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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

of punch cards covering income data for both 1929 and 1933, by 39 income groups. The tabulation by the Financial Survey covered 1933 alone and gave only 11 income groups.

In Table C 1 the number and percentage of owner-occupant and tenant families reporting income in 1933 for the years 1929 and 1933 are shown by 39 income groups for the 33 cities combined. The combination of the reports for each city to obtain the totals for the 33 cities is based upon the sample data, no attempt being made to increase the reports in each city to full coverage or to equal percentage coverage.

Table C 2 is identical with Table C 1 except that it shows the income (to the nearest \$100) reported by families in each income group and the percentage distribution of the amounts by the 39 income groups.

Table C 3 presents for tenant families for the 33 cities combined and for each city individually: (1) the number of families reporting income and rent by the 39 income groups, (2) the average income and rent reported by families in each income group, (3) the percentage rent is of income by income groups. The information for the tenant families that had reported through mail returns and for those that had been personally enumerated is presented separately. A similar table showing the relation between income and value of residence cannot be presented for owner-occupant families without considerable additional machine tabulation since the income and value data are on different punch cards.

In tabulating the income data for 1929 in conjunction with 1933 those schedules were eliminated from the 1929 distribution which indicated that the families reporting income in 1933 were non-existent as families in 1929.

## 2 Tables Derived Directly from Financial Survey Tabulations

Tables C 4-13 present real estate information for 1933 for 52 cities by 11 income groups. These materials were originally prepared by the Financial Survey, but the results have as yet been published for only 22 cities. The totals for the cities in each geographic division and for all 52 cities combined (Tables C 4-13) were weighted as explained in the footnotes to the tables (see also Part Two, Ch. I, sec. 2). Therefore, the weight of each city in the combinations of cities is

## Used, Rejected, and Total Schedules Received, Percentage Distribution by 11 Income Groups, 33 Cities, 1933

	All Income Groups	No Income	\$1- 249	\$250- 499	\$500- 749	\$750- 999	\$1,000- 1,499	\$1,500- 1,999	\$2,000- 2,999	\$3,000- 4,499	\$4,500- 7,499	\$7,500- and over
Used	100.0	5.2	10.3	11.9	13.5	10.3	18.5	13.3	10.4	4.3	1.7	0.6
Rejected	100.0	9.1	14.8	12.8	12.6	10.2	16.1	10.7	8.0	3.5	1.4	0.8
Total	100.0	5.6	10.7	11.9	13.4	10.3	18.2	13.1	10.2	4.3	1.7	0.6

*Special tabulation of Financial Survey of Urban Housing schedules*

based upon estimated full coverage rather than actual sample coverage.

## 3 Character of the Income Data

The unit of enumeration for all data collected by the Financial Survey was the dwelling. Income was that received by the family living in the dwelling unit. The family was not necessarily coextensive with the number of persons living in the dwelling unit since enumerators were specifically instructed to ascertain the number of persons living in the dwelling unit and also the number of persons making up the family. Lodgers, roomers, other paying guests, and servants on January 1 of each year for which the reports were received were excluded from the family proper. There was no formal definition of family per se, but the substance of the instructions and the arrangement of the schedules defined it as the persons living in the dwelling unit less those mentioned above. Presumably a person might be excluded as a family member, even though he was related to other persons within the family by blood or marriage, if he paid board or room rent and was thought of as a lodger or roomer. Persons temporarily absent but normally members of the family were included as members. In requesting the amount of the family income the enumerators were instructed to state that there was no desire to pry into personal affairs or to acquire information for taxation purposes, but that it was "necessary to get reliable statistics showing the relation between family income and the type and value or rent of the house owned or used"; only an approximation of family income was desired.

The family income data applied to the 12 months of each calendar year reported on: the amount received in the form of wages and salaries and from roomers or lodgers was reported separately. To the total income from these two sources was to be added any net income from investments, from rental of a garage or other properties or part thereof, or from relatives, relief agencies, or other sources. The income from wages or salaries and all other income was the total for all members of the family. The schedule and instructions made no specific differentiation or reference to the form of income, whether cash or income received in the form of goods, services, or commodity orders.

