

Metropolitan Housing

GENERAL

Volume II presents cross-tabulations of housing and household characteristics enumerated in the Censuses of Housing and Population in Puerto Rico, taken as of April 1, 1960. Most of the data are presented separately for owner-occupied and renter-occupied units and cover both the urban and rural parts of the standard metropolitan statistical area. The housing unit is the reporting unit for this report. All the statistics are based on information for a sample of housing units.

A separate report is published for each standard metropolitan statistical area of 100,000 inhabitants or more (Ponce and San Juan Standard Metropolitan Statistical Areas). Statistics for each city of 100,000 inhabitants or more are included in the report for the area in which it is located. For the United States, a separate report in Volume II is published for each standard metropolitan statistical area and urban place of 100,000 inhabitants or more, for each geographic division, and for the total United States. The reports for areas in Puerto Rico and areas in the United States differ somewhat in detail and scope.

The purpose of this report is to provide cross-tabulations of housing and household characteristics for analytical uses. For example, the tabulation of gross rent according to condition and plumbing facilities provides more specific information than a simple distribution by rent and another by condition and plumbing facilities. The principal subjects which are cross-tabulated by various characteristics are: Value, gross rent, income, household composition, condition and plumbing, number of rooms, and number of units in structure. Other subjects involved in the cross-tabulations include: Persons, persons per room, year moved into unit, number of bedrooms, automobiles available, and ratio of value or gross rent to income (see index of subjects on page viii). In addition, selected characteristics are tabulated for units in which specified facilities are shared or lacking. Simple distributions of housing characteristics of the type covered in this report are available in 1960 Census of Housing, Volume I, Puerto Rico, and simple distributions of the household characteristics are available in Series PC(1)-C reports which constitute chapter C of 1960 Census of Population, Volume I, Characteristics of the Population.

DESCRIPTION OF TABLES

Content of tables.--A series of standard tables is presented for each publication area. Tables 1 to 8 present statistics for owner-occupied and renter-occupied units. Separate data are provided in tables 1 to 8 for two groups of owner-occupied units--unit and land owned; unit owned, land rented or rent free. Table 9 presents statistics for all occupied units. The subjects that are cross-tabulated in each table are specified in the index on page viii.

Tables 1, 2, and 3.--Value is cross-tabulated by selected characteristics for "unit and land owned" housing units in table 1 and "unit owned, land rented or rent free"

housing units in table 2. Gross rent is cross-tabulated by many of the same characteristics in table 3. Tables 1 and 2 are restricted to owner-occupied units having only one housing unit in the property and no business. Table 3 is restricted to renter-occupied housing units.

Tables 4 to 8.--Selected characteristics are cross-tabulated by income of primary families or individuals, condition and plumbing facilities of the unit, number of rooms in the unit, number of units in the structure, and household composition in tables 4, 5, 6, 7, and 8, respectively. Comparable cross-tabulations are provided for owner-occupied units (separately for the two groups by land tenure) and renter-occupied units.

Table 9.--In this table, data are limited to units in which specified facilities (access to unit, kitchen or cooking facilities, flush toilet, bathtub or shower) are shared or lacking. Each of the categories relating to sharing or lacking facilities is described in the section on "Living quarters."

Consistency in tables.--In tables 1 to 8, the total number of renter-occupied units is essentially the same from table to table and the total number of owner-occupied units is essentially the same with one exception--in the tabulations on value, certain types of owner-occupied units are excluded. As explained above, data in table 9 are restricted to occupied units (owner and renter combined) sharing or lacking specified facilities.

Disclosure of data.--Medians are not shown where the base is smaller than the required minimum (see section on "Sample design"). A plus (+) or a minus (-) sign after a median indicates that the median is above or below that number. For example, a median of "1,000-" for value of property indicates that the median fell in the interval "less than \$1,000" and was not computed.

Leaders (...) in a data column indicate that either there are no cases in the category or the data are suppressed, for the reason described above. Leaders are also used where data are inapplicable.

MAP

The map of the standard metropolitan statistical area shows the outlines of constituent municipios (counties) and the location of places of 100,000 inhabitants or more.

