	40	5	97
Not reporting rent	12,146	4,300	2,183	1,393	587	193	3,490
Total reporting tenure [1]	1,025,519	414,343	267,515	139,228	53,141	14,129	137,163
Not reporting tenure [2]	11,654	5,240	2,914	1,311	574	192	1,423
Total occupied [3]	1,037,173	419,583	270,429	140,539	53,715	14,321	138,586
Vacancies [4]	70,139	32,531	18,577	8,387	2,960	739	6,945
Grand total [5]	1,107,312	452,114	289,006	148,926	56,675	15,060	145,531

[1] *See Tables ABM 1 and 2 and explanation in Ch. II, sec. 2 a.*

[2] *Total occupied less total reporting tenure.*

[3] *Total reporting tenure in each size group multiplied by the factors in Table ABM 3, col. 4. See explanation in Ch. II, sec. 2 b.*

[4] *Grand total less total occupied.*

[5] *Table ABM 6, lines 13 and 14 (see explanation, Ch. II, sec. 2 f).*

units rather than of those occupied and are for the type of dwelling without reference to location and population group (except in the instance noted above). It was necessary to convert these percentages into factors applicable to the number of occupied units and to determine the number of occupied units by type of dwelling, geographic division, and population group. The estimate of the number of dwelling units by geographic division, type of dwelling, tenure, and population group is explained below in section 2 f; it was multiplied by the following factors (Table ABM 5):

1-family dwellings, 1.037[6] $= \frac{1}{1-0.035}$; 2-family dwellings, 1.065 $= \frac{1}{1-0.06}$; and 3-or-more family dwellings, 1.088 $= \frac{1}{1-0.08}$, except in New York City and cities over 100,000 in population in the Pacific division, for which the factor was 1.111 $= \frac{1}{1-0.10}$.

Table ABM 5 for the New England division gives the information desired except that it is for both tenures combined rather than for each tenure separately. In some vacancy surveys[7] all vacant units are classified as rental units. Some vacancies are, however, not in rental units: they are in structures that are for sale or are units that have been vacated only temporarily by their owners; they are not for rent and should be considered as belonging to the owner-occupant tenure.

[6] *The ratio 1.037 is slightly in error; the correct figure is 1.036. The numerical error was not discovered until all the operations had been completed, and its effect on the estimates was so small that it was not considered sufficiently important to attempt to correct them.*

[7] *See Federal Real Property Inventory, 64 cities.*

In order to allocate the vacant units by tenure, it was assumed that vacancies were distributed between the two tenure classes in the same proportion as occupied units for 1- and 2-family dwellings, but that all vacancies in 3-or-more-family dwellings were for rent. However, since the distribution of occupied units by tenure in the Census was not given by type of dwelling, an estimate had to be prepared. As explained in section 2 f of this chapter, information derived from the special tabulation for the 139 cities was used.

From the distribution by tenure and type for occupied units (Table ABM 11, col. 1 and 4) the percentages that were owner-occupied in the 1- and 2-family dwelling types were computed. These percentages are used in Table ABM 6 to allocate total dwelling units (including vacant) by type of dwelling to the two tenure groups. The footnotes to Table ABM 6 explain the process in detail.

d Estimates by Tenure, Value or Rent Group, Population Group, and Geographic Division, Recapitulation

The several steps described in the preceding sections made it possible to estimate for each geographic division, tenure, and population group the number of nonfarm dwelling units for which values or rents were reported by 10 value or rent groups. In addition, the number of nonfarm dwelling units occupied but not reporting value or rent and the number of vacant units were estimated for each geographic division by tenure and population group. This information is presented for New England in Table ABM 7 with footnote references to the specific sections where the methods are explained in detail.

e Distribution by States in each Geographic Division, by Tenure and Population Group

The preliminary transcription of Census data gave for each state the dwelling units reporting tenure (i.e., those reporting value plus those not reporting value) by population group and tenure. The geographic division totals were obtained by adding these state figures. To the geographic division totals, in turn, were added, as explained above, those units not reporting tenure and vacant units. The state figures for those reporting tenure were then increased to include the nonfarm dwelling units not reporting tenure or vacant. The increase for each state (Table ABM 1) was assumed to be proportional to the increase for the geographic division as a whole. For the addition of dwelling units not reporting tenure all that was required on this assumption was to raise the state figures on units reporting tenure in each tenure class by using the ratios in Table ABM 3, column 4, as factors. A similar assumption with reference to vacant units makes it possible to increase the totals (including tenure not reported) to include them. Table ABM 7 shows the grand total for New England. The ratio of the grand totals for each tenure class by population groups to total occupied units gives the ratios of increase for the individual states.

This method of determining the number of nonfarm dwelling units by states involves a slight error. To obtain for each state the exact addition of units not reporting tenure would have required the calculation of factors like those in Table ABM 3, column 4. This would have involved an extensive preliminary tabulation for each state similar to that for the geographic division in Tables ABM 9 and 10. The differences in the results obtained by the two methods tried out in

TABLE ABM 8

Total Nonfarm Dwelling Units by State, Population Group, and Tenure, April 1, 1930

Connecticut (similar tabulation for each state)

	ALL POPULATION GROUPS (1)	100,000 AND OVER (2)	25,000–100,000 (3)	10,000–25,000 (4)	5,000–10,000 (5)	2,500–5,000 (6)	UNDER 2,500 (7)
Owner-occupied (number)							
1 Reporting tenure [1]	154,880	31,611	38,930	23,671	3,610	1,579	55,479
2 Not reporting tenure [2]	1,783	400	421	223	39	22	678
3 Occupied [3]	156,663	32,011	39,351	23,894	3,649	1,601	56,157
4 Vacant [4]	6,097	1,227	1,578	945	143	63	2,141
5 Total [5]	162,760	33,238	40,929	24,839	3,792	1,664	58,298
Rented (number)							
1 Reporting tenure [1]	210,605	83,167	54,281	24,667	4,757	2,285	41,448
2 Not reporting tenure [2]	2,388	1,052	591	232	52	31	430
3 Occupied [3]	212,993	84,219	54,872	24,899	4,809	2,316	41,878
4 Vacant [4]	14,269	6,530	3,769	1,486	265	120	2,099
5 Total [5]	227,262	90,749	58,641	26,385	5,074	2,436	43,977

[1] *See Table ABM 1.*

[2] *Line 3 minus line 1.*

[3] *Obtained by multiplying factors in Table ABM 3, col. 4, by line 1. Some slight adjustments were necessary to tie into figures with geographic division totals.*

[4] *Line 5 minus line 3.*

[5] *Obtained by multiplying ratio of grand total of units to occupied units for the tenure classes (Table ABM 7) by the figures in line 3 for the respective tenure class.*

TABLE ABM 9

Occupied Dwellings and Families (Dwelling Units), Number by Type of Dwelling, State, and Population Group, 1930

Connecticut (similar tabulation for each state)

TYPE OF DWELLING	ALL POPULATION GROUPS (1)	100,000 OR MORE (2)	25,000–100,000 (3)	10,000–25,000 (4)	5,000–10,000 (5)	2,500–5,000 (6)	UNDER 2,500 (7)
1 All types							
a Dwellings	280,552	63,735	64,114	37,995	6,463	3,455	104,790
b Dwelling units	388,645	116,007	94,747	49,497	8,510	3,910	115,974
2 1-family							
a Dwellings (and dwelling units)	214,588	36,371	44,855	29,522	5,046	3,111	95,683
3 2-family							
a Dwellings	46,302	17,295	13,228	6,670	1,061	270	7,778
b Dwelling units [1]	92,604	34,590	26,456	13,340	2,122	540	15,556
4 3-or-more family							
a Dwellings	19,662	10,069	6,031	1,803	356	74	1,329
b Dwelling units [2]	81,453	45,046	23,436	6,635	1,342	259	4,735

[1] *Number of dwellings multiplied by 2.*

[2] *Total families (line 1 b) minus sum of families in 1- and 2-family dwellings (lines 2 a and 3 b).*

several states did not seem to warrant this additional labor.

