

## Appendix A.—AREA CLASSIFICATIONS

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### USUAL PLACE OF RESIDENCE

In accordance with census practice dating back to 1790, each person enumerated in the 1970 census was counted as an inhabitant of his usual place of residence, which is generally construed to mean the place where he lives and sleeps most of the time. This place is not necessarily the same as his legal residence, voting residence, or domicile. In the vast majority of cases, however, the use of these different bases of classification would produce substantially the same statistics although there may be appreciable differences for a few areas.

The implementation of this practice has resulted in the establishing of residence rules for certain categories of persons whose usual place of residence is not immediately clear. Furthermore, this practice means that persons were not always counted as residents of the place where they happened to be found by the census enumerators. Persons without a usual place of residence were, however, counted where they were enumerated. Detailed information on residence rules is given in the 1970 Population Census PC(1)-A reports.

### COUNTIES

The primary divisions of the States are, in general, termed counties, but in

Louisiana these divisions are known as parishes. There are no counties in Alaska; in this State, statistical areas called census divisions were developed for general statistical purposes through the cooperation of the State and the Census Bureau and are treated as county equivalents. In four States (Maryland, Missouri, Nevada, and Virginia), there are one or more cities which are independent of any county organization and thus constitute primary divisions of their States.

### STANDARD METROPOLITAN STATISTICAL AREAS

The Bureau of the Census recognizes 243 standard metropolitan statistical areas (SMSA's) in the United States and 4 in Puerto Rico, making a total of 247 in the 1970 census. These include the 231 SMSA's as defined and named in the Bureau of the Budget publication, **Standard Metropolitan Statistical Areas: 1967**, U.S. Government Printing Office, Washington, D.C. 20402. Since 1967, 16 SMSA's have been added, of which two were defined in January 1968 and an additional 14 were defined in February 1971 on the basis of the results of the 1970 census. Changes in SMSA boundaries or titles made after February 1971 are not recognized in this series of reports. SMSA's are defined by the Office of Management and Budget (formerly Bureau of the Budget).

Except in the New England States, a standard metropolitan statistical area

is a county 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 socially and economically integrated with the central city. In the New England States, SMSA's consist of towns and cities instead of counties. Each SMSA must include at least one central city, and the complete title of an SMSA identifies the central city or cities. For a detailed description of the criteria used in defining SMSA's, see the Bureau of the Budget publication cited above.

The figures for "in central cities" shown in this report differ from those shown in the Housing Census HC(1)-A1 and HC(1)-B1 reports for the United States. In those reports, if a central city of an SMSA is an extended city (so designated because it has extended its boundaries to include territory essentially rural in character), the figures shown for "in central cities" were restricted to the urban portion of the city. In addition, parts of central cities outside the SMSA boundaries were excluded from the central city tabulations. In this report, however, figures for "in central cities" refer to the entire population and housing within the legal city boundaries, including any rural parts of the city or parts outside the SMSA.

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### GENERAL

**Self-enumeration and census questionnaire.**—As stated in the introductory text of this report, the 1970 census was conducted primarily through self-enumeration. Furthermore, census takers were instructed to read the questions directly from the questionnaire in their telephone and personal visit interviews. The questionnaire pages containing the housing questions asked on a 100-percent basis and the additional questions asked on a sample basis, as well as the page of the respondent instruction sheet which relates to these questions, are reproduced on pages App-10 to App-13. The definitions and explanations given below for each subject are, to a considerable extent, drawn from various technical and procedural materials used in the collection of the data. This material helped the enumerative personnel to understand more fully the intent of each question and thus to resolve problem or unusual cases. Also included is certain explanatory information to assist the user in the proper utilization of the statistics.

### Comparability with 1960 data.—

Although the 1970 data are generally comparable with the data collected in 1960, certain changes have been introduced. The 1960 inquiry regarding owner occupancy has been subdivided to show a separate category for cooperatives and condominiums in 1970. The 1960 question on cooking equipment was broadened in 1970 to cover "complete kitchen facilities"; i.e., an installed sink with piped water, a range or cookstove, and a mechanical refrigerator. On the other hand, the 1960 question on condition of housing unit (i.e., sound, deteriorating, or dilapidated) was eliminated because of serious problems with response reliability.

Items which were added to the 1970 questionnaire are dishwasher and owned second home. The 1960 inquiry on television has been subdivided to provide separate information on television sets which can receive UHF broadcasts. The 1970 inquiry on radios is limited to battery-operated sets including car radios, whereas the 1960 inquiry covered radio sets of all kinds located in the unit. Data on television sets and radios are not given in this report; statistics on these appliances, however, are presented in the 1970 Housing Census, HC(1)-B reports.

There have also been changes in the scope of some of the tabulations. The tabulations on value and contract rent refer to slightly different sets of housing units in 1970 than in 1960. Summarized generally, the difference is that the 1970 data exclude units on places of 10 acres or more whereas the 1960 data exclude units on farms; more specific information can be obtained by comparing the value and rent definitions in the present report with those in 1960 Housing Census Volume I.

Data on elevator in structure were collected for all geographic areas in 1970. In 1960, statistics on elevator in structure were collected only for large places; that is, places which had a population of 50,000 or more in 1950 or in an interim census.

Separate data on a number of subjects are presented for occupied units with Negro head of household. In 1960, this type of tabulation related to the total of all household heads other than white; Negro household heads constituted 95 percent of this total in 1960 for the Nation as a whole, but this proportion varied widely among areas.

#### LIVING QUARTERS

Living quarters are classified in the census as either housing units or group quarters. Usually, living quarters are in structures intended for residential use (e.g., a one-family home, apartment house, hotel or motel, boarding house, mobile home or trailer, etc.). Living quarters may also be in structures intended for nonresidential use (e.g., the rooms in a warehouse where a watchman lives), as well as in tents, caves, old railroad cars, etc.

**Housing units.**—A housing unit is a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants do not live and eat with any other persons in the structure and which have either (1) direct access from the outside of the building or through a common hall or (2) complete kitchen facilities for the exclusive use of the occupants. The occupants may be a single family, one person living alone, two or more families living together, or any other

group of related or unrelated persons who share living arrangements (except as described in the section on group quarters). For vacant units, the criteria of separateness, direct access, and complete kitchen facilities for exclusive use are applied to the intended occupants, whenever possible. If the information cannot be obtained, the criteria are applied to the previous occupants. Both occupied and vacant housing units are included in the housing inventory, except that mobile homes, trailers, tents, caves, boats, railroad cars, and the like, are included only if they are occupied.

**Group quarters.**—Group quarters are living arrangements for institutional inmates or for other groups containing five or more persons not related to the person in charge. Group quarters are located most frequently in institutions, boarding houses, military barracks, college dormitories, fraternity and sorority houses, hospitals, monasteries, convents, and ships. A house or apartment is considered group quarters if it is shared by the person in charge and five or more persons unrelated to him, or if there is no person in charge, by six or more unrelated persons. Information on the housing characteristics of group quarters was not collected in the census.

**Rules for mobile homes, hotels, rooming houses, etc.**—Mobile homes or trailers, tents, boats, or railroad cars are not enumerated if vacant, used only for business, or used only for vacations.

Occupied rooms or suites of rooms in hotels, motels, and similar places are classified as housing units only when occupied by permanent 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, motels, and similar places in which 75 percent or more of the accommodations are occupied by permanent residents.

If any of the occupants in a rooming or boarding house live and eat separately from everyone else in the building and have either direct access or complete kitchen facilities for exclusive use, their quarters are classified as 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, or similar place, living quarters of the supervisory staff and other employees are separate housing units if they satisfy the housing unit criteria; other living quarters are considered group quarters.

**Institutions.**—Living quarters of staff personnel are separate housing units if they satisfy the housing unit criteria. Other living quarters are considered group quarters.

#### OCCUPANCY AND VACANCY CHARACTERISTICS

**Occupied housing units.**—A housing unit is classified as occupied if a person or group of persons is living in it at the time of enumeration or if the occupants are only temporarily absent—for example, on vacation. However, if the persons staying in the unit have their usual place of residence elsewhere, the unit 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 1970 Census of Population reports. In some cases, however, there may be small differences in the counts resulting from processing procedures.

**Race.**—The classification by race shown here refers to the race of the head of the household occupying the housing unit. Detailed characteristics of units with Negro head of household are presented in separate tables. The concept of race as used by the Census Bureau does not denote clear-cut scientific definitions of biological stock. The data represent essentially self-classification by people according to the race with which they identify themselves.

**Tenure.**—(See facsimiles of questionnaire item H9 and instructions on pages App-10 and App-13.) 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. A cooperative or condominium unit is "owner occupied" only if the owner or co-owner lives in it. All other occupied units are classified as "renter occupied," including units rented for cash rent and those occupied without payment of cash rent.

**Year moved into unit.**—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 of his latest move was to be reported; 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 is to establish the year the present occupancy by the head began. 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.

**Vacant housing units.**—A housing unit is vacant if no one is living in it at the time of enumeration, unless its occupants are only temporarily absent. In addition, a vacant unit may be one which is occupied entirely by persons who have a usual residence elsewhere.

New units not yet occupied are classified as vacant housing units if construction has reached a point where all exterior windows and doors are installed and final usable floors are in place. Vacant units are excluded if unfit for human habitation; that is, if the roof, walls, windows, or doors no longer protect the interior from the elements, or if there is positive evidence (such as a sign on the house or in the block) that the unit is to be demolished or is condemned. Also excluded are quarters being used entirely for nonresidential purposes, such as a store or an office, or quarters used for the storage of business supplies or inventory, machinery, or agricultural products.

**Vacancy status.**—(See facsimile of questionnaire item C on page App-10.) Vacant housing units are classified as either "seasonal and migratory" or "year-round." "Seasonal" units are intended for occupancy during only certain seasons of the year. Included are units intended for recreational use, such as beach cottages and hunting cabins, and vacant units held for herders and loggers. "Migratory" units

are vacant units held for occupancy by migratory labor employed in farm work during the crop season. "Year-round" vacant housing units are available or intended for occupancy at any time of the year. A unit in a resort area which is usually occupied on a year-round basis is considered year-round. A unit used only occasionally throughout the year is also considered year-round.

This report presents statistics for "year-round" vacant units on the market for sale or for rent. Excluded are "seasonal and migratory" vacant units, as well as "year-round" vacant units sold or rented but not yet occupied by the new owner or renter, units held for the occasional use of the owner, and units held off the market for other reasons.