COMPARABILITY WITH EARLIER CENSUSES

Information on housing characteristics was collected in both the 1950 and 1940 Censuses of Housing in Puerto Rico, and a few characteristics were collected in censuses of population prior to 1940. No cross-tabulations comparable with those in the 1960 Housing Volume II were published from the 1950 Census in Puerto Rico. From the 1940 Census in Puerto Rico, however, some cross-tabulations were published for Puerto Rico as a whole and for the principal cities. The major subjects in the cross-tabulations

were: Number of units in structure, number of rooms, value and monthly rent, number of persons in the household, and persons per room. A description of the housing subjects enumerated in 1950 and earlier, and a discussion on comparability, is given in Volume I of the 1960 Housing reports for Puerto Rico.

1960 PUBLICATION PROGRAM

Final housing reports.--Results of the 1960 Census of Housing in the United States, Puerto Rico, and other outlying areas 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 titles and contents of the reports are described on pages vi and vii. In 1960, Volumes I, II, and III, and the census tract reports provide statistics for Puerto Rico and areas within the Commonwealth. In 1950, only Volume I provided data for Puerto Rico. (Volume I of 1950 corresponds with Volume I of 1960.)

AVAILABILITY OF UNPUBLISHED DATA

The tabulation procedures used for this report provided only for the items included herein. Thus, no unpublished data are available from the 1960 Housing Volume II program for Puerto Rico.

AREA CLASSIFICATIONS

STANDARD METROPOLITAN STATISTICAL AREAS

It has long been recognized that for many types of social and economic analysis it is necessary to consider as a unit the entire area, in and around the city, in which activities form an integrated social and economic system. Prior to the 1950 Census, areas of this type had been defined in somewhat different ways for different purposes and by various agencies. 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). (See the Bureau of the Budget publication Standard Metropolitan Statistical Areas, U.S. Government Printing Office, Washington 25, D.C., 1961.)

In general, an SMSA is a county (municipio) or group of contiguous counties which contains at least one city of 50,000 inhabitants or more or "twin cities" with a combined population of at least 50,000. In addition to the county, or counties, containing such a city or cities, contiguous counties are included in an SMSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. The criteria followed in the delineation of SMSA's relate to a city, or cities, of sufficient population size to constitute the central city and to the economic and social relationships with contiguous counties that are metropolitan in character.

1. Each SMSA 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 two or more adjacent counties each have a city of 50,000 inhabitants or more 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.

The criteria of metropolitan character relate primarily to the attributes of the outlying county as a place of work or residence for a concentration of nonagricultural workers. Specifically, these criteria are:

3. At least 75 percent of the labor force of the county must be in the nonagricultural labor force.
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 with a density of at least 150 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 outlying county must be the place of employment of at least 10,000 nonagricultural workers.

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

5. The criteria of integration relate primarily to the extent of economic and social communication between the outlying counties and the central county. 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. If 15 percent of the workers living in the given outlying county work in the county or counties containing the central city or cities of the area, or
- b. If 25 percent of those working in the given outlying county live in the county or counties containing the central city or cities of the area.

Only where data for criteria 5a and 5b are not conclusive are other related types of information used. This information includes such items as average telephone calls per subscriber per month from the county to the county containing the central city or 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.

PLACES

The term "place" as used in this report refers to a concentration of population, regardless of the existence of legally prescribed limits, powers, or functions. None of the places in Puerto Rico are incorporated, but cities and towns have legally established limits.

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. Information for most of the items in Puerto Rico, however, was obtained through direct interview.

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. 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 an enumeration schedule (see section on "Collection and processing of data"). The enumerator was instructed to read the questions from the enumeration 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 Manual. A few items, including condition of unit, were always determined by the enumerator on the basis of his observation. Illustrative examples of the forms used in the enumeration are exhibited in the chapter for Puerto Rico in Volume I of the 1960 Housing reports and in Volume I of the 1960 Population reports.

The definitions that follow conform to those provided in the Enumerator's Reference Manual. They indicate the concept that was intended, whether the information was provided through self-enumeration or obtained by direct interview.

Some of the definitions used in 1960 differ from those used in 1950 and earlier. 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. A discussion of the comparison with the 1950 and earlier censuses for the various characteristics is provided in Volume I of the 1960 Housing reports for Puerto Rico.