Similarly the distribution of vacant units by states is not entirely accurate because it was based upon type of dwelling. Since the distribution of dwelling types in the several states is not identical with the distribution for the geographic division, the vacancy factors for each state would be slightly different from those for the geographic divisions. The error is so small, however, as compared with the possibility of error in the general data for vacancy, that the simple method seemed more appropriate. These decisions also simplified the estimates of values by states and involved no substantial error.[8]

Table ABM 8 shows for Connecticut how total dwelling units were estimated. The footnotes explain in detail the factors used and their sources. When this process had been completed for each state the sum of the dwelling units for the states in each geographic division was identical with the figures for the geographic divisions.

f Distribution of Estimates by Geographic Division, Type of Dwelling, Tenure, and Population Group

Since in Census state totals the number of both nonfarm dwellings, by type, and of farm families are given, it is possible to estimate for each state the number of nonfarm dwellings by type on the assumption that farm families occupy only 1-family dwellings. The Census number of dwellings by type for each population group of 2,500 or more, some of which include a few farm dwellings, must be corrected, as explained later, in order to obtain the number of nonfarm dwellings by type and population group in each geographic division. For population groups under 2,500 the same information can be obtained by subtracting the totals for all larger places from the state totals.

The number of dwelling *units* by type of dwelling can be obtained as follows: the number of 2-family dwellings is multiplied by two; the sum of this product and the number of 1-family dwellings subtracted from the total number of families gives the number of dwelling units in 3-or-more family dwellings.[9]

This information is given for Connecticut in Table ABM 9. When the states are grouped the same type of information can be obtained for the nine geographic divisions, as shown, with certain additional information, for New England in Table ABM 10. The number of dwellings and of dwelling units, by type, opposite the "total" for each population group are the summations of state figures similar to those for Connecticut in Table ABM 9.

The nonfarm dwellings and dwelling units by type were obtained as follows: for all cities the known [10] number of farm dwellings and families was allocated to the 1-family type of dwelling and subtracted from total dwellings and families; for the several population groups (except that under 2,500) the ratio of nonfarm families reporting tenure to total families reporting tenure (Table ABM 10, col. 9) was used as indicative of the relative number of nonfarm dwellings; finally the number of nonfarm families in the population group under 2,500 was obtained by subtraction.

[8] *Checking for both tenures combined for the New England states indicated a possible difference in state figures of three-tenths of 1 per cent.*

[9] *See footnote 4 above for a criticism of Census type of dwelling data.*

[10] Census, 1930, *VI, Table 60, p. 53.*

TABLE ABM 10

Occupied Dwellings and Families (Dwelling Units), Number by Type of Dwelling, Geographic Division and Population Group, 1930

New England (similar tabulation for each geographic division)

		TYPE OF DWELLING								
		ALL TYPES		1-Family Dwellings (and dwelling units)	2-Family		3-or-more Family		FAMILIES REPORTING TENURE [3]	RATIO OF NONFARM FAMILIES REPORTING TENURE TO ALL FAMILIES REPORTING TENURE [4]
		Dwellings	Dwelling units		Dwellings	Dwelling units [1]	Dwellings	Dwelling units [2]		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All groups	Total [5]	1,453,222	1,981,499	1,124,366	224,255	448,510	104,601	408,623	1,957,962	....
	Farm [6]	132,612	132,612	132,612	.....	.....	.....	.....	.....	
	Nonfarm [7]	1,320,610	1,848,887	991,754	224,255	448,510	104,601	408,623	1,828,112	.934
100,000 and over	Total	329,656	598,003	183,049	85,216	170,432	61,391	244,522	590,343	
	Nonfarm	329,058	597,405 [9]	182,451 [10]	85,216	170,432	61,391	244,522	589,944	.999
25,000–100,000	Total	322,478	468,318	228,270	66,647	133,294	27,561	106,754	463,473	
	Nonfarm	319,972	465,812 [9]	225,764 [10]	66,647	133,294	27,561	106,754	460,808	.994
10,000–25,000	Total	241,753	299,716	198,440	34,504	69,008	8,809	32,268	296,797	
	Nonfarm	235,459	293,422 [9]	192,146 [10]	34,504	69,008	8,809	32,268	290,684	.979
5,000–10,000	Total	103,225	121,324	89,728	10,990	21,980	2,507	9,616	119,983	
	Nonfarm	97,523	115,622 [9]	84,026 [10]	10,990	21,980	2,507	9,616	114,386	.953
2,500–5,000	Total	26,809	30,757	23,747	2,501	5,002	561	2,008	30,335	
	Nonfarm	25,548	29,496 [9]	22,486 [10]	2,501	5,002	561	2,008	29,100	.959
Under 2,500	Total [8]	429,301	463,381	401,132	24,397	48,794	3,772	13,455	457,031	
	Nonfarm [8]	313,050	347,130	284,881	24,397	48,794	3,772	13,455	343,190	.751

[1] *Dwellings in col. 4 multiplied by 2.*
[2] *Sum of col. 3 and 5 subtracted from col. 2.*
[3] *Totals include urban farm families.*
[4] *Nonfarm in col. 8 divided by "total" in col. 8.*
[5] Census of Population, 1930, *VI, Table 62, p. 55.*
[6] Ibid., *Table 60, p. 53. Farm dwellings assumed to be all 1-family.*
[7] *Total less farm.*
[8] *All cities, total and nonfarm, less sum of similar items for cities with populations over 2,500.*
[9] *Total multiplied by ratio for given size group (col. 9).*
[10] *Total less difference between total and nonfarm (col. 2).*

In using the ratios in column 8 of Table ABM 10 it was again assumed that all farm families live in 1-family dwellings so that the ratio, when applied to all types of dwelling units, gave the necessary correction for the 1-family type and left the numbers in the other types unchanged.

For a breakdown by tenure the procedure outlined above and illustrated in Tables ABM 9 and 10 provided the number of occupied nonfarm dwelling units by type but without any division by tenure. Information derived from the special tabulation for 139 cities was used. For each city the percentages of the total number of 2- and 3-or-more family dwellings (structures) that contained an owner-occupant family were estimated. These individual city percentages were then grouped by population groups and geographic divisions and weighted by the total population of the several cities in each population group. Because of the thinness of the sample in certain regions and population groups the geographic divisions were combined as shown in Table ABM 20 where the final results of this process are recorded.

Multiplying the divisional percentages in Table ABM 20 (New England combined with Middle Atlantic) by the number of nonfarm dwellings (structures) in the same geographic division, illustrated for New England in columns 4 and 6 of Table ABM 10, yielded the number (excluding vacant units) of owner-occupied 2- and 3-or-more family dwellings (structures); that is, owner-occupied dwelling units (Table ABM 7), excluding vacant, since the owner-occupant family would not occupy more than one dwelling unit. The number of 1-family owner-occupied dwelling units was secured by subtracting the sum of owner-occupied 2- and 3-or-more family dwelling units from the number of owner-occupied dwelling units of all types.

The number of rented dwelling units by type, excluding vacant (Table ABM 11, col. 4), was estimated by subtracting the owner-occupied dwelling units of each type from total nonfarm dwelling units (Table ABM 10, col. 3, 5, and 7). Columns 3 and 6 of Table ABM 11 were taken from Table ABM 6 and the number of vacant units (col. 2 and 5) obtained by subtraction.

