

# INTRODUCTION

## GENERAL

Volume I of the 1960 Housing reports presents basic statistics on all subjects for which information was collected in the Census of Housing, taken as of April 1, 1960. The housing unit is the reporting unit for this volume.

The volume is arranged by chapters and is bound in nine parts. Part 1 consists of the United States Summary chapter; Parts 2 to 8 contain the separate chapters for the States and the District of Columbia; and Part 9 comprises the chapters for Puerto Rico, Guam, and the Virgin Islands of the United States. The statistics for the three outlying areas in Part 9 differ somewhat in detail and scope from those published for the United States.

The statistics relate to occupancy characteristics, structural characteristics, condition and plumbing facilities, equipment and fuels, and financial characteristics. For the most part, Volume I is restricted to simple distributions of these characteristics; cross-tabulations for both occupied and vacant units are provided in other 1960 Housing reports. Although statistics for some of the subjects are based on a complete count of housing units, most of the data are based on samples of 25, 20, or 5 percent of the units. The subjects represent a modification and an expansion of the 1950 and 1940 Censuses of Housing.

The State chapters present statistics for the State, inside and outside standard metropolitan statistical areas, and the urban, rural-nonfarm, and rural-farm parts of the State; for each standard metropolitan statistical area, urbanized area, place, and county; and for the rural-nonfarm and rural-farm parts of each county. The number of characteristics and the amount of detail presented are generally greater for areas with a large population than for areas with a small population. For example, the full distribution by number of rooms and the median are shown by tenure and vacancy status for standard metropolitan statistical areas and their constituent parts, urbanized areas, and each place of 50,000 inhabitants or more. In contrast, only the average number of rooms, by tenure, is shown for places with a population of 1,000 to 2,500.

The United States Summary chapter contains detailed data for the United States as a whole, the four regions, and the nine groups of States designated geographic divisions, as well as summaries of the statistics for the States and the District of Columbia and for standard metropolitan statistical areas and places of 100,000 inhabitants or more (with data on elevator in structure for places of 50,000 inhabitants or more). Detailed data are presented also for the United States by inside standard metropolitan statistical areas (separately for housing units in central cities and not in central cities) and outside standard metropolitan statistical areas, and by urban, rural-nonfarm, and rural-farm residence; for each region and division, summary data are presented by these same area and residence classifications. In addition, there is included in the United States Summary chapter an analysis of the 1960 Census findings and some historical data for purposes of comparison.

Some characteristics are presented for all housing units, whereas other items are restricted to specific segments of the housing inventory. For example, data on condition and plumbing facilities are presented for all housing units; number of persons and persons per room apply to occupied units; seasonal status applies only to vacant units; and value data are shown for owner-occupied units and vacant units available for sale. Other characteristics are available only for areas of specified size; for example, data on elevator in structure are available for places with a population of 50,000 or more, whereas data on source of water and method of sewage disposal are not available for such places.

In some instances, a characteristic is not shown for each of the tenure and vacancy groups so that the separate distributions do not add to the distribution for all units. For example, data on number of bathrooms (in table 4 of the United States Summary chapter and table 3 of the State chapters) are presented for all units (occupied and vacant) and separately for owner-occupied and renter-occupied units; vacant units are included in the distribution of "all" units but are not shown as a separate group. Data on number of rooms in the same tables are presented for all units (occupied and vacant) and separately for owner-occupied, renter-occupied, vacant available-for-sale, and vacant available-for-rent units; vacant units not on the available sale-or-rent market are included in the distribution of "all" units but are not shown as a separate group. (Furthermore, the distributions for vacant units are based on the 100-percent tabulation and the distributions for all, owner-occupied, and renter-occupied units are based on the 25-percent sample; see section on "Sample design.")

Data on characteristics of housing units with nonwhite household heads are presented for specified areas in both the State chapters and in the United States Summary chapter. In addition, in the State chapters only, data on selected characteristics of housing units with white household heads having Spanish surnames are presented for specified areas in five Southwestern States (Arizona, California, Colorado, New Mexico, and Texas); similar data are presented for housing units with household heads of Puerto Rican birth or parentage for specified areas in the other States. (See section on "Description of tables.")

## DESCRIPTION OF TABLES

Detailed tables in State chapters.—The tables are arranged, for the most part, by type of area. Maximum detail is shown for the State, standard metropolitan statistical areas (SMSA's), and urbanized areas. Table 1 contains selected summary information for the State by inside SMSA's (separately for housing units in central cities and not in central cities) and outside SMSA's, and by urban, rural-nonfarm, and rural-farm residence; for each SMSA; and for each place of 10,000 inhabitants or more. Tables 2 to 7 present detailed characteristics for the State, inside and outside SMSA's, and the urban, rural-nonfarm, and rural-farm parts of the State (except that table 7 does not contain data for rural-farm units). Tables 8 to 11 are similar in content to tables

1 to 7 but are restricted to housing units with nonwhite household heads. Tables 9 to 11 are omitted for States having fewer than 25,000 units with nonwhite household heads. The subjects contained in each table are specified in the index on pages x and xi in Parts 2 to 8 of Volume I.

Tables 12 to 17 are for SMSA's and their constituent parts (including each city of 50,000 inhabitants or more) and for urbanized areas. Categories for the items in these tables are shown in the same detail as in the tables for the State. Tables 12 to 17 are omitted for States with no SMSA's, urbanized areas, or places of 50,000 inhabitants or more (Alaska, Idaho, Vermont and Wyoming).

Less detail is presented in tables 18 to 27, which are for places under 50,000 inhabitants, by size groups. The amount of information varies by size of place, with minimum data for places of 1,000 to 2,500 inhabitants. Places of 25,000 to 50,000 inhabitants are covered in tables 18 to 21; places of 10,000 to 25,000 in tables 22 to 24; places of 2,500 to 10,000 in tables 25 and 26; and places of 1,000 to 2,500 in table 27.

County data are presented in tables 28 to 35. Tables 28 to 30 are for counties outside SMSA's (counties inside SMSA's are covered in tables 12 to 17). In the New England States, however, tables 28 to 30 are for all counties. Tables 31 and 32 are for rural-nonfarm housing and tables 33 and 34 are for rural-farm housing in all counties. Table 35, which presents data on source of water and sewage disposal, provides county totals excluding units in places which had 50,000 inhabitants or more in 1950 or in an interim census prior to 1960.

Tables 36 to 39 present statistics for housing units with nonwhite household heads for SMSA's and urban places (places of 2,500 inhabitants or more) having a specified number of such units—table 36 for 100 to 400 units, table 37 for 400 to 2,000 units, and tables 38 and 39 for 2,000 or more units. The number of characteristics and the amount of detail vary according to the number of units with nonwhite household heads. Tables 40 to 42 present statistics for housing units with white household heads having Spanish surnames in Arizona, California, Colorado, New Mexico, and Texas, or for housing units with Puerto Rican heads in the remaining States. Table 40 is restricted to SMSA's and urban places having 400 to 2,000 such units and tables 41 and 42 to areas and places having 2,000 or more. Tables are omitted if there are no SMSA's or urban places with the specified number of such units.

Data for most of the characteristics are based on samples of housing units; where the samples are of different sizes, the figures may not add precisely to the same totals. For example, the total for "all units" by condition and plumbing facilities may differ from the total for "all units" by number of bathrooms (see section on "Sample design").

**Detailed tables in United States Summary chapter.**—The detailed tables in the United States Summary chapter also are arranged by type of area; maximum detail is provided in practically all the tables. Table 1 presents summary characteristics for the United States as a whole and for each region, division, and State. Table 2 contains the same summary characteristics as table 1 but presents them for each region and division by inside SMSA's (separately for in central cities and not in central cities) and outside SMSA's, and by urban, rural-nonfarm, and rural-farm residence. Tables 3 to 8 present data on detailed characteristics for the United States and for each region, division, and State. The same detailed characteristics are presented in tables 9 to 14 for the United States by inside SMSA's (separately for in central cities and not in central cities) and outside SMSA's, and by urban, rural-nonfarm, and rural-farm residence, and in tables 15 to 20 for each SMSA and place of 100,000 inhabitants or more. In terms of the subjects and categories covered, tables 1 to 20 correspond with tables 1 to 7 in the State chapters. The subjects

contained in each table are specified in the index on pages xii and xiii of the United States Summary chapter (Part 1 of Volume I).

Table 21 presents data on elevator in structure for large urban places. Although all places of 50,000 inhabitants or more in 1960 are listed in the table, data on elevator in structure are restricted to those places which had 50,000 inhabitants or more in 1950 or in an interim census prior to 1960. The data in table 21 do not appear in the State chapters.

Tables 22 to 29, covering data for the United States, regions, divisions, and States, are restricted to units with nonwhite household heads. Tables 22 and 23 parallel tables 1 and 2, respectively; tables 24 to 26 and tables 27 to 29 parallel tables 3 to 8 and 9 to 14, respectively. In tables 22 and 23, separate data are shown for areas having 400 or more units with nonwhite household heads, and in tables 24 to 26 separate data are shown for areas having 25,000 or more such units. With respect to the subjects and categories covered, tables 22 to 29 correspond with tables 8 to 11 in the State chapters.

Table 30 is limited to SMSA's and places having 10,000 or more units with nonwhite household heads. The items covered in this table (household equipment and number of bathrooms) are not included in the tables for nonwhite occupied units in individual areas and places in the State chapters.

Data for States and for the large SMSA's and places in the United States Summary chapter (except as noted for table 30) are taken from the tables in the individual State chapters. The tables in the State chapters, however, cover additional information. In the State chapters, data for States are presented by area and residence classifications and data for SMSA's are presented for the constituent parts of the area; for large urban places, the State chapters contain additional data for units with nonwhite household heads.

As in the State chapters, data for most of the items are based on samples of housing units. Distributions based on samples of different sizes may not add precisely to the same totals (see section on "Sample design").

**Text tables in United States Summary chapter.**—In the Summary of Findings in the United States Summary chapter, data on selected characteristics are presented in text tables A to Y. In addition to the 1960 data, statistics available from the 1950 and earlier censuses are included for purposes of comparison. For many of the characteristics, statistics are presented by inside SMSA's (separately for in central cities and not in central cities) and outside SMSA's. A limited amount of data is presented for the United States by urban, rural-nonfarm, and rural-farm residence, and for regions, divisions, States, and large cities.

Tables A, B, and C present counts of housing units in the inventory by geographic and residence classifications. Table E presents figures on the components of change in the housing inventory between 1950 and 1959 based on results of the December 1959 Components of Inventory Change survey, which is part of the 1960 Census of Housing. Tables D and F present counts of housing units and population. Tables G to K and M to V contain statistics on the various characteristics of housing units—by inside and outside SMSA's in most of the tables. Table L presents the counts of vacant units by condition and status; table W contains data on selected characteristics of urban and rural units (separately for rural-farm units in 1960); table X is restricted to characteristics of units with nonwhite household heads; and table Y is limited to characteristics of available vacant units. It should be noted that all available vacant units (both urban and rural) are included in table Y, except in the data on value and rent. The subjects and the area classifications covered in each table are specified in the index on pages x and xi of the United States Summary chapter (Part 1 of Volume I).

The term "United States" when used without qualification in the tables refers to the 50 States (including Alaska and Hawaii)

and the District of Columbia. For purposes of comparability, statistics in some cases are for conterminous United States, that is, the United States exclusive of Alaska and Hawaii; generally, the two States were excluded if comparable statistics for 1950 and earlier were not available for either or both States (see also section on "Housing data for Alaska and Hawaii"). In tables F and H, data for the early census years include statistics for Arizona, New Mexico, and Oklahoma, although they did not become States until after 1890.

Except for a few characteristics of vacant units, the 1960 figures are based on samples of housing units; where the samples are of different sizes, the figures may not add precisely to the same totals. Figures for 1950 are based on the complete count except for a few items which are based on 20-percent samples. Figures for 1940 and earlier also are based on the complete count. (For size of sample for individual items, see table I.)

To compare with the 1960 characteristics, the "not reported" categories in the 1950 and earlier data were eliminated by distributing the "not reported" cases in the same proportion as those reporting. Thus, the figures in the text tables reflect this adjustment of the published data. For the sample items in 1950, a further adjustment was made in the published 1950 data by ratio estimating the sample figures to the totals based on the complete count; this procedure was applied separately to the distributions for conterminous United States, Alaska, and Hawaii. For table W, the adjustment was made for urban and rural units independently of the total; therefore, the two 1950 figures in a category may not add to the total for the category, shown in other tables. Similarly, in table R the 1950 figures for "dilapidated or lacking plumbing facilities" for the United States and each State were adjusted independently; the sum of the figures for the States, therefore, do not add precisely to the figure for the United States.

**Disclosure of data.**—To avoid disclosure of information for individual housing units, characteristics are not shown if the base is four or fewer units. The base, for this purpose, is "all" housing units or "occupied" housing units except for value and rent data, for which the base is the number of units of the type for which value and rent were tabulated. For example, a distribution of units by gross rent is not shown if the number of renter-occupied nonfarm units is four or fewer.

Medians, averages (including population per occupied unit), and percentages are not shown where the base is smaller than the required minimum (see section on "Sample design"). Furthermore, percentages are not shown if they are less than the 0.1 minimum.

Leaders (—) in a data column indicate that either there are no cases in the category or the data are suppressed, for the reasons described above. Leaders are also used where data are inapplicable or not available.

A plus (+) or a minus (—) sign after a median indicates that the median is above or below that number. For example, a median of "5,000—" for value of property indicates that the median fell in the interval "less than \$5,000" and was not computed.

### MAPS, CHARTS, GRAPHS

Included in the United States Summary part and the State parts of Volume I are maps of the United States showing the regions, geographic divisions, and States, and the location and names of the standard metropolitan statistical areas as defined for the 1960 Census. Included in each State chapter is a map of the State showing the outlines of counties (parishes for Louisiana and election districts for Alaska) and standard metropolitan statistical areas, if any, and the location of places of 10,000 inhabitants or more. A map of each urbanized area, if any, also is included in the appropriate State chapter.

The United States Summary chapter of Volume I also contains a number of maps, charts, and graphs (figures 5 to 20), which pictorialize some of the statistical findings from the 1960 and earlier censuses. In the charts and graphs which show data for 1950 and earlier, statistics for Alaska and Hawaii were included when comparable data were available (see section on "Housing data for Alaska and Hawaii"). The omission of these two States from some of the statistics is considered to have a negligible effect on comparability for the United States as a whole. Figures 5 to 20 are discussed in the Summary of Findings in the United States Summary chapter.

### COMPARABILITY WITH 1950 CENSUS OF HOUSING

More subjects were covered in the 1960 Census of Housing than in the 1950 Census of Housing. Items which were added for 1960 are: Year moved into unit, duration of vacancy, presence of basement, elevator in structure, number of bedrooms, number of bathrooms, source of water, method of sewage disposal, clothes washing machine, clothes dryer, home food freezer, telephone available, automobiles available, air conditioning, and water heating fuel. In addition, access to unit and kitchen or cooking equipment were enumerated in 1960 as part of the determination of a housing unit; and number of acres in the place and sales of farm products were enumerated for the purpose of determining farm residence. On the other hand, information was collected in 1950, but not in 1960, on electric lighting, refrigeration equipment, and kitchen sink. Mortgage status, which was included in 1950, is covered in the Residential Finance program in 1960.

The above comparisons relate to subjects covered in the April enumeration of the 1960 and 1950 Censuses of Housing. Subjects enumerated in the Components of Inventory Change and Residential Finance surveys, started in late 1959 and completed in 1960 as part of the 1960 Census of Housing, are discussed in Volumes IV and V, respectively. Subjects enumerated in the 1950 Residential Finance survey also are discussed in Volume V of the 1960 Housing reports.

Some items in 1960 have more detail and a few have slightly less detail than the comparable items in 1950. Additional information was collected in 1960 on condition of housing units, type of heating equipment, description of trailers, description of vacant units not on the market, and number of television and radio sets. Slightly less detail is available in 1960 than in 1950 for type of structure and toilet facilities.

In 1950, information for most of the items was collected on a complete-count basis. For a few items, information was collected from 20-percent samples of units (see section on "Sample design").

The foregoing discussion applies specifically to conterminous United States. For a discussion of 1950 data for Alaska and Hawaii, see the section on "Housing data for Alaska and Hawaii."

Data from the 1950 Census for areas of the type covered in Volume I of the 1960 Housing reports are published in *1950 Census of Housing, Volume I, General Characteristics*. Selected 1950 data are included in Volume I of the 1960 Housing reports in the United States Summary chapter (see also section on "Description of tables").

Changes since 1950 were made in the definitions of some of the major concepts, particularly in the concepts of unit of enumeration and farm housing. They were made in order to improve the usefulness of the data although it was recognized that comparability with previous censuses would be affected.

Procedures for collecting and processing the data in 1960 also differed from 1950. In this respect, the 1960 Census contained several innovations. One of the innovations was the use of forms which household members themselves were asked to complete—the Advance Census Report form used on a nationwide basis for

complete-count items, and the Household Questionnaire used in the more populous areas for sample items. Information for items not completed by the respondents was obtained by enumerators in direct interview. Other innovations included the division of the census period into two stages in the more populous areas, the greater use of sampling, the use of formal field review procedures, and the extensive use of the electronic computer and related equipment to process the data and produce the final tables. These innovations were designed primarily to improve the quality of the statistics and to reduce the time required to collect and publish the data; at the same time, they have introduced an element of difference between the 1960 statistics and those of earlier censuses.

Changes and innovations are discussed in the sections on "Definitions and explanations" and "Collection and processing of data," which appear later in this report.

#### HOUSING DATA FROM OTHER CENSUSES

Many of the subjects covered in the 1940 Census of Housing are included in the April 1960 Census of Housing. The subjects specified above as having been added since 1960 were also added since 1940. One item, television sets, was enumerated in 1960, but not in 1940. On the other hand, information was collected in 1940, but not in 1960, on exterior material, lighting equipment, refrigeration equipment, estimated rentals of owner-occupied homes, and value and rent of farm dwellings. Information on conversion, which was included in 1940, is covered in the December 1960 Components of Inventory Change program as part of the 1960 Census of Housing.

Although the 1940 Census of Housing was the first complete census of housing, data on a few housing characteristics were collected in earlier years in conjunction with the decennial censuses of population. Statistics on the number of occupied units and population per unit, which are essentially comparable with current data but identified by various terms, are presented in reports on earlier censuses since 1890, with limited data back to 1850. In these reports, statistics are shown in terms of "homes," "families," or "private families." In some censuses, the statistics include quarters of "quasi-families" (quarters identified in the 1960 Census as group quarters). In addition, counts of units by color of household head are available for each census year since 1890, except 1910 when such data were available only for the Southern States. The classification by tenure has been reported since 1890. Mortgage status of owned units was included in the Censuses of Population from 1890 to 1920, and detailed data (including value of mortgaged property) were reported in 1890 for owned units that were encumbered (mortgaged). Value and monthly rent of nonfarm units and the number of units with a radio were included for the first time in the 1930 reports. Statistics on the number of dwellings and persons per dwelling also are available from the Censuses of Population from 1890 to 1930, the concept of "dwelling" being roughly comparable with the current concept of "structure"; in some of the censuses, information on number of families per dwelling was included.

The discussion in the above two paragraphs applies specifically to conterminous United States. For a discussion of 1940 and earlier data for Alaska and Hawaii, see the section on "Housing data for Alaska and Hawaii."

Data from the 1940 Census for areas of the type covered in Volume I of the 1960 Housing reports are published in *1940 Census of Housing, Volume II, General Characteristics*. Selected data for 1940 and earlier are included in Volume I of the 1960 Housing reports in the United States Summary chapter (see also section on "Description of tables").

In some instances, concepts and procedures were not identical from census to census as discussed under the item in the section on "Definitions and explanations." The differences for the most

part, however, are not great enough to invalidate comparisons of the data. Comparisons with earlier censuses are restricted to censuses of housing and population, although information for a few characteristics related to housing was collected in censuses covering other subjects.

#### HOUSING DATA FOR ALASKA AND HAWAII

In censuses prior to 1960, the subjects and procedures for Alaska and Hawaii as territories differed somewhat from the standard program for States. Some items which were included in the census for States were omitted from the censuses in Alaska and Hawaii, and vice versa; and some items were not tabulated in the same detail as for States. Statements regarding the 1950 and earlier censuses appearing elsewhere in Volume I, apply specifically to conterminous United States; for Alaska and Hawaii, these statements should be modified where differences occurred.

**Alaska.**—From the 1950 Census, which was the first census of housing in Alaska, data on the following items are available: Tenure and race, vacancy status, persons, and persons per room; number of rooms, year structure built, number of units in structure, and exterior material; condition and plumbing; water supply, toilet facilities, and bathing facilities; heating equipment and heating fuel, electric lighting, kitchen sink, and radio; and value of owner-occupied nonfarm units and contract rent of renter-occupied nonfarm units.

The 1950 definitions were the same as those used for conterminous United States with the following exceptions: For number of units in structure, no distinction was made between detached and other 1-unit structures; for the category "piped running water inside structure," no distinction was made between "hot and cold" piped water and "only cold" piped water; for heating fuel, utility and bottled gas were included in the category "other fuel." For the 1950 data in the Summary of Findings in the United States Summary chapter (Volume I of the 1960 Housing reports), the number of units in 1-unit structures in Alaska was apportioned between "detached" and "other" on the basis of the 1960 ratio of "1-unit detached" to "1-unit attached" structures. Similarly, the number of units with piped water inside structure was apportioned between "hot and cold" and "cold only" on the basis of the 1960 ratio for such units. The effect of these adjustments on the comparability of 1960 and 1950 data for the United States as a whole is considered negligible. The detailed data and description of concepts for 1950 may be found in *1950 Census of Housing, Volume I, General Characteristics, Part 7*.

For 1940 and earlier, data on a few housing characteristics were collected in conjunction with the censuses of population. In the 1940 Census (taken in Alaska in October 1939), only occupied units were enumerated. Data on the following items are available: Number of rooms, tenure, value of owner-occupied units (including farm units), and contract rent of renter-occupied units (including farm units). The population per occupied unit can be computed from the data available. Statistics on the number of occupied units and population per unit, which are essentially comparable with current data, are available from the Censuses of Population from 1890 back to 1900; in these reports, statistics are shown in terms of "homes," "families," or "private families." Counts by tenure, including the number of owned units that were encumbered, are available from the Censuses of Population from 1920 back to 1900. Statistics on the number of dwellings and persons to a dwelling also are available from 1900 to 1930, the concept of "dwelling" being essentially comparable with the current concept of "structure." The concepts are essentially the same as those for conterminous United States. For 1940 and earlier, the data may be found in the reports of the censuses of population for Alaska.

Statistics by urban-rural and farm-nonfarm residence are available for 1950. For earlier censuses, however, housing characteristics have not been tabulated by residence (except for urban and rural figures on tenure and color for 1940).

**Hawaii.**—From the 1950 Census, data on the following items are available: Tenure and race, vacancy status, persons, and persons per room; number of rooms, year structure built, number of units in structure, and exterior material; condition and plumbing; water supply, toilet facilities, and bathing facilities; electric lighting and refrigeration equipment; and value of owner-occupied units, value of vacant units for sale, mortgage status of owner-occupied units, contract rent of renter-occupied units, and rent asked for vacant units for rent.