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, and the like are included in the housing inventory if they are occupied as housing units. Hotel accommodations are housing units if they are the usual residence of the occupants.

Determination of housing unit.--Occupied living quarters were classified as housing units on the basis of information supplied by household members on the self-enumeration form and questions asked by the enumerator where necessary.

In filling the self-enumeration form, the respondent made the initial determination of the housing unit. The final determination was made by the enumerator. 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. 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).

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 discussion of exclusive or shared use in the section on "Plumbing facilities").

As defined above, living quarters must have direct access or have kitchen or cooking equipment for exclusive use to qualify as a housing unit. The kitchen or cooking equipment must be for exclusive use of the occupants of the unit but may be located inside the same structure as the rest of the living quarters, in another structure, or outdoors.

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.

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").

Units sharing or lacking facilities.--As defined above, living quarters must have direct access or have cooking facilities for exclusive use to qualify as a housing unit, but they need not have both facilities. Furthermore, they need not have facilities such as bath and toilet for exclusive use to qualify as a housing unit. Characteristics are presented in table 9 for housing units that share or lack any of the specified facilities (access to the unit, kitchen or cooking equipment, bathtub or shower inside the structure, flush toilet).

The first part of table 9 is concerned with the sharing of facilities. The categories in columns 1 to 6 comprise all units in which there is sharing of any of the four facilities. Columns 2 and 3 consist of housing units which share access but have cooking facilities for exclusive use. Columns 5 and 6 consist of housing units which share cooking facilities but have direct access. Column 4 consists of housing units which have both direct access and cooking equipment for exclusive use but share bathing or toilet facilities. Units in columns 3 and 6 also share bathing or toilet facilities.

The second part of the table (columns 7 and 8) describes housing units which do not have bathing and/or toilet facilities. The units may share access or cooking facilities. As explained below, the "total" columns (1 and 7) are not additive.

Access was reported by the census enumerator in one of two categories--direct access, or access through another unit. For purposes of table 9, the term "sharing access" describes units having access through another unit.

Kitchen or cooking equipment was enumerated in several categories describing the location of facilities as indoors or outdoors and whether for exclusive use or shared use. For table 9, the term "sharing cooking" facilities describes units for which facilities are "inside this structure, shared"; "in another structure, shared"; "outdoors"; and "none." Note that for purposes of table 9, units "sharing cooking facilities" include units which have cooking facilities outdoors (whether for exclusive or shared use) and units for which there were no kitchen or cooking facilities. In the description of the table columns below, "cooking facilities for exclusive use" describes "kitchen or cooking equipment inside this structure, exclusive" and "kitchen or cooking equipment in another structure, exclusive."

Type of bathing facilities was reported in terms of an installed bathtub or shower inside the structure--for exclusive use, shared, or none. Type of toilet facilities was reported in several categories describing flush toilets inside or outside this structure and whether for exclusive or shared use, other toilet facilities (privy), and none. For purposes of table 9, the term "sharing bath" describes

units with "bathtub or shower inside this structure, shared." The term "sharing toilet" describes units with "flush toilet inside this structure, shared" or "flush toilet outside structure, shared." The term "sharing bath and/or toilet" describes units sharing one or both facilities. In the description of the table columns below, "plumbing facilities shared" describes units with one or both facilities shared--installed bathtub (or shower) inside this structure, shared; flush toilet inside this structure, shared; flush toilet outside structure, shared. The term "plumbing facilities lacking" or "no plumbing facilities" describes units lacking one or both facilities--no installed bathtub (or shower) inside this structure; privy (exclusive or shared) or no toilet facilities.

Total units sharing facilities (column 1).--This category comprises all units in which any sharing occurs. The figures in the five succeeding columns (columns 2 to 6) add to this total.

Sharing access only (column 2).--Only access is shared. Cooking facilities are for exclusive use; bathtub and flush toilet are for exclusive use or there are none.

Sharing access and bath and/or toilet (column 3).--In addition to sharing access, the unit shares one or both plumbing facilities. If only one of the plumbing facilities is shared, the other is for exclusive use or lacking. Cooking facilities are for exclusive use.