The number of dwelling units as classified in Table ABM 7 was distributed by states as explained in sec-

TABLE ABM 11

Occupied Dwelling Units, Vacant, and Total including Vacant, by Type of Dwelling, Geographic Division, Population Group, and Tenure, April 1, 1930

New England (similar tabulation for each geographic division)

TYPE OF DWELLING AND POPULATION GROUP	OWNER-OCCUPIED			RENTED		
	Occupied (1)	Vacant (2)	Total (3)	Occupied (4)	Vacant (5)	Total (6)
All types						
All population groups	811,714	31,668	843,382	1,037,173	70,139	1,107,312
100,000 and over	177,822	6,816	184,638	419,583	32,531	452,114
25,000–100,000	195,383	7,834	203,217	270,429	18,577	289,006
10,000– 25,000	152,883	6,047	158,930	140,539	8,387	148,926
5,000– 10,000	61,907	2,424	64,331	53,715	2,960	50,675
2,500– 5,000	15,175	595	15,770	14,321	739	15,060
Under 2,500	208,544	7,952	216,496	138,586	6,945	145,531
1-family						
All population groups	655,654	24,276	679,930	336,100	12,419	348,519
100,000 and over	112,948	4,179	117,127	69,503	2,572	72,075
25,000–100,000	148,823	5,521	154,344	76,941	2,832	79,773
10,000– 25,000	130,412	4,827	135,239	61,734	2,282	64,016
5,000– 10,000	55,421	2,052	57,473	28,605	1,057	29,662
2,500– 5,000	13,152	487	13,639	9,334	345	9,679
Under 2,500	194,898	7,210	202,108	89,983	3,331	93,314
2-family						
All population groups	113,697	7,392	121,089	334,813	21,761	356,574
100,000 and over	40,563	2,637	43,200	129,869	8,441	138,310
25,000–100,000	35,604	2,313	37,917	97,690	6,351	104,041
10,000– 25,000	18,736	1,220	19,956	50,272	3,265	53,537
5,000– 10,000	5,704	372	6,076	16,276	1,057	17,333
2,500– 5,000	1,661	108	1,769	3,341	217	3,558
Under 2,500	11,429	742	12,171	37,365	2,430	39,795
3-or-more family						
All population groups	42,363	....	42,363	366,260	35,959	402,219
100,000 and over	24,311	....	24,311	220,211	21,518	241,729
25,000–100,000	10,956	....	10,956	95,798	9,394	105,192
10,000– 25,000	3,735	....	3,735	28,533	2,840	31,373
5,000– 10,000	782	....	782	8,834	846	9,680
2,500– 5,000	362	....	362	1,646	177	1,823
Under 2,500	2,217	....	2,217	11,238	1,184	12,422

tion 2 e of this chapter and illustrated in Table ABM 8. The information on tenure by type of dwelling does not warrant a distribution by states of the dwelling units in Table ABM 11.

The proportion of each of the three dwelling types in the two tenure classes was based upon data derived from the 139 city special tabulation. Application of the tenure proportions to the several states is not warranted, but they should be fairly reliable for the geographic division as a whole.

The procedure explained above and illustrated by the tables for New England was applied to each geographic division in exactly the same way with one exception, the Middle Atlantic. Each borough in New York City was treated separately because of the wide variation in the percentages of owner-occupancy of apartments and 2-family dwellings. The percentages actually used for New York City were based on special tabulations made for this project by the Bureau of the Census for selected areas in each borough. In Manhattan, Bronx, and Brooklyn the percentages derived for 1- and 2-family dwellings were applied to the number of dwellings of these types to obtain the number of owner-occupied units, and their sum was subtracted from total owner-occupied units to obtain the number of owner-occupied units in 3-or-more family dwellings. For Queens and Richmond boroughs percentages for the 2- and 3-or-more family types were used and the 1-family units obtained by subtraction.

3 Value of Nonfarm Residential Real Estate, 1930

The estimates of value by population group, tenure, state, and geographic division consist of three main parts: (1) values are estimated for the owner-occupant tenure group; (2) rents are estimated for the occupied rental dwelling units; (3) value-rent ratios are applied to the rent estimates to obtain the value of occupied rental dwelling units and also of vacant rental units.

a Value of Owner-Occupied Dwelling Units

Table ABM 7 presents the number of nonfarm dwelling units. Section A provides the essential data for value estimates. The number of units in each value group is multiplied by an average value for each group derived from the 139 city special tabulation. The calculated average value per dwelling unit for all dwelling units reporting value is then assigned to the

dwelling units not reporting value or not reporting tenure. The same procedure is followed for vacant units except that the average value derived for the units

TABLE ABM 12

Derivation of Total Value of All Owner-occupied Dwelling Units by Geographic Division and Population Group

Population group 100,000 and over, New England (similar tabulation for each population group in each geographic division)

VALUE CLASS	NO. OF DWELLING UNITS [1]	PRELIMINARY TOTAL VALUE [2] (DOLLARS)	CORRECTION FACTOR [3]	FINAL TOTAL VALUE (DOLLARS)
	(1)	(2)	(3)	(4) = (2) × (3)
Under $1,000	451	245,344	1.000	245,344
1,000– 1,499	1,678	2,120,000	.912	1,933,440
1,500– 1,999	2,344	4,127,250	.917	3,784,688
2,000– 2,999	8,169	20,801,250	.912	18,970,740
3,000– 4,999	29,812	121,496,000	.924	112,262,304
5,000– 7,499	48,925	305,301,875	.951	290,342,083
7,500– 9,999	29,697	259,848,750	.945	245,557,069
10,000–14,999	32,084	401,050,000	.892	357,736,600
15,000–19,999	10,684	186,970,000	.913	170,703,610
20,000 and over	8,904	294,633,360	1.000	294,633,360
All classes	172,748	1,596,593,829	.937 [4]	1,496,169,238
Not reporting value	2,853	26,367,426 [5]		
Not reporting tenure	2,221	20,526,482 [5]		
Total occupied units	177,822	1,643,487,737	.937	1,539,948,010
Vacant units	6,816			
Total units	184,638			1,596,926,086 [6]

[1] *See Table ABM 7.*

[2] *The total values in this column were obtained as follows:*
1) The number of units in the class "Under $1,000" was multiplied by the average value of $544 derived from the special tabulation for 139 cities; see Table ABM 17.
2) The 5 classes from $1,000 to $7,499 were divided into 10 classes with frequencies of 749, 929, 1,071, 1,273, 3,327, 4,842, 12,658, 17,154, 24,846, and 24,079, as explained in Ch. II, sec. 3 a, and each frequency multiplied by the new value class mid-points of $1,125, $1,375, etc. The frequencies in the 3 value classes from $7,500 to $19,999 were multiplied by the mid-points of these classes.
3) The number of units having values of $20,000 and over was multiplied by the average value of $33,090 determined from the special tabulation for 139 cities; see Table ABM 17.

[3] *For adjustment from mid-point of group basis to empirical average basis; see Table ABM 18.*

[4] *Obtained by dividing the total value for all classes (col. 4) by the total for all value classes (col. 2).*

[5] *Obtained by multiplying the number of units not reporting value and not reporting tenure by the average value of $9,242, derived by dividing the total value for all value groups (col. 2) by the total units reporting value (col. 1).*

[6] *Obtained by raising the total value for occupied dwelling units (col. 4) by the ratio 1.037, based on the ratio of 1.038, which is the ratio of total units (184,638) to occupied units (177,822), corrected for the relationship of the value of vacant units to occupied units, which is .974. The computation to obtain the ratio 1.037 is [1.000 + (1.038 − 1.000) × .974].*

reporting value is adjusted to take into account the estimated differences (based on rent differentials) between the values of vacant and occupied units.