The 1950 definitions were the same as those used for conterminous United States with the following exceptions: For number of units in structure, no distinction was made between detached and other 1-unit structures; data on value for owner-occupied units were restricted to units whose occupants owned both the unit and the land; and farm units were included in the data on value and rent. For the 1950 data in the Summary of Findings in the United States Summary chapter (Volume I of the 1960 Housing reports), the number of units in 1-unit structures in Hawaii was apportioned between "detached" and "other" on the basis of the 1960 ratio of "1-unit detached" to "1-unit attached" structures. For the 1950 data on vacancy status, the number of vacant units for seasonal occupancy was estimated from the "not available" group on the basis of the proportion of the 1960 "not available" units which were for seasonal occupancy. The effect of these adjustments on the comparability of 1960 and 1950 data for the United States as a whole is considered negligible. The detailed data and description of concepts for 1950 may be found in *1950 Census of Housing, Volume I, General Characteristics, Part 7*.

For the 1940 Census, which was the first Census of Housing in Hawaii, data are available on the following items: Tenure and race, persons, and persons per room; number of rooms, number of units in structure, and exterior material; condition (state of repair); water supply, toilet facilities, and bathing facilities; lighting equipment, refrigeration equipment, and radio; value and mortgage status of owner-occupied units, contract rent of renter-occupied units, and the estimated rental value of owner-occupied and vacant units. The concepts reflect a few minor differences from those used for conterminous United States. The detailed data and description of concepts for 1940 may be found in *1940 Census of Housing, General Characteristics, Hawaii*.

Statistics on the number of occupied units and population per unit, which are essentially comparable with current data, are available from the Censuses of Population from 1930 back to 1900; in these reports, statistics are shown in terms of "homes," "families," or "private families." Counts of units by tenure are available from 1930 back to 1900, and counts of owned units that were encumbered are available from the Censuses of Population from 1920 back to 1900. Statistics on the number of dwellings and persons to a dwelling also are available from 1900 to 1930, the concept of "dwelling" being essentially comparable with the current concept of "structure." The concepts are essentially the same as those for conterminous United States. Data for 1930 and earlier may be found in the reports of the censuses of population for Hawaii.

Statistics by urban-rural residence (but not farm-nonfarm) are available for 1950. For earlier censuses, however, housing characteristics are not available by urban-rural or farm-nonfarm residence.

#### 1960 PUBLICATION PROGRAM

**Final housing reports.**—Results of the 1960 Census of Housing are published in Volumes I to VII and in a joint housing and population series consisting of reports for census tracts. A series of special reports for local housing authorities constitutes the

remainder of the final reports. Volumes I to IV and the census tract reports are issued as series of individual reports, with Volumes I and II issued also as bound volumes. Volumes V to VII are issued only as bound volumes.

The source of Volumes I, II, III, VI, and VII and the housing data in the census tract reports is the April enumeration of the 1960 Census of Housing. The special reports for local housing authorities are based on results of the April enumeration and, for most areas, on data collected at a later date for nonsample households.

Data for Volumes IV and V are based largely on the enumeration of units in a sample of land area segments, started in late 1959 and completed in 1960. The 17 selected metropolitan areas referred to in the description of the volumes (see page v) consist of the New York-Northeastern New Jersey and the Chicago-Northwestern Indiana Standard Consolidated Areas and the following standard metropolitan statistical areas: Atlanta, Boston, Dallas, Detroit, Los Angeles-Long Beach, Philadelphia, Seattle, Baltimore, Buffalo, Cleveland, Minneapolis-St. Paul, Pittsburgh, St. Louis, San Francisco-Oakland, and Washington, D.C.-Md.-Va. The first nine areas named (the two standard consolidated areas and seven standard metropolitan statistical areas) are the areas for which separate data are included in Part 2 of Volume IV.

The titles and contents of the reports are described on page v. For the most part, they are comparable to the reports published from the 1950 Census of Housing. The 1960 Volumes I, II, and VI are similar to 1950 Volumes I, II, and III, respectively. Volume III of 1960 corresponds to the series of reports on block statistics which constituted 1950 Volume V. Volume IV of 1960 has no 1950 counterpart but corresponds to Volumes I and III of the 1956 National Housing Inventory. Volume V of 1960 corresponds to Volume IV of 1950 and, in part, to Volume II of the 1956 National Housing Inventory. In 1950, census tract reports were published as Volume III of the 1950 Census of Population. Special reports for local housing authorities were published for 219 areas in *1950 Census of Housing, Series HC-3, Special Tabulations for Local Housing Authorities*. Data of the type presented in 1960 Volume VII have not been published in previous census reports.

As stated on page v, data for the United States, regions, divisions, States, SMSA's, and large urban places are published in several series of housing reports. In some reports, cross-tabulations of housing and household characteristics are provided. Data for small areas, except for city blocks and census tracts, are restricted largely to those published in Volume I.

**Preliminary and advance reports.**—Statistics for many of the subjects covered in the census were released in several series of preliminary and advance reports. The figures in the preliminary and advance reports are superseded by the data in the final reports.

**Population reports.**—Population data are available for approximately the same types of areas that are covered in Volume I of the 1960 Housing reports. The data are published in chapters A, B, C, and D which constitute *1960 Census of Population, Volume I, Characteristics of the Population*. For the United States and regions, detailed cross-classifications are provided in *1960 Census of Population, Volume II, Subject Reports, (Series PC(2) reports)*. Some of the reports in Volume II include data for States and SMSA's also. A more complete description of the publication program of the 1960 Census of Population may be found in any of the population reports.

#### AVAILABILITY OF UNPUBLISHED DATA

During the processing of the data for publication of Volume I, more data were tabulated than it was possible to print in the final reports. Some of the unpublished data from the April 1960 enumeration are for small areas such as enumeration districts, census tracts, and minor civil divisions in untraced areas. A

limited amount of additional data for housing units with non-white household heads has been tabulated but not published. For the larger areas (including SMSA's, States, divisions, regions, and the United States), virtually all the data that have been tabulated are published.

Photocopies of unpublished data can be provided at cost. Certain special tabulations can be prepared on a reimbursable basis. Requests for photocopies or for additional information should be addressed to Chief, Housing Division, Bureau of the Census, Washington 25, D.C.

## AREA CLASSIFICATIONS

### URBAN-RURAL RESIDENCE

In general, urban housing comprises all housing units in urbanized areas and in places of 2,500 inhabitants or more outside urbanized areas. More specifically, according to the definition used in the 1960 Census, urban housing comprises all housing in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, villages, and towns (except towns in New England, New York, and Wisconsin); (b) the densely settled urban fringe, whether incorporated or unincorporated, of urbanized areas (see section on "Urbanized areas"); (c) towns in New England and townships in New Jersey and Pennsylvania which contain no incorporated municipalities as subdivisions and have either 25,000 inhabitants or more or a population of 2,500 to 25,000 and a density of 1,500 persons or more per square mile; (d) counties in States other than the New England States, New Jersey, and Pennsylvania that have no incorporated municipalities within their boundaries and have a density of 1,500 persons or more per square mile; and (e) unincorporated places of 2,500 inhabitants or more (see section on "Places").

Housing not classified as urban constitutes rural housing. Rural housing comprises a variety of residences, such as isolated homes in the open country and homes in small villages and environs of cities outside urbanized areas.

The 1960 definition of urban is substantially the same as that used in 1950; the major difference between the two is the designation in 1960 of urban towns in New England and of urban townships in New Jersey and Pennsylvania. The effect on housing classification arising from this change was actually small because, in 1950, most of the housing in such places was classified as urban by virtue of its location in an urbanized area or in an unincorporated urban place. In censuses prior to 1950, urban housing comprised all housing in incorporated places of 2,500 inhabitants or more and areas (usually minor civil divisions) classified as urban under somewhat different special rules relating to population size and density. The net effect of the earlier definition on population counts has been measured and is published in *1960 Census of Population, Volume I, Characteristics of the Population*.

The most important component of the urban territory is the group of incorporated places having 2,500 inhabitants or more. A definition of urban territory restricted to such places, however, would exclude a number of equally large and densely settled places merely because they are not incorporated places. Under the definition used previous to 1950, an effort was made to avoid some of the more obvious omissions by the inclusion of selected places which were classified as urban under special rules. Even with these rules, however, many large and closely built-up places were excluded from the urban territory.

To improve its measure of urban housing the Bureau of the Census adopted, in 1950, the concept of the urbanized area and defined the larger unincorporated places as urban. All housing in urban-fringe areas and in unincorporated places of 2,500 or more was classified as urban in 1950 as well as in 1960. The urban towns, townships, and counties as defined for the 1960 Census are somewhat similar in concept to the minor civil divisions classified as urban under special rules in 1940 and 1950.

### COUNTIES

The primary divisions of the States are, in general, termed counties, but in Louisiana these divisions are known as parishes. Alaska is divided into 24 election districts, which are included in Volume I as the equivalents of counties. There are also a number of cities which are independent of any county organization and thus constitute primary divisions of their States, namely, Baltimore in Maryland, St. Louis in Missouri, and 32 cities in Virginia. The District of Columbia, which is not divided into counties, also is considered the equivalent of a county, as are the three parts of Yellowstone National Park in Idaho, Montana, and Wyoming. There were 3,072 counties and parishes in the United States in 1960 and 62 county equivalents, making a total of 3,134.

The number of counties declined by three between 1950 and 1960. Armstrong County, S. Dak., was annexed by Dewey County; Elizabeth City County, Va., was consolidated with Hampton city; and Warwick County, Va., was consolidated with Newport News city. The number of county equivalents in conterminous United States increased by five. Five cities in Virginia—Covington, Galax, Norton, South Boston, and Virginia Beach—became independent of county organization during the decade. Alaska was redistricted after 1950, and its judicial divisions were replaced by 24 election districts. Changes in the number of counties were fairly frequent some decades ago but have become progressively rarer. These changes, as well as changes of county boundaries, are listed in the notes to tables 6 and 7 in chapter A of the State parts of *1960 Census of Population, Volume I, Characteristics of the Population*.

### PLACES

The term "place" as used in reports of the decennial censuses refers to a concentration of population, regardless of the existence of legally prescribed limits, powers, or functions. Most of the places are incorporated as cities, towns, villages, or boroughs, however. In addition, the larger unincorporated places outside the urbanized areas were delineated and they are presented in the same manner as incorporated places of equal size. Furthermore, unincorporated places within urbanized areas are identified if they have 10,000 inhabitants or more and if there was an expression of local interest in their recognition. Finally, the towns in New England and townships in New Jersey and Pennsylvania recognized as urban are also considered places (designated in the tables by "UT"). In the State chapters, data are presented for (a) incorporated places of 1,000 inhabitants or more, whether outside or inside urbanized areas, (b) unincorporated places of 1,000 inhabitants or more outside urbanized areas, (c) unincorporated places of 10,000 inhabitants or more inside urbanized areas, and (d) those towns, townships, and counties recognized as urban. Statistics for places of 100,000 inhabitants or more are provided in the United States Summary chapter.

Political units recognized as incorporated places in the reports of the decennial censuses are those which are incorporated as cities, boroughs, towns, and villages with the exception that towns are not recognized as incorporated places in the New England States, New York, and Wisconsin. The towns in these States are minor civil divisions similar to the townships found in other States and not necessarily thickly settled centers of population

such as the cities, boroughs, towns, and villages in other States. Similarly, in New Jersey and Pennsylvania, where some townships possess powers and functions similar to those of incorporated places, the townships are not classified as "incorporated places." Thus some minor civil divisions which are "incorporated" in one legal sense of the word are not regarded by the Census Bureau as "incorporated places." Without this restriction all of the towns in the New England States, New York, and Wisconsin and the townships in New Jersey and Pennsylvania would be counted as incorporated places without any consideration of the nature of population settlement. A number of towns and townships in these States do qualify, however, as urban towns or townships and in others the densely settled portions are recognized as unincorporated places or as parts of an urban fringe.

In most States, the incorporated places form subdivisions of the minor civil divisions in which they are located. In other States, however, all or some of the incorporated places are themselves also minor civil divisions. St. Louis, Baltimore, and 32 cities in Virginia (as of 1960) were independent of any county organization. In a number of instances such as Philadelphia, New Orleans, and San Francisco, the incorporated place is coextensive with the county in which it is located. New York City, on the other hand, is made up of five counties. An incorporated place may be located in two or more minor civil divisions or in two or more counties. Since, however, incorporated places are chartered by a State, no place can be located in two States, and adjoining places of the same name in two States are quite separate incorporations.

In the 1960 Census, 18,088 incorporated places were recognized (18,054 in conterminous United States). Of these places, 5,911 were cities, 1,214 were boroughs, 6,085 were towns, and 4,878 were villages. In addition, 125 urban towns and townships and 1 urban county were recognized as places. Of the 18,088 incorporated places, 9,874 had a population of less than 1,000; no separate data for the places under 1,000 are provided in the 1960 Housing reports. In the 1950 Census, 17,145 incorporated places were recognized (17,118 in conterminous United States), of which 9,843 had a population of less than 1,000.

As in the 1950 Census, the Bureau delineated, in advance of enumeration, boundaries for densely settled population centers without corporate limits. Each unincorporated place (designated in the tables by "U") possesses a definite nucleus of residences and has its boundaries drawn so as to include, if feasible, all the surrounding closely settled areas. In 1950, only those unincorporated places outside urbanized areas were recognized in the census. Incorporated places were identified whether inside or outside urbanized areas. In the 1960 Census, 1,576 unincorporated places of 1,000 inhabitants or more were recognized (1,528 in conterminous United States). In the 1950 Census, the corresponding count was 1,470 (1,430 in conterminous United States).

The figures for a given place apply to the housing within the boundaries of the place at the time of the census. Hence, the indicated change from 1950 to 1960 reflects the effect of any annexations or detachments. There were a great many annexations to cities in the decade of the 1950's, and some of them involved large areas. To permit an analysis of the importance of the change in boundaries, population figures for the 1950 area and for annexed areas of incorporated places are shown in table 9 in chapter A of the State parts of *1960 Census of Population*, Volume I, *Characteristics of the Population*. For unincorporated places, the boundaries in many instances have changed as the communities have expanded.

#### URBANIZED AREAS

The major objective of the Bureau of the Census in delineating urbanized areas was to provide a better separation of ur-

ban and rural housing in the vicinity of the larger cities, but individual urbanized areas have proved to be useful statistical areas also. They correspond to what are called "conurbations" in some other countries. An urbanized area contains at least one city of 50,000 inhabitants or more in 1960,<sup>1</sup> as well as the surrounding closely settled incorporated places and unincorporated areas that meet the criteria listed below. An urbanized area may be thought of as divided into the central city, or cities, and the remainder of the area, or the urban fringe. All housing in an urbanized area is included in urban housing. Statistics for urbanized areas appear in the State chapters of Volume I. A map of each urbanized area in a State, if any, appears at the end of the State chapter, and the counties or parts of counties in which each area is located are listed on page 2 of the State chapter. In the 1960 Census, 213 urbanized areas were identified in the United States.

It appeared desirable to delineate the urbanized areas in terms of the 1960 Census results rather than on the basis of information available prior to the Census as was done in 1950. For this purpose a peripheral zone around each 1950 urbanized area and around cities that were presumably approaching a population of 50,000 was recognized. Within the unincorporated parts of this zone small enumeration districts were planned, usually including no more than one square mile of land area and no more than 75 housing units.<sup>2</sup>

Arrangements were made to include within the urbanized area those enumeration districts meeting specified criteria of population density as well as adjacent incorporated places. Since the urbanized area outside incorporated places was defined in terms of enumeration districts, the boundaries of the urbanized area for the most part follow such features as roads, streets, railroads, streams, and other clearly defined lines which may be easily identified by census enumerators in the field and often do not conform to the boundaries of political units.

In addition to its central city or cities, an urbanized area contains the following types of contiguous areas which together constitute its urban fringe:

1. Incorporated places with 2,500 inhabitants or more.
2. Incorporated places with less than 2,500 inhabitants, provided each has a closely settled area of 100 housing units or more.
3. Towns in the New England States, townships in New Jersey and Pennsylvania, and counties elsewhere which are classified as urban.
4. Enumeration districts in unincorporated territory with a population density of 1,000 inhabitants or more per square mile. (The areas of large nonresidential tracts devoted to such urban land uses as railroad yards, factories, and cemeteries were excluded in computing the population density of an enumeration district.)
5. Other enumeration districts in unincorporated territory with lower population density provided that they served one of the following purposes:
  - a. To eliminate enclaves.
  - b. To close indentations in the urbanized areas of one mile or less across the open end.
  - c. To link outlying enumeration districts of qualifying density that were no more than 1½ miles from the main body of the urbanized area.

A single urbanized area was established for cities in the same standard metropolitan statistical area if their fringes adjoin. Urbanized areas with central cities in different standard metropolitan statistical areas are not combined, except that a

<sup>1</sup> There are a few urbanized areas where there are "twin central cities" neither of which has a population of 50,000 or more but that have a combined population of at least 50,000. See the section below on "Standard metropolitan statistical areas" for further discussion of twin central cities.

<sup>2</sup> An enumeration district (ED) is a small area assigned to an enumerator which must be canvassed and reported separately. The average ED contains approximately 200 housing units.

single urbanized area was established in the New York-Northeastern New Jersey Standard Consolidated Area and in the Chicago-Northwestern Indiana Standard Consolidated Area.

**Relation to earlier censuses.**—Urbanized areas were first delineated for the 1950 Census. In 1950, urbanized areas were established in connection with cities having 50,000 inhabitants or more according to the 1940 Census of Population or a later census prior to 1950; in 1960, urbanized areas were established in connection with cities having 50,000 inhabitants or more according to the 1960 Census of Population. For the 1950 Census, 157 urbanized areas were identified (the identification being restricted to conterminous United States).

The boundaries of the urbanized areas for 1960 do not conform to those for 1950, partly because of actual changes in land use and density of settlement, and partly because of relatively minor changes in the rules used to define the boundaries. The changes in the rules were made in order to simplify the process of defining the boundaries; as a result of the changes, the area classified as urbanized tends to be somewhat larger than it would have been under the 1950 rules. The changes include the following:

1. The use of enumeration districts to construct the urbanized areas in 1960 resulted in a less precise definition than in 1950 when the limits were selected in the field using an individual city-type block as the unit of area added. On the other hand, the 1960 procedures produced an urbanized area based on the census results rather than an area defined about a year before the census, as in 1950.

2. Unincorporated territory was included in the 1960 urbanized area if it contained at least 1,000 persons per square mile, which is a somewhat different criterion from the 500 or more dwelling units per square mile of the included 1950 unincorporated areas.

3. The 1960 areas include those entire towns in New England, townships in New Jersey and Pennsylvania, and counties that are classified as urban in accordance with the criteria listed in the section on urban-rural residence. The 1950 criteria permitted the exclusion of portions of these particular minor civil divisions.

In general, however, the urbanized areas of 1950 and 1960 are based on essentially the same concept, and the figures for a given urbanized area may be used to measure the housing growth of that area.

**Relation to standard metropolitan statistical areas.**—Any city in an urbanized area which is a central city of a standard metropolitan statistical area (SMSA) is also a central city of the urbanized area. With but two exceptions, the names of the central cities appear in the titles of the areas. The central cities of the New York-Northeastern New Jersey Urbanized Area are the central cities of the New York, Newark, Jersey City, and Paterson-Clifton-Passaic Standard Metropolitan Statistical Areas. Likewise, the central cities of the Chicago-Northwestern Indiana Urbanized Area are the central cities of the Chicago and Gary-Hammond-East Chicago Standard Metropolitan Statistical Areas.

The urbanized area can be characterized by the physical city as distinguished from both the legal city and the metropolitan community. In most cases, urbanized areas are smaller than SMSA's and are contained in SMSA's. However, in a few instances, the fact that the boundaries of SMSA's are determined by county lines and those of urbanized areas by the pattern of urban growth means that there are small segments of urbanized areas which lie outside SMSA's. In general, then, urbanized areas represent the thickly settled portions of SMSA's. Because of discontinuities in land settlement, there are also some cases in which a single SMSA contains several urbanized areas.

**Areas crossing State lines.**—Like standard metropolitan statistical areas, urbanized areas are not confined within State boundaries, nor within region or division boundaries. For urbanized areas which cross State lines, statistics are shown only in the chapter for the State in which a central city is located.

## STANDARD METROPOLITAN STATISTICAL AREAS

It has long been recognized that for many types of analysis it is necessary to consider as a unit the entire area, in and around a city, in which the activities form an integrated economic and social system. Prior to the 1950 Census, areas of this type had been defined in somewhat different ways for different purposes and by various agencies. Leading examples were the metropolitan districts of the 1940 Census of Housing, the industrial areas of the Census of Manufactures, and the labor market areas of the Bureau of Employment Security. To permit all Federal statistical agencies to utilize the same areas for the publication of general-purpose statistics, the Bureau of the Budget has established "standard metropolitan statistical areas" (SMSA's). Every city of 50,000 inhabitants or more according to the 1960 Census of Population is included in an SMSA.

The definitions and titles of standard metropolitan statistical areas are established by the Bureau of the Budget with the advice of the Federal Committee on Standard Metropolitan Statistical Areas. This Committee is composed of representatives of the major statistical agencies of the Federal Government. The criteria used by the Bureau of the Budget in establishing the SMSA's are presented below. (See the Bureau of the Budget publication *Standard Metropolitan Statistical Areas*, U.S. Government Printing Office, Washington 25, D.C., 1961.)

The definition of an individual standard metropolitan statistical area involves two considerations: First, a city or cities of specified population to constitute the central city and to identify the county in which it is located as the central county; and second, economic and social relationships with contiguous counties which are metropolitan in character, so that the periphery of the specific metropolitan area may be determined.<sup>3</sup> Standard metropolitan statistical areas may cross State lines.

**Population criteria.**—The criteria for population relate to a city or cities of specified size according to the 1960 Census of Population.

1. Each standard metropolitan statistical area must include at least:

- a. One city with 50,000 inhabitants or more, or
- b. Two cities having contiguous boundaries and constituting, for general economic and social purposes, a single community with a combined population of at least 50,000, the smaller of which must have a population of at least 15,000.

2. If each of two or more adjacent counties has a city of 50,000 inhabitants or more (or twin cities under 1b) and the cities are within 20 miles of each other (city limits to city limits), they will be included in the same area unless there is definite evidence that the two cities are not economically and socially integrated.

**Criteria of metropolitan character.**—The criteria of metropolitan character relate primarily to the attributes of the contiguous county as a place of work or as a home for a concentration of nonagricultural workers.

3. At least 75 percent of the labor force of the county must be in the nonagricultural labor force.<sup>4</sup>

4. In addition to criterion 3, the county must meet at least one of the following conditions:

- a. It must have 50 percent or more of its population living in contiguous minor civil divisions<sup>5</sup> with a density of at least 150

<sup>3</sup> Central cities are those appearing in the standard metropolitan statistical area title. A "contiguous" county either adjoins the county or counties containing the largest city in the area, or adjoins an intermediate county integrated with the central county. There is no limit to the number of tiers of outlying metropolitan counties so long as all other criteria are met.

<sup>4</sup> Nonagricultural labor force is defined as those employed in nonagricultural occupations, those experienced unemployed whose last occupation was a nonagricultural occupation, members of the Armed Forces, and new workers.

<sup>5</sup> A contiguous minor civil division either adjoins a central city in a standard metropolitan statistical area or adjoins an intermediate minor civil division of qualifying population density. There is no limit to the number of tiers of contiguous minor civil divisions so long as the minimum density requirement is met in each tier.

persons per square mile, in an unbroken chain of minor civil divisions with such density radiating from a central city in the area.

b. The number of nonagricultural workers employed in the county must equal at least 10 percent of the number of nonagricultural workers employed in the county containing the largest city in the area, or the county must be the place of employment of 10,000 nonagricultural workers.

c. The nonagricultural labor force living in the county must equal at least 10 percent of the number in the nonagricultural labor force living in the county containing the largest city in the area, or the county must be the place of residence of a nonagricultural labor force of 10,000.