Sharing bath and/or toilet only (column 4).--Only plumbing facilities are shared--either the bathtub or flush toilet is shared or both are shared. If only one of the plumbing facilities is shared, the other is for exclusive use or lacking. The unit has direct access and has cooking facilities for exclusive use.

Sharing cooking only (column 5).--Only the cooking facilities are shared (or the unit has no kitchen or cooking equipment, as explained above). The unit has direct access, and the plumbing facilities are for exclusive use or there are none.

Sharing cooking and bath and/or toilet (column 6).--In addition to sharing cooking facilities (or having no kitchen or cooking equipment), the unit shares one or both plumbing facilities. If only one of the plumbing facilities is shared, the other is for exclusive use or lacking. The unit has direct access.

Total units with no bath and/or toilet (column 7).--This category comprises units that have neither bathtub nor flush toilet, or have one of the facilities for exclusive use and lack the other. (Units with shared plumbing facilities are included in columns 3, 4, and 6.) The units may have direct access and have cooking facilities for exclusive use; or they may have shared access or shared (or no) cooking facilities (but both cannot be shared).

With no bath and/or toilet and sharing access or cooking (column 8).--Of the units in column 7, those with shared access or with shared (or no) cooking facilities are tabulated in column 8. Thus, column 8 represents units that lack bathtub or flush toilet, or both, and have shared access or have shared (or no) cooking facilities. The units tabulated in column 8 are also tabulated in either column 2 or column 5; they are tabulated in column 2 if they have shared access and in column 5 if they have shared (or no) cooking facilities.

Because there is an overlap of column 8 and columns 2 and 5, the totals in columns 1 and 7 are not directly additive. The difference between the figure in column 7 and the figure in column 8 represents units that have direct access and have cooking facilities for exclusive use but are without bathtub, flush toilet, or both. This difference plus the total in column 1 gives the total number of occupied housing units that share or lack any of the four facilities. Further, the difference between this number and the total number of occupied housing units

(from table 7, for example) would be the number of housing units with all four facilities--direct access, kitchen or cooking equipment for exclusive use, bathtub (or shower) inside the structure for exclusive use, and flush toilet for exclusive use whether inside or outside structure.

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, 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.

According to the results of the 1960 Census of Population, approximately 29,000 people or 1.2 percent of the total population of the Commonwealth lived in rooming houses, institutions, transient accommodations, and other quarters not defined as housing units.

OCCUPANCY CHARACTERISTICS

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. The persons who occupy a housing unit constitute the household (see definition of household in the section on "Household characteristics").

Persons.--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 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 number of persons, 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.

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 machine tabulation card contained terminal categories of "10 or more" persons and "10 or more" rooms; for purposes of the computation, each terminal category was given a mean value of 11.

Tenure of unit.--A housing unit is "owner occupied" 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," whether or not cash rent is paid. Examples of units for which no cash rent is paid include units occupied in exchange for services rendered, units owned by relatives and occupied without payment of rent, and units occupied by sharecroppers. "No cash rent" appears as a category in the rent tabulations.

Tenure of land.--Owner-occupied housing units are further classified as "unit and land owned," "unit owned, land rented," and "unit owned, land rent free" according to the tenure of the land on which the housing unit is situated; in the case of "unit owned, land rent free," the owner may have authorized or unauthorized use of the land.

Year moved into unit.--Data on year moved into unit are based on the information reported for the head of the household. The question relates 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.

STRUCTURAL CHARACTERISTICS

Bedrooms.--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, guest rooms, enclosed porches, finished attics, or other extra rooms if they were being used principally and regularly for sleeping. Rooms used only occasionally for sleeping, such as a living room with a hideaway 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.

Rooms.--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 rooms; unfinished attics, basements, and other space used for storage; open porches or lean-to's; 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 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 number of rooms, 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 3-room group, the lower and upper limits were assumed to be 2.5 and 3.5 rooms, respectively. If the median falls in the terminal category "8 rooms or more," it is shown in the tables as "7.5+" rooms.

Units in structure.--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.

Statistics are presented in terms of the number of housing units rather than the number of residential structures. However, the number of structures for some of the

categories is apparent. For 1-unit structures, the number of housing units and the number structures are the same. For 2-unit structures, the number of housing units is twice the number of structures. For the remaining categories, the number of structures cannot be ascertained from the data as tabulated.