The value estimates involved more steps than explained above, but the end results are virtually the same as if the above procedure had been followed. The value estimates were undertaken before the 139 city special tabulation had been completed. The first procedure used average values for the value groups "under $1,000" and "$20,000 and over" from the 139 city special tabulation, the aggregate values for the other value groups being obtained by using the mid-point values of the groups, after obtaining a finer breakdown of value groups, as the assumed average values. For instance, each of the 5 value groups from $1,000 to $7,499 was divided into 2 groups and the frequencies in each group subdivision determined by taking first differences from interpolated figures on a cumulative frequency curve.

A preliminary estimate was made following the procedure outlined above before the more extensive special tabulation and the determination of the empirical averages for each value and rent class for the 139 cities was carried out. Table ABM 12 shows in column 2 the total values actually obtained for the original 10 value classes for New England cities with populations of 100,000 or more. The details of the method are explained in the footnotes.

When the more extensive tabulation for the 139 cities was made available it was obvious that the mid-point values were not representative average values. Table A 6 gives the average values by the 10 value classes for each of the 139 cities; Table ABM 17, the average values finally accepted as representative of the value classes in each geographic division by population groups; and Table ABM 18 the ratio of the average values for each class that resulted from the use of value class mid-points.

These ratios were then used to adjust the total values previously obtained; the procedure is outlined in the detailed footnotes to Table ABM 12. This procedure essentially is equivalent to multiplying the average values obtained from the 139 city special tabulation by the several value class frequencies. The differences in the mechanics of procedure make for slight differences in the numerical results so that a perfect numerical correspondence would be impossible unless the steps actually taken were carried out in extreme detail.

b Value of Owner-Occupied Dwelling Units, Distribution by States

Within each geographic division it is possible to obtain, by states, the percentage distribution of dwelling units reporting value for the 6 Census value classes.[11]

[11] *Six value groups were used since the Census data on dwelling units reporting value are restricted to 6 value classes rather than*

These percentages were used to distribute, by states, the total value for each value class as determined for the geographic division. The sum of the values thus distributed to each state gives for the individual states the value of owner-occupied dwelling units reporting value. This procedure had been carried out before the correction for the displacement of the mid-points had been undertaken and the results are shown, for Connecticut, in Table ABM 13, columns 2 and 3.

TABLE ABM 13

Geographic Division Total Value of All Owner-occupied Dwelling Units, Distribution by States

Population group 100,000 and over, Connecticut (similar tabulations by each population group for the states in each geographic division)

VALUE CLASS	NEW ENGLAND	CONNECTICUT	
	Uncorrected values [1] (dollars)	Percentage of dwelling units in state [2]	Value allocated to state (dollars)
	(1)	(2)	(3) = (1) × (2)
Under $1,500	2,365,344	10.052	237,764
1,500–2,999	24,928,500	9.246	2,304,889
3,000–4,999	121,496,000	12.200	14,822,512
5,000–7,499	305,301,875	15.074	46,021,205
7,500–9,999	259,848,750	17,402	45,218,880
10,000 and over	882,653,360	26.626	235,015,284
All value classes	1,596,593,829		343,620,534
Correction factor [3]			1.000208
Total adjusted value (all dwellings) [4]			343,692,007

[1] *Table ABM 12, col 2, with certain value classes combined.*
[2] *These percentages were obtained from Tables ABM 1 and 2 where dwelling units reporting value by value classes for the states and geographic divisions are shown by population groups.*
[3] *For adjustment from mid-point of group basis to empirical average basis, including, in total value, dwelling units not reporting value, not reporting tenure, and vacant, see explanation Ch. II, sec. 3 b.*
[4] *343,620,534 × 1.000208.*

To correct for mid-point displacement and also include the values of dwelling units not reporting value, not reporting tenure, and vacant, a ratio was derived from Table ABM 12. In Table ABM 12 the uncorrected total value for all dwelling units reporting value in population groups of 100,000 or more in New England is $1,596,593,829 (col. 2). The total *corrected* value for all dwelling units, including those not reporting value, not reporting tenure, and vacant is $1,596,926,086. The ratio between the total corrected value, all dwelling units, and the uncorrected value for dwelling units reporting value is 1.000208 $\left(\frac{1,596,926,086}{1,596,593,829}\right)$. By multiplying this ratio by the value derived for each state for those dwellings reporting value, as illustrated for Connecticut in Table ABM 13, column 3, we obtain the total value in each state for all units corrected for adjustment from mid-point of group basis to empirical average basis.

10, except for cities with populations of 100,000 or more. For the method used to obtain 10 value classes for each population group, see sec. 2 a of this chapter.

TABLE ABM 14

Derivation of Total Monthly Rent of Occupied Rented Dwelling Units by Geographic Division and Population Group

Population group 100,000 and over, New England (similar tabulations by each population group for each geographic division)

RENT GROUP	NO. OF DWELLING UNITS [1]	PRELIMINARY TOTAL RENT [2] (DOLLARS)	CORRECTION FACTOR [3]	FINAL TOTAL RENT (DOLLARS)
	(1)	(2)	(3)	(4) = (2) × (3)
Under $10	4,877	34,139	1.000	34,139
10– 14	25,942	336,395	.919	309,147
15– 19	43,696	770,347	.933	718,734
20– 29	116,808	2,913,296	.944	2,750,151
30– 49	154,847	5,980,345	.919	5,495,937
50– 74	49,770	2,975,063	.933	2,775,734
75– 99	9,093	781,719	.937	732,471
100–149	3,469	412,813	.902	372,357
150–199	809	141,575	.913	129,258
200 and over	732	197,398	1.000	197,398
All groups	410,043	14,543,090	.929 [4]	13,515,326
Not reporting rent	4,300			
Not reporting tenure	5,240			
Total occupied	419,583			13,825,260 [5]
Vacant	32,531			
Total, all units	452,114			

[1] *See Table ABM 7.*
[2] *The total rents in this column were obtained as follows:*
1) The number of units in the class "Under $10" was multiplied by the average rent of $7 derived from the special tabulation for 139 cities; see Table ABM 17.
2) The 7 rent classes from $10 to $149.99 were divided into 14 classes with frequencies of 8,123, 17,819, 19,581, 24,115, 59,785, 57,023, 98,777, 56,070, 35,730, 14,040, 5,660, 3,433, 2,567, and 902 as explained in Ch. II, sec. 3 c, and each frequency multiplied by the new rent class mid-points of $11.25, $13.75, etc. The frequencies in the rent class from $150 to $199 were multiplied by its mid-points.
3) The number of dwelling units having rents of $200.00 or more was multiplied by an average rent of $269.67 determined from the special tabulation for 139 cities; see Table ABM 17.
[3] *For adjustment from mid-point of group basis to empirical average basis, see Table ABM 18.*
[4] *Derived by dividing for "All groups" the final total rent (col. 4) by the preliminary total rent (col. 2).*
[5] *Obtained by multiplying total occupied units (419,583) by the average rent of rented units reporting, as determined by dividing $14,543,090 (col. 2) by 410,043 units (col. 1), and correcting the average rent obtained ($35.47) by the correction factor .929 to give $32.95.*

c Rent of Rented Dwelling Units

The total monthly rent of occupied rental dwelling units was estimated in exactly the same manner as the values of owner-occupied dwelling units (described in sec. 3 a). Table ABM 14 illustrates the method used

for rents, the footnotes giving in detail the processes followed. The essential steps, including the processes for deriving and applying the mid-point correction factors, are presented in Tables ABM 17 and 18 in connection with the description of the 139 city special tabulation.