**Vacant for sale.**—Vacant year-round units "for sale" also include vacant units in a cooperative or condominium building if the individual units are offered for sale only.

**Vacant for rent.**—Vacant year-round units "for rent" also include vacant units offered either for rent or for sale.

**Duration of vacancy.**—(See facsimile of questionnaire item D on page App-10.) The statistics on duration of vacancy refer to 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 is counted from the date construction was completed. For recently converted or merged units, the time is reported from the

date conversion or merger was completed.

#### UTILIZATION CHARACTERISTICS

**Persons.**—All persons occupying the housing unit are counted. These persons include not only occupants related to the head of the household but also any lodgers, roomers, boarders, partners, wards, foster children, and resident employees who share the living quarters of the household head. The data on "persons" show the number of housing units occupied by the specified number of persons.

Units with one or more roomers, boarders, or lodgers are shown as a separate category. Not included as "roomers, boarders, or lodgers" are servants who live in, companions, partners, etc.

**Rooms.**—(See facsimiles of questionnaire item H4 and instructions on pages App-10 and App-13.) The statistics on "rooms" are in terms of the number of housing units with specified number of rooms. The intent of this question was to count the number of whole rooms used for living purposes. As stated on the questionnaire and instruction sheet, bathrooms, foyers, utility rooms, unfinished attics or basements, etc., are not included in the count of rooms.

**Persons per room.**—"Persons per room" is computed for each occupied unit by dividing the number of persons in the unit by the number of rooms in the unit. The figures shown refer, therefore, to the number of housing units having the specified ratio of persons per room.

**Bedrooms.**—(See facsimile of questionnaire item H26 on page App-12.) The

number of bedrooms in the unit is the count of rooms used mainly for sleeping, even if also used for other purposes. Rooms reserved for sleeping such as guest rooms, even though used infrequently, are counted as bedrooms. On the other hand, rooms used mainly for other purposes, even though used also for sleeping, such as a living room with a hideaway bed, are not considered bedrooms. A housing unit consisting of only one room, such as one-room efficiency apartment, is classified, by definition, as having no bedroom.

#### STRUCTURAL AND PLUMBING CHARACTERISTICS

**Direct access.**—(See facsimiles of questionnaire item H2 and instructions on pages App-10 and App-13.) A housing unit is regarded as having direct access if there is (1) a direct entrance from the outdoors, or (2) an entrance from a hall, lobby, or vestibule which is usually used by the occupants of more than one unit or by the general public.

**Complete kitchen facilities.**—(See facsimiles of questionnaire item H3 and instructions on pages App-10 and App-13.) A unit has complete kitchen facilities when it has all three of the following: (1) an installed sink with piped water, (2) a range or cookstove, and (3) a mechanical refrigerator.

All kitchen facilities must be located in the structure. They need not be in the same room. Quarters with only portable cooking equipment are not considered as having a range or cookstove. An icebox is not included as a mechanical refrigerator.

The kitchen facilities are for the exclusive use of the occupants (shown on the questionnaire as "for this

household only") when they are used only by the occupants of one housing unit, including lodgers or other unrelated persons living in the unit. When a structure consists of only one housing unit, all equipment located inside the structure is classified, by definition, for exclusive use.

**Year structure built.**—(See facsimile of questionnaire item H15 on page App-11.) Year structure built refers to when the building was first constructed, not when it was remodeled, added to, or converted. The figures relate to the number of units in structures built during the specified periods and in existence at the time of enumeration.

**Units in structure.**—(See facsimiles of questionnaire item H16 and instructions on pages App-11 and App-13.) In the determination of the number of units in a structure, all housing units, both occupied and vacant, were counted. The statistics are presented in terms of the number of housing units in structures of specified type and size, not in terms of the number of residential structures.

A structure is a separate building that either has open space on all sides or is separated from other structures by dividing walls that extend from ground to roof. Structures containing only one housing unit are further classified on the questionnaire as detached or attached (as explained on the instruction sheet).

Mobile homes and trailers are shown as a separate category. When one or more rooms have been added to a mobile home or trailer it is classified as a one-family house. If, however, only a porch or shed has been added, it is still counted as a mobile home or trailer.

The data on units in structure shown in this report may differ from the comparable figures in the HC(1)-A report. The answers to item H16 on the sample questionnaire made it possible in the HC(2) tabulations to correctly classify as mobile homes or trailers those which were incorrectly classified as one-family houses or as housing units in multiunit structures in the HC(1)-A tabulations.

**Elevator in structure.**—(See facsimiles of questionnaire item H24 and instructions on pages App-12 and App-13.) Statistics on elevator in structure are presented in terms of the number of housing units in structures with four stories or more which have a passenger elevator. Units are in a "walk-up" structure of four stories or more if the structure has no passenger elevator or if the only elevator service is for freight.

**Plumbing facilities.**—(See facsimiles of questionnaire items H5, H6, and H7 and instructions on pages App-10 and App-13.) The category "with all plumbing facilities" consists of units which have hot and cold piped water inside the structure as well as a flush toilet and a bathtub or shower inside the structure for the exclusive use of the occupants of the unit. "Lacking some or all plumbing facilities" means that the unit does not have all three specified plumbing facilities (hot and cold piped water, as well as flush toilet and bathtub or shower inside the structure), or that the toilet or bathing facilities are also for the use of the occupants of other housing units.

**Complete bathrooms.**—(See facsimile of questionnaire item H21 on page App-11.) A housing unit is classified as having a complete bathroom if it has a

room with a flush toilet and bathtub or shower for the exclusive use of the occupants of the unit and a wash basin, as well as piped hot water in the structure. (Although the instructions on the questionnaire do not specify that a complete bathroom must have hot water, this requirement was applied during the processing of the data in an edit combining the items on complete bathrooms and piped water in structure.) A half bathroom has either a flush toilet or a bathtub or shower for exclusive use, but does not have all the facilities for a complete bathroom.

The category "none or also used by another household" consists of units with no bathroom facilities, units with only a half bathroom, and units with bathroom facilities which are also for the use of the occupants of other housing units.

#### EQUIPMENT, FUELS, AND APPLIANCES

**Heating equipment.**—(See facsimiles of questionnaire item H14 and instructions on pages App-11 and App-13.) "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 various rooms; central heat pumps are included in this category. "Built-in electric units" are permanently installed in floors, walls, or ceilings. A "floor, wall, or pipeless furnace" delivers warm air to the room right above the furnace or to the room(s) on one or both sides of the wall in which the furnace is installed. "Other means" includes room heaters with or without

flue, fireplaces, stoves, and portable heaters of all types.

For vacant units from which the heating equipment had been removed, the equipment used by the last occupants was to be reported.

**Air conditioning.**—(See facsimiles of questionnaire item H22 and instructions on pages App-11 and App-13.) Air conditioning is defined as the cooling of air by a refrigeration unit; excluded are evaporative coolers, fans, or blowers which are not connected to a refrigeration unit. A central system is a central installation which air-conditions the entire housing unit. In an apartment building, a central system may cool all apartments in the building, each apartment may have its own central system, or there may be several systems, each providing central air conditioning for a group of apartments. A central installation with individual room controls is a central air-conditioning system. A room unit is an individual air conditioner which is installed in a window or an outside wall and is generally intended to cool one room, although it may sometimes be used to cool more than one room.

**Automobiles available.**—(See facsimiles of questionnaire item H23 and instructions on pages App-11 and App-13.) Statistics on automobiles available represent the number of passenger automobiles, including station wagons, which are owned or regularly used by any member of the household and which are ordinarily kept at home. Taxicabs, pickups, or larger trucks were not to be counted. The figures include leased automobiles and company-owned automobiles kept at home. The statistics, therefore, do not reflect the number of automobiles privately owned or the number of households owning automobiles.

**Appliances.**—(See facsimiles of questionnaire items H27 and instructions on pages App-12 and App-13.)

**Automatic clothes washing machine.**—This category describes a machine that washes, rinses, and damp dries in the same tub; washer-dryer combinations are included in this group.

**Clothes dryer.**—A clothes dryer is a mechanical appliance in which clothes are dried by heated air. A unit with a washer-dryer combination is classified as having a clothes dryer (as well as an automatic clothes washing machine.)

**Dishwasher.**—This category includes both built-in and portable dishwashers.

**Home food freezer.**—A home food freezer is an appliance, separate from the refrigerator, designed for freezing food and for storing frozen food.

**Owned second home.**—(See facsimiles of questionnaire item H30 and instructions on pages App-12 and App-13.) A second home may be a single-family house, vacation cottage, hunting cabin, ski lodge, etc., which is owned and held for use sometime during the year by the owner or members of his household. Second homes may also be owned in partnership with members of a different household. The figures include second homes which are sometimes rented or leased on a short-term basis to other persons but are principally held for the owner's occasional use during the year.

The statistics refer to the number of households that own (one or more) second homes. The data, therefore, do not reflect the number of owned second homes.

## FINANCIAL CHARACTERISTICS

**Value.**—(See facsimiles of questionnaire item H11 and instructions on pages App-10 and App-13.) Value is the respondent's estimate of how much the property (house and lot) would sell for if it were for sale. The statistics on value are shown only for one-family houses on less than 10 acres without a commercial establishment or medical office on the property. The value tabulations also exclude mobile homes and trailers and units in cooperatives and condominiums.

As stated in the section on "units in structure," certain mobile homes and trailers were incorrectly classified as one-family houses in the HC(1)-A tabulations. In the HC(2) reports, the number of specified owner-occupied (one-family) units and the value tabulations correctly exclude the misclassified mobile homes and trailers; these tend to be at the lower end of the value distribution. As a result, the data on value shown in this report may differ from the comparable statistics in the HC(1)-A report.

**Sales price asked.**—For vacant units, the sales price is the amount asked for the property at the time of enumeration. The statistics on sales price are shown only for vacant for sale one-family houses on less than 10 acres without a commercial establishment or medical office on the property.

**Gross rent.**—(See facsimiles of questionnaire items H12 and H13 and instructions on pages App-10, 11, and 13.) The computed rent termed "gross rent" is the contract rent plus the estimated average monthly cost of utilities (electricity, gas, water) and fuels (oil, coal, kerosene, wood, etc.), if these items are paid for by the

renter (or paid for him by someone else, such as a relative, welfare agency, or friend) in addition to rent. Contract rent is the monthly rent agreed to, or contracted for, regardless of any furnishings, utilities, or services that may be included. Thus, gross rent is intended to eliminate differentials which result from varying practices with respect to the inclusion of utilities and fuel as part of the rental payment. The estimated costs of water and fuels are reported on a yearly basis but they are converted to monthly figures in the computation process.