In determining the number of units in the structure, the enumerator was instructed to count both occupied and vacant units. In structures that were attached to other structures, the enumerator was to count only the units in the structure he was enumerating.

CONDITION AND PLUMBING FACILITIES

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 four categories: Sound, deteriorating, dilapidated, or of inadequate original construction. Plumbing facilities were measured in terms of water supply, toilet and bathing facilities.

Condition.--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 are normally corrected during the course of regular maintenance. Examples of slight defects include: Lack of paint; slight damage to doors or shutters; small cracks in walls; rusted roof; and slight wear on floors, doorsills, porches, doorframes, window sills, or window frames.

Deteriorating housing needs more repair than would be provided in the course of regular maintenance. It 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 include: Rotted, loose, broken or missing materials over a small area; badly rusted or leaking roof; rotted or unsafe porch, steps, or balconies; loose or broken shutters or doors; and deeply worn floors, doorframes, or stairs. 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. It has one or more critical defects or a combination of intermediate defects over a large area so that it needs extensive repair or rebuilding. Critical defects or large areas of intermediate defects result from continued neglect or lack of repair or indicate serious damage to the structure. Examples of critical defects include: Rotted, loose, broken, or missing materials (siding, concrete, tile, plaster, or floorboards) over a large area of the foundation, outside walls, roof, or inside walls, floors, or ceilings; seriously leaking roof; rotted shutters or doors; extensive termite damage; badly sagging floors, walls, or roof.

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.

Housing is of inadequate original construction if it is built of makeshift or scrap materials such as packing boxes, scrap lumber, or scrap tin; if it has no foundation (walls rest directly on the ground); or if it has dirt floors.

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. If a unit was undergoing repairs or being rebuilt at the time of enumeration, the enumerator was to report the condition of the original structure, not the part being repaired or rebuilt; for example, a deteriorating house continues to be deteriorating until the repairs or reconstruction is completed.

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 depicted various types of defects and a prepared narrative explained how to determine the classification of condition on the basis of these defects. (Photographs from the Enumerator's Reference Manual are reproduced in the appendix in Volume I of the 1960 Housing reports for Puerto Rico.)

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.

Plumbing facilities.--The category "with all plumbing facilities" consists of units which have piped water inside the structure (either hot and cold, or cold only) and have a flush toilet and a bathtub (or shower) inside the structure for the exclusive use of the occupants of the unit. A unit has a flush toilet if the toilet is operated by means of water piped to it. A 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.

The category "lacking some or all facilities" consists of units which do not have all the plumbing facilities specified above. Units without piped water inside the structure, flush toilet, or bathtub (or shower) are included in this category. Also included are units whose occupants share toilet or bathing facilities with the occupants of another housing unit.

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.

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 the part of the structure in which the facilities are located. Facilities 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."

EQUIPMENT

Automobiles available.--To be reported were passenger automobiles, including station wagons, owned or regularly used by the occupants of the housing unit. Passenger cars were to be reported if they were owned by a member of the household or if they were regularly used and ordinarily kept at home as are some company cars. Not to be reported were taxis, pickups or larger trucks, and dismantled or dilapidated cars in an early stage of being junked.

FINANCIAL CHARACTERISTICS

Gross rent.--Gross rent is based on the information reported for contract rent and the cost of utilities and fuel. 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 reported. Rent paid by lodgers or roomers in the household is disregarded.

The computed rent termed "gross rent" is the contract rent plus the average monthly cost of utilities (water, electricity, utility gas) and fuels such as wood, kerosene, charcoal, and tank gas if these items are paid for by the renter or paid for him by a relative, welfare agency, or friend in addition to contract rent. Thus, gross rent eliminates rent differentials which result from varying practices with respect to the inclusion of utilities and fuels as part of the rental payment.

The monthly average over the past 12 months was to be reported. If the utility or fuel bill covered a business unit or additional housing units, an amount was to be reported for the one unit being enumerated. If the respondent did not know the exact cost of the item, he was asked additional questions to arrive at a reasonable estimate. Amounts were reported to the nearest whole dollar.

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. Medians were rounded to the nearest whole dollar. Renter-occupied units for which no cash rent was paid and units for which rent was not reported were excluded from the computation of the median.