The annual rent (Table B 1) was obtained by multiplying the monthly rents as determined above from the Census reports for April 1, 1930 by 12. This assumes, of course, that the rents for that one month are the true arithmetic means for the year.

The distribution of monthly rents by states (Table ABM 15) involves exactly the same procedure as the distribution of the values of owner-occupied dwelling units except that vacant units are not considered. The annual rent is obtained by multiplying by 12.

TABLE ABM 15

Geographic Division Total Monthly Rent of All Occupied Rented Dwelling Units, Distribution by States

Population group 100,000 and over, Connecticut (similar tabulation by each population group for the states in each geographic division)

RENT CLASS	NEW ENGLAND Uncorrected rents [1] (dollars) (1)	CONNECTICUT Percentage of dwelling units in state [2] (2)	CONNECTICUT Rent allocated to state (dollars) (3) = (1) × (2)
Under $15	370,534	15.199	56,317
15–29	3,683,643	20.646	760,525
30–49	5,980,345	20.509	1,226,509
50–99	3,756,782	20.169	757,705
100 and over	751,786	19.980	150,207
All rent classes	14,543,090		2,951,263
Correction factor [3]			.950641
Total adjusted rent [4]			2,805,592

[1] *Table ABM 14, col. 2, with certain rent groups combined.*

[2] *These percentages were obtained from Tables ABM 1 and 2, where the number of dwelling units reporting rent by rent classes for states and geographic divisions are shown by population groups as illustrated by Connecticut and New England.*

[3] *For adjustment for mid-point of group basis to empirical group basis, including, in total rent, the rent of dwelling units not reporting value or tenure. Derived by dividing corrected monthly rent for all occupied dwellings (Table ABM 14, col. 4) by the uncorrected monthly rent for dwellings reporting rent (col 2):*

$$\frac{13,825,260}{14,543,090} = .950641.$$

[4] $2,951,263 \times .950641$.

d Value of Rented Dwelling Units

The values of occupied rental dwelling units were obtained by means of value-rent ratios. The derivation of these ratios is explained below in section 5; Table B 20 presents the ratios actually derived for 1930. Since they reveal significant differences by type of dwelling, it was necessary to determine aggregate rents by type of dwelling for each geographic division and population group. This step was possible with data derived from the 139 city special tabulation. As explained in section 4 d the special tabulation of rented dwelling units in the 139 cities was so prepared as to secure average monthly rents per dwelling unit for each type of dwelling. The average monthly rents per dwelling unit for the 2- and 3-or-more family dwellings were then expressed as percentages of the average monthly rents for 1-family dwellings (Table ABM 19).

Table ABM 16 illustrates how these relative rents, weighted by the number of occupied rental units of each type, were used to obtain the distribution of monthly rents by type of dwelling for cities in the population group 100,000 and over in New England. These monthly rents by type were then converted into annual rents (line 1 f 2) and multiplied by the value-rent ratios (line g) to obtain the aggregate values (line h). As a final step the value of vacant units was included by multiplying the total value of occupied units for each type of dwelling by the ratios of total units to occupied units after adjusting the ratio by the differential in rents between occupied and vacant units.

e Value of Rented Dwelling Units, Distribution by States

The derived value-rent ratio as determined for all types of occupied rental dwellings (see Table ABM 16, line g) was assumed to hold for each state for the respective population groups. These value-rent ratios were then multiplied by the aggregate rents for each state, determined as in the illustration for the 100,000 or more population group for Connecticut in the New England division (Table ABM 15). The value of vacant units was then allowed for by increasing the values for each state in the same proportion as the values had been increased for the geographic division as a whole (Table ABM 16).

This method of distributing the value of rented dwelling units by states involves some error, as the distribution of rented dwellings by type may differ from state to state. Since it was impossible to estimate the number of dwelling units for each state by type and tenure (see Ch. II, 2 f), without pressing certain assumptions too far, the values of rented dwelling units were distributed by states without reference to type of dwelling.

f Value of Dwelling Units, Distribution by Type

In deriving the number of nonfarm dwelling units a distribution of the number of units for each geographic division was obtained by tenure, population group, and type of dwelling (see Tables ABM 11 and A 4). From the tabulations completed thus far, a similar distribution could be made for rented dwelling units (see Table A 5), but not for values for each tenure.

TABLE ABM 16

Derivation of Value of Rented Dwelling Units, including Vacant, by Geographic Division and Population Group

Population group 100,000 and over in New England (similar tabulation by each population group for each geographic division)

1 OCCUPIED UNITS	1-FAMILY	2-FAMILY	3-OR-MORE FAMILY	ALL TYPES
	(1)	(2)	(3)	(4)
a Relative rents (base, 1-family) [1]	100.0	85.0	94.0	92.2[7]
b Estimated no. of rented units [2]	69,503	129,869	220,211	419,583
c Equivalent units in 1-family rental rates (used to obtain relative, all types) a × b	69,503	110,389	206,998	386,890 [8]
d Relative rents (base, all types) [3]	108,5	92.2	102.0	100.0
e Estimated avg. monthly rent per unit [4] (dollars)	35.75	30.38	33.58	32.95 [9]
f Aggregate rent, 1930 (dollars) per 1) month e × b	2,484,732	3,945,420	7,395,108 [10]	13,825,260
2) year 12 × f(1)	29,816,784	47,345,040	88,741,296	165,903,120
g Value-rent ratio [5]	13.1	9.1	8.2	9.3 [11]
h Aggregate value of occupied units, 1930 (thousands of dollars) g × f(2)	390,600	430,840	727,679	1,549,119 [12]
2 Vacancy value correction factor [6]	1.036	1.063	1.095	1.071 [13]
3 Aggregate value, all units, 1930 (thousands of dollars) h × (2)	404,662	457,983	796,809	1,659,454

[1] *See Table ABM 19.* [2] *See Table ABM 11.*
[3] *Based on line 1 a, all types = 100.0.*
[4] *Relative, line 1 d, applied to average, all types (32.95).*
[5] *See explanation, Ch. II, sec. 5, and Table B 20.*
[6] *Ratios of total rented dwelling units by type (including vacant) to total occupied units, adjusted to take account of the difference in rent between vacant and occupied units. The rent of vacant units was 97.4 per cent of that of occupied units. The unadjusted vacancy ratios were 1.037, 1.065, and 1.098. These ratios can be obtained from Table ABM 14. The adjustment was made as follows: [1.000 + (unadjusted ratio − 1.000) × .974].*
[7] *Derived: line 1 b ÷ line 1 c.* [8] *Added total.*
[9] *Equals $35.47 (uncorrected average rent for dwellings reporting value) corrected for mid-point of group basis by use of ratio .929; see footnote 5, Table ABM 14.*
[10] *Aggregate "All types" less aggregates for 1- and 2-family dwellings so as to give arithmetic check.*
[11] *Derived: line 1 h ÷ line 1 f (2).*
[12] *Added total.*
[13] *Derived: line 3 ÷ line 1 h.*

The method of deriving the values of rented dwellings made it necessary to distribute rents of occupied units by type of dwelling, since value-rent ratios showed marked differences by type of dwelling. Consequently, the differentials in rent for the several types of dwellings were derived from the 139 city special tabulation.

Since in order to estimate the total value of owner-occupied dwelling units it was not necessary to differentiate by type, no attempt was made to derive the representative differential average values of the several types of dwellings from the 139 city special tabulation for owner-occupants. Although statistically possible to estimate such values by type, it was not practicable.