The statistics on rent exclude one-family houses on ten acres or more. Renter units occupied without payment of cash rent are shown separately as "no cash rent" in the rent tabulations.

**Rent asked.**—For vacant units, the rent is the amount asked for the unit at the time of enumeration. The data are for vacant year-round units for rent, excluding one-family houses on ten acres or more. In table 10, data are provided for two kinds of vacant-for-rent 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. See section on "Gross rent" above for discussion of utilities and fuel.

**Value-income ratio.**—The value-income ratio is computed by dividing the value of the housing unit by the total income in 1969 of the family or primary individual. The ratio is presented 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 and

was rounded to the nearest tenth. In reporting value, respondents were asked to select an appropriate class interval. The midpoints of the value intervals were used in the computation of the value-income ratio, except that a mean of \$3,500 was assigned for values less than \$5,000 and a mean of \$60,000 was assigned for values of \$50,000 or more. For income, the dollar amounts were used. Units occupied by families or primary individuals who reported no income or a net loss comprise the category "not computed."

**Gross rent as percentage of income.**—The yearly gross rent (monthly gross rent multiplied by 12) is expressed as a percentage of the total income in 1969 of the family or primary individual. The percentage is presented for the same renter-occupied units for which gross rent was tabulated; thus, the statistics on gross rent as percentage of income reflect the exclusion of certain renter-occupied units. The percentage was computed separately for each unit and was rounded to the nearest whole number. For gross rent, the dollar amounts were used in the computation except that \$999 was assigned for monthly rentals of \$1,000 or more. For income, the dollar amounts were used. Units for which no cash rent is paid and units occupied by families or primary individuals who reported no income or a net loss comprise the category "not computed."

#### HOUSEHOLD CHARACTERISTICS

**Head of household.**—One person in each household is designated as the "head," that is, the person who is regarded as the head by the members of the household. However, if a married woman living with her husband is

reported as the head, her husband was considered the head for the purpose of simplifying the tabulations.

**Household composition.**—Statistics by age of head are presented separately for two-or-more person households and for one-person households. Households having two or more persons are further subdivided as follows:

**Male head, wife present, no non-relatives.**—Each household in this group consists of the head and his wife, and other persons, if any, all of whom are related to him.

**Other male head.**—This category includes households with male head, wife present, with non-relatives living with them; male heads who are married, but with wife absent because of separation or other reason where husband and wife maintain separate residences; and male heads who are widowed, divorced, or single. In this series, households with male head, wife present, with certain nonrelatives (roomers, borders, or lodgers) were incorrectly included in the category "male head, wife present, no non-relatives."

**Female head.**—This group comprises 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.

Households consisting of only one person are shown separately as "one-person households" and are not included in the subcategories "other male head" and "female head."

**Nonrelative.**—A nonrelative of the head is any person in the household who is not related to the head by blood, marriage, or adoption. Roomers, boarders, lodgers, partners, resident employees, wards, and foster children are included in this category.

**Family or primary individual.**—Housing units are occupied by either "families" or "primary individuals." The term "family" refers to the head of a household and all (one or more) other persons living in the same household who are related to the head by blood, marriage, or adoption. If the head lives alone or with nonrelatives only, then the head is considered a "primary individual."

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

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

**Income in 1969.**—Income is the sum of the amounts reported for wage and salary income, net self-employment income, Social Security or railroad retirement income, public assistance or welfare income, and all other income. The figures represent the amount of income received before deductions for personal income taxes, Social Security, bond purchases, union dues, health insurance premiums, Medicare deductions, etc.



## APPENDIX B—Continued

In this report, the statistics relate to the income of the family or primary individual occupying the housing unit; that is, the sum of the income of the head of the 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 income statistics cover the calendar year 1969, the characteristics of the household refer to the time of enumeration (April 1970). 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 1969 if these persons no longer resided with the family at the time of the census. On the other hand, family income includes amounts reported by related persons who did not reside with the family during 1969 but who were members of the family at the time of enumeration. For most families, however, the income reported was received by persons who were members of the family throughout 1969.

Wage or salary income is defined as the total money earnings received for work performed as an employee at any time during the calendar year 1969. It

includes wages, salary, pay from Armed Forces, commissions, tips, piece rate payments, and cash bonuses earned. Net self-employment income is defined as net money income (gross receipts minus operating expenses) received from a business, farm, professional enterprise, or partnership in which the person was engaged on his own account.

Social Security or railroad retirement income includes cash receipts of Social Security pensions, survivors' benefits, permanent disability insurance payments, and special benefit payments made by the Social Security Administration. Cash receipt of retirement, disability, and survivors' benefit payments made by the U.S. Government under the Railroad Retirement Act are also included. Public assistance income includes cash receipts of payments made under the following public assistance programs: Aid to families with dependent children, old age assistance, general assistance, aid to the blind, and aid to the permanently and totally disabled. Separate payments received for hospital or other medical care are not included.

Income from all other sources includes money income received from sources such as interest; dividends; net income (or loss) from property rentals;

net receipts from roomers or boarders; veteran's payments; public or private pensions; periodic receipts from insurance policies or annuities; unemployment insurance benefits; workmen's compensation cash benefits; net royalties; periodic payments from estates and trust funds; alimony or child support from persons who are not members of the household; net gambling gains; nonservice scholarships and fellowships; and money received for transportation and/or subsistence by persons participating in special governmental training programs, e.g., under the Manpower Development and Training Act.

Receipts from the following sources were not included as income: Money received from the sale of property (unless the recipient was engaged in the business of selling such property); the value of income "in kind" such as food produced and consumed in the home or free living quarters; withdrawal of bank deposits; money borrowed; tax refunds; exchange of money between relatives living in the same household; gifts and lump-sum inheritances, insurance payments, and other types of lump-sum receipts. (A more detailed discussion of income is given in the 1970 Population Census, PC(1)-C reports.)

FACSIMILES OF THE HOUSING PAGES IN THE 1970 CENSUS QUESTIONNAIRES  
(Questions on this page appeared on both the 15-percent and 5-percent questionnaires)