5. In New England, the city and town are administratively more important than the county, and data are compiled locally for such minor civil divisions. Here, towns and cities are the units used in defining standard metropolitan statistical areas. In New England, because smaller units are used and more restricted areas result, a population density criterion of at least 100 persons per square mile is used as the measure of metropolitan character.

**Criteria of integration.**—The criteria of integration relate primarily to the extent of economic and social communication between the outlying counties and central county.

6. A county is regarded as integrated with the county or counties containing the central cities of the area if either of the following criteria is met:

a. Fifteen percent of the workers living in the county work in the county or counties containing central cities of the area, or

b. Twenty-five percent of those working in the county live in the county or counties containing central cities of the area.

Only where data for criteria 6a and 6b are not conclusive are other related types of information used as necessary. This information includes such items as average telephone calls per subscriber per month from the county to the county containing central cities of the area; percent of the population in the county located in the central city telephone exchange area; newspaper circulation reports prepared by the Audit Bureau of Circulation; analysis of charge accounts in retail stores of central cities to determine the extent of their use by residents of the contiguous county; delivery service practices of retail stores in central cities; official traffic counts; the extent of public transportation facilities in operation between central cities and communities in the contiguous county; and the extent to which local planning groups and other civic organizations operate jointly.

**Criteria for titles.**—The criteria for titles relate primarily to the size and number of central cities.

7. The complete title of an SMSA identifies the central city or cities and the State or States in which the SMSA is located:

a. The name of the standard metropolitan statistical area includes that of the largest city.

b. The addition of up to two city names may be made in the area title, on the basis and in the order of the following criteria:

(1) The additional city has at least 250,000 inhabitants.

(2) The additional city has a population of one-third or more of that of the largest city and a minimum population of 25,000, except that both city names are used in those instances where cities qualify under criterion 1b. (A city which qualified as a secondary central city in 1950 but which does not qualify in 1960 has been temporarily retained as a central city.)

c. In addition to city names, the area titles will contain the name of the State or States in which the area is located.

**Inside and outside SMSA's.**—Separate figures for housing units inside and outside SMSA's are provided for the United States as a whole, each region, and each geographic division in the United States Summary chapter, and for each State in the State chapters of Volume I. The statistics for housing units "inside SMSA's" for the total United States are for the total of the 212 SMSA's in the United States. Similarly, the statistics for "inside SMSA's" for a region, division, or State are for the total of the SMSA's, or parts of SMSA's, within the respective region, division, or State.

Statistics for each of the 212 SMSA's are provided in the State chapters of Volume I; and statistics for each of the 190 SMSA's of 100,000 inhabitants or more are provided in the United States Summary chapter. A map showing the location and boundaries of SMSA's within a State, if any, is included in the individual chapter for the State, and the constituent parts of the SMSA's are listed on page 2 of the respective State chapters. A map showing the location and names of all the SMSA's in the United States is included in the United States Summary chapter.

**SMSA's crossing State lines.**—In the State chapters, data for SMSA's are shown in tables 12 to 17. For SMSA's that cross State lines, the full detail is shown in the chapter for each State in which a central city is located. In the State not containing a central city, the detail is shown only for the portion of the SMSA located in that State, with a total column for the portion in the other State (or States) and a total column for the entire SMSA. In table 1 of the State chapters, only the total for the entire SMSA and the portion for that State are given; in tables 8 and 36 to 42, the figures for the entire SMSA are shown in the chapter for each State containing part of an SMSA.

**Relation to earlier censuses.**—In 1950, data were presented for standard metropolitan areas (SMA's) which were established in connection with cities of 50,000 inhabitants or more in 1950. In 1940, a somewhat similar type of area called the "metropolitan district" was used. In 1958, the criteria for delineating SMA's were revised by the Bureau of the Budget, and in 1959 the areas were designated as standard metropolitan statistical areas (SMSA's). In some cases, the 1960 SMSA has the same boundaries as the 1950 SMA; in others, parts have been added or deleted. The designation of the central cities also has changed for some areas. The relationship can be readily determined by comparing the 1960 and 1950 boundaries for the particular area.

In 1950, a total of 168 standard metropolitan areas were identified in conterminous United States, and the Honolulu SMA was identified in Hawaii. A few of the 1950 SMA's were split into several SMSA's for 1960. Some entirely new SMSA's were added to the metropolitan territory of the existing SMA's; in terms of the 1950 counts, the net addition resulting from the designation of new metropolitan territory and changes in boundaries amounted to approximately 6 percent of the total units in the 1950 SMA's. In the text tables in the United States Summary chapter, 1950 data for "inside SMSA's" are for the 212 areas as defined for the 1960 Census; 1950 data for "in central cities" are for the central cities as defined for the 1960 SMSA's but with no adjustment for changes in city limits since 1950.

#### STANDARD CONSOLIDATED AREAS

In view of the special importance of the metropolitan complexes around New York and Chicago, the Nation's largest cities, several contiguous SMSA's and additional counties that do not appear to meet the formal integration criteria but do have strong interrelationships of other kinds have been combined into the New York-Northeastern New Jersey and Chicago-Northwestern Indiana Standard Consolidated Areas, respectively. The former is identical with the New York-Northeastern New Jersey SMA of 1950, and the latter corresponds roughly to the Chicago SMA of 1950 (two more counties having been added).

Data for the standard consolidated areas appear only in the chapters for New York and New Jersey and in the chapters for Illinois and Indiana. The constituent parts of the areas are listed on page 2 of the respective chapters. The New York-Northeastern New Jersey Standard Consolidated Area comprises four SMSA's and two additional counties; the Chicago-Northwestern Indiana Standard Consolidated Area comprises two SMSA's.

## DEFINITIONS AND EXPLANATIONS

The definitions and explanations of terms should be interpreted in the context of the 1960 Census procedures for collecting the data. Data were collected by a combination of self-enumeration, direct interview, and observation by the enumerator.

Items to be filled through self-enumeration appeared on forms which were supplied to households with the request that the household members themselves complete them. A few of the questions appeared on the Advance Census Report (ACR), which was to be filled and held until the enumerator called. Most of the questions, however, appeared on the Household Questionnaire,<sup>6</sup> which was to be filled and mailed directly to the census office. In completing the self-enumeration items, the respondent had the explanations and wording that were printed on the forms. His answers were accepted unless the enumerator found it necessary to clarify or correct them.

If the self-enumeration form was not filled or if the answers were incomplete or inconsistent, the enumerator obtained the information through direct interview and recorded it directly on a FOSDIC schedule, a form specially designed for electronic data processing (see section on "Collection and processing of data"). The enumerator was instructed to read the questions from the FOSDIC schedule and record the replies as given. If the respondent did not understand a question, the enumerator was to explain it based on his understanding of the definitions and instructions in the Enumerator's Reference Manuals. If the respondent's replies were incomplete or inconsistent, the enumerator was instructed to ask additional questions.

Information for vacant units was obtained by the enumerator largely from owners, landlords, neighbors, or other persons presumed to know the situation and the enumerator recorded the information directly on the FOSDIC schedules. A few items, including condition of unit, were always determined by the enumerator on the basis of his observation and, therefore, did not appear among the self-enumeration items.

The intent of the questions on the two types of forms is the same, although the wording of some of the questions and response categories on the direct-interview forms is briefer than on the self-enumeration forms. Furthermore, the direct-interview forms omit many of the instructions given on the self-enumeration forms. The differences, however, probably do not contribute in any important way to a lack of comparability of the data obtained from the two methods of enumeration. Through the use of the self-enumeration forms, respondents were given more uniform explanations of some of the questions than would have been possible in direct interview. On the other hand, the less detailed wording on the direct-interview forms was supplemented by the instructions given to the enumerator.

The questions and response categories used in self-enumeration compared with those used by the enumerator in direct interview are exhibited in the sections which follow. A general explanation appeared on the self-enumeration forms to the effect that the term "house" or "apartment" covered the house or part of the house the respondents occupied, or the apartment, flat, or rooms in which they lived. The explanation also pointed out that items on year built, sewage disposal, basement, and elevator in structure pertained to the whole building in which the respondents lived. In using the direct-interview forms, the enumerator was instructed to substitute an appropriate term for the word "unit," such as "house," "apartment," "flat," or "rooms." The procedural instructions and the arrangement and sequence of the questions as they appeared on the forms are illustrated in the appendix to the United States Summary chapter of Volume I.

<sup>6</sup>The Household Questionnaire was used only in areas where the two-stage enumeration procedure was followed. In single stage areas, these items were filled through direct interview. See section on "Collection and processing of data."

The definitions that follow conform to those provided in the Enumerator's Reference Manuals. They indicate the concept that was intended, whether the information was provided through self-enumeration or obtained by direct interview. Definitions from the 1950 and earlier censuses also indicate the concepts that were intended, with direct interview as the method of enumeration. Excerpts of instructions from the 1960 Enumerator's Reference Manuals are contained in the appendix to the United States Summary chapter of Volume I. For the most part, the excerpts do not include instructions for items to be filled by self-enumeration.

Instructions from the 1950 Enumerator's Reference Manual, and the schedule used in the enumeration, are reproduced in the appendix to the United States Summary chapter of *1950 Census of Housing, Volume I, General Characteristics*.

Some of the definitions used in 1960 differ from those used in 1950 and earlier, as indicated below in the explanations of the items. These changes were made after consultation with users of housing census data to improve the statistics even though it was recognized that comparability would be affected. Statements on comparability with 1950 and earlier censuses do not always apply specifically to Alaska and Hawaii; the subjects and concepts applicable to the censuses in these two States are discussed in the section "Housing data for Alaska and Hawaii."

As in all surveys, there were some failures to execute the instructions exactly, regardless of the enumeration procedures applied, and some erroneous interpretations have undoubtedly gone undetected.

## LIVING QUARTERS

Living quarters were enumerated as housing units or group quarters. Usually a housing unit is a house, apartment, or flat. However, it may be a trailer or a room in a hotel. A structure intended primarily for business or other nonresidential use may also contain a housing unit; for example, the rooms in a warehouse where the watchman lives, or the living quarters of a merchant in back of his shop. Group quarters are found in institutions, dormitories, barracks, rooming houses, and other places where the occupants do not have separate living arrangements.

**Housing unit.**—A house, an apartment or other group of rooms, or a single room is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters, that is, when the occupants do not live and eat with any other persons in the structure and there is either (1) direct access from the outside or through a common hall, or (2) a kitchen or cooking equipment for the exclusive use of the occupants of the unit. The occupants of a housing unit may be a family or other group of persons, or a person living alone.

Trailers, tents, boats, and railroad cars are included in the housing inventory if they are occupied as housing units. They are excluded if they are vacant, used only for extra sleeping space or vacations, or used only for business. Hotel accommodations are housing units if they are the usual residence of the occupants.

Both vacant and occupied housing units are included in the housing inventory. Vacant quarters are excluded, however, if they are still under construction, being used for nonresidential purposes, unfit for human habitation, condemned, or scheduled for demolition (see section on "Vacant housing unit").

**Determination of housing unit.**—Occupied living quarters were classified as housing units on the basis of information supplied by household members on the Advance Census Report (ACR) and questions asked by the enumerator where necessary. Identification of vacant housing units was determined by the enumerator, through observation and questions asked of the owners, landlords, or neighbors.

HOUSING UNIT DETERMINATION	
Self-enumeration	Direct interview
a. Does more than one family live in this home? Yes <input type="checkbox"/> No <input type="checkbox"/>	a. Does more than one family live in this home?
b. (If yes) Do they live and eat with your family? Yes <input type="checkbox"/> No <input type="checkbox"/>	b. (If yes) Do they live and eat with the family, or do they have separate quarters?
c. Please be sure to list— All members of your family living with you, including babies. All other relatives living here. Lodgers and boarders living here. Servants, hired hands, others not related to you who are living here. Anyone else staying here but who has no other home.	c. What is the name of the head of this household? What are the names of all other persons who live here? (Before listing "other relatives" or "nonrelatives," find out if they have separate quarters.)
	Determination by enumerator
	d. Access to unit Direct from outside or common hall..... <input type="checkbox"/> Through another unit..... <input type="checkbox"/>
	Direct interview
e. Do you have a kitchen or cooking equipment— For use of the people in your household only (those you listed)..... <input type="checkbox"/> Shared with another household or no cooking equipment..... <input type="checkbox"/>	e. Kitchen or cooking equipment For exclusive use..... <input type="checkbox"/> Shared or none..... <input type="checkbox"/>
f. Does anyone else live in this building or anywhere else on this property? Yes <input type="checkbox"/> No <input type="checkbox"/>	f. Does anyone else live in this building or elsewhere on this property?
g. As far as you know, are there any vacant apartments or vacant rooms for rent in this building or elsewhere on this property? Yes <input type="checkbox"/> No <input type="checkbox"/>	g. Are there any vacant apartments or any vacant rooms for rent?
	h. (Ask about next unit) Name? No. of people? When home? (If vacant) Whom to see?

In filling the ACR, the respondent made the initial determination of the housing unit. The final determination was made by the enumerator as he followed the procedure outlined on the FOSDIC schedule. The decision as to what constituted a housing unit was made on the basis of the living arrangements of the occupants and not on relationship.

Some of the questions on the FOSDIC schedule parallel those on the self-enumeration form (ACR) as indicated below. For these questions, the enumerator referred to the ACR for the answers. If only one family lived in the house, the enumerator regarded the quarters as one housing unit and no further probing was necessary to determine whether the quarters were "separate" quarters. (In such cases, direct access and separate cooking facilities were regarded as characteristics of the housing unit rather than criteria of separateness.) If there was evidence of additional separate quarters, such as a second mailbox or doorbell, or the presence of other relatives or nonrelatives, the enumerator was to determine whether there were additional housing units on the basis of either direct access or separate cooking facilities. Quarters that did not meet either criterion were not considered sufficiently separate to qualify as housing units. Quarters whose occupants shared living arrangements were combined into one housing unit (unless the combined quarters contained five or more persons unrelated to the head, in which case the quarters were considered group quarters).

As a final step in the determination of separate housing units, the enumerator was instructed to take account of the respondent's answers to questions about other quarters on the property.

Living quarters are regarded as having *direct access* if the entrance is direct from the outside of the structure, or through a common hall, lobby, or vestibule used by the occupants of more than one unit. The hall, lobby, or vestibule must not be part of any unit, but must be clearly separate from all units in the structure. Living quarters have access through another unit when the only entrance to the room or rooms is through a room or hall which is part of the other unit.

A *kitchen* is defined as a room used primarily for cooking and the preparation of meals. *Cooking equipment* is defined as (1) a range or stove, whether or not it is regularly used, or (2) other equipment such as a hotplate or electrical appliance if it is used for the regular preparation of meals. Equipment is for exclusive use if it is used only by the occupants of one unit (see also section on "Exclusive or shared use"). Vacant units are considered to have cooking equipment if the last occupants had such equipment.

*Hotel, motel.*—Occupied rooms or suites of rooms in hotels, motels, and similar places are classified as housing units only when occupied by usual residents, i.e., persons who consider the hotel as their usual place of residence or have no usual place of residence elsewhere. Vacant rooms or suites of rooms are classified as housing units only in those hotels in which 75 percent or more of the accommodations are occupied by usual residents. The 75-percent limit is an arbitrary rule, the intent being to exclude from the housing inventory those quarters usually occupied by transient guests.

The distinction between hotels and rooming houses in the 1960 Census was made by the enumerator generally on the basis of local usage.

*Rooming house, boarding house.*—If any of the occupants in a rooming or boarding house have separate quarters and do not share living arrangements with other occupants in the structure, such quarters are considered separate housing units. The remaining quarters are combined. If the combined quarters contain four or fewer roomers unrelated to the head, they are classified as one housing unit; if the combined quarters contain five or more roomers unrelated to the head or person in charge, they are classified as group quarters. In a dormitory, residence hall, nurses' home, or similar place, living quarters of the supervisory staff are separate housing units if they satisfy the housing unit criteria; other living quarters are considered group quarters.

*Institution.*—Living quarters of staff personnel are separate housing units if they satisfy the housing unit criteria. Other living quarters are considered group quarters (see section on "Group quarters").

*Comparability with earlier censuses.*—In 1950, the unit of enumeration was the dwelling unit. Although the definition of "housing unit" in 1960 is essentially similar to that of "dwelling unit" in 1950, the housing unit definition was designed to encompass all private living quarters, whereas the dwelling unit definition did not cover all private living accommodations. In 1950, a dwelling unit was defined as (1) a group of rooms occupied or intended for occupancy as separate living quarters and having either separate cooking equipment or separate entrance; or (2) a single room occupied or intended for occupancy as separate quarters if (a) it had separate cooking equipment, (b) it was located in a regular apartment house, or (c) it constituted the only living quarters in the structure.

The main difference between housing units and dwelling units is in the treatment of one-room quarters. In 1960, *separate* living quarters consisting of one room with direct access but without separate cooking equipment qualify as a housing unit whether in an apartment house, rooming house, or house converted to apartment use. In hotels in 1960, a single room qualifies as a housing unit if occupied by a person whose usual residence is the hotel or a person who has no usual residence elsewhere; a vacant room (including quarters temporarily occupied by a nonresident) qualifies as a housing unit only if 75 percent or more of the accommodations in the hotel are occupied by usual residents. In 1950, a one-room unit without separate cooking equipment qualified as a dwelling unit only when located in a regular apartment house or when the room constituted the only living quarters in the structure. In hotels in 1950, occupied and vacant quarters that satisfied the dwelling unit criteria were included in the housing inventory only if more than half the accommodations in the hotel were for permanent guests; if less than half, none of the quarters were included in the housing inventory.

Data on access and cooking facilities of one-room quarters are given in *1960 Census of Housing, Volume II, Metropolitan Housing*. As explained above, separate living quarters containing one room with direct access but having no separate cooking equipment were housing units in 1960 but would not have qualified as dwelling units by the 1950 definition unless they were located in a regular apartment house or were the only living quarters in the structure. Approximately one-half million occupied units, amounting to about 1 percent of the housing inventory in the United States as a whole, were 1-room units with direct access but with shared or no kitchen or cooking equipment

(table 8 of Volume II). For the most part, the units were renter occupied, and roughly four-fifths of them were located inside standard metropolitan statistical areas. It is not possible to determine what portion would qualify as "dwelling units" since there is no measure of the number of units in regular apartment houses or the number that are the only living quarters in the structure.

The evidence thus far suggests that the use of the housing unit concept in 1960 instead of the dwelling unit concept as in 1950 had relatively little effect on the counts for large areas and for the Nation. Any effect which the change in concept may have on comparability can be expected to be greatest in statistics for certain census tracts and blocks within metropolitan areas. Living quarters classified as housing units in 1960 but which would not have been classified as dwelling units in 1950 tend to be clustered in tracts and blocks where many persons live separately in single rooms in hotels, rooming houses, and other light house-keeping quarters. In such areas, the 1960 housing unit count for an individual tract or block may be higher than the 1950 dwelling unit count even though no units were added by new construction or conversion.

In the 1940 Census, a dwelling unit was defined as the living quarters occupied, or intended for occupancy, by one household. A household consisted of a family or other group of persons living together with common housekeeping arrangements, or a person living alone. The instructions to the enumerator did not explicitly define living quarters as separate units on the basis of cooking equipment or access. Furthermore, living quarters with five lodgers or more were included in the 1940 housing inventory but excluded in 1950 and 1960. Even though there were differences in the definitions used in each of the censuses, the overall effect of the change in definition is believed to be small. The differences, if any, would have the greatest effect on data for small areas such as census tracts or blocks.

Statistics on the number of occupied units (identified as "families" in the early censuses) are available from the Censuses of Population from 1930 back to 1890, with limited data back to 1850. The term "family" or "home" used in these censuses is essentially comparable with the current term "housing unit" (see section on "Occupied housing unit").

*Comparability with 1959 Components of Inventory Change survey.*—In the Components of Inventory Change survey, a sample survey conducted in December 1959 as part of the 1960 Census of Housing, the "dwelling unit" was the unit of enumeration, the dwelling unit being defined as in 1950 (see *1960 Census of Housing, Volume IV, Components of Inventory Change, Part 1A-1, United States and Regions*). The dwelling unit was used in the 1959 survey so that change between 1950 and 1959 could be measured on a unit-by-unit basis.

For the United States as a whole, the estimate of the number of dwelling units from the December 1959 sample survey is 58,468,000 and the count of housing units from the April 1960 Census is 58,326,000. For metropolitan areas, however, the count of housing units from the April 1960 enumeration for the 17 areas for which separate data are provided in Volume IV is slightly higher than the count of dwelling units from the December 1959 survey; there is evidence that this difference exists even after allowance for sampling variability of the 1959 estimate and dates of enumeration. Furthermore, the estimate from the April 1960 enumeration of the number of 1- and 2-room renter-occupied housing units in the 17 areas is higher than the estimate of dwelling units in the comparable category from the December 1959 survey.

As indicated above, the housing unit concept is more inclusive than the dwelling unit concept. The effect of the conceptual difference alone, however, may not be revealed by the results of two separate surveys or censuses. Other factors which affect comparability between the December 1959 and the April 1960 figures include the different enumeration procedures employed, the degree of overenumeration and underenumeration in both the survey and the census, the estimation procedure used for the 1959 results, and the sampling variability of the 1959 estimates. The results of the two enumerations are being evaluated in more detail to determine the relationship between the two concepts.

*Group quarters.*—Occupied quarters which do not qualify as housing units are considered group quarters. They are located most frequently in institutions, hospitals, nurses' homes, rooming and boarding houses, residential clubs, missions and flophouses, military and other types of barracks, college dormitories, fraternity and sorority houses, convents, and monasteries. Group quarters are also located in a house or apartment in which the

living quarters are shared by the head and five or more persons unrelated to him. Group quarters are not included in the housing inventory; therefore, counts and housing characteristics of such quarters are not reflected in the data in any of the housing reports. The 1960 concept of group quarters is similar to the 1950 concept of nondwelling-unit quarters.

According to the results of the 1960 Census of Population, approximately 4.9 million people or 2.8 percent of the total population of the United States lived in quarters not defined as housing units. In 1950, the number of persons whose quarters were not included in the dwelling unit inventory was 5.7 million or 3.8 percent of the total 1950 population. The 1950 figures are not entirely comparable with the 1960 figures; it is probable, due to the change in definition from "dwelling unit" to "housing unit," that some 1-room quarters which were housing units in 1960 would not have been dwelling units according to the 1950 definition.

### OCCUPANCY CHARACTERISTICS

The questions used to ascertain occupancy characteristics of housing units are shown below. The items on persons, color, and tenure appeared as self-enumeration items on the Advance Census Report; the item on year moved and the questions related to farm-nonfarm residence for occupied units appeared as self-enumeration items on the Household Questionnaire, which was used in two-stage areas. The direct-interview questions appeared on the FOSDIO schedule. Vacancy status, duration of vacancy, and the number of acres in the place for vacant units were determined by the enumerator through information obtained from owners, landlords, or neighbors.

*Occupied housing unit.*—A housing unit is "occupied" if it is the usual place of residence of the person or group of persons living in it at the time of enumeration. Included are units occupied by persons who are only temporarily absent, such as persons on vacation. Units occupied by persons with no usual place of residence are also considered "occupied." For example, a unit occupied by migratory workers who have no usual residence elsewhere is considered occupied; however, if the migrants have a residence elsewhere, the unit in which they are temporarily living is classified as vacant.