4 Special Tabulation of Census Data for 139 Selected Cities

The special tabulation of Census data covering 139 selected cities was used in deriving the number and value of nonfarm dwelling units. Its earlier description would have interfered with the logical presentation of the basic methods.

a Character and Content of the Special Tabulation

Tables A 6 and B 5 list the 139 cities in the tabulation, classified by geographic division, and indicate the population of each city and the average values or rents, by value or rent groups, of the dwelling units for which values or rents were reported. The tabulation is based upon complete coverage for 90 cities and sample coverage for 49 cities.[12] Among the 139 cities are the 61 cities [13] included in both the Real Property Inventory and the Financial Survey of Urban Housing. The sample in the 49 cities varied with the size of the city. In cities of 100,000 or more, every 9th family was covered; in cities of 50,000–100,000, every 7th family; in cities of 25,000–50,000, every 6th family; in cities under 25,000, every 4th family.

To make the area covered by this tabulation for Atlanta, Georgia; Birmingham, Alabama; Cleveland, Ohio; Providence, Rhode Island; San Diego, California; Seattle, Washington; and Wheeling, West Virginia (which were among the 49 sample coverage cities) comparable to the area used by the Financial Survey, their environs were included in the respective metropolitan areas.

[12] *The sample coverage cities are indicated by footnote references in Tables A 6 and B 5.*
[13] *For a list of these cities see Table A 9. The 9 cities of the 61 cities not included among the 52 cities of Table A 15 received only simplified tabulation by the Financial Survey of Urban Housing because of incomplete sample coverage.*

b Type of Tabulation and Methods

For each city the value or rent of each dwelling unit (or a sample of such values or rents in the 49 cities) was entered under the value or rent group to which it belonged. The types differentiated in the two parts of the tabulation are shown herewith. The number of value entries in each value class gave the number of owner-occupied dwelling units and also of structures, since the owner-occupied dwelling units in a multiple

90 CITY COMPLETE TABULATION		49 CITY SAMPLE TABULATION
Owner-occupied	Rented	Owner-occupied and rented
Total (structures)	Total (dwelling units)	Total (structures or dwelling units)
1-family	1-family	1-family
2-family	2-family	2-family
	3-or-more family	3-family
		4-family
		5-or-more family

family dwelling would not be duplicated among the owner-occupant tenure group. The rent entries gave the number of rented dwelling units but not of structures, since multiple dwelling structures may be represented by two or more entries in the rented tenure group or by one entry in the owner-occupant tenure group and one or more entries in the rented tenure group.

The sum of all the value entries in each value class divided by the total entries gave the average value per dwelling unit by value groups. Similarly, the rent entries served as the basis for determining the average rent per dwelling unit by rent groups.

For rented dwelling units the rents of each type of dwelling also were cumulated to determine the average rents for dwelling units in 2- and 3-or-more family dwellings. This was not done for owner-occupied dwelling units since, as explained in section 3 f, the information by type was not required for estimate purposes. The average values of all types and of 1-family types alone were obtained for the owner-occupant tenure.

c Average Values or Rents by Value or Rent Group by Geographic Division and Population Group

From the individual city data on average values or rents by value or rent groups (Tables A 6 and B 5) were derived representative average values for geographic divisions by population groups. The size of the sample made it necessary to combine certain geographic divisions to provide a sufficient number of cities of each size to yield fairly representative average values.

Table ABM 17 presents for the group of cities with populations of 100,000 or more the geographic division average values or rents. On these average values were calculated the correction factors used to adjust the class mid-points from a preliminary to an actual

TABLE ABM 17

Average Values or Rents by Value or Rent Group as Derived from the 139 City Special Tabulation by Geographic Regions

Population group 100,000 and over by geographic region (similar tabulation for each population group)

A AVERAGE VALUE (DOLLARS)[1]

	VALUE GROUP									
	Under 1,000[3]	1,000–1,499	1,500–1,999	2,000–2,999	3,000–4,999	5,000–7,499	7,500–9,999	10,000–14,999	15,000–19,999	20,000 and over[4]
North East[2] (5 cities)	544	1,157	1,619	2,320	3,768	5,938	8,273	11,146	15,982	33,090
North Central (7 cities)	597	1,121	1,622	2,321	3,742	5,807	8,175	10,999	15,758	33,090
South (7 cities)	587	1,077	1,592	2,271	3,645	5,813	8.179	10,956	15,696	33,090
West (4 cities)	551	1,101	1,604	2,305	3,738	5,703	8,160	10,906	15,708	33,090

B AVERAGE MONTHLY RENT (DOLLARS)[1]

	RENT GROUP									
	Under 10.00[3]	10.00–14.99	15.00–19.99	20.00–29.99	30.00–49.99	50.00–74.99	75.00–99.99	100.00–149.99	150.00–199.99	200.00 and over[4]
North East[2] (5 cities)	7.00	11.85	16.53	23.65	35.95	56.34	80.25	108.02	159.76	242.58
North Central (7 cities)	6.80	11.55	16.28	23.28	36.71	56.25	80.01	110.32	157.28	206.55
South (7 cities)	6.60	11.47	16.04	22.95	36.18	56.19	79.52	109.06	157.73	240,18
West (4 cities)	6.30	11.23	16.16	23.18	36.22	55.82	80.72	112.26	160.86	318.23

[1] *Average values and rents for all except open end groups are merely simple arithmetic averages of the individual city averages for those cities in the specified areas having populations within the population groups noted; see Tables A 6 and B 5.*

[2] *North East combines New England and Middle Atlantic; North Central combines East and West North Central; South combines South Atlantic, East South Central, and West South Central; West combines Mountain and Pacific.*

[3] *Simple arithmetic average of weighted averages for population groups of different size in each geographic division. Size groups were restricted to "Over 25,000"; "5,000–25,000" and "Under 5,000."*

[4] *Assigned after studying calculations similar to those noted in footnote 3.*

basis (Table ABM 18). The methods by which these correction ratios were calculated are explained in the footnotes to Table ABM 18.

TABLE ABM 18

Correction Factors [1] for Adjustment of Total Values and Rents as Derived from the Use of Class Mid-Points

Population group 100,000 and over by geographic region (similar tabulation for each population group)

	NORTH EAST [2]	NORTH CENTRAL	SOUTH	WEST
	A OWNER-OCCUPIED			
Value Group				
Under $1,000	1.000	1.000	1.000	1.000
1,000– 1,499	.912	.874	.851	.872
1,500– 1,999	.917	.918	.904	.910
2,000– 2,999	.912	.916	.902	.914
3,000– 4,999	.924	.921	.915	.933
5,000– 7,499	.951	.940	.944	.930
7,500– 9,999	.945	.934	.935	.933
10,000–14,999	.892	.880	.876	.872
15,000–19,999	.913	.900	.897	.898
20,000 and over	1.000	1.000	1.000	1.000
	B RENTED			
Rent Group				
Under $10.00	1.000	1.000	1.000	1.000
10.00– 14.99	.919	.904	.908	.883
15.00– 19.99	.933	.921	.917	.914
20.00– 29.99	.944	.930	.928	.926
30.00– 49.99	.919	.932	.936	.933
50.00– 74.99	.933	.928	.935	.926
75.00– 99.99	.937	.933	.926	.956
100.00–149.99	.902	.938	.913	.908
150.00–199.99	.913	.899	.901	.919
200.00 and over	1.000	1.000	1.000	1.000

[1] *The correction factors or ratios in this table were derived as follows: the aggregate values or rents by value or rent groups were first obtained as explained in Table ABM 12, footnote 4, for each of the 9 geographic divisions. Simple averages were then computed for the geographic divisions that were combined. These were divided into the averages of Table ABM 17. For the use of these factors see Tables ABM 12 and 14.*