<p><b>A.</b> How many living quarters, occupied and vacant, are at this address?</p> <p><input type="radio"/> One</p> <p><input type="radio"/> 2 apartments or living quarters</p> <p><input type="radio"/> 3 apartments or living quarters</p> <p><input type="radio"/> 4 apartments or living quarters</p> <p><input type="radio"/> 5 apartments or living quarters</p> <p><input type="radio"/> 6 apartments or living quarters</p> <p><input type="radio"/> 7 apartments or living quarters</p> <p><input type="radio"/> 8 apartments or living quarters</p> <p><input type="radio"/> 9 apartments or living quarters</p> <p><input type="radio"/> 10 or more apartments or living quarters</p> <p><input type="radio"/> This is a mobile home or trailer</p>	<p><b>H9.</b> Are your living quarters—</p> <p><input type="radio"/> Owned or being bought by you or by someone else in this household? <i>Do not include cooperatives and condominiums here.</i></p> <p><input type="radio"/> A cooperative or condominium which is owned or being bought by you or by someone else in this household?</p> <p><input type="radio"/> Rented for cash rent?</p> <p><input type="radio"/> Occupied without payment of cash rent?</p>	<p style="text-align: center;">FOR CENSUS ENUMERATOR'S USE ONLY</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;"><b>a4.</b> Block number</th> <th style="width:50%;"><b>a5.</b> Serial number</th> </tr> </thead> <tbody> <tr><td>0 0 0 0</td><td>0 0 0 0</td></tr> <tr><td>1 0 0 0</td><td>1 0 0 0</td></tr> <tr><td>2 0 0 0</td><td>2 0 0 0</td></tr> <tr><td>3 0 0 0</td><td>3 0 0 0</td></tr> <tr><td>4 0 0 0</td><td>4 0 0 0</td></tr> <tr><td>5 0 0 0</td><td>5 0 0 0</td></tr> <tr><td>6 0 0 0</td><td>6 0 0 0</td></tr> <tr><td>7 0 0 0</td><td>7 0 0 0</td></tr> <tr><td>8 0 0 0</td><td>8 0 0 0</td></tr> <tr><td>9 0 0 0</td><td>9 0 0 0</td></tr> </tbody> </table>	<b>a4.</b> Block number	<b>a5.</b> Serial number	0 0 0 0	0 0 0 0	1 0 0 0	1 0 0 0	2 0 0 0	2 0 0 0	3 0 0 0	3 0 0 0	4 0 0 0	4 0 0 0	5 0 0 0	5 0 0 0	6 0 0 0	6 0 0 0	7 0 0 0	7 0 0 0	8 0 0 0	8 0 0 0	9 0 0 0	9 0 0 0
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<p><i>Answer these questions for your living quarters</i></p> <p><b>H1.</b> Is there a telephone on which people in your living quarters can be called?</p> <p><input type="radio"/> Yes — What is the number? _____</p> <p style="text-align: right;"><i>Phone number</i></p>	<p><b>H10a.</b> Is this building a one-family house?</p> <p><input type="radio"/> Yes, a one-family house</p> <p><input type="radio"/> No, a building for 2 or more families or a mobile home or trailer</p>	<p><b>B.</b> Type of unit or quarters</p> <p><u>Occupied</u></p> <p><input type="radio"/> First form</p> <p><input type="radio"/> Continuation</p> <p><u>Vacant</u></p> <p><input type="radio"/> Regular</p> <p><input type="radio"/> Usual residence elsewhere</p> <p><u>Group quarters</u></p> <p><input type="radio"/> First form</p> <p><input type="radio"/> Continuation</p> <p><i>For a vacant unit, also fill C, D, A, H2 to H8, and H10 to H12</i></p>																						
<p><b>H2.</b> Do you enter your living quarters—</p> <p><input type="radio"/> Directly from the outside or through a common or public hall?</p> <p><input type="radio"/> Through someone else's living quarters?</p>	<p><b>H11.</b> <i>If you live in a one-family house which you own or are buying—</i></p> <p>What is the value of this property; that is, how much do you think this property (house and lot) would sell for if it were for sale?</p> <p><input type="radio"/> Less than \$5,000</p> <p><input type="radio"/> \$5,000 to \$7,499</p> <p><input type="radio"/> \$7,500 to \$9,999</p> <p><input type="radio"/> \$10,000 to \$12,499</p> <p><input type="radio"/> \$12,500 to \$14,999</p> <p><input type="radio"/> \$15,000 to \$17,499</p> <p><input type="radio"/> \$17,500 to \$19,999</p> <p><input type="radio"/> \$20,000 to \$24,999</p> <p><input type="radio"/> \$25,000 to \$34,999</p> <p><input type="radio"/> \$35,000 to \$49,999</p> <p><input type="radio"/> \$50,000 or more</p> <div style="border: 1px solid black; padding: 2px; font-size: small;"> <p><i>If this house is on a place of 10 acres or more, or if any part of this property is used as a commercial establishment or medical office, do not answer this question.</i></p> </div>	<p><b>C.</b> Vacancy status</p> <p><u>Year round—</u></p> <p><input type="radio"/> For rent</p> <p><input type="radio"/> For sale only</p> <p><input type="radio"/> Rented or sold, not occupied</p> <p><input type="radio"/> Held for occasional use</p> <p><input type="radio"/> Other vacant</p> <p><u>Seasonal</u></p> <p><input type="radio"/> Seasonal</p> <p><input type="radio"/> Migratory</p>																						
<p><b>H3.</b> Do you have complete kitchen facilities?</p> <p><i>Complete kitchen facilities are a sink with piped water, a range or cook stove, and a refrigerator.</i></p> <p><input type="radio"/> Yes, for this household only</p> <p><input type="radio"/> Yes, but also used by another household</p> <p><input type="radio"/> No complete kitchen facilities for this household</p>	<p><b>H12.</b> <i>Answer this question if you pay rent for your living quarters.</i></p> <p><b>a.</b> <i>If rent is paid by the month—</i></p> <p>What is the monthly rent?</p> <p>Write amount here → \$ _____ .00 (Nearest dollar)</p> <p>and</p> <p>Fill one circle</p> <p><input type="radio"/> Less than \$30</p> <p><input type="radio"/> \$30 to \$39</p> <p><input type="radio"/> \$40 to \$49</p> <p><input type="radio"/> \$50 to \$59</p> <p><input type="radio"/> \$60 to \$69</p> <p><input type="radio"/> \$70 to \$79</p> <p><input type="radio"/> \$80 to \$89</p> <p><input type="radio"/> \$90 to \$99</p> <p><input type="radio"/> \$100 to \$119</p> <p><input type="radio"/> \$120 to \$149</p> <p><input type="radio"/> \$150 to \$199</p> <p><input type="radio"/> \$200 to \$249</p> <p><input type="radio"/> \$250 to \$299</p> <p><input type="radio"/> \$300 or more</p>	<p><b>D.</b> Months vacant</p> <p><input type="radio"/> Less than 1 month</p> <p><input type="radio"/> 1 up to 2 months</p> <p><input type="radio"/> 2 up to 6 months</p> <p><input type="radio"/> 6 up to 12 months</p> <p><input type="radio"/> 1 year up to 2 years</p> <p><input type="radio"/> 2 years or more</p>																						
<p><b>H4.</b> How many rooms do you have in your living quarters?</p> <p><i>Do not count bathrooms, porches, balconies, jokers, halls, or half-rooms.</i></p> <p><input type="radio"/> 1 room</p> <p><input type="radio"/> 2 rooms</p> <p><input type="radio"/> 3 rooms</p> <p><input type="radio"/> 4 rooms</p> <p><input type="radio"/> 5 rooms</p> <p><input type="radio"/> 6 rooms</p> <p><input type="radio"/> 7 rooms</p> <p><input type="radio"/> 8 rooms</p> <p><input type="radio"/> 9 rooms or more</p>	<p><b>b.</b> <i>If rent is not paid by the month—</i></p> <p>What is the rent, and what period of time does it cover?</p> <p>\$ _____ .00 per _____</p> <p style="text-align: center;"><i>(Nearest dollar) (Week, half-month, year, etc.)</i></p>	<p><b>C/O</b> <input type="radio"/> <input type="radio"/></p>																						
<p><b>H5.</b> Is there hot and cold piped water in this building?</p> <p><input type="radio"/> Yes, hot and cold piped water in this building</p> <p><input type="radio"/> No, only cold piped water in this building</p> <p><input type="radio"/> No piped water in this building</p>																								
<p><b>H6.</b> Do you have a flush toilet?</p> <p><input type="radio"/> Yes, for this household only</p> <p><input type="radio"/> Yes, but also used by another household</p> <p><input type="radio"/> No flush toilet</p>																								
<p><b>H7.</b> Do you have a bathtub or shower?</p> <p><input type="radio"/> Yes, for this household only</p> <p><input type="radio"/> Yes, but also used by another household</p> <p><input type="radio"/> No bathtub or shower</p>																								
<p><b>H8.</b> Is there a basement in this building?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No, built on a concrete slab</p> <p><input type="radio"/> No, built in another way (include mobile homes and trailers)</p>																								

FACSIMILES OF THE HOUSING PAGES IN THE 1970 CENSUS QUESTIONNAIRES—Con.  
(Percent indicates sample size)

15 and 5 percent

<p><b>H13.</b> Answer question H13 if you pay rent for your living quarters. In addition to the rent entered in H12, do you also pay for—</p> <p>a. Electricity?  <input type="radio"/> Yes, average monthly cost is \$ _____ .00  <input type="radio"/> No, included in rent  <input type="radio"/> No, electricity not used  <i>Average monthly cost</i></p> <p>b. Gas?  <input type="radio"/> Yes, average monthly cost is \$ _____ .00  <input type="radio"/> No, included in rent  <input type="radio"/> No, gas not used  <i>Average monthly cost</i></p> <p>c. Water?  <input type="radio"/> Yes, yearly cost is \$ _____ .00  <input type="radio"/> No, included in rent or no charge  <i>Yearly cost</i></p> <p>d. Oil, coal, kerosene, wood, etc.?  <input type="radio"/> Yes, yearly cost is \$ _____ .00  <input type="radio"/> No, included in rent  <input type="radio"/> No, these fuels not used  <i>Yearly cost</i></p>	<p><b>H19.</b> Do you get water from—</p> <p><input type="radio"/> A public system (city water department, etc.) or private company?  <input type="radio"/> An individual well?  <input type="radio"/> Some other source (a spring, creek, river, cistern, etc.)?</p>
<p><b>H14.</b> How are your living quarters heated? Fill <u>one</u> circle for the kind of heat you use most.</p> <p><input type="radio"/> Steam or hot water system  <input type="radio"/> Central warm air furnace with ducts to the individual rooms, or central heat pump  <input type="radio"/> Built-in electric units (permanently installed in wall, ceiling, or baseboard)  <input type="radio"/> Floor, wall, or pipeless furnace  <input type="radio"/> Room heaters with flue or vent, burning gas, oil, or kerosene  <input type="radio"/> Room heaters without flue or vent, burning gas, oil, or kerosene (not portable)  <input type="radio"/> Fireplaces, stoves, or portable room heaters of any kind  <input type="radio"/> In some other way—Describe _____  <input type="radio"/> None, unit has no heating equipment</p>	<p><b>H20.</b> Is this building connected to a public sewer?</p> <p><input type="radio"/> Yes, connected to public sewer  <input type="radio"/> No, connected to septic tank or cesspool  <input type="radio"/> No, use other means</p>
<p><b>H15.</b> About when was this building originally built? Mark when the building was first constructed, not when it was remodeled, added to, or converted.</p> <p><input type="radio"/> 1969 or 1970      <input type="radio"/> 1950 to 1959  <input type="radio"/> 1965 to 1968      <input type="radio"/> 1940 to 1949  <input type="radio"/> 1960 to 1964      <input type="radio"/> 1939 or earlier</p>	<p><b>H21.</b> How many bathrooms do you have? A complete bathroom is a room with flush toilet, bathtub or shower, and wash basin with piped water. A half bathroom has at least a flush toilet or bathtub or shower, but does not have all the facilities for a complete bathroom.</p> <p><input type="radio"/> No bathroom, or only a half bathroom  <input type="radio"/> 1 complete bathroom  <input type="radio"/> 1 complete bathroom, plus half bath(s)  <input type="radio"/> 2 complete bathrooms  <input type="radio"/> 2 complete bathrooms, plus half bath(s)  <input type="radio"/> 3 or more complete bathrooms</p>
<p><b>H16.</b> Which best describes this building? Include all apartments, flats, etc., even if vacant.</p> <p><input type="radio"/> A one-family house detached from any other house  <input type="radio"/> A one-family house attached to one or more houses  <input type="radio"/> A building for 2 families  <input type="radio"/> A building for 3 or 4 families  <input type="radio"/> A building for 5 to 9 families  <input type="radio"/> A building for 10 to 19 families  <input type="radio"/> A building for 20 to 49 families  <input type="radio"/> A building for 50 or more families  <input type="radio"/> A mobile home or trailer      Other—      Describe _____</p>	<p><b>H22.</b> Do you have air-conditioning?</p> <p><input type="radio"/> Yes, 1 individual room unit  <input type="radio"/> Yes, 2 or more individual room units  <input type="radio"/> Yes, a central air-conditioning system  <input type="radio"/> No</p>
<p><b>H17.</b> Is this building—</p> <p><input type="radio"/> On a city or suburban lot?—Skip to H19  <input type="radio"/> On a place of less than 10 acres?  <input type="radio"/> On a place of 10 acres or more?</p>	<p><b>H23.</b> How many passenger automobiles are owned or regularly used by members of your household? Counts company cars kept at home.</p> <p><input type="radio"/> None  <input type="radio"/> 1 automobile  <input type="radio"/> 2 automobiles  <input type="radio"/> 3 automobiles or more</p>
<p><b>H18.</b> Last year, 1969, did sales of crops, livestock, and other farm products from this place amount to—</p> <p><input type="radio"/> Less than \$50 (or None)  <input type="radio"/> \$50 to \$249  <input type="radio"/> \$250 to \$2,499  <input type="radio"/> \$2,500 to \$4,999  <input type="radio"/> \$5,000 to \$9,999  <input type="radio"/> \$10,000 or more</p>	