Many of the Financial Survey schedules, especially

among those returned by mail, were rejected in editing because of incomplete data. Subsequent analysis indicates a downward bias in favor of the smaller income groups. When the rejected schedules containing income information are added to the used schedules, however, the total varies only slightly from the distri-

bution of the used returns, as shown by the accompanying table.

A more detailed presentation of the income data here shown in part and of the method of collection and tabulation is being prepared.

## CHAPTER IV

### *Financing Nonfarm Residential Real Estate*

With the exception of Tables D 1, 2, 4, and 48 all tables in Part Three, section D, are derived from Financial Survey data. The principal estimate of this section is for debt in 1934 (Table D 4). The percentages of owner-occupied nonfarm properties mortgaged and the debt-value ratios expressed in percentage form for 1920 are presented in Table D 1 by population group, state, and geographic division. Table D 2 presents for 1920 and 1934 for 50 cities the percentage of properties mortgaged and for 45 cities the debt-value ratios of mortgaged properties. The 1934 data are from the Financial Survey. Table D 48 presents data on financing of real estate in two New York City areas as derived from a special study.

Before the methods used to derive the mortgage estimates for 1934 are explained, the sources and methods used to obtain the data for 1920 and the information available for 1930 and 1934 from the Financial Survey are described.

#### 1 Percentage of Owner-Occupied Houses Mortgaged and Percentage that Debt is of Value, 1920

Census Monograph II, *Mortgages on Homes in the United States, 1920*, provides the information from which Table D 1 and the 1920 section of Table D 2 were derived. These census data were based on a mailed survey of 66.3 per cent of owner-occupied residences. The percentages of owner-occupied residences mortgaged and the debt-value ratios for all population groups combined (Table D 1) are transcribed directly from Tables 26 and 30 of the Census Monograph II. The percentages of residences mortgaged for each population group (Table D 1) are derived from Tables 26, 27, 28, 30, 31, and 33 of the Monograph.

The percentages of houses mortgaged in cities with populations of 100,000 and over (Table 27) and between 25,000 and 100,000 (Table 28) were used in conjunction with the number of mortgaged houses (Tables 31 and 33) to obtain total owner-occupied houses in each city in the respective population groups. The cities in both size groups were then arranged by

states in each geographic division and totals obtained by states and geographic divisions of the number of owner-occupied and mortgaged houses. From these totals were computed the percentages mortgaged in each state and geographic division for both population groups.

To obtain similar percentages for population groups under 25,000 the combined total of mortgaged dwellings for the larger cities, computed as described above, was subtracted from total mortgaged dwellings for states and geographic divisions in Census Monograph Table 30. Since the percentage mortgaged by states and geographic divisions for all cities was given in Table 26 it was possible to obtain total owner-occupied residences and derive by subtraction the number in population groups under 25,000. From total owner-occupied and mortgaged houses in population groups under 5,000 it was then possible to compute the percentage mortgaged.

The debt-value ratio by population groups (Table D 1) was transcribed directly from Census Monograph Table 34.

#### 2 Percentage of Owner-Occupied and Rented Houses Mortgaged and Debt-Value Ratios in Individual Cities

The city percentages for 1920 in Table D 2 were transcribed directly from Census Monograph Tables 27, 28, 31, and 33; the 1934 percentages and ratios are from the Financial Survey of Urban Housing. The debt-value ratios in Table D 3 for owner-occupied and rented properties for 1930, 1933, and 1934 are based on sample data derived from the Financial Survey. The number of reports on which they are based is shown in Tables D 5 and 6 by value groups together with the percentage mortgaged by value groups. Tables D 7 and 8 present Financial Survey data on the value of and the debt outstanding (principal only) on mortgaged properties by value groups and thus provide the basic sample data from which the debt-value ratios of mortgaged properties in 1934 are derived. Table D 9 presents, by type of dwelling, for each ten-