[2] *North East combines New England and Middle Atlantic; North Central combines East and West North Central; South combines South Atlantic, East South Central, and West South Central; West combines Mountain and Pacific.*

d Relative Rents by Type of Dwelling for each Geographic Division

In order to obtain total monthly rents for each type of dwelling as illustrated in Table ABM 16 it was necessary to have a set of percentages for each geographic division that would indicate the differentials in rents for the different types of dwellings. Weighted average rents by type of dwelling were computed for population groups of a given size in each geographic division. The rents thus computed for the 2- and 3-or-more family dwelling units were expressed as percentages of the 1-family dwelling rents. Curves were then drawn with population groups as abscissa and percentages as ordinates for each geographic division. From the general trend of these percentages by population groups for all geographic divisions, a set of percentages was selected as representative for a combination of geographic areas (Table ABM 19).

e Percentage of Nonfarm Residential Structures Inhabited by Their Owners

In deriving the distribution of types of dwellings by tenure (Table ABM 20) information gained from the 139 city special tabulation was used. The method of obtaining this information is described above in section 4 b. The percentages were used in deriving Table ABM 11.

f Data for Population Groups under 2,500

Among the 139 cities of the special Census tabulation 25 had populations under 2,500. Since the *Census of Population, 1930* does not show distributions of dwelling units by value or rent groups for towns and villages with fewer than 2,500 inhabitants, distributions of number of dwelling units, all types, by value or rent groups were made for this group (Tables A 7 and B 6). Table A 7 gives also total 1-family dwelling units and Table B 6 total dwelling units in each of the

TABLE ABM 19

Average Monthly Rents for 2- and 3-or-more Family Dwellings as Percentages of Monthly Rents for 1-Family Dwellings by Geographic Division and Population Group [1]

	2-FAMILY DWELLINGS						3-OR-MORE FAMILY DWELLINGS ALL POPULATION GROUPS
	100,000 and over	25,000–100,000	10,000–25,000	5,000–10,000	2,500–5,000	Under 2,500	
				(*percentages*)			
New England	85.0	87.0	88.0	89.0	91.0	92.0	94.0
Middle Atlantic	85.0	87.0	88.0	89.0	91.0	92.0	112.0
East North Central	94.0	95.0	96.0	98.0	99.0	100.0	121.0
West North Central	94.0	95.0	96.0	98.0	99.0	100.0	136.0
South Atlantic	97.0	98.0	99.0	100.0	101.0	102.0	150.0
East South Central	97.0	98.0	99.0	100.0	101.0	102.0	150.0
West South Central	97.0	98.0	99.0	100.0	101.0	102.0	150.0
Mountain	88.0	89.0	90.0	92.0	93.0	94.0	133.0
Pacific	88.0	89.0	90.0	92.0	93.0	94.0	133.0

[1] *For method of derivation and source see explanation in text. These percentages were used as illustrated in Table ABM 16.*

TABLE ABM 20

Percentage of Residential Structures Inhabited by Their Owners, by Geographic Division, Type of Dwelling, and Population Group, April 1, 1930

GEOGRAPHIC DIVISION AND TYPE OF DWELLING	ALL POPULATION GROUPS	100,000 AND OVER	25,000–100,000	10,000–25,000	5,000–10,000	2,500–5,000
New England and Middle Atlantic						
2-family dwelling	50.7	47.6	53.4	54.3	51.9	66.4
3-or-more family dwelling	40.5	39.6	39.8	42.4	31.2	64.6
East and West North Central						
2-family dwelling	51.5	46.7	53.2	57.3	60.0	63.8
3-or-more family dwelling	37.8	30.2	48.9	36.3	53.7	53.7
South Atlantic						
2-family dwelling	36.5	32.3	34.7	39.3	40.0	51.2
3-or-more family dwelling	34.5	24.8	25.0	55.3	36.4	69.3
East and West South Central						
2-family dwelling	45.2	41.3	40.9	53.6	53.7	45.1
3-or-more family dwelling	45.3	34.7	32.3	56.7	60.1	68.7
Mountain and Pacific						
2-family dwelling	45.3	44.7	45.9	47.6	49.2	37.9
3-or-more family dwelling	33.4	28.5	41.4	36.8	48.6	28.7

Derived from special tabulation of 139 cities for NBER

three types of dwelling classifications, information not available elsewhere.

5 Value-Rent Ratios, Method of Deriving

To estimate the value of rented properties, value-rent ratios (Table ABM 16) were derived from information in the Financial Survey of Urban Housing with the aid of weights from the Real Property Inventory. Since the best information in these surveys relates to 1934, the method of deriving the value-rent ratios for that year is explained first.

a 1934

The value-rent ratios derived for 1934 by type of dwelling are shown in Table B 19 for 42 cities, with weighted averages for the cities in each geographic division. Since the number of tenant and landlord reports in the Financial Survey of Urban Housing was not the same, average rents derived from tenant reports and average values derived from landlord reports were used.

Financial Survey of Urban Housing reports were classified into 1-family, 2-family, apartments, and "other dwellings" and average rents and values derived for each type. Ratios of value per room to rent per room were computed for each type. Financial Survey sample data are available for 1-family dwellings for 1, 2, 3, 4, 5, 6, and "7-or-more" rooms. For each city, value-rent ratios were computed for each room size and reweighted by total rented 1-family dwelling units classified by number of rooms, as reported by the Real Property Inventory. This reweighting served to overcome the tendency of the Financial Survey sample of rented dwellings as reported by landlords to be biased toward the larger room sizes.

In order to match the Census "1-family dwelling unit" classification, which includes row houses, the value-rent ratios for 1-family dwellings for the cities within each geographic division were combined with similar value-rent ratios for row houses by using weights of the number in each city derived from the Real Property Inventory. To give geographic division ratios the ratios thus obtained for each city were combined by weighting total 1-family and row houses in each city as reported by the Real Property Inventory.

A breakdown by number of rooms similar to that for 1-family dwellings was not feasible for 2-family dwellings, and the value-rent ratios for the cities as derived from the Financial Survey sample data were accepted and reweighted by the Real Property Inventory number of rented 2-family dwelling units in the several cities to obtain average ratios for the geographic divisions.

In order to match the Census "3-or-more family dwellings" classification it was necessary to combine the sample data for several types of dwellings as given in the Financial Survey and reweight them accordingly. Rents per room were obtainable from the sample as reported by tenants for 3- and 4-family dwellings and "larger apartments" (5-or-more family). However, the values of multi-family rented dwellings as reported by landlords covered only "apartments" that contained 4-or-more family dwelling units and "other dwellings," which included, without possibility of segregation, 3-family dwellings, row houses, flats over stores, and miscellaneous units not otherwise classified. Consequently, in each city, value-rent ratios were computed for "apartments" (4-or-more family dwellings) and "other dwellings." A composite 3-or-more family dwelling value-rent ratio was then obtained by

weighting this "apartment" ratio by the rented apartment units and weighting the "other dwelling" ratio by total rented dwelling units in "3-family dwellings," "flats over stores," and "other," both as reported in the Financial Survey tenant sample. The Financial Survey sample data were used for weighting because the corresponding Real Property Inventory data on "other dwellings" include, in addition to flats over stores, several essentially 1-family dwellings, such as single dwellings with business offices or stores. In some cities, Cleveland in particular, the Real Property Inventory full coverage data would have seriously overweighted the "other dwelling" value-rent ratio.

b 1930

Ratios of 1930 value and 1929 rent, by type of dwelling, similar to those described above for 1933–34, cannot be derived directly from the Financial Survey data. A composite ratio for all types is obtainable for 1930, but it is not possible to make the detailed adjustments outlined for 1934. Furthermore, the 1930 values and 1929 rents reported to the Financial Survey in 1934, when compared with the 1930 Census data, seem to be understated in varying degree. Consequently, the 1933–34 ratios by type, described above, seemed to offer a more reliable basis for deriving a 1929–30 ratio. They were accordingly used to estimate value, adjustment being made for changes in the value-rent relationship between 1930 and 1934. In making this adjustment, which is based on the differential changes in values and rents between 1930 and 1934, two difficulties had to be overcome: first, as noted above, the objection to using the retrospective values and rents reported by the Financial Survey for 1930; second, the trend in values required was that for rented properties, which was available from the Financial Survey alone. The trend in rents, 1930–34, was based upon the full coverage rent data for 1930 derived from the Census taken in that year (Table B 8) while the 1934 rents are Financial Survey average rents by rent classes obtained in that year and weighted by the Real Property Inventory number of rented dwellings by rent classes.