Gross rent as percentage of income.--The yearly gross rent (monthly rent multiplied by 12) is expressed as a percentage of the total income in 1959 of the primary family or primary individual. The percentage was computed separately for each unit. For both gross rent and income, midpoints of coded intervals were used in the computation. For monthly gross rents of \$20 to \$99, the coded intervals were in tens of dollars. For monthly gross rents of less than \$20, the assumed midpoint was \$15; for monthly gross rents of \$100 to \$124, the assumed midpoint was \$112.50; and for monthly gross rents of \$125 or more, the assumed midpoint was \$140. For yearly incomes under \$10,000, the coded intervals were in hundreds of dollars. For incomes of \$10,000 to \$14,900, the assumed midpoint was \$12,500;

for incomes of \$15,000 to \$24,900, the assumed midpoint was \$20,000; and for incomes of \$25,000 or more, the assumed midpoint was \$27,500.

Units for which no cash rent was paid, units occupied by primary families or primary individuals who reported having no income or net loss, and units for which income or gross rent was not reported constitute the category "not computed."

Value.--Value is the respondent's estimate of how much the property would sell for on the current market (April 1960). Value data are restricted to owner-occupied units having only one housing unit in the property and no business. Units in multiunit structures were excluded from the tabulations.

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 occupants owned the house but not the land, or the property was owned jointly with another owner. Thus, for the owner-occupied units in each of the land tenure groups, the value includes an estimate for the land.

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.

Value-income ratio.--The value-income ratio is the quotient of the value of the housing unit divided by the total income in 1959 of the primary family or primary individual. The ratios were computed for the same owner-occupied units for which value was tabulated; thus, the statistics on value-income ratio reflect the exclusion of certain owner-occupied units. The ratio was computed separately for each unit. For both value and income, midpoints of coded intervals were used in the computation. The midpoint of \$350 was assumed for values under \$500; \$750 for values \$500 to \$900; \$1,500 for values \$1,000 to \$1,900; \$2,500 for values \$2,000 to \$2,900; \$4,000 for values \$3,000 to \$4,900; \$6,250 for values \$5,000 to \$7,400; \$8,750 for values \$7,500 to \$9,900; \$12,500 for values \$10,000 to \$14,900; and \$17,500 for values \$15,000 to \$19,900. For values of \$20,000 or more, the assumed midpoint was \$22,500. For yearly incomes, the coded intervals and midpoints used were the same as those used in the computations of gross rent as percentage of income.

Units occupied by primary families or primary individuals who reported no income or net loss and units for which value or income was not reported constitute the category "not computed."

HOUSEHOLD CHARACTERISTICS

Data on household characteristics are based on information reported for each member of the household. Each person was enumerated by name, and information was recorded on relationship to head, sex, age, marital status, income, and other population characteristics, as applicable.

Household.--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. Differences may occur between reports, however, because of differences in processing procedures.

Head of household.--The head of the household is the person considered to be the head by the household

members. However, if a married woman living with her husband is reported as the head, her husband is classified as the head for the purpose of census tabulations.

Household composition.--Each household in the group "male head, wife present," consists of the head, his wife, and other persons, if any, whether related or unrelated to the head. A household was classified in this category if both the husband and wife were reported as members of the household even though one or both were temporarily absent on business or vacation, visiting, in a hospital, etc., at the time of the enumeration. The category "other male head" includes households with male heads who are married, but with wife absent because of separation or other reason where husband and wife maintain separate residences for several months or more; and male heads who are widowed, divorced, or single. "Female head" comprises all households with female heads regardless of their marital status. Included are female heads with no spouse and female heads whose husbands are living away from their families, as for example, husbands in the Armed Forces living on military installations.

Statistics for the three types of households defined above are presented for households having two or more persons. Households consisting of only one person are shown separately and not included in the subcategories "other male head" and "female head."

Nonrelative.--A nonrelative of the head is any member of the household who is not related to the household head by blood, marriage, or adoption. Lodgers (roomers, partners, wards, foster children) and resident employees are included as nonrelatives.

Primary family; primary individual.--The term "primary family" refers to the head of a household and all (one or more) persons in the household related to him by blood, marriage, or adoption. If the head lives alone or if no member of the household is related to him, the head constitutes a "primary individual." A household can contain only one primary family or primary individual.