15 percent

FACSIMILES OF THE HOUSING PAGES IN THE 1970 CENSUS QUESTIONNAIRES—Con.  
(Percent indicates sample size)

<p><b>H13.</b> Answer question H13 if you pay rent for your living quarters. In addition to the rent entered in H12, do you also pay for—</p> <p><b>a. Electricity?</b>  <input type="radio"/> Yes, average monthly cost is → \$ _____ .00                  Average monthly cost  <input type="radio"/> No, included in rent  <input type="radio"/> No, electricity not used</p> <p><b>b. Gas?</b>  <input type="radio"/> Yes, average monthly cost is → \$ _____ .00                  Average monthly cost  <input type="radio"/> No, included in rent  <input type="radio"/> No, gas not used</p> <p><b>c. Water?</b> <input checked="" type="checkbox"/>  <input type="radio"/> Yes, yearly cost is → \$ _____ .00                  Yearly cost  <input type="radio"/> No, included in rent or no charge</p> <p><b>d. Oil, coal, kerosene, wood, etc.?</b>  <input type="radio"/> Yes, yearly cost is → \$ _____ .00                  Yearly cost  <input type="radio"/> No, included in rent  <input type="radio"/> No, these fuels not used</p> <p><b>H14.</b> How are your living quarters heated? Fill one circle for the kind of heat you use most.</p> <p><input type="radio"/> Steam or hot water system  <input type="radio"/> Central warm air furnace with ducts to the individual rooms, or central heat pump  <input type="radio"/> Built-in electric units (permanently installed in wall, ceiling, or baseboard) <input checked="" type="checkbox"/>  <input type="radio"/> Floor, wall, or pipeless furnace  <input type="radio"/> Room heaters with flue or vent, burning gas, oil, or kerosene  <input type="radio"/> Room heaters without flue or vent, burning gas, oil, or kerosene (not portable)  <input type="radio"/> Fireplaces, stoves, or portable room heaters of any kind                  In some other way—Describe → _____  <input type="radio"/> None, unit has no heating equipment</p> <p><b>H15.</b> About when was this building originally built? Mark when the building was first constructed, not when it was remodeled, added to, or converted.</p> <p><input type="radio"/> 1969 or 1970      <input type="radio"/> 1950 to 1959  <input type="radio"/> 1965 to 1968      <input type="radio"/> 1940 to 1949  <input type="radio"/> 1960 to 1964      <input type="radio"/> 1939 or earlier</p> <p><b>H16.</b> Which best describes this building? Include all apartments, flats, etc., even if vacant.</p> <p><input type="radio"/> A one-family house detached from any other house  <input type="radio"/> A one-family house attached to one or more houses  <input type="radio"/> A building for 2 families  <input type="radio"/> A building for 3 or 4 families  <input type="radio"/> A building for 5 to 9 families  <input checked="" type="radio"/> A building for 10 to 19 families      <input checked="" type="checkbox"/>  <input type="radio"/> A building for 20 to 49 families  <input type="radio"/> A building for 50 or more families  <input type="radio"/> A mobile home or trailer                  Other—                  Describe _____</p> <p><b>H17.</b> Is this building—</p> <p><input type="radio"/> On a city or suburban lot?—Skip to H24  <input type="radio"/> On a place of less than 10 acres?  <input type="radio"/> On a place of 10 acres or more?</p> <p><b>H18.</b> Last year, 1969, did sales of crops, livestock, and other farm products from this place amount to—</p> <p><input type="radio"/> Less than \$50 (or None)      <input checked="" type="checkbox"/> \$2,500 to \$4,999  <input type="radio"/> \$50 to \$249      <input type="radio"/> \$5,000 to \$9,999  <input type="radio"/> \$250 to \$2,499      <input type="radio"/> \$10,000 or more</p>	<p><b>H24a.</b> How many stories (floors) are in this building?</p> <p><input type="radio"/> 1 to 3 stories  <input type="radio"/> 4 to 6 stories  <input type="radio"/> 7 to 12 stories  <input type="radio"/> 13 stories or more      <input checked="" type="checkbox"/></p> <p><b>b.</b> If 4 or more stories— Is there a passenger elevator in this building?  <input type="radio"/> Yes    <input type="radio"/> No</p> <p><b>H25a.</b> Which fuel is used most for cooking? <input checked="" type="checkbox"/></p> <p>Gas { From underground pipes serving the neighborhood.    <input type="radio"/> Coal or coke    <input type="radio"/>                  Bottled, tank, or LP .....    <input type="radio"/> Wood .....    <input type="radio"/>                  Electricity .....    <input type="radio"/> Other fuel ..    <input type="radio"/>                  Fuel oil, kerosene, etc. ....    <input type="radio"/> No fuel used    <input type="radio"/></p> <p><b>b.</b> Which fuel is used most for house heating? <input checked="" type="checkbox"/></p> <p>Gas { From underground pipes serving the neighborhood.    <input type="radio"/> Coal or coke    <input type="radio"/>                  Bottled, tank, or LP .....    <input type="radio"/> Wood .....    <input type="radio"/>                  Electricity .....    <input type="radio"/> Other fuel ..    <input type="radio"/>                  Fuel oil, kerosene, etc. ....    <input type="radio"/> No fuel used    <input type="radio"/></p> <p><b>c.</b> Which fuel is used most for water heating? <input checked="" type="checkbox"/></p> <p>Gas { From underground pipes serving the neighborhood.    <input type="radio"/> Coal or coke    <input type="radio"/>                  Bottled, tank, or LP .....    <input type="radio"/> Wood .....    <input type="radio"/>                  Electricity .....    <input type="radio"/> Other fuel ..    <input type="radio"/>                  Fuel oil, kerosene, etc. ....    <input type="radio"/> No fuel used    <input type="radio"/></p> <p><b>H26.</b> How many bedrooms do you have? Count rooms used mainly for sleeping even if used also for other purposes.</p> <p><input type="radio"/> No bedroom      <input type="radio"/> 3 bedrooms  <input type="radio"/> 1 bedroom      <input checked="" type="checkbox"/> 4 bedrooms  <input type="radio"/> 2 bedrooms      <input type="radio"/> 5 bedrooms or more</p> <p><b>H27a.</b> Do you have a clothes washing machine?</p> <p><input type="radio"/> Yes, automatic or semi-automatic  <input type="radio"/> Yes, wringer or separate spinner  <input type="radio"/> No</p> <p><b>b.</b> Do you have a clothes dryer?</p> <p><input type="radio"/> Yes, electrically heated  <input type="radio"/> Yes, gas heated  <input checked="" type="radio"/> No</p> <p><b>c.</b> Do you have a dishwasher (built-in or portable)?  <input type="radio"/> Yes    <input type="radio"/> No</p> <p><b>d.</b> Do you have a home food freezer which is separate from your refrigerator?  <input type="radio"/> Yes    <input type="radio"/> No</p> <p><b>H28a.</b> Do you have a television set? Count only sets in working order.</p> <p><input type="radio"/> Yes, one set  <input type="radio"/> Yes, two or more sets  <input type="radio"/> No</p> <p><b>b.</b> If "Yes"—Is any set equipped to receive UHF broadcasts, that is, channels 14 to 83?  <input type="radio"/> Yes    <input checked="" type="radio"/> No</p> <p><b>H29.</b> Do you have a battery-operated radio? Count car radios, transistors, and other battery-operated sets in working order or needing only a new battery for operation.  <input type="radio"/> Yes, one or more    <input type="radio"/> No</p> <p><b>H30.</b> Do you (or any member of your household) own a second home or other living quarters which you occupy sometime during the year?  <input type="radio"/> Yes    <input type="radio"/> No</p>
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15 and 5 percent

5 percent

FACSIMILE OF THE RESPONDENT INSTRUCTIONS FOR THE HOUSING QUESTIONS IN THE 1970 CENSUS

If you live in an apartment building and you do not know the answers to questions H14, H15, H16, and H25, ask the person who runs your building (for example, the manager, rental agent, superintendent, janitor, etc.).