A household consists of all the persons who occupy a housing unit. By definition, therefore, the count of occupied housing units is the same as the count of households in the 1960 Census of Population reports. In some cases, however, there are small differences in the counts resulting from processing procedures. (The ratio estimation procedure for population data was carried out for groups of persons on the basis of age, color, sex, head of household by tenure of unit, and nonhead; the estimation procedure for housing data was carried out for groups of housing units on the basis of tenure, color, and vacancy status; see section on "Ratio estimation.")

The same definition for classifying a unit as occupied was used in the 1950 and 1940 Censuses of Housing. The concept of occupied units in the Censuses of Population in 1930 and earlier, although identified as "homes," "families," or "private families," are also essentially comparable with the 1960 concept of occupied housing units (or households). The counts in some of the earlier censuses included group quarters (or quasi-family groups), with each institution, rooming house, and similar quarters counted as one unit.

*Population in units.*—The "population in housing units, 1960" is the total count of persons living in quarters classified as housing units; it excludes persons living in group quarters. The 1960 figure for "population per occupied unit" was computed by dividing the population in housing units by the number of occupied units. When this figure is tabulated from a sample, it is subject to some sampling variability (see section on "Sample design and sampling variability").

**PERSONS, COLOR**

*Self-enumeration*

**P2. Names of persons living here on April 1, 1960, and those staying here who have no other home.**

*Write names in this order:*

- Head of household on first line.
- Wife of head.
- Unmarried children, oldest first.
- Married children and their families.
- Other relatives.
- Others not related to head of household.

*Direct interview*

**P2. Name—Enter last name first.**

*List persons in this order:*

- The head.
- His wife.
- Unmarried sons and daughters (in order of age).
- Married sons and daughters and their families.
- Other relatives.
- Other persons, such as lodgers, maids, or hired hands who live in and their relatives living in.

*Determination by enumerator*

**P5. Is this person—**

- White.....
- Negro.....
- American Indian.....
- Japanese.....
- Chinese.....
- Filipino.....
- Hawaiian.....
- Part Hawaiian.....
- Aleut.....
- Eskimo.....
- (etc.).....

**P5. Color or race**

- White.....
- Negro.....
- American Indian.....
- Japanese.....
- Chinese.....
- Filipino.....
- Other.....

*Specify other:.....*

**TENURE, YEAR MOVED INTO UNIT**

*Self-enumeration*

**H12. Is the house, part of the house, or apartment in which you live—**

- Owned or being bought by you or someone else in your household.....
- Rented for cash.....
- Occupied without payment of cash rent.....

**P12. When did this person move into this house (or apartment)?**

*Check date of last move:*

- In 1959 or 1960.....
- In 1958.....
- In 1957.....
- April 1955 to Dec. 1956.....
- Jan. 1954 to March 1955.....
- 1950 to 1953.....
- 1940 to 1949.....
- 1939 or earlier.....
- Always lived here.....

*Direct interview*

**H12. Is this unit owned by someone living in it or is it rented?**

- Owned or being bought.....
- Rented.....
- No cash rent.....

**P12. In what year did he move into this house (or apartment)?**

*Mark date of last move:*

- 1959-60.....
- 1958.....
- 1957.....
- April 1955 to Dec. 1956.....
- Jan. 1954 to March 1955.....
- 1950-53.....
- 1940-49.....
- 1939 or earlier.....
- Always lived here.....

**VACANCY STATUS, DURATION OF VACANCY**

*Determination by enumerator*

**H7. Occupancy**

- Occupied.....
- Vacant:
  - Year-round.....
  - Migratory wkr.....
  - Seasonal.....

**H13. Vacancy status**

- For rent.....
- For sale only.....
- Rtd. or sold not occ.....
- For occasional use.....
- Other vacant.....

**H38. How many months has this unit been vacant?**

- Up to 1 month.....
- 1 up to 2.....
- 2 up to 4.....
- 4 up to 6.....
- 6 or more.....

**FARM-NONFARM RESIDENCE**

*Self-enumeration*

**H17 and H18. Is this house—**

On a city lot (or is this an apartment building).....

OR

On a place of less than 10 acres.....

Last year (1959), did sales of crops, livestock, and other farm products from this place amount to \$250 or more?

- \$250 or more.....
- Less than \$250 or none.....

OR

On a place of 10 or more acres.....

Last year (1959), did sales of crops, livestock, and other farm products from this place amount to \$50 or more?

- \$50 or more.....
- Less than \$50 or none.....

**H42. Does your rent include any land used for farming (or ranching)?**

- Yes.....
- No.....

*Direct interview*

**H17. Is this house—**

On a city lot (or apt. bldg.).....

On a place of less than 10 acres.....

**H18a. If occupied—**  
Last year, 1959, did sales of crops, livestock and other farm products from this place amount to—

- \$250 or more.....
- Less than \$250 (or none).....

On a place of 10 or more acres.....

**H18b. If occupied—**  
Last year, 1959, did sales of crops, livestock and other farm products from this place amount to—

- \$50 or more.....
- Less than \$50 (or none).....

**H42. Does the rent include any land used for farming (or ranching)?**

- Yes.....
- No.....

By definition, the population in housing units is the same as population in households in the reports of the 1960 Census of Population. In some cases, however, there are small differences resulting from processing procedures (see discussion of households in the section above on "Occupied housing unit").

The "population in dwelling units, 1950" is the 1950 population in quarters classified as dwelling units; and the "population per occupied unit" is computed in the same way as the 1960 figure. Although the concepts are similar, the change from "dwelling unit" to "housing unit" may have introduced an element of difference between the 1960 and 1960 figures in some areas.

The 1950 figures for places, urbanized areas, and counties in Volume I of the 1960 Housing reports are based on boundaries as of 1950. For individual SMSA's and the total inside and outside SMSA's, the 1950 figures are based on 1960 boundaries; for central cities, however, the figures are based on 1950 city limits for cities designated central cities in 1960. The 1950 figures for the urban and rural portions of a State, division, region, or the United States are based on the 1950 designation of urban and rural territory. The 1950 figures for rural-nonfarm and rural-farm units in table 5 in the State chapters reflect the 1950 definition of farm residence; because of the change in the definition of farm residence, the 1950 and 1960 figures are not comparable. Leaders (—) are shown where it was not possible or feasible to reconstruct the 1950 figures.

The "population per occupied unit" in the 1940 Census of Housing is essentially comparable with the concept of "population per occupied unit" (or "population per household") in the 1950 and 1960 Censuses. Similarly, the concept of population per unit (identified as "population per family" or "population per private family") in the Censuses of Population in 1930 and earlier are essentially comparable with the current concept of population per occupied unit (or household). The population count in the publications of 1940 and some of the earlier censuses, however, is the total population and includes persons in institutions, rooming houses, and similar quarters. Likewise, counts of units (families) for some of the censuses include group quarters or quasi-family groups. Thus, comparability is affected in small areas having an appreciable number of persons in group quarters (quasi-family groups).

In text table F in the United States Summary chapter, total population was used for all years in the computation of the population per occupied unit to provide consistency.

**Persons (P2).**—All persons enumerated in the 1960 Census of Population as members of the household were counted in determining the number of persons who occupied the housing unit. These persons include not only occupants related to the head but also any lodgers (roomers, boarders, partners, wards, foster children) and resident employees who shared the living quarters of the household head.

The median number of persons for occupied housing units is the theoretical value which divides the distribution into two equal parts—one-half the units having more persons and one-half having fewer persons than the median. In the computation of the median, a continuous distribution was assumed, with the whole number of persons as the midpoint of the class interval. For example, when the median was in the 3-person group, the lower and upper limits were assumed to be 2.5 and 3.5 persons, respectively. In table 26 of the State chapters of Volume I, the median for all occupied units was computed from the 100-percent count of units, whereas the medians for owner- and renter-occupied units were computed from the 25-percent sample of units. The sample rate for medians in other tables is given in table I.

Comparable data on the number of persons in the unit are available from the 1950 and 1940 Censuses of Housing. In certain areas, comparability may be affected to some small extent by the change in concept from dwelling unit to housing unit. Data are available also from the Censuses of Population in 1930 and earlier; however, data for some of these censuses pertain only to persons related to the head.

**Persons per room.**—The number of persons per room was computed for each occupied housing unit by dividing the number of persons by the number of rooms in the unit. The tabulation form contained a terminal category of "10 or more" rooms; for purposes of the computation, the terminal category was given a mean value of 11. Similar data are available from the 1950 and 1940 Censuses.

**Color (P5).**—Occupied housing units are classified according to the color of the head of the household into two groups, white and nonwhite. Data for units with nonwhite household heads are published for areas having a specified number of such units (see section on "Description of tables"). The color group designated "nonwhite" consists of such races or ethnic groups as Negro, American Indian, Japanese, Chinese, Filipino, Hawaiian, Eskimo, Aleut, Korean, Asian Indian, and Malayan. Persons of Mexican birth or ancestry who are not definitely of Indian or other nonwhite race are classified as white. Persons of mixed racial parentage are classified as nonwhite.

The concept of race, as it has been used by the Bureau of the Census, is derived from that which is commonly accepted by the general public. The use of self-enumeration in the 1960 Census may have affected the accuracy of the data on color as compared with earlier censuses. Whereas formerly the classification was obtained in most cases by the enumerator's observation, in 1960 it was possible for members of the household to classify themselves.

Data on color of head of household are available from the 1950 and 1940 Censuses of Housing. Except for 1910, the number of units (families) by color of household head is available from the Censuses of Population from 1930 back to 1890 (data for 1910 being available only for the Southern States).

**Heads of Spanish surname and Puerto Rican heads.**—In order to provide data for housing occupied by Spanish- and Mexican-Americans for areas of the United States where most of these persons live, white household heads of Spanish surname were identified in five Southwestern States (Arizona, California, Colorado, New Mexico, and Texas). In all other States, Puerto Rican heads of households were identified. Puerto Ricans comprise persons born in Puerto Rico and persons of native parentage with at least one parent born in Puerto Rico (as determined by population items on place of birth). Native persons include persons born in the United States, the Commonwealth of Puerto Rico, or a possession of the United States. Data are published in the State chapters for areas having a specified number of units with white household heads of Spanish surname or units with Puerto Rican heads (see section on "Description of tables"). No data for these units are published in the United States Summary chapter.

Housing data were published in 1950, but not in earlier censuses, for units with white household heads of Spanish surname in the five Southwestern States. Housing data for units with Puerto Rican heads are not available in censuses prior to 1960.

**Tenure (H12).**—A housing unit is "owner occupied" (reported as "owned or being bought" on the enumeration forms) if the owner or co-owner lives in the unit, even if it is mortgaged or not

fully paid for. The owner need not be the head of the household. A cooperative apartment unit is "owner occupied" only if the owner lives in it.

All other occupied units are classified as "renter occupied," including units rented for cash as well as units occupied without payment of cash rent. Units rented for cash (reported on the direct-interview form as "rented") are units for which any money rent is paid or contracted for. Such rent is commonly paid by the occupants but may be paid by persons not living in the unit—for example, a welfare agency. Units for which no cash rent is paid include units provided by relatives not living in the unit and occupied without rental payment, units provided in exchange for services rendered, and units occupied by a tenant farmer or sharecropper who does not pay any cash rent. "No cash rent" appears as a category in the rent tabulations. In county tables for rural-farm units in the State chapters, the category appears under "rent status."

Essentially the same definitions of tenure were used in the 1950 and 1940 Censuses of Housing and in the Censuses of Population from 1930 back to 1890.

**Year moved into unit (P12).**—Data on year moved into unit are based on the information reported for the head of the household. The question refers to the year of latest move. Thus, if the head moved back into a unit he had previously occupied, the year he moved back was to be reported; or if he moved from one apartment to another in the same building, the year he moved into his present unit was to be reported.

The intent of the question is to establish the year the present occupancy of the unit began, as indicated by the year the household head moved into the unit. The year the head moves is not necessarily the same year other members of the household move, although in the great majority of cases the entire household moves at the same time. The statistics roughly reflect turnover in occupancy of units but do not necessarily indicate the total number of changes in occupancy that have occurred in a given period.

Data on year moved into the unit were not collected in censuses prior to 1960.

**Vacant housing unit.**—A housing unit is "vacant" if no persons are living in it at the time of enumeration. However, if its occupants are only temporarily absent, the unit is considered occupied. Units temporarily occupied entirely by persons having a usual place of residence elsewhere are classified as vacant (the unit at their usual residence is considered occupied). A vacant unit may be furnished or unfurnished; it may be offered for rent or sale; it may have been rented or sold but the new occupants have not moved in; or it may be held off the market for the owner's occasional or future use, for speculation, or for other reasons.

Newly constructed vacant units are included in the inventory if construction has reached the point that all the exterior windows and doors are installed and the final usable floors are in place. If construction has not reached this point, the unit is excluded. Dilapidated vacant units are included, provided they are still usable as living quarters; they are excluded if they are unfit for human habitation. Vacant units are defined as unfit for human habitation if, through deterioration or vandalism, most of the doors and windows are missing and the floors are unsafe.

Vacant quarters are excluded from the housing inventory if there is positive evidence (a sign, notice, or mark on the house or in the block) that the unit is to be demolished. Vacant quarters condemned for reasons of health or safety so that further occupancy is prohibited are likewise excluded from the inventory. Also excluded are quarters being used for commercial or business purposes, quarters used for the storage of hay, machinery, business supplies, and the like; and vacant trailers.

With few exceptions, the same general instructions were used in 1950. In the 1960 Census, however, the instructions for enumerating certain vacant units were more specific than in 1950, particularly the instructions regarding units to be demolished, units unfit for human habitation, and units being used for non-residential purposes. It is possible also that comparability is affected in some areas by the change from "dwelling unit" to "housing unit."

Information for vacant units was first collected in the 1940 Census of Housing. The counts and categories are not entirely comparable with those in 1960. The 1960 and 1950 counts are considered more inclusive.

*Year-round or seasonal occupancy (H7).*—Year-round housing units are units which are usually occupied or intended for occupancy at any time of the year. A unit used only occasionally throughout the year is considered a year-round unit. In resort areas, a unit which is usually occupied on a year-round basis is also considered a year-round unit.

Seasonal units are intended for occupancy during only a season of the year. Included are units intended for summer or winter recreational use, such as beach cottages and hunting cabins; units held for herders, loggers, and cannery workers; and units intended for migratory workers employed in farmwork during the crop season. Although units held for migratory workers were separately identified by the enumerator, they were included with other seasonal units in the tabulations.

Essentially the same definitions were used in the 1950 Census. In 1950, however, units which were temporarily occupied by persons having a usual residence elsewhere (classified as "nonresident" units) were shown as a separate category and, although they were treated as vacant units, they were not classified by year-round or seasonal use as in 1960. It is believed that most of the "nonresident" units in 1950 would have been classified as seasonal.

Data for year-round units are presented by condition and vacancy status in most tables. For seasonal units, however, no detail is shown.

*Vacancy status (H13).*—Status of a vacant unit is reported as of the time of enumeration. In the tabulations, the five categories described below apply to vacant units intended for year-round occupancy and in sound or deteriorating condition.

The count of *available* vacancies constitutes a measure of vacant units on the housing market. It consists of units which are for year-round occupancy, are in either sound or deteriorating condition, and are offered for rent or for sale. Excluded are seasonal units; dilapidated units; and units already rented or sold, held for occasional use, or not on the rental or sale market for other reasons.

The 1960 category "available" is comparable with the 1950 category "nonseasonal not dilapidated, for rent or sale." The separate categories "for sale only" and "for rent" for both years also are comparable since essentially the same concepts were used; in 1950, however, characteristics were not tabulated for the two groups separately, except for value and rent. The categories provided in the 1940 Census reports are not comparable with the 1960 or 1950 categories.

Units *available for sale only* are the available vacant units which are offered for sale only; they exclude units offered "for sale or rent." A vacant unit in a cooperatively owned apartment building is included if the individual unit is "for sale only." A vacant unit in a multiunit structure which is for sale as an entire structure is included if that unit is intended to be occupied by the new owner and if the unit is not also for rent.

Units *available for rent* are the available vacant units which are offered for rent and those offered for rent or sale at the same time.

The category tabulated as *rented or sold, awaiting occupancy* consists of vacant units which are for year-round occupancy and in either sound or deteriorating condition, and which have been rented or sold but the new occupants have not moved in as of the date of enumeration.

The category tabulated as *held for occasional use* consists of vacant units which are for year-round occupancy and in either sound or deteriorating condition, and which are held for weekend or other occasional use. The intent of this question was to identify homes reserved by their owners as "second homes." Because of the difficulty of distinguishing between this category and seasonal vacancies, however, it is possible that some second homes were classified as seasonal and therefore are included in the category "seasonal."

The category tabulated as *held for other reasons* consists of vacant units which are for year-round occupancy and in either sound or deteriorating condition, and which are held off the market for reasons not specified above. For example, the category includes units held for a caretaker or janitor, units held for settlement of an estate, and units held for personal reasons of the owner.

The categories "rented or sold, awaiting occupancy," "held for occasional use," and "held for other reasons" when combined are comparable with the 1950 category "nonseasonal not dilapidated, not for rent or sale" (and some portion of the 1950 "nonresident" category).

*Homeowner vacancy rate.*—The percentage relationship between vacant units available for sale and the total homeowner inventory is termed the homeowner vacancy rate. The total homeowner inventory consists of owner-occupied units and vacant units available for sale. This rate more adequately describes the sale market than a rate based on total housing units.

*Rental vacancy rate.*—The percentage relationship between vacant units available for rent and the total rental inventory is termed the rental vacancy rate. The total rental inventory consists of renter-occupied units and vacant units available for rent. This rate more adequately describes rental market conditions than a rate based on total housing units.

*Duration of vacancy (H38).*—The duration of vacancy is the length of time (in months) from the date the last occupants moved from the unit to the date of enumeration. The data, therefore, do not provide a direct measure of the total length of time units remain vacant. For newly constructed units which have never been occupied, the duration of vacancy represents the time period since the date construction was completed.

No information on duration of vacancy was collected in previous censuses.

*Acres in the place (H17).*—In the State chapters of Volume I, data on number of acres in the place are presented for vacant units in rural territory. The categories are "10 acres or more" and "less than 10 acres" (see section on "Farm-nonfarm residence").

*Comparability with the Housing Vacancy Survey.*—Data on many of the vacancy characteristics in Volume I are available for the United States (by inside and outside standard metropolitan statistical areas) from the Housing Vacancy Survey (HVS). This nationwide survey, covering a sample of approximately 42,000 units (occupied and vacant) is conducted monthly by the Bureau of the Census in conjunction with its Current Population Survey. Data are published quarterly in *Current Housing Reports*, Series H-111, *Housing Vacancies*. The concepts and definitions used in the HVS in 1960 were essentially the same as those used in the April 1960 Census.

Results showed that 9.1 percent of the total housing units in the United States were vacant according to the April 1960 Census and 10.2 percent were vacant according to the HVS for the first quarter 1960. These vacant units include units available for sale or rent, seasonal units, dilapidated units, and other types that are held off the market. Vacant units available for sale amounted to 0.9 percent of the total housing inventory in the April 1960 Census and 0.6 percent in the HVS; the rates for vacant units available for rent were 2.5 and 2.6 percent, respectively. Characteristics of available vacancies, such as median sale price, median rent, median number of rooms, and the proportion with all plumbing facilities agreed fairly closely.

Differences between the April 1960 Census and the HVS may be attributed to several factors. Sampling variability of the figures from the HVS and those based on a sample from the April 1960 Census is one factor. Other factors include survey techniques; methods used in weighting the sample estimates; the more extensive training, control, and experience of the HVS enumerators than of the census enumerators; and the use of hourly rate payments in the HVS and of piece-rate payments in the census.

*Farm-nonfarm residence (H17, H18, H42).*—In rural territory, occupied housing units are subdivided into rural-farm and rural-nonfarm units on the basis of number of acres in the place and total sales of farm products in 1959. All vacant units are included in the rural-nonfarm inventory. Number of acres in the place was reported for vacant units but no information was obtained on sales of farm products.

Occupied housing units are classified as farm units if they are located on places of 10 or more acres from which sales of farm products amounted to \$50 or more in 1959, or on places of less than 10 acres from which sales of farm products amounted to \$250 or more in 1959. The remaining occupied units, including those on "city lots," are classified as nonfarm units. (A house is on a city lot if it is located in a community or closely built-up area and the "place" is no larger than the house and yard.) Oc-

cupled units for which cash rent is paid also are classified as nonfarm if the rent does not include any land used for farming, even though the place on which the unit is located qualifies as a farm.

For purposes of determining farm residence, the residential "place" consists of the land which the respondent considers to be the farm, ranch, or property. The place may consist of more than one tract of land; the tracts are usually adjoining although they may be separated by a road, creek, or another piece of land. If there is more than one house on the place, all have the same farm-nonfarm classification (except that, on farms, units for which cash rent is paid are always classified as nonfarm if the rent does not include any land used for farming). For example, if the operator lives in one house and a hired hand lives in a separate house on the same place, both housing units have the same classification.

Sales of farm products refer to the total amount (gross amount) received from the sale of crops, vegetables, fruits, nuts, livestock and livestock products (milk, wool, etc.), poultry and poultry products, and nursery and forest products produced on the place and sold at any time during 1959.

Farm-nonfarm residence in 1950 was determined for both occupied and vacant units in rural territory by the respondent's answer to the question, "Is this house on a farm or ranch?" Units on farms whose occupants paid cash rent for the house and yard only were classified as nonfarm, similar to the procedure in 1960. Units on institutional grounds and in summer camps and tourist courts were classified as nonfarm in 1950, regardless of the answer to the above question. Housing units in such places in 1960 are classified according to the answers to the questions on acreage and sales of products.

Farm residence was determined in the 1940 Census of Housing also. Counts of farm units (families) are available for each of the census years from 1930 back to 1890. Comparability is affected not only by the change in the definition of farm residence but also by the change in the delineation of urban and rural territory.

In 1950 and 1940, a count of farm dwelling units located in cities and other urban territory was obtained, but in the 1960 Census of Housing no effort was made to identify urban-farm units. In 1950, the count of urban-farm units (occupied and vacant) amounted to only about 96,000 in the United States as a whole.

The definition of farm residence adopted for 1960 employs more restrictive criteria than the 1950 definition. One reason for the change was to make the definition of farm residence essentially consistent with the definition of a farm used in the agricultural census, beginning with the 1959 Census of Agriculture. The effect of the 1960 definition is to exclude from the farm inventory, those housing units located on places considered as farms by the occupants but from which agricultural products are not sold or from which sales are below the specified minimum. On the other hand, the 1960 definition brings into the farm inventory a smaller group of housing units which meet the criteria but which are not considered by the occupants to be located on farms.

A test conducted in the Census Bureau's Current Population Survey (CPS) in March 1960 indicated that at that time the change in definition of farm residence resulted in a net reduction of 1.0 million occupied units (households) on farms, representing approximately one-fifth of the farm units under the 1950 definition. The CPS estimate of 4.1 million occupied farm units under the new definition, however, was 0.5 million greater than the April 1960 Census figure of 3.6 million. No similar estimates of the difference are available by State or smaller area. The impact of the change in definition has probably been very uneven from one area to another.