Married couples related to the head of a family are included in the primary family and are not classified as separate families. A lodger, servant, or other person unrelated to the head is considered a member of the household but not of the primary family.

In the statistics on household composition, primary families are always included in one of the three major groups of two-or-more-person households. Primary individuals living alone are always tabulated as one-person households; primary individuals with nonrelatives living with them are tabulated as "other male head" or "female head."

Type of household.--The statistics on type of household are restricted to occupied units in which specified facilities are shared or lacking (table 9). Each household in the category "husband-wife families" consists of the head, his wife, and other persons, if any, whether related or unrelated to the head. (This category is identical with "male head, wife present" in the tabulations by household composition.) The category "other" consists of all other households--households with other male head, households with female head, and one-person households.

Income.--Income is the sum of money received, less losses, from wages or salary, self-employment, and sources other than earnings during the calendar year 1959. In this report, the statistics are restricted to income received by the primary family or primary individual. The figures represent the amount of income received before deductions for personal income taxes, Social Security, bond purchases, union dues, etc. Wage or salary income is

defined as the total money earnings received for work performed as an employee. It includes wages, salary, pay from Armed Forces, commissions, tips, piece-rate payments, and cash bonuses earned. Self-employment income is defined as net money income (gross receipts minus operating expenses) from a business, farm, or profession. Income other than earnings includes money received from sources such as net income (or loss) from rents or receipts from roomers or boarders; royalties; interest, dividends, and periodic income from estates and trust funds; Social Security benefits; pensions; veterans' payments, military allotments for dependents, unemployment insurance, and public assistance or other governmental payments; and periodic contributions for support from persons who are not members of the household, alimony, and periodic receipts from insurance policies or annuities.

Receipts from the following sources were not included as income: Money received from the sale of owned property; the value of income "in kind," such as food produced and consumed in the home or free living quarters; withdrawals of bank deposits; money borrowed; tax refunds; gifts and lump-sum inheritances or insurance benefits.

Since the unit of tabulation for income data in this report is an occupied unit, the statistics relate to the income of the primary family or primary individual occupying the housing unit; that is, the sum of the income of the head of the primary family and all other members of the family 14 years old and over, or the income of the primary individual. Incomes of persons living in the unit but not related to the head of the household are not included in this sum. Although the time period covered by the income statistics is the calendar year 1959, the composition of the household refers to the time of enumeration. Thus, the income of the family does not include amounts received by persons who were members of the family during all or part of the calendar year 1959 if these persons no longer resided with the family at the time of the interview. On the other hand, family income includes amounts reported by related persons who did not reside with the family during 1959 but who were members of the family at the time of enumeration. For most of the families, however, the income reported was received by persons who were members of the family throughout 1959.

The median income is the amount which divides the distribution into two equal parts--one-half the cases falling below this income and one-half the cases exceeding this income. In the computation of the median, the lower limit of the class interval was assumed to stand at the beginning of the income group and the upper limit at the beginning of the successive income group. Medians were rounded to the nearest hundred dollars.

Primary families and individuals with no income, as defined in the census, were included in the lowest income group. Many of these were living on income "in kind," savings, or gifts; or they were new primary families or individuals, or were families in which the sole breadwinner had recently died or left the household. However, many of the families and individuals who reported no income probably had some money income which was not recorded in the census.

As in all censuses and surveys of income, the figures are subject to errors of response and nonreporting. The amounts reported for income are frequently based not on records but on memory, and this factor probably produces underestimates, because the tendency is to forget minor or irregular sources of income. Other errors of reporting are due to misunderstanding of the income questions or to misrepresentation.

A possible source of understatement in the income figures was the assumption in the editing process that no income other than earnings was received by a person who

reported the receipt of either wage or salary income or self-employment income but failed to report on the receipt of other money income.

The income data collected in the census cover money income only. The fact that some families (particularly those living on farms) receive an important part of their income in the form of housing, goods, or services, rather than in money, should be taken into consideration.

The income data in this report also differ from income data for families and unrelated individuals in the

1960 Population reports. As used in the 1960 Population reports, "families" refers to both primary and secondary families and "unrelated individuals" refers to primary and secondary individuals.