- A. Mark only one circle. This address means the house or building number where your living quarters are located.
- H1. Mark **Yes** and enter telephone number, even if the telephone is in another apartment or building.
- H2. Mark the second circle only if you **must** go through someone else's living quarters to get to your own.
- H3. The kitchen sink, stove, and refrigerator do **not** have to be in the same room.  
**Also used by another household** means that someone else who lives in the same building, but is not a member of your household, also uses the equipment. Mark this circle also if the occupants of living quarters now vacant would also use the equipment.
- H4. Count only whole rooms used for living purposes, such as living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, family rooms, etc. Do **not** count kitchenettes, strip or pullman kitchens; utility rooms; or unfinished attics, basements, or other space used for storage.
- H5. Mark **hot water** even if you have it only part of the time.
- H6, H7. See instructions for H3 for meaning of **Also used by another household**.
- H8. A house has a **basement** if there is enclosed space in which persons can walk upright under all or part of the building. A house on a **concrete slab** has no basement and no air or crawl space below it. A house built in **another way** is one directly on the ground or resting on a foundation or posts to provide **crawl space**.
- H9. **Owned or being bought** means that the living quarters are owned outright or are mortgaged. Also mark **Owned or being bought** if the living quarters are owned but the land is rented.  
 Mark **Rented for cash rent** if any money rent is paid. Rent may be paid by persons who are not members of your household.  
**Occupied without payment of cash rent** includes, for example, a parsonage, a house or apartment provided free of rent by the owner, or a house or apartment occupied by a janitor or caretaker in exchange for services.
- H10. A **commercial establishment** is easily recognized from the outside; for example, a grocery store or barber shop. A **medical office** is a doctor's or dentist's office regularly visited by patients. If your house is on a place of 10 acres or more and also contains a commercial establishment or medical office, mark **Yes, 10 acres or more**.
- H11. Include the value of the house, the land it is on, and any other structures on the same property. If the house is owned but the land is rented, estimate the combined value of the house and the land.
- H12. Report the rent agreed to or contracted for, even if the furnishings, utilities, or services are included.  
 a. If you pay rent by the month, write in the amount of rent and fill one circle.  
 b. If rent is not paid by the month, answer both parts of b. For example, \$20 per week, \$1,500 per year, etc.
- H13. If exact costs are not known, estimate as closely as possible. Report amounts even if bills are unpaid or are paid by someone else. If the bills include utilities or fuel used also by another apartment or a business establishment, estimate the amounts for your own living quarters. If gas and electricity are billed together, enter the combined amount on the electricity line and bracket ( ) the two utilities.
- H14. This question refers to the type of heating equipment and not to the fuel used.  
 A **heat pump** is sometimes known as a **reverse cycle** system.  
 A **floor, wall, or pipeless furnace** delivers warm air to the room right above the furnace or to the room(s) on one or both sides of the wall in which the furnace is installed. These furnaces do not have ducts leading to other rooms.  
 Any heater that you plug into an electric outlet should be counted as a **portable room heater**--not a built-in electric unit.
- H16. Count all occupied and vacant living quarters in the house or building, but not stores or office space.  
**Detached** means there is open space on all sides, or the house is joined only to a shed or garage. **Attached** means that the house is joined to another house or building by at least one wall which goes from ground to roof.
- H17. A **city or suburban lot** is usually located in a city, a community, or any built-up area outside a city or community, and is not larger than the house and yard. All living quarters in apartment buildings, including garden-type apartments in the city or suburbs, are considered on a **city or suburban lot**.  
 A **place** is a farm, ranch, or any other property, other than a city or suburban lot, on which this **residence** is located.
- H18. Fill the circle for the total (gross) amount of money received from the sales of crops, livestock, and other farm products produced on this place during the calendar year 1969.
- H19. If a well provides water for six or more houses or apartments, mark a **public system**. If a well provides water for five or fewer houses or apartments, mark an **individual well**.
- H20. A **public sewer** is operated by a government body or a private organization. A **septic tank or cesspool** is an underground tank or pit used for disposal of sewage.
- H22. Count only equipment with a refrigeration unit to cool the air. Mark an **individual room unit** for air conditioners which are installed in a window or in an outside wall and are used to cool one or more rooms. Mark a **central system** for a central installation which cools the entire house or apartment.
- H23. Do not count cars permanently out of working order. Also do not count taxicabs, pickups, or larger trucks.
- H24a. Do not count a basement as a story.  
 b. Do not count elevators used only for freight.
- H25. **Gas from underground pipes** is piped in from a central system such as a public utility company or a municipal government. **Bottled, tank, or LP gas** is stored in tanks which are refilled or exchanged when empty. **Other fuel** includes any fuel not separately listed, for example, purchased steam, fuel briquettes, waste material, etc.
- H27. Mark the **Yes** circle whether you own the appliance or it is provided as part of the equipment in your living quarters. Do **not** count coin-operated equipment or appliances in storage.
- H28. Count any set **equipped** to receive UHF (ultra high frequency) broadcasts, even if there are no such broadcasts in your area. Include sets that can be tuned directly to channels 14 to 83 and sets that receive UHF broadcasts by means of a converter. Also include sets that receive UHF broadcasts through a community antenna (CATV) or master antenna.
- H29. A battery-operated radio is one that can be run on batteries and does not need to be plugged into an electric socket. Include battery-operated sets owned by any member of the household.
- H30. Do **not** count vacation trailers, tents, or boats. Also do **not** count second homes used only for investment purposes.

## Appendix C.—ACCURACY OF THE DATA

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### SOURCES OF ERROR

Human and mechanical errors occur in any mass statistical operation such as a decennial census. Errors during the data collection phase can include failure to obtain required information from respondents, obtaining incorrect or inconsistent information, and recording information in the wrong place or incorrectly. Errors can also occur during the field review of the enumerator's work, the clerical handling of the questionnaires, the manual editing and coding operations, and the various stages of the electronic processing of the material. Careful efforts are made in every census to keep the errors in each step at an acceptably low level. Quality control and check measures are utilized throughout the census operation. As was done for the 1950 and 1960 censuses, evaluative material on many aspects of the 1970 census will be published as soon as the appropriate data are accumulated and analyzed. A major concern in the evaluation work is to ascertain, insofar as possible, the degree of completeness of the count of both population and housing units.

### EDITING OF UNACCEPTABLE DATA

The objective of the processing operation is to produce a set of statistics that describes the Nation's housing as accurately and clearly as possible. To meet this objective, certain unacceptable entries were edited.

Whenever information was missing, an allocation procedure was used to assign an 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 for cash rent." 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 piped 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 that would be permitted. If the number of corrections was beyond tolerance, the questionnaires in which the errors occurred were clerically reviewed. If it was found that the errors resulted from damaged questionnaires, from improper micro-filming, from faulty reading by FOSDIC of undamaged questionnaires, or from other types of machine failure, the questionnaires were reprocessed.

The extent of allocations for non-responses and inconsistencies is given

in the allocation tables in the 1970 Population Census PC(1)-B1 and PC(1)-C1 reports and in the Housing Census HC(1)-A1 and HC(1)-B1 reports for the United States.

### SAMPLE DESIGN

For sample data collected in the 1970 census, the housing unit, including all its occupants, was the sampling unit; for persons in group quarters identified in advance of the census, it was the person. In non-mail areas, the enumerator canvassed his assigned area and listed all housing units in an address register sequentially in the order in which he first visited the units, whether or not he completed the interview. Every fifth line of the address register was designated as a sample line, and the housing units listed on these lines were included in the sample. Each enumerator was given a random line on which he was to start listing and the order of canvassing was indicated in advance, although the instructions allowed some latitude in the order of visiting addresses. In mail areas, the list of housing units was prepared prior to Census Day either by employing commercial mailing lists corrected through the cooperation of the post office or by listing the units in a process similar to that used in non-mail areas. As in other areas, every fifth housing unit on these lists was designated to be in the sample. In group quarters, all persons were listed and every fifth person was selected for the sample; as indicated in Appendix B, information on the housing characteristics of group quarters was not collected in the census.

This 20-percent sample was subdivided into a 15-percent and a 5-percent sample by designating every fourth 20-percent sample unit as a

member of the 5-percent sample. The remaining sample units became the 15-percent sample. Two types of sample questionnaires were used, one for the 5-percent and one for the 15-percent sample units. Some questions were included on both the 5-percent and 15-percent sample forms and therefore appear for a sample of 20 percent of the units in the census. Other items appeared on either the 15-percent or the 5-percent questionnaires. The sample rates for the various items appearing in this report are shown in table A.

Although the sampling procedure did not automatically insure an exact 20-percent sample of persons or housing units in each locality, the sample design was unbiased if carried through according to instructions; generally for larger areas the deviation from 20 percent was found to be quite small. Biases may have arisen, however, when the enumerator failed to follow his listing and sampling instructions exactly. Quality control procedures were used throughout the census process, and where there was clear evidence that the sampling proce-

dures were not properly followed, some enumerators' assignments were returned to the field for resampling. As shown in table C-1 of the Population Census report PC(1)-C1 for the United States, 19.4 percent of the population and 19.6 percent of the housing units tabulated were enumerated on sample questionnaires. (The PC(1)-C series of State reports shows percentages for each State.) The bases for these percentages included several classes of the population and housing units for which no attempt at sampling was made. These were the relatively small numbers of persons and housing units (in most States, less than one percent) added to the enumeration from the post-census post office check, the various supplemental forms, and the special check of vacant units. (If these classes are excluded from the bases the respective proportions become 19.6 and 19.7 percent.) The ratio estimation procedure described below adjusts the sample data to reflect these classes of population and housing units.

TABLE A. Sample Rate for Subjects Included in This Report

Subject	Sample rate (percent)	Subject	Sample rate (percent)
<b>OCCUPANCY CHARACTERISTICS</b>		<b>EQUIPMENT AND APPLIANCES</b>	
Occupied housing units . . . . .	20	Heating equipment . . . . .	20
Tenure . . . . .	20	Air conditioning . . . . .	15
Race . . . . .	20	Automobiles available . . . . .	15
Year moved into unit . . . . .	15	Second home . . . . .	5
		Clothes washing machine . . . . .	5
		Clothes dryer . . . . .	5
		Dishwasher . . . . .	5
		Home food freezer . . . . .	5
<b>VACANCY CHARACTERISTICS</b>		<b>FINANCIAL CHARACTERISTICS</b>	
Vacant for sale . . . . .	20	Value . . . . .	20
Vacant for rent . . . . .	20	Sales price asked . . . . .	20
Duration of vacancy . . . . .	20	Gross rent . . . . .	20
		Rent asked . . . . .	20
		Inclusion of utilities	
		in rent . . . . .	20
		Value-income ratio . . . . .	20
		Gross rent as percentage	
		of income . . . . .	20
<b>UTILIZATION CHARACTERISTICS</b>		<b>HOUSEHOLD CHARACTERISTICS</b>	
Number of rooms . . . . .	20	Household composition . . . . .	20
Size of household (persons) . . . . .	20	Income . . . . .	20
Persons per room . . . . .	20		
Bedrooms . . . . .	5		
<b>PLUMBING CHARACTERISTICS</b>			
Plumbing facilities . . . . .	20		
Complete bathrooms . . . . .	15		
<b>STRUCTURAL CHARACTERISTICS</b>			
Complete kitchen			
facilities . . . . .	20		
Access . . . . .	20		
Units in structure . . . . .	20		
Mobile home or trailer . . . . .	20		
Year structure built . . . . .	20		
Elevator in structure . . . . .	5		

**RATIO ESTIMATION**

The statistics based on 1970 census sample data are estimates made through the use of ratio estimation procedures which were applied separately for the 5-, 15-, and 20-percent samples. The first step in carrying through the ratio estimates was to establish the areas within which separate ratios were to be prepared. These are referred to as "weighting areas." For the 15- and 20-percent samples the weighting areas contained a minimum population size of 2,500. The weighting areas used for the 5-percent ratio estimate were larger areas having a minimum population size of 25,000

and comprising combinations of the weighting areas used for the 15- and 20-percent samples. Weighting areas were established by a mechanical operation on the computer and were defined to conform, as nearly as possible, to areas for which tabulations are produced. Where these areas do not agree (primarily for smaller areas), there may be some differences between complete counts and sample estimates.

The ratio estimation process operated in two stages for occupied housing units, and in one stage for vacant units. The first stage for occupied units employed 18 household-type groups (the first of which was empty by definition); the second stage for occupied units used four groups: owner- and renter-occupied units, by race. The single stage for vacant units employed three groups: year-round vacant for sale, year-round vacant for rent, and other vacant.