Although there is no conclusive evidence on the relative validity of the farm-nonfarm classification in the CPS as compared with

that in the April 1960 Census, several factors must be taken into consideration in evaluating the figure, 0.5 million. These factors include the more extensive training, control, and experience of the CPS enumerators than of the census enumerators; the use of hourly rate payments in the CPS and of piece-rate payments in the census; the use of self-enumeration in the census; the methods used in weighting the sample estimates; and the difference between the sampling variability in the CPS and in the 25-percent sample in the 1960 Census. There is also a difference between the definition of urban territory in the census and that in the CPS. In the March 1960 CPS, the boundaries of urban areas used were still those of the 1950 Census of Housing and did not include the annexations and other substantial expansions of urban territory that were incorporated in the 1960 Census of Housing. In the 1960 Census, the determination of farm residence was limited to rural territory as defined in 1960. The effect of this difference was to classify an unknown but presumably small number of units as rural farm in the CPS that are treated as urban in the reports of the 1960 Census. Finally, for some of the units in the CPS sample in March 1960, the determination as to farm residence had been made as early as December 1959, whereas the determination for the units in the April 1960 Census was made as of the time of enumeration. In view of the continued decline in the number of farms, it is probable that a number of places that qualified as farms in December would no longer have been so classified in April.

There are differences also between the number of farms as enumerated in the 1959 Census of Agriculture and the number of occupied rural-farm housing units from the 1960 Census of Housing. According to the 1959 Census of Agriculture, there were 3.7 million farms in the United States and 3.4 million farm operators living on the farms they operated. The number of occupied rural-farm housing units according to the 1960 Census of Housing (3.6 million) was 3.8 percent below the number of farms but 3.6 percent above the number of resident farm operators. Even if there had been no errors of enumeration, the number of occupied rural-farm housing units from the Census of Housing would not equal exactly either the number of farms or the number of operators living on the farms they operated. The Census of Agriculture, for example, includes farms in urban territory. Moreover, there are two or more occupied housing units on some farms and no occupied housing units on other farms. In addition, there may be occupied farm housing units even where there is no resident farm operator. Finally, the Census of Agriculture was taken in the fall of 1959, and evidence from other sources suggests that there was some decline in the number of farm units between the time of the Census of Agriculture and the Census of Housing.

Data from a study in which schedules from the 1960 Sample Survey of Agriculture were matched with those from the 1960 Census of Housing suggest that approximately 13 percent of the units occupied by farm operators in rural areas were not classified as farm units in the 1960 Census of Housing. The nature of the matching procedure was such that it was not possible to identify and count the complementary group of units classified as farm in the housing census but as nonfarm in the agriculture survey.

#### STRUCTURAL CHARACTERISTICS

The comparison of the wording and explanations that appeared on the self-enumeration and direct-interview forms is given below. Type of housing unit and number of units in structure were always to be determined by the enumerator through observation and supplementary questions asked of the respondent. Number of rooms appeared as a self-enumeration item on the Advance Census Report, and all the other self-enumeration items appeared on the Household Questionnaire, which was used in two-stage areas. The direct-interview questions appeared on a FOSDIC schedule. Although the question on year built appeared on the self-enumeration form, the enumerator was instructed to obtain

this information from the resident owner, manager, or janitor if the unit was in a structure containing five housing units or more.

**Rooms (H8).**—The number of rooms in the unit is the count of whole rooms used for living purposes, such as living rooms, dining rooms, bedrooms, kitchens, finished attic or basement rooms, recreation rooms, lodgers' rooms, and rooms used for offices by a person living in the unit. Not considered as rooms are bathrooms; halls, foyers, or vestibules; closets; alcoves; pantries; strip or pullman kitchens; laundry or furnace rooms; unfinished attics, basements, and other space used for storage; porches, unless they are permanently enclosed and suitable for year-round

use; and offices used only by persons not living in the unit. A partially divided room, such as a dinette next to a kitchen or living room, is considered a separate room if there is a partition from floor to ceiling. Rooms equipped with movable partitions from floor to ceiling are separate rooms. If a room is shared by occupants of more than one unit, it is included with the unit from which it is most easily reached.

The median number of rooms is the theoretical value which divides the distribution of units into two equal parts—one-half the units having more rooms and one-half having fewer rooms than the median. In the computation of the median, a continuous distribution was assumed, with the whole number of rooms as the midpoint of the class interval. For example, when the median was in the 5-room group, the lower and upper limits were assumed to be 4.5 and 5.5 rooms, respectively. A plus (+) sign after a median indicates that the median falls in the terminal category; for example, "7.5+" indicates that the median falls in the category "8 rooms or more" and was not computed. Because the terminal category for some of the tabulations was higher than "8 rooms or more," a median above 7.5 is not necessarily higher than a median of "7.5+" rooms. In table 25 of the State chapters, the median for all units was computed from the 100-percent count of units, whereas the medians for owner- and renter-occupied units were computed for a sample of units. The sample rate for medians in other tables is given in table I.

Average number of rooms (arithmetic mean) is provided for places of 1,000 to 2,500 inhabitants in the State chapters. It was computed by dividing the sum of the rooms for each tenure group by the number of owner- or renter-occupied units, respectively. The tabulation form contained a terminal category of "10 or more" rooms. For purposes of the computation, the terminal category was given a mean value of 11.

The 1960 data on number of rooms are considered directly comparable with 1950 and 1940 data, since essentially the same definitions were used in all three censuses. In certain areas, comparability between 1950 and 1960 may be affected to some small extent by the change in concept from dwelling unit to housing unit.

**Bedrooms (H19).**—The number of bedrooms in the unit is the count of rooms used mainly as bedrooms. In addition to regular bedrooms, the count includes studies, dens, enclosed porches, finished attics, guest rooms, or other extra rooms if they are currently used principally and regularly for sleeping. Rooms used only occasionally for sleeping, such as a living room with a hide-away bed, were not to be counted as bedrooms. A housing unit consisting of only one room, such as a 1-room efficiency apartment, was to be reported as having no bedroom.

Information on the number of bedrooms was not collected in the 1950 or 1940 Censuses.

**Year structure built (H20).**—"Year built" refers to the date the original construction of the structure was completed, not to any later remodeling, addition, or conversion. For trailers, the model year was assumed to be the year built.

The figures on the number of units built during a given period relate to the number of units in existence at the time of enumeration. The figures reflect the number of units constructed during a given period plus the number created by conversions in structures originally built during that period, minus the number lost in structures built during the period. Losses occur through demolition, fire, flood, disaster; change to nonresidential use; or merger to fewer housing units.

Data on year built are more susceptible to errors of response and nonreporting than data on many of the other items. In most cases, the information was given according to memory or estimates of the occupants of the structure or of other persons who had lived in the neighborhood a long time.

ROOMS, BEDROOMS, YEAR STRUCTURE BUILT	
Self-enumeration	Direct interview
<b>H8. How many rooms are in your house or apartment?</b> Count a kitchen as a room but do not count bathrooms. Number of rooms: .....	<b>H8. How many rooms are in this unit?</b> Count kitchen but not bathroom. 1 2 3 4 5 6 7 8 9 10+ <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<b>H19. How many bedrooms are in your house or apartment?</b> Count rooms whose main use is as bedrooms even if they are occasionally used for other purposes. If you live in a one-room apartment without a separate bedroom, check "No bedroom."	<b>H19. How many bedrooms are in this unit?</b>
No bedroom..... <input type="checkbox"/> 1 bedroom..... <input type="checkbox"/> 2 bedrooms..... <input type="checkbox"/> 3 bedrooms..... <input type="checkbox"/> 4 bedrooms or more..... <input type="checkbox"/>	No bedroom..... <input type="radio"/> 1..... <input type="radio"/> 2..... <input type="radio"/> 3..... <input type="radio"/> 4 or more..... <input type="radio"/>
<b>H20. About when was this house originally built?</b> In 1959 or 1960..... <input type="checkbox"/> 1955 to 1958..... <input type="checkbox"/> 1950 to 1954..... <input type="checkbox"/> 1940 to 1949..... <input type="checkbox"/> 1930 to 1939..... <input type="checkbox"/> 1929 or earlier..... <input type="checkbox"/>	<b>H20. About when was this house originally built?</b> In 1959 or 1960..... <input type="radio"/> 1955 to 1958..... <input type="radio"/> 1950 to 1954..... <input type="radio"/> 1940 to 1949..... <input type="radio"/> 1930 to 1939..... <input type="radio"/> 1929 or earlier..... <input type="radio"/>
UNITS IN STRUCTURE, TRAILERS	
Self-enumeration	Direct interview
<b>H37. If you live in a trailer, is it—</b> Mobile (on wheels, or can easily be put on wheels)..... <input type="checkbox"/> On a permanent foundation..... <input type="checkbox"/>	<b>H37. If this is a trailer—Is the trailer mobile or has it been put on a permanent foundation?</b> Mobile..... <input type="radio"/> On permanent foundation..... <input type="radio"/>
<b>H33. Is this house built—</b> With a basement..... <input type="checkbox"/> On a concrete slab..... <input type="checkbox"/> In another way..... <input type="checkbox"/>	<b>H33. Is this house built—</b> With a basement..... <input type="radio"/> On a concrete slab..... <input type="radio"/> In another way..... <input type="radio"/>
<b>H34. Does this building have—</b> 3 stories or less..... <input type="checkbox"/> 4 stories or more— With elevator..... <input type="checkbox"/> Walkup..... <input type="checkbox"/>	<b>H34. Does this building have—</b> 3 stories or less..... <input type="radio"/> 4 stories or more— With elevator..... <input type="radio"/> Walkup..... <input type="radio"/>

Statistics in this volume on the number of new units, according to the data on year built, may differ from figures on new construction collected in the Components of Inventory Change program which employed specialized procedures for collecting the data. (Statistics on new construction units for selected SMSA's, the four regions, and the United States are published in 1960 *Census of Housing, Volume IV, Components of Inventory Change, Parts 1A and 1B.*)

Data on year built were collected in the 1950 and the 1940 Censuses of Housing also. While the definitions were the same in the three censuses, comparability of the data may be affected by relatively large reporting errors.

**Units in structure (H29).**—In determining the number of units in the structure, the enumerator was instructed to count both occupied and vacant housing units, but not business units or group quarters. A structure is defined as a separate building that either has open space on all four sides, or is separated from other structures by dividing walls that extend from ground to roof. Structures containing only one housing unit were further classified as detached or attached. Trailers are tabulated as units in 1-unit detached structures when not shown as a separate category in a table.

A 1-unit detached structure has open space on all four sides and contains only one housing unit. Such a structure is considered detached even though it has an adjoining shed or private garage or contains a business unit. A 1-unit attached structure contains only one housing unit and has one or more walls extending from ground to roof separating it from adjoining structures. For row houses, double houses, or houses attached to nonresidential structures, each house is a separate attached structure if the dividing or common wall goes from ground to roof.

Statistics are presented in terms of number of housing units rather than number of residential structures. The number of structures for some of the categories, however, is apparent. For housing units in 1-unit structures, the number of housing units and the number of structures are the same. The number of housing units in 2-unit structures is twice the number of structures. For the remaining categories, the number of structures cannot be ascertained from the data as tabulated.

Some of the categories for number of housing units in structure in 1960 are not directly comparable with those in 1950—in particular the categories for 1- and 2-unit structures. In 1950, units in detached or attached structures were shown separately, but those in semidetached structures containing 1 or 2 units were combined into one category. ("Semidetached" structures of 1950 are defined as "attached" in 1960.) Comparability between 1950 and 1960 data may also be affected by the change in concept from dwelling unit to housing unit.

In the 1940 Census, data were provided on number of residential structures as well as number of units in a structure. The 1940 definitions were basically the same as in 1960 with a few exceptions. Principally, each unit classified as "2-family side-by-side" in 1940 would be classified as "1-unit attached" according to the 1960 definition; and units in structures containing a business and having one to four units constituted a separate category in 1940.

Statistics on the count of structures and number of persons per structure are available from the Censuses of Population from 1890 to 1930. In those censuses, data were shown in terms of "dwellings," the concept of "dwelling" being roughly comparable with the current concept of "structure." Statistics on the number of occupied units per structure (families per dwelling) also were included in some of the censuses.

**Trailer (H3, H37).**—Trailers are included in the housing inventory if they are occupied as living quarters; vacant trailers and trailers used only for business or vacation purposes were not enumerated. When one or more rooms have been added to a

trailer, however, it is classified as "house, apartment, flat." A trailer is "mobile" if it rests on wheels or on a temporary foundation, such as blocks or posts. A trailer is "on a permanent foundation" if it is mounted on a regular foundation of brick, stone, concrete, etc. Characteristics of occupied trailers are included in all the tabulations except those on value. Trailers are shown as a separate category, for some areas, in the tabulations on number of units in structure.

In 1950, only occupied trailers on wheels or on temporary foundations were identified. A trailer on a permanent foundation or with a room added was classified as "house, apartment, flat." In 1940, occupied trailers were combined with tents, boats, railroad cars, and shacks in the published data.

**Basement (H33).**—Statistics on basements are presented in terms of the number of housing units located in structures built with a basement, on a concrete slab, or in another way. "Basement" is defined as enclosed space beneath all or part of a structure, accessible to the occupants and of sufficient depth so that an adult can walk upright. Units built on a "concrete slab" have no basement and no crawl space or air space below the first floor. The category "other" includes units in structures resting on posts, those built directly on the ground, and those having only crawl space under the building to provide ventilation or accessibility for service or repairs.

No question about basements was asked in censuses prior to 1960.

**Elevator in structure (H34).**—Statistics on elevator in structure are presented in terms of the number of housing units located in structures with four stories or more, not counting the basement. Units are classified "with elevator" if they are located in a building with an elevator which passengers may use. Units are in a "walkup" structure if the structure has no passenger elevator or if the only elevator service is for freight. Data on elevators are published only for large places, that is, places which had a population of 50,000 or more in 1950 or in an interim census prior to 1960 and also had a population of 50,000 or more in 1960. Data for all such places in the United States are given in the United States Summary chapter. No data on elevator in structure are given in the State chapters.

Data on elevator in structure were not collected in earlier censuses.

#### CONDITION AND PLUMBING FACILITIES

The questions on condition and plumbing are shown below. Water supply, toilet facilities, and bathing facilities appeared as self-enumeration items on the Advance Census Report and the remaining three self-enumeration items appeared on the Household Questionnaire, which was used in two-stage areas. The direct-interview questions appeared on a FOSDIC schedule. Condition of the unit, however, was determined by the enumerator on the basis of his observation; the respondent was not to be questioned about the condition of his living quarters.

**Condition and plumbing combined.**—Both the condition of a housing unit and the type of plumbing facilities are considered measures of the quality of housing. Categories representing various levels of housing quality have been established by presenting the items in combination.

To measure condition, the enumerator classified each housing unit in one of three categories: Sound, deteriorating, or dilapidated. The plumbing facilities that are combined with condition are: Water supply, toilet facilities, and bathing facilities.

The category "with all plumbing facilities" consists of units which have piped hot and cold water inside the structure, and flush toilet and bathtub (or shower) inside the structure for the exclusive use of the occupants of the unit.

CONDITION	
	Observation by enumerator
<b>H6. Condition</b>	
Sound.....	<input type="radio"/>
Deteriorating.....	<input type="radio"/>
Dilapidated.....	<input type="radio"/>
<b>WATER SUPPLY, TOILET AND BATHING FACILITIES, BATHROOMS</b>	
Self-enumeration	Direct interview
<b>H9. Is there hot and cold running water in this house or building?</b>	<b>H9. Is there hot running water (for this unit)?</b>
Hot and cold running water inside the house or building..... <input type="checkbox"/>	Running water in structure:
Only cold running water inside..... <input type="checkbox"/>	Hot and cold..... <input type="radio"/>
Running water on property but not inside building..... <input type="checkbox"/>	Cold only..... <input type="radio"/>
No running water..... <input type="checkbox"/>	Run. water outside..... <input type="radio"/>
	No running water..... <input type="radio"/>
<b>H10. Is there a flush toilet in this house or building?</b>	<b>H10. Is there a flush toilet (for this unit)?</b>
Yes, for the use of this household only..... <input type="checkbox"/>	For exclusive use..... <input type="radio"/>
Yes, but shared with another household..... <input type="checkbox"/>	Shared..... <input type="radio"/>
No flush toilet for the use of this household..... <input type="checkbox"/>	None..... <input type="radio"/>
<b>H11. Is there a bathtub or shower in this house or building?</b>	<b>H11. Is there a bathtub or shower (for this unit)?</b>
Yes, for the use of this household only..... <input type="checkbox"/>	For exclusive use..... <input type="radio"/>
Yes, but shared with another household..... <input type="checkbox"/>	Shared..... <input type="radio"/>
No bathtub or shower for the use of this household..... <input type="checkbox"/>	None..... <input type="radio"/>
<b>H30. How many bathrooms are in your house or apartment?</b>	<b>H30. How many bathrooms are in this unit?</b>
A complete bathroom has both flush toilet and bathing facilities (bathtub or shower). A partial bathroom has a flush toilet or bathing facilities, but not both.	
No bathroom, or only a partial bathroom..... <input type="checkbox"/>	None or partial only..... <input type="radio"/>
1 complete bathroom..... <input type="checkbox"/>	1..... <input type="radio"/>
1 complete bathroom, plus partial bathroom(s)..... <input type="checkbox"/>	1 and partial..... <input type="radio"/>
2 or more complete bathrooms..... <input type="checkbox"/>	2 or more..... <input type="radio"/>
<b>SOURCE OF WATER AND SEWAGE DISPOSAL</b>	
Self-enumeration	Direct interview
<b>H31. Do you get water from—</b>	<b>H31. What is the source of water?</b>
A public system (or private company)..... <input type="checkbox"/>	Public system (or private company)..... <input type="radio"/>
An individual well..... <input type="checkbox"/>	Individual well..... <input type="radio"/>
Some other source..... <input type="checkbox"/>	Other..... <input type="radio"/>
<b>H32. Is this house connected to a public sewer?</b>	<b>H32. Is the house connected to a public sewer?</b>
Yes, connected to a public sewer..... <input type="checkbox"/>	Public sewer..... <input type="radio"/>
No, has septic tank or cesspool..... <input type="checkbox"/>	Septic tank or cesspool..... <input type="radio"/>
No, has other means of sewage disposal..... <input type="checkbox"/>	Other..... <input type="radio"/>

Units "lacking only hot water" have all the facilities except piped hot water. Units "lacking other plumbing facilities" may (or may not) have hot water but lack one or more of the other specified facilities. Also included in this category are units having no piped water inside the structure and units whose occupants share toilet or bathing facilities with the occupants of another housing unit. The combination of "lacking only hot water" and "lacking other plumbing facilities" is presented as "lacking some or all facilities" in some of the distributions.

In the distribution of plumbing facilities for vacant available units, the figures apply only to sound and deteriorating units.

Data for dilapidated vacant units are not shown separately, but are included in the distribution for "all units."

Condition was presented in combination with plumbing facilities in the 1950 reports also. If the respective categories under "sound" and "deteriorating" are combined, the 1960 category "with all plumbing facilities" compares with the 1950 "not dilapidated, with private toilet and bath, and hot running water"; the 1960 "lacking only hot water" compares with the 1950 "not dilapidated, with private toilet and bath, and only cold water"; and the 1960 "lacking other plumbing facilities" compares with the 1950 combination of "not dilapidated, with running water, lacking private toilet or bath" and "not dilapidated, no running water."

*Condition (H6).*—The enumerator determined the condition of the housing unit by observation, on the basis of specified criteria related to the extent or degree of visible defects. The types of defects the enumerator was to look for are associated with weather tightness, extent of disrepair, hazards to the physical safety of the occupants, and inadequate or makeshift construction. These are signs of other structural defects which may be hidden. Defects which would be revealed only by a more careful inspection than is possible during a census, such as the presence of dampness or infestation, inadequate wiring, and rotted beams, are not included in the criteria for determining the condition of a unit.

*Sound housing* is defined as that which has no defects, or only slight defects which normally are corrected during the course of regular maintenance. Examples of slight defects are: Lack of paint; slight damage to porch or steps; slight wearing away of mortar between bricks or other masonry; small cracks in walls, plaster or chimney; cracked windows; slight wear on floors, door-sills, doorframes, window sills, or window frames; and broken gutters or downspouts.

*Deteriorating housing* needs more repair than would be provided in the course of regular maintenance. Such housing has one or more defects of an intermediate nature that must be corrected if the unit is to continue to provide safe and adequate shelter. Examples of intermediate defects are: Holes, open cracks, rotted, loose, or missing material over a small area of the foundation, walls, roof, floors, or ceilings; shaky or unsafe porch, steps, or railings; several broken or missing windowpanes; some rotted or loose window frames or sashes that are no longer rain-proof or windproof; broken or loose stair treads, or broken, loose, or missing risers, balusters, or railings of inside or outside stairs; deep wear on doorsills, doorframes, outside or inside steps or floors; missing bricks or cracks in the chimney which are not serious enough to be a fire hazard; and makeshift chimney such as a stovepipe or other uninsulated pipe leading directly from the stove to the outside through a hole in the roof, wall, or window. Such defects are signs of neglect which lead to serious structural deterioration or damage if not corrected.

*Dilapidated housing* does not provide safe and adequate shelter and in its present condition endangers the health, safety, or well-being of the occupants. Such housing has one or more critical defects; or has a combination of intermediate defects in sufficient number or extent to require considerable repair or rebuilding; or is of inadequate original construction. The defects are either so critical or so widespread that the structure should be extensively repaired, rebuilt, or torn down.

Critical defects result from continued neglect or lack of repair, or indicate serious damage to the structure. Examples of critical defects are: Holes, open cracks, or rotted, loose, or missing material (clapboard siding, shingles, bricks, concrete, tile, plaster, or floorboards) over a large area of the foundation, outside walls, roof, chimney, or inside walls, floors, or ceilings; substantial sagging of floors, walls, or roof; and extensive damage by storm, fire, or flood.

To be classified as dilapidated on the basis of intermediate defects, a housing unit must have such defects in sufficient number or extent that it no longer provides safe and adequate shelter. No set number of intermediate defects is required.

Inadequate original construction includes: Shacks, huts, or tents; structures with makeshift walls or roofs, or built of packing boxes, scrap lumber, or tin; structures lacking foundations (walls rest directly on the ground); structures with dirt floors; and cellars, sheds, barns, garages, or other places not originally intended for living quarters and inadequately converted to such use.

The enumerator was instructed to judge each unit on the basis of its own characteristics, regardless of the neighborhood, age of the structure, or the race or color of the occupants. He was cautioned, for example, that although lack of paint is only a slight defect, this and other signs of neglect are warnings to look closely for more serious defects. Also, exterior covering may improve the appearance of a structure but not its condition, and the sturdiness of brick or other masonry walls can be misleading if there are defects in other parts of the structure.

In judging condition, the enumerator was instructed to determine whether the unit was dilapidated or not dilapidated. If the unit was "not dilapidated," then he was to classify it as "sound" or "deteriorating." The use of this technique in 1960 was designed to maintain comparability with the 1950 enumeration of condition when only the two categories, not dilapidated and dilapidated, were reported. The change to the three-way classification of condition in 1960 reflects the growing interest in housing quality and its importance in slum clearance and urban renewal programs.

The new classification and improved training techniques, designed to yield more adequate measures of potential urban blight, were developed by a group of experts working with the census staff. Field studies were conducted to explore the feasibility of the three-way classification and to test various types of training instructions that would define and convey to enumerators the concepts of the three levels of condition. While the 1950 concept and definition of the category "dilapidated" were retained without change for 1960, additional study was required to develop the concepts and terminology for the two other categories.

The enumerator was provided with detailed written instructions and with photographs illustrating the levels of condition. In addition, audio-visual techniques were used in training the enumerator. A filmstrip of photographs in color depicted various types of defects and a recorded narrative explained how to determine the classification of condition on the basis of these defects. Photographs and instructions from the Enumerator's Reference Manuals are reproduced in the appendix to the United States Summary chapter of Volume I.

Although detailed oral and written instructions and visual aids were provided, it was not possible to achieve uniform results in applying the criteria for determining the condition of a unit. Data on condition for small areas, which depend on the work of only a few enumerators, may have a wider margin of relative error than data for larger areas, which are based on the work of a number of enumerators.