To obtain the value trend for 1930–34 certain additional steps were necessary. Table A 10 presents the average values of 1-family owner-occupied dwellings on a full coverage basis in 1930 and on a sample basis in 1934 and the percentage change. To obtain the change in the value of all rented dwellings between 1930 and 1934 it was assumed that the relative difference between the value of 1-family dwellings as reported to the Financial Survey for these two years and the full coverage averages in Table A 10 would be fairly representative measures of the difference between full coverage values of rented properties and the values reported by landlords to the Financial Survey for rented properties in 1930 and 1934.

The 1930 and 1934 values for rented properties were corrected by the method described above, and the percentage change between the two years was thus obtained for individual cities (similar to Table A 10). With comparable percentage changes in values and rents between the two years for individual cities it is possible to obtain for each city the relative percentage changes in values and rents. This was done first for each city; then the ratios in each city were weighted by the number of rented dwellings as reported by the Real Property Inventory in 1934 to give geographic division weighted figures (Table ABM 21). Where the ratio exceeds unity it indicates that values were higher relative to rents in 1930 than in 1934 and hence the value-rent ratio in 1930 should be higher than the value-rent ratio in 1934 by the amount indicated.

TABLE ABM 21

Ratio of Percentage Change in Value (1930–1934) to Percentage Change in Rent (1930–1934) and Correction Factors for Incomplete Coverage of Financial Survey Value-Rent Ratios for 1934, by Geographic Division

	RATIO OF CHANGE IN VALUE TO CHANGE IN RENT 1930–34	FACTOR TO CORRECT FOR INCOMPLETE COVERAGE [2]
New England	1.114	0.967
Mid. Atlantic	1.202	0.958
E. N. Central	0.960	1.044
W. N. Central	1.053	1.058
S. Atlantic	1.100	1.007
E. S. Central [1]	1.138	0.998
W. S. Central	1.191	0.984
Mountain	1.034	1.059
Pacific	1.167	1.010

[1] *The East South Central is a weighted average of the South Atlantic and the West South Central geographic divisions.*
[2] *Percentage of full coverage average value for 1-family dwellings to sample coverage divided by percentage of full coverage average annual rent to sample coverage average annual rent.*

These adjustment factors were not applied to the value-rent ratios for 1934 in Table B 19 since the latter were based upon sample data and the measurement of trends was on a full coverage basis. The 1934 value-rent ratios by type for the geographic divisions were instead adjusted by a ratio based on the percentage relationship between (a) full coverage owner-occupied 1-family dwelling values and sample coverage values in 1934, and (b) full coverage average annual rents and sample coverage rents in 1934.

The correction factors in Table ABM 21 were multiplied by the value-rent ratios for 1934 by type (Table B 19) to obtain the 1934 value-rent ratios for the separate types, excluding "all types" (Table B 20). The 1934 value-rent ratios for the separate types, excluding "all types," in Table B 20 were then multiplied by the correction factors in Table ABM 21 to give the 1930 value-rent ratios in Table B 20 for the separate

types, excluding "all types." It was these 1930 value-rent ratios by type that were used to estimate aggregate values for 1930 (Table ABM 16). The value-rent ratio for "all types" (Table B 20) for 1930 was obtained as a result of the aggregate estimate (all cities), illustrated in Table ABM 16 for the population group 100,000 and over in New England. The "all types" ratio for 1934 (Table B 20) was then obtained by dividing by the correction factors in Table ABM 21. The weighted "all types" value-rent ratio for 1934 is used in estimating aggregate value of rented properties for 1934 (Table A 8).

6 Value of Nonfarm Residential Real Estate, including Vacant, Estimates, 1934

The total value of nonfarm residential real estate in 1934 (Table A 8) was estimated separately for owner-occupied and rented properties in each geographic division, but not by population groups.

a Value of Owner-Occupied Dwelling Units

To estimate the average value of owner-occupied dwelling units in 1934, the average 1930 value of owner-occupied dwellings, including vacant, in each geographic division was multiplied by a correction factor representing the relative change in the value of 1-family dwellings between 1930 and 1934, as shown in Table A 10 by geographic division. The resulting average value per unit in 1934 was multiplied by the dwelling units standing in 1934 to obtain the estimated aggregate value of owner-occupied residential property for the geographic division. The units standing in 1934 were estimated on the basis of additions through new construction and decreases through demolitions, estimates for which were made in connection with the estimates of construction (see Ch. V). The United States total was then obtained by addition of the products for the geographic divisions. This procedure assumes, in the absence of more conclusive data, that average values of 2- and 3-or-more family dwellings declined by the same percentage as those of 1-family dwellings. While values of these other types of structure may have declined at different rates, the error in the total is probably small, since 1-family dwellings comprised 89 per cent of all owner-occupied dwelling units in 1930.

b Value of Rented Dwelling Units

Aggregate value of rented dwelling units in 1934 was estimated after the average value per unit and the number of rented dwelling units standing in 1934 had been determined. The average value of rented dwellings was obtained by using the product of the percentage change in the value-rent ratios and in rents. In order to adjust to 1934 values the following steps were taken: The value-rent ratios for all types in 1929–30 by geographic division were divided into the corresponding ratios for 1933–34 (Table B 20) to obtain a correction factor reflecting the change in these ratios. This correction factor was multiplied by the ratio of average rent for all types in 1933, expressed as a percentage of the average rent for 1929, to give an estimated ratio of the value of rented units of all types in 1934 expressed as a percentage of the value of rented units in 1930. The percentage so obtained was multiplied by the average value per unit in 1930 (Table A 3) to obtain an estimated average value per unit in 1934. This average value per unit in 1934 was multiplied by the estimated number of units on January 1, 1934 to obtain an estimated aggregate value of rented units in 1934. Addition of values of owner-occupied and rented gave an aggregate value for the two tenures for 1934. Total dwelling units standing on January 1, 1934 were derived on the basis of estimated net additions through new construction and demolitions between April 1, 1930 and January 1, 1934. These net additions were added to total dwelling units standing on April 1, 1930 (Table A 4).

CHAPTER III

Source of Income Data and Method of Tabulating

The income data in Part Three, section C, Tables C 1–15, were derived from information collected by the Financial Survey of Urban Housing. Tables C 1–3 are the results of special tabulations made in connection with this study and these data have not been published previously.

1 Tables Derived from Special Tabulations

The income tables in Part Three, section C, may be conveniently divided into two parts. The first three, C 1–3, present income information for 33 cities for 1929 and 1933. Since the data result from special tabulations for cities providing the largest number of returns, they warranted greater subdivision. These more elaborate tabulations were made after digit sorting