Group

**Occupied housing units:**

	<b>STAGE I</b>
	<i>Male Head With Own Children Under 18</i>
1	1-person household
2	2-person household
3	3-person household
.	.
.	.
6	6-or-more-person household
	<i>Male Head Without Own Children Under 18</i>
7-12	1-person to 6-or-more-person households
	<i>Female Head</i>
13-18	1-person to 6-or-more-person households

**STAGE II**

*Owner Occupied*

- 19 Negro
- 20 Not Negro

*Renter Occupied*

- 21 Negro
- 22 Not Negro

**Vacant housing units:**

- 23 Year-round vacant for sale
- 24 Year-round vacant for rent
- 25 Other vacant

At each stage, for each of the occupied housing groups, the ratio of the complete count to the weighted sample count of the housing units in the group was computed and applied to the weight of each sample unit in the group. This operation was performed for each of the 18 groups in the first stage, then for the four groups in the second stage. As a rule, the weighted sample counts within each of the 4 groups in the second stage for occupied units should agree with the complete counts for the weighting areas (close, although not exact consistency can be expected for the 18 groups in the first stage). Similarly, the weighted sample counts within each of the 3 groups in the single stage for vacant housing units should agree with the complete counts for the weighting area.

There are some exceptions to this general rule, however. As indicated above, there may be differences between the complete counts and sample estimates when the tabulation area is not made up of whole weighting areas. Furthermore, in order to increase the reliability, a separate ratio was not computed in a group whenever certain criteria pertaining to the complete count of housing units and the magnitude of the weight were not met. For example, for the 20-percent

sample the complete count of units in a group had to exceed 70 units and the ratio of the complete count to the unweighted sample count could not exceed 20. Where these criteria were not met, groups were combined in a specific order until the conditions were met. Where this occurred, consistency between the weighted sample and the complete counts would apply as indicated above for the combined group but not necessarily for each of the groups in the combination.

Each sample housing unit was assigned an integral weight to avoid the complications involved in rounding in the final tables. If, for example, the final weight for a group was 5.2, one-fifth of the units in the group (selected at random) were assigned a weight of 6 and the remaining four-fifths a weight of 5.

The estimates realize some of the gains in sampling efficiency that would have resulted had the population been stratified into the groups before sampling. The net effect is a reduction in both the sampling error and possible bias of most statistics below what would be obtained by weighting the results of the sample by a uniform factor (e.g., by weighting the 20-percent sample results by a uniform factor of 5). The reduction in sampling error will be trivial for some items and substantial for others. A by-product of this estimation procedure is that estimates for this sample are, in general, consistent with the complete count for the housing unit groups used in the estimation procedure. A more complete discussion of the technical aspects of these ratio estimates will be presented in a separate report.

**SAMPLING VARIABILITY**

The estimates from the 20-, 15-, and 5-percent sample tabulations are sub-



ject to sampling variability. The standard errors of these estimates can be approximated by using the data in tables B through D. The chances are about 2 out of 3 that the difference (due to sampling variability) between the sample estimate 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  $2\frac{1}{2}$  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. The sampling errors may be obtained by using the factors shown in table D in conjunction with table B for absolute numbers and in conjunction with table C for percentages. These tables reflect the effect of simple response variance, but not of bias arising in the collection, processing and estimation steps nor of the correlated errors enumerators introduce; estimates of the magnitude of some of these factors in the total error are being evaluated and will be published at a later date.

Table B shows approximate standard errors of estimated numbers for most statistics based on the 20-percent sample. In determining the figures for this table, some aspects of the sample design, the estimation process, and the size of the area over which the data have been compiled are ignored. Table C shows standard errors of most percentages based on the 20-percent sample. Linear interpolation in tables B and C will provide approximate results that are satisfactory for most purposes. Table D provides a factor by which the standard errors shown in tables B or C should be multiplied to adjust for the effect of the sample size (i.e., whether

a 15-percent or 5-percent sample) and the effect of the estimation procedure.

To estimate the standard error for a given characteristic, locate the factor in table D for the appropriate characteristic and the sample size used to tabulate the data, and multiply this factor by the standard error found in table B or C. Where data are shown as cross-classifications of two characteristics, locate and use the larger factor. Similarly, if an item, although collected on one sample basis, has been tabulated for a smaller sample, use the factor appropriate for the smaller sample.

The standard errors estimated from these tables are not directly applicable to differences between two sample estimates. In order to estimate the standard error of a difference, the tables are to be used somewhat differently in the three following situations:

1. For a difference between the sample figure and one based on a complete count (e.g., arising from comparisons between sample statistics for 1970 and complete-count statistics for 1960 or 1950), the standard error is identical with the standard error of the 1970 estimate alone.
2. For a difference between two sample figures (that is, one from 1970 and the other from 1960, or both from the same census year), the standard error is approximately the square root of the sum of the squares of the standard errors of each estimate considered separately. This formula will represent the actual standard error quite accurately for the difference between estimates of the same characteristics 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. The approximate standard error for the 1970 sample figure is derived directly from tables B through D. The standard error of a 1960 sample figure may be obtained from the relevant 1960 census report.

3. For a difference between two sample estimates, one of which represents a subclass of the other, the tables can be used directly with the difference considered as the sample estimate.

The sampling variability of the medians presented in certain tables (median rooms, median value, median gross rent, etc.) depends on the size of the base and on the distribution on which the median is based. An approximate method for measuring the reliability of an estimated median is to determine an interval about the estimated median such that there is a stated degree of confidence the true median lies within the interval. As the first step in estimating the upper and lower limits of the interval (that is, the confidence limits) about the median, compute one-half the number on which the median is based (designated  $N/2$ ). From table B, following the method outlined in other parts of this section, compute the standard error of an estimated number equal to  $N/2$ . Subtract this standard error from  $N/2$ . Cumulate the frequencies (in the table on which the median is based) until the total first exceeds the difference between  $N/2$  and its standard error, and by linear interpolation obtain a value corresponding to this number. In a corresponding manner, add the standard error to  $N/2$ , cumulate the frequencies in the table, and obtain a value in the table on which

the median is based corresponding to the sum of  $N/2$  and its standard error.

The chances are about 2 out of 3 that the median would lie between these two values. The range for 19

chances out of 20 and for 99 in 100 can be computed in a similar manner by multiplying the standard error by the appropriate factors before subtracting from and adding to one-half

the number reporting the characteristics. Interpolation to obtain the values corresponding to these numbers gives the confidence limits for the median.

**TABLE B. Approximate Standard Error of Estimated Number Based on 20-Percent Sample**

(Range of 2 chances out of 3; for factors to be applied see table D and text)

Estimated number <sup>1</sup>	Standard Error	Estimated number <sup>1</sup>	Standard Error
50 .....	15	10,000 .....	200
100 .....	20	15,000 .....	240
250 .....	30	25,000 .....	320
500 .....	45	50,000 .....	450
1,000 .....	65	75,000 .....	550
2,500 .....	100	100,000 .....	630
5,000 .....	140		

<sup>1</sup> For estimated numbers larger than 100,000, the relative errors are somewhat smaller than for 100,000.

**TABLE C. Approximate Standard Error of Estimated Percentage Based on 20-Percent Sample**

(Range of 2 chances out of 3; for factors to be applied see table D and text)

Estimated percentage	Base of percentage						
	1,000	3,000	5,000	10,000	25,000	100,000	250,000
2 or 98 .....	0.9	0.5	0.4	0.3	0.2	0.1	0.1
5 or 95 .....	1.4	0.8	0.6	0.4	0.3	0.1	0.1
10 or 90 .....	1.9	1.1	0.8	0.6	0.4	0.2	0.1
25 or 75 .....	2.7	1.6	1.2	0.9	0.5	0.3	0.2
50 .....	3.2	1.8	1.4	1.0	0.6	0.3	0.2

TABLE D. Factor to be Applied to Standard Errors

Characteristic	Factor if sample rate is—			Characteristic	Factor if sample rate is—		
	20 percent	15 percent	5 percent		20 percent	15 percent	5 percent
<b>OCCUPANCY AND VACANCY CHARACTERISTICS</b>				<b>EQUIPMENT, FUELS, AND APPLIANCES</b>			
Year moved into unit .....	...	1.1	...	Heating equipment .....	0.8	0.9	...
Duration of vacancy .....	0.8	...	1.7	Air conditioning .....	...	1.1	...
<b>UTILIZATION CHARACTERISTICS</b>				Automobiles available .....	...	1.0	...
Rooms .....	1.0	1.1	2.1	Appliances .....	...	...	1.9
Size of household (persons) .....	0.5	0.6	1.2	<b>FINANCIAL CHARACTERISTICS</b>			
Persons per room .....	0.4	0.5	0.9	Value .....	1.0	1.1	2.1
Bedrooms .....	...	...	2.1	Value-income ratio .....	1.0	1.2	...
<b>PLUMBING CHARACTERISTICS</b>				Gross rent .....	0.9	1.1	2.1
Complete bathrooms .....	...	1.1	...	Gross rent as percentage of income	1.0	1.2	...
Plumbing facilities .....	1.0	...	...	Sales price asked .....	1.1	...	2.5
<b>STRUCTURAL CHARACTERISTICS</b>				Rent asked .....	1.1	...	2.5
Units in structure .....	0.8	0.9	1.7	<b>HOUSEHOLD CHARACTERISTICS</b>			
Year structure built .....	0.9	1.0	...	Household composition .....	0.6	0.7	...
				Income in 1969 .....	1.0	1.2	2.3
				<b>ALL OTHERS</b> .....	1.0	1.2	2.2

NOTE: In this report an item collected for the 20-percent sample may be cross-tabulated with other items based on the 15-percent or 5-percent samples. In such cases, locate the factor for both items in Table D for the smaller sample size. Use the larger of the two factors. For example, in Table 9, duration of vacancy (a 20-percent item) is cross-tabulated by number of bedrooms (a 5-percent item). The factor for duration of vacancy based on a 5-percent sample is 1.7 and for bedrooms it is 2.1. The factor of 2.1 should be used to adjust the standard errors since it is the larger of the two factors based on the 5-percent sample.

## Appendix D.—PUBLICATION AND COMPUTER SUMMARY TAPE PROGRAM

The results of the 1970 Census of Population and Housing are being issued in the form of printed reports, microfiche copies of the printed reports, computer summary tapes, computer printouts, and microfilm. Listed below are short descriptions of the final report series and computer tapes, as currently planned. More detailed information on this program can be obtained by writing to the Publications Distribution Section, Social and Economic Statistics Administration, Washington, D.C. 20233.