For several reasons, the income data reported in the census are not directly comparable with data which may be computed from other sources. Lack of comparability is attributable to differences in the types of income that are reported and the types of families and individuals to which the income applies.

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. Information for most of the items in 1960 was obtained from a sample of housing units; in 1950, all the items were enumerated on a complete-count basis. In 1960, information for some items was obtained by self-enumeration supplemented by followup procedures, in contrast to direct interview in 1950. A further innovation was the formal field review of the enumerator's work during the course of enumeration. Finally, more extensive use was made of machine procedures to process the data in 1960.

A summary of the procedures for collecting and processing the data is given below. A fuller description of the procedures is provided in the report entitled Eighteenth Decennial Census: Procedural History.

COLLECTION OF DATA

Data-collection forms.--Several enumeration forms were used to collect the information for the 1960 Census in Puerto Rico. An Advance Census Report was delivered by the Post Office Department, several days before the census date, to each household on postal delivery routes. This form contained questions which were to be answered for every occupied unit, and every person. They were questions which the household members themselves could answer. Household members were requested to fill the Advance Census Report and have it ready for the census enumerator.

When the enumerator visited the unit, he transcribed the information from the Advance Census Report (ACR) to an enumeration schedule. If the ACR was not filled for the unit or if the form contained omissions or inconsistencies, the enumerator was instructed to ask the questions and record the answers directly on the enumeration schedule. The enumerator used the enumeration schedule also for recording information not required by the ACR, namely access to unit (which is pertinent to the identification of a housing unit), condition of unit, and all the information for vacant units. The questions on the enumeration schedule are somewhat briefer than the corresponding questions on the ACR, and the response categories also are abbreviated. Nevertheless, the intent of the questions on the two forms was the same.

For each housing unit in the sample and for each person in the sample unit, the enumerator obtained the information for the sample items by direct interview and recorded it on a schedule containing both the sample and the complete-count items.

Illustrative examples of schedules (or portions of schedules) used in the enumeration in Puerto Rico are exhibited in Volume I of the 1960 Housing reports for Puerto Rico.

Methods of obtaining information.--Information for the housing items was obtained through self-enumeration,

direct interview, and observation. The self-enumeration items were those contained in the Advance Census Report (ACR); namely, persons in the household, relationship to head, sex, age, marital status, place of birth, kitchen or cooking facilities, number of bedrooms, water supply, toilet and bathing facilities, and tenure of unit. In addition, value of property and monthly contract rent appeared on the ACR used in Mayagüez, Ponce, and San Juan cities. A few items, such as condition of unit, were always determined by the enumerator on the basis of his observation.

Field review.--One of the more important innovations in the 1960 Census was a series of regularly scheduled "field reviews" of the enumerator's work by his crew leader or 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 the errors he had made.

PROCESSING OF DATA

General procedure.--The processing of data from the 1960 Census involved the following steps: (1) the enumerator recorded the information by marking appropriate boxes or making written entries on the schedules; (2) selected items were edited and coded manually; (3) a card containing codes for the various characteristics was punched for each person and each housing unit; (4) the punchcards were edited mechanically for completeness and internal consistency; and (5) the cards were sorted and tabulated on conventional tabulating machines. This procedure is essentially the same as that followed in 1950, except that some of the editing which was done manually in 1950 was accomplished by machine in 1960. It differs from the procedure followed in the United States in 1960 which utilized electronic scanning and computing devices and auxiliary equipment.

Editing.--Whenever the entry for an item was inconsistent with other information on the schedule, an allocation procedure was used to assign an acceptable entry. The assignment was generally based on related information for the person or housing unit. For example, if a housing unit was enumerated as having "no piped running water" but having both a bathtub (or shower) and flush toilet for the exclusive use of the occupants, the unit was automatically edited as having piped water inside the structure, a characteristic considered to be consistent with the reported bathing and toilet facilities.

A similar procedure was followed when information for an item was missing. For example, if tenure for an occupied unit was omitted but a rental amount was reported, the unit was automatically edited to "rented." Allocations were made for nonresponse only for selected items; for the remaining items, a "not reported" classification was retained, unless an acceptable entry could be ascertained from other information on the schedule.