The 1960 and 1950 definitions of "dilapidated" are considered comparable, since the basic 1950 concept of dilapidation was retained in 1960. The 1960 concepts of "sound" and "deteriorating" combined are comparable with the 1950 concept "not dilapidated." It is possible, however, that the change in categories introduced an element of difference between the 1960 and 1950 statistics.

The concept of "dilapidation" replaced the concept of "needing major repairs" which was used in the 1940 Census. Because the two terms differ significantly, the 1940 results are not comparable with the 1950 or 1960 results on condition.

**Water supply (H9).**—A housing unit is classified in the tables as having "piped water inside structure" if there is running water inside the structure and it is available to the occupants of the unit. A unit has piped hot water even though the hot water is not supplied continuously; for example, it may be supplied only at certain times of the day, week, or year. Units with "piped water outside structure" have no running water inside the structure but have running water available on the same property, either outdoors or in another structure. In the category "no piped water" are units for which the only source of water is a hand pump, open well, spring, cistern, etc., and units in which the occupants obtain water from a source which is not on the same property.

The 1950 Census data on water supply are comparable with the 1960 data. The 1940 Census data, however, were presented on the basis of the availability of piped water inside or outside the unit rather than inside or outside the structure. The 1960 count of units with piped water inside the structure may be considered roughly comparable with the 1940 count of units with running water in the unit, except where there is an appreciable number of units with running water inside the structure but outside the unit.

**Toilet facilities (H10).**—A housing unit has a flush toilet (supplied with piped water) if it is inside the structure and available for the use of the occupants of the unit. Flush toilets for ex-

clusive use are differentiated from those that are shared with occupants of other units. Units with other toilet facilities, such as privy, chemical toilet, or outside flush toilet, and units with no toilet facilities are included in the category "other toilet facilities or none" (reported "none" or "no flush toilet for the use of this household" on the enumeration forms).

Data comparable with the 1960 data were provided by both the 1950 and 1940 Censuses.

**Bathing facilities (H11).**—A housing unit has a bathtub or shower if either facility, supplied with piped water (not necessarily hot water), is inside the structure and available for the use of the occupants of the unit. Bathing facilities for exclusive use are differentiated from those that are shared with occupants of other units. The category "no bathtub or shower" (reported "none" or "no bathtub or shower for the use of this household" on the enumeration forms) consists of units with only portable facilities, as well as units having no bathing facilities inside the structure and available for the use of the occupants.

Data comparable with the 1960 data were provided by both the 1950 and 1940 Censuses.

**Exclusive or shared use.**—Facilities are "for exclusive use" if they are used only by the occupants of the one housing unit, including lodgers or other unrelated persons living in the housing unit.

Facilities are "shared" if they are used by occupants of two or more housing units, or if they would be shared with the occupants of a unit now vacant. Shared facilities may be inside one of the units in the structure or may be centrally located where they can be reached by occupants of all units that share them.

**Inside or outside structure.**—Facilities are located "inside the structure" if they are located inside the same structure as the housing unit. They may be located within the housing unit itself, or they may be located in a hallway or in a room used by occupants of several units. It may even be necessary to go outdoors to reach that part of the structure in which the facilities are located. Facilities located in the basement or on an enclosed porch, or enclosed by partitions on an otherwise open porch, are "inside the structure." Facilities on an open porch (for example, piped water) are "outside the structure."

**Bathroom (H30).**—A housing unit has a complete bathroom if it has a flush toilet and bathtub (or shower) for the exclusive use of the occupants of the unit and also has piped hot water. (The requirement that the unit must have hot water was imposed during the processing of the data in an edit combining the items on bathroom and water supply.) The facilities must be located inside the structure but need not be in the same room. A partial bathroom consists of toilet or bathing facilities for exclusive use, but not both. Units with a partial bathroom in addition to a complete bathroom are published in the category "1 plus partial" in some tables and "more than 1" in other tables. Units with only a partial bathroom are included in the published category "shared or none" together with units which share or lack bathroom facilities.

No data on number of bathrooms were provided in the 1950 or 1940 Censuses; however, data were presented on the number of units with both private flush toilet and bathtub (or shower).

**Source of water (H31).**—Data on source of water are published only in the State chapters. The source of water was to be reported in one of three categories. "Public system or private company" refers to a common source supplying running water to more than five houses. The source may be a city or county water department, a water district, a private water company, or a cooperative or partnership group. "Individual well" describes a source which serves five or fewer houses from a well on the property of the unit being enumerated or on a neighboring property. The water from such a well may be hand drawn, wind drawn, or power drawn. It may be piped or not piped; it may be stored in tanks or used directly from the well. (Because the criterion of "five or fewer" houses did not appear on the self-enumeration form, it is possible that some units were reported in the category "individual well" although the well serves more than five houses.) "Other" describes water coming directly from springs, creeks, rivers, ponds, lakes, and all other sources.

Information on source of water was not collected in the larger urban places, that is, places which had a population of 50,000 or more in 1950 or in an interim census prior to 1960. Hence, the county data on source of water in table 35 of the State chapters do not cover units in such places.

No data on source of water were collected in previous censuses.

**Sewage disposal (H32).**—Data on sewage disposal are published only in the State chapters. This item refers to the sewage disposal system for the structure in which the unit is located. The category "public sewer" applies to units connected to a city, county, sanitary district, neighborhood, or subdivision sewer system. A "septic tank or cesspool" is an underground tank or pit for sewage disposal. Small sewage treatment plants which in some localities are called neighborhood septic tanks are classified as public sewers. Units for which sewage is disposed of in some other way are included in the category shown in the tables as "other or none."

Information on sewage disposal was not collected in the larger urban places, that is, places which had a population of 50,000 or more in 1950 or in an interim census prior to 1960. Hence, the county data on sewage disposal in table 35 of the State chapters do not cover units in such places.

No data on sewage disposal were collected in previous censuses.

**EQUIPMENT AND FUELS**

Data on equipment and fuels were derived from answers to the questions listed below. The self-enumeration questions appeared on the Household Questionnaire, which was used in two-stage areas. The direct-interview questions appeared on a FOSDIO schedule. Although the questions appeared on the self-enumeration form, the enumerator was instructed to obtain information on heating equipment, house heating fuel, and water heating fuel from the resident owner, manager, or janitor if the unit being enumerated was in a structure containing five housing units or more.

**Equipment.**—Data on equipment are provided for occupied housing units only, except for heating equipment which was to be reported for all housing units. The statistics are in terms of the number of housing units with the particular equipment or having the equipment available, as the case may be.

**Heating equipment (H21).**—"Steam or hot water" refers to a central heating system in which heat from steam or hot water is delivered through radiators or other outlets. "Warm air furnace" refers to a central system which provides warm air through ducts leading to the various rooms.

"Floor, wall, or pipeless furnace" includes permanently installed heating units which deliver warm air to the room directly above the furnace or to the room (or rooms) on one or both sides of the wall in which the furnace is installed. These devices do not have ducts leading to other rooms.

"Built-in electric units" are heating units which are permanently installed in floors, walls, or ceilings. Heat pumps are included in this category. In some tables in the State chapters, housing units having a "floor, wall, or pipeless furnace" and those having "built-in electric units" are combined into the one category "built-in room units."

"Other means with flue" (shown on the self-enumeration form as "room heater connected to chimney or flue") describes stoves, radiant gas heaters, fireplaces, and other equipment connected to a chimney or flue which carries off the smoke or fumes. "Other means without flue" (shown on the self-enumeration form as "room heater not connected to chimney or flue") describes electric heaters, electric steam radiators, kerosene heaters, radiant gas heaters, and other portable or plug-in devices not connected to a chimney or flue.

The main type of heating equipment was to be reported even if it was temporarily out of order at the time of enumeration. If two types of heating equipment were used to about the same extent, the type appearing first in the sequence above was to be reported. For vacant units from which the heating equipment had been removed, the equipment used by the last occupants was to be reported.

Similar data on heating equipment were collected in the 1950 Census, except that the 1950 data were restricted to occupied units (1960 data are for all units). Furthermore, the 1960 categories "warm air furnace" and "floor, wall, or pipeless furnace" must be combined to be comparable with the single 1950 category "warm air furnace"; and the 1960 categories "built-in electric units" and "other means without flue" must be combined to be comparable with the single 1950 category "other means without flue."

Data on heating equipment were collected for occupied units in the 1940 Census also. The categories are comparable with 1960 categories when certain combinations are made.

**Clothes washing machine (H23).**—"Wringer or spinner" describes a power-operated machine which requires handling of the laundry between washing and rinsing. "Automatic or semiautomatic" describes a machine that washes, rinses, and damp dries but does not fully dry the laundry in the same tub. A "washer-dryer combination" is a machine which washes and fully dries the laundry in the same tub.

A clothes washing machine owned by a member of the household was to be reported, whether it was located in the housing unit or elsewhere on the property. Machines used but not owned by members of the household, such as those provided by the management of an apartment building, were not to be reported.

The 1960 Census is the first census to provide information on clothes washing machines.

**Clothes dryer (H24).**—A clothes dryer is defined as a separate mechanical appliance in which clothes are dried by heated air. Two types are identified—those which operate exclusively with electricity and those which use gas heat for drying. Units with a "washer-dryer combination" are classified as units having no clothes dryer since the dryer is not a separate appliance.

HEATING EQUIPMENT	
Self-enumeration	Direct interview
H21. How is your house or apartment heated? <i>Check ONLY the kind of heat you use the most.</i>	H21. How is this unit heated?
Heated by—	
Steam or hot water..... <input type="checkbox"/>	Steam or hot water..... <input type="radio"/>
Warm air furnace with individual room registers..... <input type="checkbox"/>	Warm air furnace..... <input type="radio"/>
Floor, wall, or pipeless furnace..... <input type="checkbox"/>	Floor, wall, or pipeless furnace..... <input type="radio"/>
Built-in electric units..... <input type="checkbox"/>	Built-in electric units..... <input type="radio"/>
Room heater(s) connected to chimney or flue..... <input type="checkbox"/>	Other means—with flue..... <input type="radio"/>
Room heater(s) not connected to chimney or flue..... <input type="checkbox"/>	Other means—no flue..... <input type="radio"/>
Other method ( <i>Write in</i> .....)..... <input type="checkbox"/>	
Not heated..... <input type="checkbox"/>	Not heated..... <input type="radio"/>
CLOTHES WASHING MACHINE, CLOTHES DRYER, HOME FOOD FREEZER	
Self-enumeration	Direct interview
H23. Do you have a clothes washing machine? <i>Do not count machines shared with any other household in this building.</i>	H23. Is there a clothes washing machine in this unit?
Machine with wringer or separate spinner..... <input type="checkbox"/>	Wringer or spinner..... <input type="radio"/>
Automatic or semiautomatic machine..... <input type="checkbox"/>	Automatic or semiautomatic..... <input type="radio"/>
Washer-dryer combination (single unit)..... <input type="checkbox"/>	Washer-dryer combination..... <input type="radio"/>
No washing machine..... <input type="checkbox"/>	No washing machine..... <input type="radio"/>
H24. Do you have an electric or gas clothes dryer? <i>Do not count dryers shared with any other household in this building.</i>	H24. Is there a clothes dryer in this unit?
Electrically heated dryer..... <input type="checkbox"/>	Electric..... <input type="radio"/>
Gas heated dryer..... <input type="checkbox"/>	Gas..... <input type="radio"/>
No dryer..... <input type="checkbox"/>	No clothes dryer..... <input type="radio"/>
H28. Do you have a home food freezer freezer which is separate from your refrigerator?	H28. Is there a home food freezer separate from the refrigerator in this unit?
Yes..... <input type="checkbox"/>	Yes..... <input type="radio"/>
No..... <input type="checkbox"/>	No..... <input type="radio"/>

**TELEPHONE AVAILABLE, AUTOMOBILES AVAILABLE**

*Self-enumeration*

**H35.** Is there a telephone on which people who live here can be called?

Yes.....   
 No.....

**H36.** How many passenger automobiles are owned or regularly used by people who live here?

Count company cars kept at home.  
 No automobiles.....   
 1 automobile.....   
 2 automobiles.....   
 3 automobiles or more.....

*Direct interview*

**H35.** Is there a telephone on which people in this unit can be called?

Yes.....   
 No.....

**H36.** How many automobiles are owned or regularly used by people who live in this unit?

Include company cars kept at home.  
 No auto.....   
 1.....   
 2.....   
 3 or more.....

**AIR CONDITIONING, TELEVISION SETS, RADIO SETS**

*Self-enumeration*

**H27.** Do you have any air conditioning?

Count only equipment which cools the air by refrigeration.

Room unit—1 only.....   
 Room units—2 or more.....   
 Central air conditioning system.....   
 No air conditioning.....

**H25.** Do you have any television sets?

Count only sets in working order. Count floor, table, and portable television sets as well as combinations.

1 set.....   
 2 sets or more.....   
 No television set.....

**H26.** Do you have any radios?

Count only sets in working order. Count floor, table, and portable radios as well as radio combinations. Do not count automobile radios.

1 radio.....   
 2 radios or more.....   
 No radios.....

*Direct interview*

**H27.** Is there any air conditioning in this unit?

Room units: 1.....   
 2 or more.....   
 Central system.....   
 No air conditioning.....

**H25.** Is there television in this unit?

1 set.....   
 2 or more.....   
 No television.....

**H26.** Are there any radios in this unit?

1 set.....   
 2 or more.....   
 No radios.....

**HEATING FUEL, COOKING FUEL, WATER HEATING FUEL**

*Self-enumeration*

**H22.** Here is a list of fuels.

In the first column, check which one is used most for heating. In the second column, check the one used most for cooking. In the third column, check the fuel used most for heating water.

	House heating fuel	Cooking fuel	Water heating fuel
Coal or coke.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utility gas from underground pipes serving the neighborhood.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bottled tank, or LP gas.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electricity.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fuel oil, kerosene, etc.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other fuel.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No fuel used.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Direct interview*

**H22.** What fuel is used most for—

	Heat-ing this unit	Cook-ing	Heat-ing water
Coal or coke.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wood.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utility gas.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bottled tank, or LP gas.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electricity.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fuel oil, kero-sene, etc.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No fuel used.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(The washer-dryer combination is tabulated under clothes washing machine.)

A clothes dryer owned by a member of the household was to be reported whether it was located in the housing unit or elsewhere on the property. Dryers used but not owned by members of the household, such as those provided by the management of an apartment building, were not to be reported.

The 1960 Census is the first census to provide information on clothes dryers.

**Home food freezer (H28).**—A home food freezer is defined as an appliance, separate from the refrigerator, which freezes food and keeps it frozen. The freezer must be located in the housing unit or elsewhere on the property. Excluded is a freezer combined in the same cabinet with a refrigerator, even if it has a separate door.

The 1960 data are not comparable with data on refrigeration from earlier censuses. In 1950 and 1940, information as to mechanical or nonmechanical refrigeration equipment was reported but no information was obtained on separate appliances for freezing food.

**Telephone available (H35).**—A unit is classified as having a telephone if there is a telephone available to the occupants of the unit for receiving calls. The telephone may be located inside or outside the housing unit, and one telephone may serve the occupants of several units. The number of housing units with telephones available, therefore, does not indicate the number of subscribers or the number of telephones installed in homes.

No data on telephones were collected in censuses prior to 1960.

**Automobiles available (H36).**—The count of automobiles available represents the number of passenger automobiles, including station wagons, owned or regularly used by any of the occupants of the housing unit. Passenger cars were to be counted if they were owned by a member of the household or if they were regularly used and ordinarily kept at home, such as some company cars. Not to be counted were taxis, pickups or larger trucks, and dismantled or dilapidated cars in an early stage of being junked. The statistics do not reflect the number of automobiles privately owned or the number of households owning one or more automobiles.

Data on automobiles were not collected in censuses prior to 1960.

**Air conditioning (H27).**—Air conditioning is defined as the cooling of air by refrigerating apparatus. Excluded are evaporative coolers and fans or blowers which are not connected to a refrigerating apparatus. A room unit is an individual air conditioner designed to cool one room. A central system is an installation which air conditions a number of rooms. In an apartment building, a central system usually provides air conditioning for all the apartments.

Air conditioning was not included in the 1950 or earlier censuses.

**Television sets (H25).**—Sets of all kinds located in the unit were to be included in the count—floor, table, built-in, portable, and combination with radio or phonograph. Sets in working order and sets being repaired were to be counted. A combination radio-television set was to be reported both as a television and as a radio set.

The 1960 statistics are comparable with data from the 1950 Census, which was the first census to include this item. Both censuses provide the count of occupied units having at least one television set (and in 1960 those having two or more), although the total number of television sets was not determined.

**Radio sets (H26).**—Sets of all kinds located in the unit were to be included in the count—floor, table, portable, and combination with television, phonograph, or clock. Sets in working order and sets being repaired were to be counted. A combination radio-television set was to be reported both as a radio and as a television set. The following types of radios were to be excluded from the count: Sets which were not in working order and were not being repaired, automobile radios, sending-receiving sets ("ham radio" sets) and crystal sets ("cat whisker" sets).

The 1960 statistics are comparable with data from the 1950 and 1940 Censuses. All three censuses provide the count of occupied units having at least one set (and in 1960 those having

two or more), although the total number of radio sets was not determined. The number of units (families) with a radio set was provided also in 1930 as part of the 1930 Census of Population (see section on "Housing data from other censuses").

**Fuels.**—Information on fuel is provided for occupied units only. The figures represent the principal fuel used for heating the unit, for cooking, and for heating water, respectively. For fuels supplied by utility companies, the census data are not likely to be comparable with utility company reports on the number of residential customers for that fuel. Generally, utility company data are based on a count of meters or the number of bills rendered. Several households which are served by one meter are usually counted as one customer by the utility companies but as several housing units in the reports of the Bureau of the Census. On the other hand, the count of meters may include some meters for units that are vacant. Furthermore, the utility companies generally report each customer regardless of the amount of fuel used, while the census reports the fuel if it is the principal fuel used for the specified purpose.

**Heating fuel (H22).**—The fuel to be reported was the fuel used most for heating the unit. In reporting gas as the fuel, a distinction was made between "utility gas" and "bottled, tank, or LP gas." Utility gas is piped in from a central system serving the community. Such gas is supplied by a public utility company, municipal government, or similar organization. Bottled, tank, or LP (liquefied petroleum) gas is supplied in containers which are replaced or refilled as necessary. "Fuel oil, kerosene, etc." includes fuel oil, kerosene, gasoline, alcohol, and other combustible liquids. "Other fuel" includes purchased steam, waste materials (such as corn cobs), and other fuels not specified among those listed on the enumeration forms. In some tables where "wood" is not shown separately, it is included in the category "other fuel."

Comparable data on fuel used for heating the unit were collected in 1950 except that separate distributions were provided in 1950 for units with central heating equipment and those with noncentral equipment. Although the definitions of the types of fuel are the same in both censuses, the wording of some of the categories is more specific in 1960. For example, the 1960 category "bottled, tank, or LP gas" is identical with the 1950 "bottled gas"; "fuel oil, kerosene, etc." of 1960 is the same as "liquid fuel" of 1950; and "coal or coke" in 1960 is equivalent to "coal" in 1950.

The data collected in the 1940 Census also are comparable with the data collected in 1960. In 1940, however, the one category "gas" included both utility gas and bottled, tank, or LP gas.

**Cooking fuel (H22).**—The fuel to be reported was the fuel that was used most for cooking. The definitions of the categories are the same as those for heating fuel.

Comparable data on cooking fuel were provided in both the 1950 and 1940 Censuses, with categories similar to those for heating fuel.

**Water heating fuel (H22).**—The fuel to be reported was the fuel that was used most for heating water. If the unit had no piped hot water, it was tabulated as using no fuel for heating water. The definitions of the categories are the same as those for heating fuel.

No information on water heating fuel was collected in censuses prior to 1960.

### FINANCIAL CHARACTERISTICS

The items on value and rent appeared both on the forms used in self-enumeration and on the forms used in direct interview. In cities and localities for which housing statistics are provided for city blocks, value and rent (items H15 and H16) appeared as self-enumeration items on the Advance Census Report; these items, as well as the questions on the costs of utilities and fuel, appeared as self-enumeration items on the Household Questionnaire, which was used in two-stage areas. The description of the property to which the value figure applied was determined largely by the enumerator and was not reported directly by the respondent.

**Value (H15, H40).**—Value is the respondent's estimate of how much the property would sell for on the current market (April 1960). Value data for owner-occupied units are restricted to units having only one housing unit in the property and no business. A business for this purpose is defined as a clearly recognizable commercial establishment such as a restaurant, store, or filling station. Units in multiunit structures and trailers were excluded from the tabulations; and in rural territory units on farms and all units on places of 10 acres or more (whether farm or nonfarm) also were excluded. The values of such units are not provided because of heterogeneity in the use and size of the property.

A property generally consists of the house and the land on which it stands. The estimated value of the entire property, including the land, was to be reported, even if the occupant owned the house but not the land, or the property was owned jointly with another owner.

For vacant units, value is the price asked for the property. The price is the amount asked at the time of enumeration and may differ from the price at which the property is sold. Data for vacant units are restricted to properties available for sale which have only one housing unit and no business. Units in multiunit structures were excluded from the tabulations; and in rural territory units on places of 10 acres or more also were excluded. (Data do not reflect sale price of trailers since vacant trailers were not enumerated.)

The median value of housing units is the theoretical value which divides the distribution into two equal parts—one-half the cases falling below this value and one-half the cases exceeding this value. In the computation of the median, the lower limit of a class interval was assumed to stand at the beginning of the value group and the upper limit at the beginning of the successive value group. Medians were rounded to the nearest hundred dollars. The median was computed on the basis of the tabulation groups in full detail as shown in the tables for the United States or State totals, and the terminal category used in the collection of the data was "\$35,000 or more." For vacant units, however, the terminal category used in the tabulation was "\$25,000 or more" for some areas. Thus, a median above \$25,000 (for example, a median of "28,600" for owner-occupied units) is not necessarily higher than a median of "25,000+" for vacant units.

Average value (arithmetic mean) of owner-occupied units is provided in the State chapters for places of 1,000 to 2,500 inhabitants. The average was computed by dividing the sum of the

VALUE	
	<i>Determination by enumerator</i>
	<b>H14 (H39). Description of property</b>
	1 unit, no business..... ○
	1 unit, with business..... ○
	2 or more units..... ○
	<i>Self-enumeration</i>
<b>H15 (H40). About how much do you think this property would sell for on today's market?</b>	<i>Direct interview</i>
	<b>H15 (H40). If "1 unit, no busi- ness"— About how much do you think this property would sell for on today's market? (If vacant: What is the price asked for this property?)</b>
Under \$5,000..... □	Under \$5,000..... ○
\$5,000 to \$7,400..... □	5,000-7,400..... ○
\$7,500 to \$9,900..... □	7,500-9,900..... ○
\$10,000 to \$12,400..... □	10,000-12,400..... ○
\$12,500 to \$14,900..... □	12,500-14,900..... ○
\$15,000 to \$17,400..... □	15,000-17,400..... ○
\$17,500 to \$19,900..... □	17,500-19,900..... ○
\$20,000 to \$24,900..... □	20,000-24,900..... ○
\$25,000 to \$34,900..... □	25,000-34,900..... ○
\$35,000 or more..... □	35,000 or over..... ○

**RENT, UTILITIES AND FUEL IN RENT**

*Self-enumeration*

*Direct interview*

**H16 (H41).** If you pay your rent by the month—

What is your monthly rent?  
\$ \_\_\_\_\_  
(nearest dollar)

**H16 (H41).** What is the monthly rent (for this unit)?

Enter to nearest dollar

OR

If you pay your rent by the week or some other period of time—

What is your rent and what period does it cover?