### Housing Census Reports

#### Volume I. HOUSING CHARACTERISTICS FOR STATES, CITIES, AND COUNTIES

This volume consists of 58 "parts"—number 1 for the United States, numbers 2 through 52 for the 50 States and the District of Columbia in alphabetical order, and numbers 53 through 58 for Puerto Rico, Guam, Virgin Islands, American Samoa, Canal Zone, and Trust Territory of the Pacific Islands, respectively. Each part, which is a separate clothbound book, contains two chapters designated as A and B. Each chapter (for each of the 58 areas) is issued as an individual paperbound report in two series designated as HC(1)-A and B, respectively.

##### ■ Series HC(1)-A. GENERAL HOUSING CHARACTERISTICS

Statistics on tenure, kitchen facilities, plumbing facilities, number of rooms, persons per room, units in structure, mobile home, telephone, value, contract rent, and vacancy status are presented for some or all of the following areas: States (by urban and rural residence), standard metropolitan statistical areas (SMSA's), urbanized areas, places of 1,000 inhabitants or more, and counties.

##### ■ Series HC(1)-B. DETAILED HOUSING CHARACTERISTICS

Statistics are presented on a more detailed basis for the subjects included in the Series HC(1)-A reports, as well as on such additional subjects as year moved into unit, year structure built, basement, heating equipment, fuels, air conditioning, water and sewage, appliances, gross rent, and ownership of second home. Each subject is shown for some or all of the following areas: States (by urban, rural-nonfarm, and rural-farm residence), SMSA's, urbanized areas, places of 2,500 inhabitants or more, and counties (by rural and rural-farm residence).

#### Volume II. METROPOLITAN HOUSING CHARACTERISTICS

These reports, also designated as Series HC(2), cover most of the 1970 census housing subjects in considerable detail and cross-classification. There is one report for each SMSA, presenting data for the SMSA and its central cities and places of 50,000 inhabitants or more, as well as a national summary report.

### Volume III. BLOCK STATISTICS

One report, under the designation Series HC(3), is issued for each urbanized area showing data for individual blocks on selected housing and population subjects. The series also includes reports for the communities outside urbanized areas which have contracted with the Census Bureau to provide block statistics from the 1970 census.

### Volume IV. COMPONENTS OF INVENTORY CHANGE

This volume will contain data on the disposition of the 1960 inventory and the source of the 1970 inventory, such as new construction, conversions, mergers, demolitions, and other additions and losses. Cross-tabulations of 1970 and 1960 characteristics for units that have not changed and characteristics of the present and previous residence of recent movers will also be provided. Statistics will be shown for 15 selected SMSA's and for the United States and regions.

### Volume V. RESIDENTIAL FINANCE

This volume will present data regarding the financing of privately owned nonfarm residential properties. Statistics will be shown on amount of outstanding mortgage debt, manner of acquisition of property, home-owner expenses, and other owner, property, and mortgage characteristics for the United States and regions.

### Volume VI. ESTIMATES OF "SUBSTANDARD" HOUSING

This volume will present counts of "substandard" housing units for counties and cities, based on the number of units lacking plumbing facilities combined with estimates of units with all plumbing facilities but in "dilapidated" condition.

### Volume VII. SUBJECT REPORTS

Each report in this volume will concentrate on a particular subject. Detailed information and cross-classifications will generally be provided on a national and regional level; in some reports, data for States or SMSA's may also be shown. Among the subjects to be covered are housing characteristics by household composition, housing of minority groups and senior citizens, and households in mobile homes.

### Population Census Reports

#### Volume I. CHARACTERISTICS OF THE POPULATION

This volume will consist of 58 "parts"—number 1 for the United States, numbers 2 through 52 for the 50 States and the District of Columbia in alphabetical order, and numbers 53 through 58 for Puerto Rico, Guam, Virgin Islands, American Samoa, Canal Zone, and Trust Territory of the Pacific Islands, respectively. Each part, which will be a separate clothbound book, will contain four chapters designated as A, B, C, and D. Each chapter (for each of the 58 areas) will first be issued as an individual paperbound report in four series designated as PC(1)-A, B, C, and D, respectively. The 58 PC(1)-A reports are specially assembled and issued in a clothbound book, designated as Part A.

##### ■ Series PC(1)-A. NUMBER OF INHABITANTS

Final official population counts are presented for States, counties by urban and rural residence, SMSA's, urbanized areas, county subdivisions, all incorporated places, and unincorporated places of 1,000 inhabitants or more.

##### ■ Series PC(1)-B. GENERAL POPULATION CHARACTERISTICS

Statistics on age, sex, race, marital status, and relationship to head of household are presented for States, counties by urban and rural residence, SMSA's, urbanized areas, county subdivisions, and places of 1,000 inhabitants or more.

##### ■ Series PC(1)-C. GENERAL SOCIAL AND ECONOMIC CHARACTERISTICS

Statistics are presented on nativity and parentage, State or country of birth, Spanish origin, mother tongue, residence 5 years ago, year moved into present house, school enrollment (public or private), years of school completed, vocational training, number of children ever born, family composition, disability, veteran status, employment status, place of work, means of transportation to work, occupation group, industry group, class of worker, and income (by type) in 1969 of families and individuals. Each subject is shown for some or all of the following areas: States, counties (by urban, rural-nonfarm, and rural-farm residence), SMSA's, urbanized areas, and places of 2,500 inhabitants or more.

■ Series PC(1)-D.

**DETAILED CHARACTERISTICS**

These reports cover most of the subjects shown in Series PC(1)-C, above, presenting the data in considerable detail and cross-classified by age, race, and other characteristics. Each subject is shown for some or all of the following areas: States (by urban, rural-nonfarm, and rural-farm residence), SMSA's, and large cities.

**Volume II.**

**SUBJECT REPORTS**

Each report in this volume, also designated as Series PC(2), will concentrate on a particular subject. Detailed information and cross-relationships will generally be provided on a national and regional level; in some reports, data for States or SMSA's will also be shown. Among the characteristics to be covered are national origin and race, fertility, families, marital status, migration, education, unemployment, occupation, industry, and income.

**Joint Population-Housing Reports**

Series PHC(1).

**CENSUS TRACT REPORTS**

This series contains one report for each SMSA, showing data for most of the population and housing subjects included in the 1970 census.

Series PHC(2).

**GENERAL DEMOGRAPHIC TRENDS FOR METROPOLITAN AREAS, 1960 to 1970**

This series consists of one report for each State and the District of Columbia, as well as a national summary report, presenting statistics for the State and for SMSA's and their central cities and constituent counties. Comparative 1960 and 1970 data are shown on population counts by age and race and on such housing subjects as tenure, plumbing facilities, value, and contract rent.

Series PHC(3).

**EMPLOYMENT PROFILES OF SELECTED LOW-INCOME AREAS**

This series consists of 76 reports, each presenting statistics on the social and economic characteristics of the residents of a particular low-income area. The data relate to low-income neighborhoods in 51 cities and seven rural poverty areas. Each report provides statistics on employment and unemployment, education, vocational training, availability for work, job history, and income, as well as on value or rent and number of rooms in the housing unit.

**Additional Reports**

Series PHC(E).

**EVALUATION REPORTS**

This open series will present the results of the extensive evaluation program conducted as an integral part of the 1970 census program, and relating to such matters as completeness of enumeration and quality of the data on characteristics.

Series PHC(R).

**PROCEDURAL REPORTS**

This open series presents information on various administrative and methodological aspects of the 1970 census, and will include a comprehensive procedural history of the 1970 census. The first report issued focuses on the forms and procedures used in the data collection phase of the census.

**Computer Summary Tapes**

The major portion of the results of the 1970 census are produced in a set of six tabulation counts. To help meet the needs of census users, these counts are designed to provide data with much greater subject and geographic detail than it is feasible or desirable to publish in printed reports. The data so tabulated are generally available—subject to suppression of certain detail where necessary to protect confidentiality—on magnetic computer tape, printouts, and microfilm, at the cost of preparing the copy.

**First Count**—source of the PC(1)-A reports; contains about 400 cells of data on the subjects covered in the PC(1)-B and HC(1)-A reports and tabulated for each of the approximately 250,000 enumeration districts in the United States.

**Second Count**—source of the PC(1)-B, HC(1)-A, and part of the PHC(1) reports; contains about 3,500 cells of data covering the subjects in these reports and tabulated for the approximately 35,000 tracts and 35,000 county subdivisions in the United States.

**Third Count**—source of the HC(3) reports; contains about 250 cells of data on the subjects covered in the PC(1)-B and HC(1)-A reports and tabulated for approximately 1,500,000 blocks in the United States.

**Fourth Count**—source of the PC(1)-C, HC(1)-B, and part of the PHC(1) reports; contains about 13,000 cells of data covering the subjects in these reports and tabulated for the approximately 35,000 tracts and 35,000 county subdivisions in the United States; also contains about 30,000 cells of data for each county.

**Fifth Count**—contains approximately 800 cells of population and housing data for 5-digit ZIP code areas in SMSA's and 3-digit ZIP code areas outside SMSA's; the ZIP code data are available only on tape.

**Sixth Count**—source of the PC(1)-D and HC(2) reports; contains about 260,000 cells of data covering the subjects in these reports and tabulated for States, SMSA's, and large cities.

The tapes are generally organized on a State basis. To use the First Count and Third Count tapes, it is necessary to purchase the appropriate enumeration district and block maps.

The term "cells" used herein to indicate the scope of subject content of the several counts refers to each figure or statistic in the tabulation for a specific geographic area. For example, in the Third Count, there are six cells for a cross-classification of race by sex: three categories of race (white, Negro, other race) by two categories of sex (male, female).

In addition to the above-mentioned summary tapes, the Census Bureau makes available for purchase certain sample tape files containing population and housing characteristics as shown on individual census records. These files contain no names or addresses, and the geographic identification is sufficiently broad to protect confidentiality. There are six files, each containing a 1-percent national sample of persons and housing units. Three of the files are drawn from the population covered by the census 15-percent sample and three from the population in the census 5-percent sample. Each of these three files provides a different type of geographic information: One identifies individual large SMSA's and, for the rest of the country, groups of counties; the second identifies individual States and, where they are sufficiently large, provides urban-rural and metropolitan-nonmetropolitan detail; and the third identifies State groups and size of place, with each individual record showing selected characteristics of the person's neighborhood.



OFFICIAL BUSINESS

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