\$ \_\_\_\_\_ .00 per  
(nearest dollar) (week, year, etc.)

	\$	0	1	2	3	4	5	6	7	8	9
Hnd's	0	0	0	0	0	0	0	0	0	0	0
Tens	0	0	0	0	0	0	0	0	0	0	0
Units	0	0	0	0	0	0	0	0	0	0	0

**H43 and H44.** In addition to rent, do you also pay for—

Electricity?

Yes.....  **What is the average monthly cost for electricity?**  
No.....  \$ \_\_\_\_\_ .00

**H43.** In addition to rent does renter pay for—

a. Electricity? Yes.....   
No.....

b. Gas? Yes.....   
No.....

c. Water? Yes.....   
No.....

Gas?

Yes.....  **What is the average monthly cost for gas?**  
No.....  \$ \_\_\_\_\_ .00

**H44.** If "Yes" in H43 and if occupied—

What is the average monthly cost for—

a. Electricity?

	\$	0	1	2	3	4	5	6	7	8	9
Tens	0	0	0	0	0	0	0	0	0	0	0
Units	0	0	0	0	0	0	0	0	0	0	0

b. Gas?

	\$	0	1	2	3	4	5	6	7	8	9
Tens	0	0	0	0	0	0	0	0	0	0	0
Units	0	0	0	0	0	0	0	0	0	0	0

c. Water?

	\$	0	1	2	3	4	5	6	7	8	9
Tens	0	0	0	0	0	0	0	0	0	0	0
Units	0	0	0	0	0	0	0	0	0	0	0

**H45 and H46.** In addition to rent, do you also pay for oil, coal, kerosene, or wood?

Yes.....  **About how much do you pay for such fuel per year?**  
No.....  \$ \_\_\_\_\_ .00

**H45.** In addition to rent, does renter pay for—

Oil, coal, wood, or kerosene?

Yes.....   
No.....

**H46.** If "Yes" in H45 and if occupied—

What is the total yearly cost for—

Oil, coal, wood, or kerosene?

	\$	0	1	2	3	4	5	6	7	8	9
Hnd's	0	0	0	0	0	0	0	0	0	0	0
Tens	0	0	0	0	0	0	0	0	0	0	0
Units	0	0	0	0	0	0	0	0	0	0	0

**HOW TO FIGURE COST OF UTILITIES AND FUEL**

Enter the cost to the nearest dollar.

**Utilities**—If you don't know exactly how much you have spent and if you don't have records, put down the approximate costs.

**Fuels**—If you don't know how much fuels cost per year, one of the following methods may help you figure the approximate costs:

**Coal**—Multiply number of tons used per year by the cost per ton.

**Oil or kerosene**—Multiply number of gallons used per year by the cost per gallon; OR multiply number of deliveries by average cost per delivery.

**Wood**—Multiply number of cords (or loads) used per year by cost per cord (or load).

**Note:** If you buy fuel in small quantities (such as kerosene by the can or coal by the bag), it may be easier to figure about how much you spend for fuel per week, and multiply by the number of weeks during which it is used.

In 1950, value data were published for owner-occupied units and for vacant units available for sale (with the two groups combined for places with a population under 10,000). The data were restricted to nonfarm units (excluding trailers) with only one unit in the property and no business. In rural areas, the 1950 data for both owner-occupied and vacant units excluded values for farm units but included nonfarm units on places of 10 acres or more.

Another difference between 1960 and 1950 statistics is in the method of reporting value amounts. In 1960, respondents were asked to select an appropriate class interval, whereas in 1950 specific figures were given by the respondents. This difference is not believed to affect comparability of the data to an important extent.

To take account of the rise in value of property since 1950, new class intervals were established for presenting the data. The lowest tabulation group in 1960 is "less than \$5,000" and the highest for the larger areas is "\$35,000 or more." In 1950, the lowest and highest intervals for the larger areas were "less than \$2,000" and "\$20,000 or more." The class intervals in 1960 were set so that combinations of value groups could be made for comparison from census to census.

The 1960 value data indicate value levels in 1960 and do not reflect changes since 1950 for identical units. Besides additions through new construction and other sources, and losses through demolition and other means, there have been changes in the owner-occupied inventory through shifts in tenure. Furthermore, there has been some shifting between farm and nonfarm residence as well as a change in the definition of farm residence. (For changes in value of "same" units, see 1960 Census of Housing, Volume IV, Components of Inventory Change, Part 1B.)

Data on value of owner-occupied units were collected for farm as well as nonfarm units in the 1940 Census of Housing and for nonfarm units (homes) in the 1930 Census of Population. The data are not strictly comparable with data from the 1950 and 1960 Censuses. In the 1930 and in some of the 1940 publications (Volume II of the 1940 Housing reports), value data were not restricted to 1-unit properties. In Volume III of the 1940 Housing reports, however, statistics for 1-family structures without business are provided for the United States, regions, States, principal metropolitan districts, and cities of 100,000 inhabitants or more. Comparability is affected to some extent by the differences in the definitions of farm-nonfarm residence.

Data for 1950 and earlier in the text tables in the United States Summary chapter are expressed in current dollars (the dollar value at the time of the respective censuses).

**Contract rent (H16, H41).**—Contract rent is the monthly rent agreed upon regardless of any furnishings, utilities, or services that may be included. If the rent includes payment for a business unit or additional housing units, an estimate of the rent for the housing unit being enumerated is to be reported. Rent paid by lodgers or roomers in the household is disregarded. For vacant units, rent is the amount asked for the unit; the rent is the amount asked at the time of enumeration and may differ from the rent contracted for when the unit is occupied. Data for vacant units are restricted to vacant units available for rent. In rural territory, data for renter-occupied units exclude rents for farm housing units, and data for vacant units exclude rents for units on places of 10 acres or more.

The median rent is the theoretical rent which divides the distribution into two equal parts—one-half the cases falling below this rent and one-half the cases exceeding this rent. In the computation of the median, the lower limit of a class interval was assumed to stand at the beginning of the rent group and the upper limit at the beginning of the successive rent group. The median was computed on the basis of more tabulation groups than are shown in the tables, and the terminal category was \$150 or more. Medians were rounded to the nearest whole dollar.

values by the number of owner-occupied units for which value is shown. For purposes of the computation, the midpoints of the intervals were used except that a mean of \$3,500 was assigned to values less than \$5,000 and a mean of \$42,000 was assigned to values of \$35,000 or more. (In 1950, averages for these places were computed from the specific amounts reported.)

1960

Renter-occupied units for which "no cash rent" is paid (see definition of tenure) are excluded from the computation of the median; and in tables 21, 24, 26, 30, and 32 in the State chapters, such units are also excluded from the count of "renter occupied" units shown under "Contract rent."

Medians for vacant units are provided for two kinds of available vacant units—those for which the rent includes payment for all utilities and fuel, and those for which the rent includes only some or none of the utilities and fuel. (Refer to the section on "Gross rent" for discussion of utilities and fuel.)

Rent data were published in 1950 for renter-occupied units and for vacant units available for rent (with the two groups combined for places with a population under 10,000). In rural areas, the 1950 rent data for both the renter-occupied and vacant units excluded rents for farm units.

To take account of the rise in rents since 1950, new class intervals were established for presenting the figures. However, the class intervals in 1960 were set so that combinations of rental groups could be made for comparison from census to census.

The 1960 rent data indicate rent levels in 1960 and do not reflect changes since 1950 for identical units. In addition to new units coming on the market and withdrawals from the inventory, there have been changes in the renter-occupied inventory through shifts in tenure. Furthermore, there has been some shifting between farm and nonfarm residence as well as a change in the definition of farm residence. (For change in rent of "same" units, see *1960 Census of Housing*, Volume IV, *Components of Inventory Change*, Part 1B.)

Changes reflected by the 1960 and 1950 Census data are not comparable with changes in rents obtained by the Bureau of Labor Statistics for its Consumer Price Index. The data compiled by the Bureau of Labor Statistics represent changes in rent for essentially similar units with comparable services and facilities.

In 1940, the Census of Housing provided contract rent data for renter-occupied nonfarm units and estimated rents for farm units, owner-occupied units, and vacant units. In 1930, the Census of Population provided rent statistics for rented nonfarm units (homes). In areas which included rural housing, comparability with the later censuses is affected by the change in the definition of farm residence.

Data for 1950 and earlier in the text tables in the United States Summary chapter are expressed in current dollars (the dollar rent at the time of the respective censuses).

**Gross rent.**—The computed rent termed "gross rent" is the contract rent plus the average monthly cost of utilities (water, electricity, gas) and fuels such as wood, coal, and oil if these items are paid for by the renter (or paid for him by a relative, welfare agency, or friend) in addition to rent. Thus, gross rent eliminates differentials which result from varying practices with

respect to the inclusion of utilities and fuel as part of the rental payment. Rent data exclude rents for farm units in rural territory. (Gross rent data for housing units with nonwhite household heads, Puerto Rican heads, and heads of Spanish surname in the detailed tables erroneously include data for farm units; see section on "Corrections.")

The procedures to be followed by the enumerator for determining the costs of utilities and fuels conformed to the instructions given to the respondents on the self-enumeration form. The costs of fuels were reported on a yearly basis and converted to a monthly estimate in the tabulation processes. If the utility or fuel bill covered a business unit or additional housing units, an amount was to be reported for the one housing unit being enumerated. If the renter had just moved into the unit, the cost of the item was to be estimated on the basis of recent experience and general knowledge of utility and fuel costs. Gross rent is not computed for units for which "no cash rent" is paid (see definition of tenure) even though the renter may pay for utilities or fuel.

The median rent is the theoretical rent which divides the distribution into two equal parts—one-half the cases falling below this rent and one-half the cases exceeding this rent. The median was computed in the same manner as the median contract rent. It was computed on the basis of more tabulation groups than are shown in the tables, and the terminal category was "\$200 or more." Medians were rounded to the nearest whole dollar. Renter-occupied units for which "no cash rent" is paid are shown separately in the tables and are excluded from the computation of the median.

Average gross rent (arithmetic mean) is provided in the State chapters for places of 1,000 to 2,500 inhabitants. The average was computed by dividing the sum of the rental amounts by the number of renter-occupied units, excluding units for which "no cash rent" was paid and excluding farm units in rural areas.

Data on gross rent were published in 1950 and in 1940 for renter-occupied units, excluding farm units in rural areas. In both 1950 and 1940, an additional adjustment was made to gross rent; if the use of furniture was included in the contract rent, the reported estimated rent of the unit without furniture was used in the computation. In areas which include rural housing, comparability with 1960 data is also affected by the change in the definition of farm residence.

Data for 1950 and earlier in the text tables in the United States Summary chapter are expressed in current dollars (the dollar rent at the time of the respective censuses).

**Rent status.**—Renter-occupied units comprise units rented for cash and units for which no cash rent is paid. "No cash rent" is shown as a separate category in the distributions for contract rent and gross rent; in the State chapters, the category is shown under "Rent status" in the county table for rural-farm units (table 34). See also section on "Tenure."

## COLLECTION AND PROCESSING OF DATA

The collection and processing of data in the 1960 Census differed in several important respects from the procedures used in the 1950 Census. Much of the information in 1960 was obtained by self-enumeration supplemented by follow-up procedures, in contrast to direct interview in 1950; a two-stage census was introduced in the more populous sections of the country, representing about four-fifths of the population; and much greater use was made of sampling than in 1950. A further innovation was the formal field review of the enumerator's work during the course of enumeration. Finally, extensive use was made of electronic equipment in 1960 to process the data and produce the final tables.

A summary of the procedures for collecting and processing the data is given below. Some of the forms are illustrated in the appendix to the United States Summary chapter of Volume I of the 1960 Housing reports; instructions from the Enumerator's Reference Manuals for enumerating some of the items are included also. Additional information on the 1960 practices is given in *United States Censuses of Population and Housing, 1960: Principal Data Collection Forms and Procedures*. A detailed description of the collection and processing of data is provided in the report entitled *Eighteenth Decennial Census: Procedural History*. The schedule used in the 1950 Census of Housing and instructions from the 1950 Enumerator's Reference Manual are

reproduced in the United States Summary chapter of *1950 Census of Housing, Volume I, General Characteristics*; a description of the collection and processing of data is given in the report entitled *The 1950 Censuses—How They Were Taken*.

### COLLECTION OF DATA

**Data-collection forms.**—Two basic types of forms were used for collecting data in the 1960 Census—the forms which respondents were asked to fill and the forms used by the enumerator to record the information for processing.

**Advance Census Report and Household Questionnaire.**—Both the Advance Census Report (ACR) and the Household Questionnaire were self-enumeration forms. The ACR contained items which were to be reported for all occupied housing units and was used on a nationwide basis. The Household Questionnaire contained questions which were asked on a sample basis and was used in the more populous areas.

**FOSDIC schedules.**—The FOSDIC schedules are forms specially designed for electronic data processing. Two basic types were used—a “complete count” FOSDIC schedule and a “sample” FOSDIC schedule. The complete-count FOSDIC schedule contained items enumerated for every housing unit. Information was either transferred from the ACR or recorded on the schedule during direct interview. This schedule was used also for recording information not called for on the ACR, namely access to unit (which is pertinent to the identification of a housing unit), condition of the unit, and information about vacant units. The sample FOSDIC schedule contained items that were enumerated on a sample basis. Information was either transferred from the Household Questionnaire or recorded on the schedule during direct interview.

**Enumeration procedures.**—Before the enumeration began, the Post Office Department delivered an ACR to households on postal delivery routes in all parts of the United States. This form contained questions which were to be answered for every occupied housing unit. Household members were requested to fill the ACR and have it ready for the enumerator when he called.

**Two-stage and single-stage procedures.**—The enumeration process involved two basic procedures. In the densely populated areas of the United States (with approximately 82 percent of the population and 35 percent of the land area), a “two stage” enumeration procedure was used. In the first-stage visit to the housing unit (Stage I), the enumerator transferred information from the ACR to the complete-count FOSDIC schedule. If the ACR was not filled for the unit or if the form had omissions or inconsistencies, the enumerator was instructed to ask the questions and record the answers directly on the FOSDIC schedule. If the household was in the sample, the enumerator left a Household Questionnaire to be filled and mailed promptly to the local census office. It was also necessary for the Stage I enumerator to transfer the complete-count information for each sample household to its sample FOSDIC schedule. This schedule was then given to the Stage II enumerator.

In the second stage (Stage II), the enumerator transferred the information supplied by the household from the Household Questionnaire to the sample FOSDIC schedule. If the enumerator found that the questionnaire was incompletely filled or had not been mailed, or if he detected answers containing obvious inconsistencies, he obtained the missing information by personal visit or by telephone and recorded it directly on the sample FOSDIC schedule (or on the Household Questionnaire and then on the FOSDIC schedule).

In the rest of the United States, where approximately one-fifth of the population lives, a “single stage” enumeration procedure was used.<sup>1</sup> As in the two-stage areas, the enumerator visited the housing unit and transferred information from the ACR to the complete-count FOSDIC schedule. If the ACR was not filled for the unit or if the form had omissions or inconsistencies, the enumerator was instructed to ask the questions and record the answers directly on the FOSDIC schedule. For each

unit in the sample, the enumerator asked the questions for the sample items and recorded the answers directly on the sample FOSDIC schedule. The Household Questionnaire was not used in single-stage areas.

Thus, the “two stage” and “single stage” procedures differ only in the method of obtaining information for the sample items.

**Methods of obtaining information.**—Information for the housing items was obtained through self-enumeration, direct interview, and observation. The method used for each item and the enumeration form on which the item appears are indicated in the section on “Definitions and explanations.”

**Procedure for vacant units.**—In both two-stage and single-stage areas, information for vacant units was obtained by the enumerator and recorded directly on the FOSDIC schedule. Information was obtained from owners, landlords, neighbors, or other persons presumed to know about the unit. For each vacant unit in the sample, the enumerator in single-stage areas completed the sample FOSDIC schedule at the same time he obtained the complete-count information. In two-stage areas, the Stage II enumerator completed the sample FOSDIC schedule.

**Listing procedure.**—As a means toward obtaining complete coverage of housing units, the enumerator in both two-stage and single-stage areas listed each occupied and vacant unit on his first visit to the unit for information from the ACR. He was instructed to canvass each block, street, or road in a systematic manner and to record the address, name of head (of occupied unit), time to call if a callback was required, and other pertinent information about the visit. A Listing Book was used for this purpose.

**Field review.**—One of the important innovations in the 1960 Census was a series of regularly scheduled “field reviews” of the enumerator’s work by his crew leader or by a field reviewer. This operation was designed to assure at an early stage of the work that the enumerator was performing his duties properly and had corrected any errors he had made. Moreover, the completeness of coverage of housing units was checked in various ways, including for the first time a comparison of addresses listed by the enumerator with an advance partial listing of addresses prepared by the supervisor.

### PROCESSING OF DATA

**Electronic processing.**—Although mechanical equipment was widely used in the 1950 and 1960 Censuses in the editing, coding, and tabulating of housing data, the procedures adopted in 1960 differed in several important respects from those used in 1950. The procedural changes reflected, in large part, the shift from conventional mechanical equipment to electronic equipment, which had been applied to the processing of housing information on a relatively limited scale in 1950.

In 1960, the enumerator recorded housing information by shading appropriate circles on FOSDIC schedules. To process the data, (1) the schedules were sent to the central processing office in Jeffersonville, Indiana, where they were microfilmed; (2) the microfilm was then sent to Washington, D.C., where the markings were converted to signals on magnetic tape by FOSDIC (Film Optical Sensing Device for Input to Computers); (3) the tape was processed by an electronic computer, which edited, coded, and tabulated the data; (4) a high-speed electronic printer printed the numbers, captions (column heads), and stubs on sheets to which preprinted titles were added, and the tables were reproduced by offset printing (except for the tables in the United States Summary chapter of Volume I, which were typed manually).

In 1950, the enumerator recorded housing information by marking a precoded check box or writing a numerical answer. To process the data, (1) clerks punched a card for each unit containing the codes for the housing characteristics; (2) the punch-cards were edited, coded, and tabulated by conventional tabulators

<sup>1</sup> States enumerated completely on a single-stage basis were: Alaska, Arkansas, Hawaii, Idaho, Mississippi, Montana, Nevada, New Mexico, North Dakota, South Dakota, and Wyoming. States enumerated partly, but not completely, on a single-stage basis were: Alabama, Arizona, California, Colorado, Florida, Georgia, Kansas, Kentucky, Louisiana, Maine, Michigan, Minnesota, Nebraska, Oklahoma, Oregon, Texas, Utah, Washington, and Wisconsin.

for all the 1950 Housing reports except Volume II, for which electronic equipment was used for the tabulations; (3) the tables (except in the reports on block statistics) were typed manually on sheets with preprinted stubs and partially preprinted captions, and the tables were reproduced by offset printing.

The extensive use of electronic equipment in the 1960 Census insured a more uniform and more flexible edit than could have been accomplished manually or by less intricate mechanical equipment. In the editing operations, improved techniques of allocation for nonresponses and inconsistencies were feasible. Moreover, the use of FOSDIC completely eliminated the cardpunching operation and thereby removed one important source of error in the published statistics; the new types of error introduced by the use of FOSDIC were probably minor by comparison.

The electronic computer made it possible to do much more complex editing and coding than in earlier censuses and to assure consistency among a larger number of interrelated items. For example, the computer assigned a code to each housing unit for one of seven categories of condition and plumbing facilities; to determine this code in some instances required the scanning of entries in four items, where a full cross-classification of the items would involve approximately 36 combinations of categories. At the same time, the greater capacity of the computer permitted the keeping of a detailed record of the extent of computer editing.

In 1960, practically all the editing and coding operations on the housing schedules were accomplished by electronic equipment. The only schedules examined manually (after the field review and inspection) were those flagged by the computer for clerical review because the number of corrections required exceeded the tolerances that were established. In 1950 also, much of the editing and coding was accomplished by mechanical equipment, including electronic equipment for some tabulations. A few specified items on the housing schedules in 1950 were examined manually, and corrected when necessary, before the schedules were processed mechanically.

**Editing.**—In a mass statistical operation, such as a national census, human and mechanical errors occasionally arise in one form or another, such as failure to obtain or record the required information, recording information in the wrong place, misreading position markings, and skipping pages. These were kept to a tolerable level by means of operational control systems. Nonresponses and inconsistencies were eliminated by using the computer to assign entries and correct inconsistencies. In some cases, missing and inconsistent entries resulted from poor markings which were unreadable or were misread by FOSDIC. In general, few assignments or corrections were required, although the amount varied by subject and by enumerator.

Whenever information was missing, an allocation procedure was used to assign an acceptable entry, thereby eliminating the need for a "not reported" category in the tabulations. The assignment was based on related information reported for the housing unit or on information reported for a similar unit in the immediate neighborhood. For example, if tenure for an occupied unit was omitted but a rental amount was reported, the computer automatically edited tenure to "rented." On the other hand, if the unit was reported as "rented" but the amount of rent was missing, the computer automatically assigned the rent that was reported for the preceding renter-occupied unit.

A similar procedure was used when the information reported for an item was inconsistent with other information reported for the unit. For example, if a housing unit was enumerated as having "no running water" but having both a bathtub (or shower) and flush toilet for the exclusive use of the occupants of the unit, the computer edited water supply to "hot and cold water," a category considered to be consistent with the reported bathing and toilet facilities.

Specific tolerances were established for the number of computer allocations acceptable for a given area. If the number was beyond

tolerance, the data were rejected and the original schedules were re-examined to determine the source of the error. Correction and reprocessing were undertaken as necessary and feasible. In some cases, the corrective action consisted simply of making darker shadings in the code circles. If the high number of allocations resulted from faulty entries or absence of entries on the schedules, the appropriateness of the computer allocations was considered and, in some instances, a manual allocation was substituted.

The extent of the allocations for nonresponses or for inconsistencies, including those resulting from poor markings, is shown for each item in appendix table A-1 in the individual chapters for States. The percentages reflect only the allocations made by the computer; they exclude any that were made in the field review of the census schedules and those that were made manually after they had been rejected by the computer. The table presents totals for the State, by inside and outside SMSA's, and totals for places of various population size groups. The base on which the percentage is computed is shown for each item. For most items, the percentages are based on all housing units or occupied housing units. In some instances, the base is a specific group of units. For example, a figure of 2.5 for "duration of vacancy" for places of 50,000 inhabitants or more means that answers to this question were supplied or edited for 2.5 percent of the vacant units available for rent or sale; the percent is a combined figure for all places of 50,000 inhabitants or more in the State. Percentages are not shown if the item is not published for the specified area.

In earlier censuses, assignments of acceptable entries for nonresponses and inconsistencies also were based on related information given for the units. In the absence of related information for the unit, either an acceptable code was assigned or the item was "not reported." If a code was assigned, it was made on the basis of distributions of characteristics from previous censuses or surveys. The use of electronic equipment in 1960 improved upon the procedure by making feasible the use of information implicit in the 1960 data being tabulated.

#### ACCURACY OF DATA

As explained above, information was obtained through self-enumeration and direct-interview procedures. The forms used by household members for self-enumeration were necessarily different from those used by the enumerator in direct interview, although the intent of the two types of forms was the same. The use of self-enumeration forms allowed household members to see the questions as worded and to consult household records to ascertain the correct answers. Furthermore, the self-enumeration forms provided brief but uniform explanations for some of the items and called attention to the response categories in a uniform manner. The less detailed wording of some items on the FOSDIC schedules was supplemented by the training and instructions given to the enumerators. The enumerators received standardized and formal training in canvassing their districts, in interviewing, and in filling out the schedules. During training, they used a workbook which contained practice exercises and illustrations. Filmstrips with accompanying narratives and recorded interviews were also used. The fine distinctions made in the instructions, however, were probably not ordinarily conveyed to the respondents, unless they asked the enumerator for clarification of a particular point.

Some of the areas for which separate statistics are provided in Volume I are areas with relatively small numbers of housing units, and the enumeration represents the work of only a few enumerators. Moreover, such items as the delineation of living quarters and the classification of the condition of a housing unit were always determined by the enumerator. To the extent that answers to other census questions were obtained by direct interview, responses may have been affected by misunderstanding on

the part of the enumerator. Therefore, misinterpretation of the instructions or variation in interpretation of responses may have led to a wider margin of relative error and response variability in data for small areas (places with relatively small population, or the rural-nonfarm and rural-farm parts of counties) than for large areas. The systematic field review early in the enumeration corrected some of the errors arising from misunderstandings by the enumerator.

In the processing of the data, careful efforts were made at each step to reduce the effects of errors. Errors occurred through failure to obtain complete and consistent information, incorrect recording of information on the FOSDIC schedules or incorrectly transferring it from the self-enumeration forms, faulty marking of the FOSDIC schedules, and the like.

Some of the innovations in the 1960 Census reduced errors and others produced a more consistent quality of results. It is believed that the innovations have improved the quality of the results compared with those of earlier censuses but, at the same time, have introduced an element of difference in the statistics. According to present plans, one or more reports

evaluating the statistics of the 1960 Census of Housing will be published later.

Statistics such as the number of owner-occupied and renter-occupied units usually appear in more than one table for a given area. These figures may differ between tables, or in the same table, when characteristics of these units were tabulated at different sample rates; for example, the number of units tabulated by condition and plumbing facilities may differ from the number tabulated by bathrooms (see table I and the section on "Ratio estimation"). In the case of financial characteristics, certain types of units were excluded from the tabulations; therefore, differences between the counts obtained from the value and rent distributions and corresponding counts from distributions for other characteristics may reflect the exclusion of these units.

Statistics in this report may differ from those in other reports from the 1960 Census of Housing where different sample rates were used for the same item. Moreover, in some cases, differences caused by errors in enumeration or processing were discovered after the publication of the early reports and were corrected in subsequent reports.

## SAMPLE DESIGN AND SAMPLING VARIABILITY

### SAMPLE DESIGN

Although some information was collected for all housing units in 1960, information for most of the items was collected for samples of housing units. The enumerator was instructed to assign a Sample Key letter (A, B, C, or D) to each housing unit sequentially in the order in which he first visited the unit, whether or not he completed the interview. Each enumerator was given a random key letter to start his assignment, and the order of canvassing was indicated in advance, although the instructions allowed some latitude in the order of visiting individual units at an address. Each housing unit which was assigned the key letter "A" was designated as a sample unit.

Information for each housing unit in the sample was recorded on a sample FOSDIC schedule. The schedules were bound in books which were so arranged that every fifth sample FOSDIC schedule carried housing questions comprising the 5-percent sample items; the other four-fifths carried questions comprising the 20-percent sample items. Items which appeared on both types of schedules comprised the 25-percent sample items. Thus, sample items were based on 5, 20, or 25 percent of the housing units; for these items the tabulations were based on the full 5-, 20-, or 25-percent sample, respectively. For items enumerated for all housing units, however, the tabulations were not always based on the complete count; data for some of these items were tabulated from a sample of units, particularly for areas with large population. Furthermore, the same item may be tabulated at different rates within this volume. The use of different rates was determined largely by the amount of detail to be tabulated.

Although the sampling procedure did not automatically insure an exact 25-, 20-, or 5-percent sample of housing units in each area, the sample design was unbiased if carried through according to instructions. Generally, for large areas, the deviation from the estimated sample size was found to be quite small. Small biases arose, however, when the enumerator failed to follow the listing and sampling instructions exactly. The 25-percent sample as finally processed comprised 24.53 percent of the total occupied housing units and 24.71 percent of the total population in the United States as a whole.

Sample rate for tabulation.—The rate at which an item was tabulated in the 1960 Census is given in table I. To illustrate,

in the United States Summary chapter, condition and plumbing facilities and number of rooms were tabulated from the complete count (100 percent) for vacant units and from the 25-percent sample for the distributions of "owner occupied," "renter occupied," and "all" units. The rates given in table I apply to the 1960 data in the text tables as well as in the detailed tables.

In the State chapters, condition and plumbing facilities for renter-occupied units were tabulated from the 25-percent sample for table 12 and from the complete count (100 percent) of units for table 25; value for owner-occupied units was tabulated from the 25-percent sample for each table in which it is presented; and the distribution and median number of persons for "all" occupied units in table 26 were based on the 100-percent count, whereas the medians for owner- and renter-occupied units were computed from the 25-percent sample. Data on number of units in structure were tabulated from the 20-percent sample for owner-occupied, renter-occupied, and vacant units. Data on number of rooms for vacant units in table 3 in the State chapters were tabulated from the 100-percent count of vacant units; data on rooms for all units in table 3 were tabulated from the 25-percent sample of occupied and vacant units. Unless otherwise specified, the sample rate for the subject is applicable to the medians and averages as well as the distributions.

Medians were computed from distributions based on weighted samples tabulated at the rate indicated for the subject in table I. Medians, averages, and percentages are not shown where the base is smaller than the required minimum. For items tabulated from the complete count, the minimum base is 50 units; for the 25-percent sample, the minimum base is 200 units; and for the 20-percent sample, the minimum base is 250 units. For population per occupied unit, the population figure is considered the base.

In 1950, information was collected on a complete-count basis except for information on heating equipment, electric lighting, refrigeration, kitchen sink, year built, radio, television, heating fuel, and cooking fuel. In the text tables in the United States Summary chapter, the 1950 data for the specified items are based on 20-percent samples of units for conterminous United States and on the complete count for Alaska and Hawaii; the 1950 data for the remaining items and all data from earlier censuses are based on the complete count (see section on "Description of tables").

TABLE I.—SAMPLE RATE FOR TABULATION

[Rate shown in percent. Rates applicable to 1960 data; see note below regarding data for 1950 and earlier]

Subject	United States Summary chapter	State chapters			
		Tables 1 to 24, 28 to 35	Tables 25 to 27, 36	Tables 27 to 39	Tables 40 to 42
<b>Inventory:<sup>1</sup></b>					
All housing units.....	(?)	(?)	100		
By farm-nonfarm residence.....	25	25			
Occupied units.....	(?)	(?)	100	100	25
By color.....	(?)	(?)	100		
By farm-nonfarm residence.....	25	25			
Owner occupied; renter occupied.....	(?)	(?)	100	100	25
By color.....	(?)	(?)	100		
By farm-nonfarm residence.....	25	25			
Vacant units.....	100	100	100		
<b>Occupancy characteristics:</b>					
Color or ethnic group.....	25	25	100	100	25
Persons.....	25	25	100	25	25
Persons per room.....	25	25	100	25	25
Population, 1960.....	25	25	100		
Population, 1950.....	100	100			
Tenure.....	25	25	100	100	25
Rent status (no cash rent).....	25	25	25	25	25
Year moved into unit.....	25	25	25		
Acres in place.....		25			
Duration of vacancy.....	25	25			
Vacancy status.....	100	100	100		
<b>Structural characteristics:</b>					
Basement.....	20	20			
Bedrooms.....	5	5			
Elevator in structure.....	20				
<b>Rooms:</b>					
All units; owner; renter.....	25	25	100	25	25
Vacant.....	100	100			
Units in structure.....	20	20	20	20	20
Trailers.....	25	25	25	25	25
Year structure built.....	25	25	25	25	25
<b>Condition and plumbing facilities:</b>					
Bathing facilities.....	25	25	100	25	25
Bathrooms.....	20	20	20		
Condition and plumbing; All units; owner; renter.....	25	25	100	25	25
Vacant.....	100	100			
Sewage disposal.....		20	20		
Source of water.....		20	20		
Toilet facilities.....	25	25	100	25	25
Water supply.....	25	25	100	25	25
<b>Equipment and fuels:</b>					
Air conditioning.....	5	5			
Automobiles available.....	20, 5	20, 5			
Clothes dryer.....	5	5			
Clothes washing machine.....	5	5			
Cooking fuel.....	5	5			
Heating equipment.....	25	25	25		
Heating fuel.....	5	5			
Home food freezer.....	5	5			
Radio sets.....	5	5			
Telephone available.....	25	25			
Television sets.....	5	5			
Water heating fuel.....	5	5			
<b>Financial characteristics:</b>					
<b>Contract rent:</b>					
Renter-occupied units.....	25	25	25		
Vacant.....	100, 25	100, 25			
Utilities in rent.....	25	25			
Gross rent.....	25	25	25	25	25
<b>Value:</b>					
Owner-occupied units.....	25	25	25	25	25
Vacant.....	100, 25	100, 25			

<sup>1</sup> Refers to counts of units under the subject "Tenure, color, and vacancy status."

<sup>2</sup> Under the subject "Tenure" or "Tenure, color, and vacancy status," the counts of vacant units are based on the 100-percent enumeration; the counts of owner- and renter-occupied units by color are based on the 25-percent sample and, because they are major components in the ratio estimation, are essentially in agreement with the complete count except when tabulated by farm-nonfarm residence. These counts appear as control totals in various tables for the area; totals of distributions for characteristics based on samples of different size may not agree precisely with these counts (see section on "Ratio estimation").

<sup>3</sup> For owner- and renter-occupied units, median number of persons and median number of rooms were computed from the 25-percent sample of units.

<sup>4</sup> Based on the 100-percent enumeration in text tables D and F.

<sup>5</sup> For automobiles, 20-percent sample in places of 50,000 inhabitants or more in 1950 or in an interim census prior to 1960; 5-percent sample elsewhere. For rent and value of vacant units, 100-percent in places of 50,000 inhabitants or more in 1960 for which statistics are published by blocks in 1960 Census of Housing, Volume III, City Blocks; 25-percent sample elsewhere. For an area including a place of 50,000 inhabitants or more (e.g., a region, division, or SMSA), the parts were tabulated at their respective rates and then combined.

**NOTE.**—The 1960 data in the text tables of the United States Summary chapter are based on the complete count, except in continuous United States data on age of structure, radio, television, cooking fuel, and heating fuel are based on the 20-percent samples subject to ratio estimation. The 1940 data are based on the complete count.

## RATIO ESTIMATION

The 1960 statistics based on samples of housing units are estimates that were developed through the use of a ratio estimation procedure. Essentially this procedure was carried out for each of seven groups of housing units in each area, separately for the 25-, 20-, and 5-percent samples.<sup>6</sup> The groups are as follows:

Group	Tenure, color, vacancy status
1	Owner occupied, white
2	Owner occupied, nonwhite
3	Renter occupied, white
4	Renter occupied, nonwhite
5	Vacant, available for sale only
6	Vacant, available for rent
7	Vacant, other

For each of the seven groups, the ratio of the complete count to the sample count of housing units in the group was determined. Each sample housing unit in the group was assigned an integral weight so the sum of the weights would equal the complete count for the group. For example, if the ratio for a group was 4.2, one-fifth of the housing units (selected at random) within the group were assigned a weight of 5, and the remaining four-fifths, a weight of 4. The use of such a combination of integral weights rather than a single fractional weight was adopted to avoid the complications involved in rounding. For the 25-percent sample tabulations, where there were fewer than 50 housing units in the complete count in a group or where the resulting weight would be over 16, groups were, in general, combined in a specific order to satisfy these two conditions. Similar procedures with appropriate values were used for the 20- and 5-percent sample tabulations.

The ratio estimates achieve some of the gains of stratification which would have been obtained if the sample had been stratified by the groups for which separate ratio estimates were computed. The net effect is a reduction in the sampling variability and in the bias of many statistics below that which would be obtained by weighting the results of the 25-percent sample by a uniform factor of 4 (the 20-percent sample by 5 or the 5-percent sample by 20). The reduction in sampling variability is trivial for some items and substantial for others.

The ratio estimation procedure was generally applied to the smallest complete geographic area for which any data were to be published. Thus, the area may be a city, tract within a city, county, SMSA, urbanized area, or the rural part of a county. The rural-farm and rural-nonfarm units in a county, however, do not represent complete areas; therefore, data by rural-farm and rural-nonfarm residence are not subject to the reduction in sampling variability which is achieved by the ratio estimation procedure. Distributions of characteristics which were tabulated at different sample rates may not add to the same total.

The inventory of housing units (counts of all units, owner occupied, renter occupied, and vacant) are provided under the subject "Tenure, color, and vacancy status." In the detailed tables in the United States Summary chapter and in tables 1 to 24 and 28 to 35 in the State chapters, as a byproduct of the ratio estimation procedure, estimates of owner- and renter-occupied

<sup>6</sup> Estimates of characteristics of the housing units from the sample for a given area are produced using the formula:

$$x' = \frac{\sum_{i=1}^7 x_i Y_i}{\sum_{i=1}^7 Y_i}$$

where  $x'$  is the estimate of the characteristic for the area obtained through the use of the ratio estimation procedure,  $x_i$  is the count of sample housing units with the characteristic for the area in one (i) of the 7 groups,  $Y_i$  is the count of all sample housing units for the area in the same one of the 7 groups, and  $Y_1$  is the complete count of housing units for the area in the same one of the 7 groups.

units by color of head of household (except when tabulated by farm-nonfarm residence) are essentially in agreement with the total numbers of units from the 100-percent counts in the respective groups in each area (occupied units were tabulated from the 25-percent sample and vacant units were tabulated from the 100-percent counts). However, where some of the groups in the ratio estimation procedure were combined, the estimates for owner- and renter-occupied units by color are subject to a relatively small sampling variability. The counts of units which are shown under the subject "Tenure, color, and vacancy status" in the first table for a given area appear as control totals in subsequent tables for the area. For subjects tabulated from the 20-percent or 5-percent sample, the distributions may not add precisely to these control totals.

In tables 25 and 36 to 38 in the State chapters, the counts of owner- and renter-occupied units by color and the counts of vacant units, when presented under the subject "Tenure" or "Tenure, color, and vacancy status," are the 100-percent counts and therefore are not subject to sampling variability. In State table 27, the counts of owner-occupied, renter-occupied, and available vacant units also are the 100-percent counts. In State tables 40 to 42, all the data are subject to sampling variability.

Farm residence was based on the 25-percent sample of units, and estimates of owner- and renter-occupied units by color were inflated to the 100-percent counts for the entire rural portion of a county. The separate counts of rural-nonfarm and rural-farm units, therefore, are subject to sampling variability.

In the text tables in the United States Summary chapter, the 1960 inventory counts are essentially in agreement with the 100-percent counts, as specified in the headnotes. For these figures, the counts are based partly on a sample; figures for owner-occupied and renter-occupied units are based on the 25-percent sample subject to ratio estimation, and the counts of vacant units are based on the 100-percent enumeration. Distributions of characteristics based on samples of units may not add precisely to the inventory counts.

#### SAMPLING VARIABILITY

**Standard error of numbers and percentages.**—Figures from sample tabulations are subject to sampling variability. For the 1960 data based on samples, the sampling variability can be estimated by using factors from table IV in conjunction with table II for absolute numbers and with table III for percentages.<sup>a</sup> These tables do not reflect the effect of response variance, processing variance, or bias arising in the collection, processing, and estimation steps; estimates of the magnitude of some of these factors in the total error are being prepared and will be published at a later date. The chances are about two out of three that the difference due to sampling variability between an estimate based on a sample and the figure that would have been obtained from a complete count is less than the standard error. The chances are about 19 out of 20 that the difference is less than twice the standard error and about 99 out of 100 that it is less than 2½ times the standard error. The amount by which the estimated standard error must be multiplied to obtain other odds deemed more appropriate can be found in most statistical textbooks.

Table II shows estimates proportionate to the standard errors of estimated numbers of housing units. Table III shows estimates proportionate to the standard errors of estimated percentages of housing units. Table IV provides a factor by which the

<sup>a</sup> These estimates of sampling variability are based on partial information on variances being calculated from a sample of 1960 Census results. Further estimates are being calculated and will be made available.

estimates proportionate to the standard errors shown in tables II and III should be multiplied to adjust for the combined effect of the sample design and the estimation procedure.

TABLE II.—ESTIMATES PROPORTIONATE TO STANDARD ERROR OF ESTIMATED NUMBER

[Range of 2 chances out of 3; for factors to be applied, see table IV and text]

Estimated number <sup>1</sup>	Estimate proportionate to standard error	Estimated number <sup>1</sup>	Estimate proportionate to standard error
50.....	15	5,000.....	110
100.....	20	10,000.....	160
250.....	30	15,000.....	190
500.....	40	20,000.....	220
1,000.....	50	25,000.....	250
2,500.....	80	50,000.....	350

<sup>1</sup> For estimated numbers larger than 50,000, the relative errors are somewhat smaller than for 50,000.

TABLE III.—ESTIMATES PROPORTIONATE TO STANDARD ERROR OF ESTIMATED PERCENTAGE

[Range of 2 chances out of 3; for factors to be applied, see table IV and text]

Estimated percentage	Base of percentage					
	500	1,000	2,500	10,000	25,000	50,000
2 or 98.....	1.3	0.9	0.5	0.3	0.1	0.1
5 or 95.....	2.0	1.4	0.9	0.4	0.2	0.2
10 or 90.....	2.8	2.0	1.2	0.6	0.3	0.2
25 or 75.....	3.8	2.7	1.5	0.7	0.4	0.3
50.....	4.4	3.1	1.6	0.8	0.5	0.3

To estimate a standard error for a given characteristic, locate in table I the sample rate used in the tabulation, and in table IV the factor applying to the item according to the sample rate used; multiply this factor by the estimate proportionate to the standard error given for the number shown in table II. The product of this multiplication is the approximate standard error. Similarly, to obtain an estimate of the standard error of a percentage, multiply the figure as shown in table III by the factor from table IV. For most estimates, linear interpolation in tables II and III will provide reasonably accurate results.

*Illustration:* Let us assume table 13 in a State chapter shows that in a given city there are an estimated 2,500 housing units with two or more bathrooms. According to table I, data on number of bathrooms in table 13 were tabulated from the 20-percent sample of housing units. Table IV shows that when number of bathrooms is tabulated from the 20-percent sample, the appropriate number in table II should be multiplied by a factor of 1.2. Table II shows that the estimate proportionate to the standard error for an estimate of 2,500 is about 80. The factor of 1.2 times 80, or 96, means that the chances are approximately 2 out of 3 that the results of a complete count would not differ by more than 96 from the estimated 2,500. It also follows that there is only about 1 chance in 100 that the results of a complete count would differ by as much as 240, that is, by 2½ times the standard error. Assume also that table 28 for a State shows there are an estimated 300 dilapidated housing units in a given county. According to table I, the sample rate of tabulation for condition and plumbing is 25 percent, and according to table IV the factor is 1.2. Table II shows that the estimate proportionate to the standard error for an estimate of 300 is about 32. The factor of 1.2 times 32, or 38, means that the chances are approximately 2 out of 3 that the results of a complete count would not differ by more than 38 from the estimated 300. In table 25 for the State, however, the estimated number of dilapidated units was tabulated from the 100-percent count, and, therefore, is not subject to sampling variability.

Homeowner and rental vacancy rates, which are given in tables 1, 2, 3, 9, and 15 in the United States Summary chapter and in

TABLE IV.—FACTOR TO BE APPLIED TO TABLES II AND III

[Refer to table I for sample rate applying to data tables]

Subject	Sample rate for tabulation (percent)	Factor
<b>Inventory:</b>		
Farm-nonfarm residence.....	25	1.2
<b>Occupancy characteristics:</b>		
Color.....	25	0.6
Ethnic group <sup>1</sup> .....	25	1.2
Persons.....	25	0.6
Persons per room.....	25	0.6
Population, 1960.....	25	1.2
Tenure.....	25	<sup>2</sup> 0.6
Rent status (no cash rent).....	25	1.0
Year moved into unit.....	25	1.2
Acres in place.....	25	1.2
Duration of vacancy.....	25	1.2
<b>Structural characteristics:</b>		
Basement.....	20	1.2
Bedrooms.....	5	2.8
Elevator in structure.....	20	1.2
Rooms: All units, owner, renter.....	25	1.0
Units in structure.....	20	<sup>3</sup> 1.2
Trailers.....	25	1.2
Year structure built.....	25	1.0
<b>Condition and plumbing facilities:</b>		
Bathing facilities.....	25	1.0
Bathrooms.....	20	1.2
Condition and plumbing: All units, owner, renter.....	25	1.2
Sewage disposal.....	20	1.2
Source of water.....	20	1.2
Toilet facilities.....	25	1.0
Water supply.....	25	1.0
<b>Equipment and fuels:</b>		
Air conditioning.....	5	2.8
Automobiles available.....	20	1.2
Automobiles available.....	5	2.6
Clothes dryer.....	5	2.8
Clothes washing machine.....	5	2.8
Cooking fuel.....	5	2.8
Heating equipment.....	25	1.0
Heating fuel.....	5	2.8
Home food freezer.....	5	2.8
Radio sets.....	5	2.4
Telephone available.....	25	1.0
Television sets.....	5	2.4
Water heating fuel.....	5	2.8
<b>Financial characteristics:</b>		
Contract rent:		
Renter-occupied units.....	25	1.0
Vacant.....	25	1.0
Gross rent.....	25	1.0
Value:		
Owner-occupied units.....	25	1.0
Vacant.....	25	1.0

<sup>1</sup> Tables 40 to 42 in the State chapters.<sup>2</sup> When tabulated by ethnic group, the factor is somewhat larger.<sup>3</sup> For the category "1 unit" in structure, use the factor 1.8.

tables 1, 2, 12, 18, and 22 in the State chapters, are subject to relatively small sampling variability in most cases since they are computed by using the 100-percent count of vacant units and the estimates of owner-occupied and renter-occupied units.

For a characteristic tabulated by color or tenure, the factor for the characteristic in table IV approximates the factor that applies to the data in the cross-tabulation. For example, to obtain the approximate standard error of the estimated number of owner-occupied units built in the period 1950 to 1954, apply the factor in table IV for "year structure built" to the estimate in table II.

In the text tables in the United States Summary chapter, 1950 data based on a sample also are subject to sampling variability. Estimates of the standard errors are given in *1950 Census of Housing, Volume I, General Characteristics*.

**Standard error of differences.**—The standard errors estimated from tables II and III (using factors from table IV) are not directly applicable to differences between two estimates. The estimates of sampling errors are to be applied differently in the following three situations:

1. For a difference between a sample estimate and one based on a complete count (e.g., a difference arising from comparison between condition and plumbing facilities based on the 25-percent sample for one area, and condition and plumbing facilities from the 100-percent tabulations in another area), the standard error of the difference is identical with the standard error of the estimate based on the sample.

2. For a difference between two sample estimates (e.g., one from 1960 and the other from 1950, or both from the same census year), the standard error is approximately the square root of the sum of the squares of the standard error of each estimate considered separately. This formula will represent the standard error quite accurately for the difference between estimates of the same characteristic in two different areas, or for the difference between separate and uncorrelated characteristics in the same area. If, however, there is a high positive correlation between the two characteristics, the formula will overestimate the true standard error.

3. For a difference between two sample estimates one of which represents a subclass of the other (e.g., units in sound condition and having all plumbing facilities as a subclass of all units in sound condition), the difference should be considered as the sample estimate; the standard error of this difference may be obtained directly.