Appendix A.—Area Classifications

URBAN AND RURAL RESIDENCE

The population not classified as urban constitutes the rural population. Although not shown separately in this report, the urban population, as defined for the 1980 census, comprises all persons living in urbanized areas and in places of 2,500 or more inhabitants outside urbanized areas. More specifically, the urban population consists of all persons living in (1) places of 2,500 or more inhabitants incorporated as cities, villages, boroughs (except in Alaska and New York), and towns (except in the New England States, New York, and Wisconsin), but excluding those persons living in the rural portions of extended cities; (2) census designated places of 2,500 or more inhabitants; and (3) other territory, incorporated or unincorporated, included in urbanized areas. An urbanized area consists of a central city or cities and surrounding closely settled contiguous territory ("urban fringe") that together have a minimum population of 50,000.

REGIONS

Regions are large groups of States that form the first-order subdivisions of the United States for census purposes. The four regions are the Northeast, North Central, South, and West. The divisions and States included in each region are shown in figure 1.

STANDARD CONSOLIDATED STATISTICAL AREAS

The standard metropolitan statistical area (SMSA) classification is a statistical standard, developed for use by Federal agencies in the production, analysis, and publication of data on metropolitan areas. In some parts of the country, metropolitan development has progressed to the point that adjoining SMSA's are themselves socially and economically interrelated. These areas are designated standard consolidated statistical areas (SCSA's). The SMSA's and SCSA's are designated and defined by the Office of Management and Budget, following a set of official published standards developed by the interagency Federal Committee on Standard Metropolitan Statistical Areas.

To aid users who want to become familiar with the SMSA and SCSA standards and how they are applied, documents are available from the Office of Management and Budget, Washington, D.C. 20503.

Appendix B.—Definitions and Explanations of Subject Characteristics

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GENERAL

The 1980 census was conducted primarily through self-enumeration. The principal determinant for the responses was, therefore, the questionnaire and its accompanying instruction guide. Furthermore, census takers were instructed in their telephone and personal visit interviews to read the questions directly from the questionnaire. The definitions and explanations given below for each subject are drawn largely from various technical and procedural materials used in the collection of the data. These materials helped the census interviewers to understand more fully the intent of each question, and thus to resolve problems on unusual cases in a manner consistent with this intent. Also included is certain explanatory information to assist the user in the proper utilization of the statistics.

Facsimiles of the questionnaire pages containing the population questions used to produce the data shown in this report and the pages of the respondent instruction guide which relate to these questions are presented in appendix E.

HOUSEHOLD,RELATIONSHIP TO HOUSEHOLDER, FAMILY, AND GROUP QUARTERS

Household

A household includes all the persons who occupy a housing unit. A housing unit is a house, an apartment, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from other persons in the building and have direct access from the outside of the building or through a common hall.

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. The actual classification of a housing unit as a household depends on entries in question 2 and item B on the census questionnaire. Item B on type of unit or quarters was filled by an enumerator or a census office clerk for each housing unit or group quarters.

The measure "persons per household" is obtained by dividing the number of persons in households by the number of households (or householders).

Relationship to Householder

The data on relationship to householder were derived from answers to question 2, which was asked of all persons in housing units. When relationship was not reported for an individual, it was allocated according to the responses for age and marital status for that person while maintaining consistency with responses for other individuals in the household. The allocation procedure is described in Appendix D, "Accuracy of the Data."

Householder—One person in each household is designated as the "householder." In most cases, this is the person, or one of the persons, in whose name the home is owned or rented and who is listed in column 1 of the census questionnaire. If there is no such person in the household, any adult household member could be designated as the "householder." Two types of householders are distinguished—a family householder and a nonfamily householder. A family householder is a householder living with one or more

persons related to him or her by birth, marriage, or adoption. The householder and all persons in the household related to him or her are family members. A nonfamily householder is a householder living alone or with nonrelatives only.

Spouse—A person married to and living with a householder. This category includes persons in formal marriages as well as persons in common-law marriages.

Child—A son, daughter, stepchild, or adopted child of the householder regardless of the child's age or marital status. The category excludes sons-in-law and daughters-in-law. "Own children" are sons and daughters, including stepchildren and adopted children, of the householder who are single (never married) and under 18 years of age.

The number of children "living with two parents" includes stepchildren and adopted children as well as sons and daughters born to the couple.

"Related children" in a family include own children and all other persons under 18 years of age in the household, regardless of marital status, who are related to the householder by birth, marriage, or adoption, except the spouse of the householder.

In a subfamily an "own child" is a never-married child under 18 years of age who is a son, daughter, stepchild, or adopted child of a mother in a mother-child subfamily, a father in a father-child subfamily, or either spouse in a married-couple subfamily.

Other Relative—Any person related to the householder by birth, marriage, or adoption, who is not shown separately in the particular table (e.g., "uncle," "niece," or "cousin").

Nonrelative—Any person in the household not related to the householder by birth, marriage, or adoption. Roomers, boarders, partners, roommates, paid employees, wards, and foster children are included in this category.

Unrelated Individual

An unrelated individual is (1) a householder living alone or with nonrelatives only, (2) a household member who is not related to the householder, or (3) a person living in group quarters who is not an inmate of an institution.

Family and Subfamily

A family consists of a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption. All persons in a household who are related to the householder are regarded as members of his or her family. A "married-couple family" is a family in which the householder and spouse are enumerated as members of the same household. Not all households contain families, because a household may be composed of a group of unrelated persons or one person living alone. The measure "persons per family" is obtained by dividing the number of persons in families by the total number of families (or family householders).

A subfamily is a married couple (husband and wife enumerated as members of the same household) with or without children, or one parent with one or more never-married children under 18 years of age, living in a household and related to either the householder or the householder's spouse. Members of a subfamily are also included among the members of a family. The number of subfamilies, therefore, is not included in the number of families.

In table 267, families are classified by the sex, marital status, race, and Spanish origin of the householder. Subfamilies are classified by the sex, marital status, race, and Spanish origin of the husband in a married-couple subfamily, and by the parent in a parent-child subfamily.

Unmarried Couple

An unmarried couple is composed of two unrelated adults of opposite sex (one of whom is the householder) who share a housing unit with no other persons present or with children under 15 years old.

In table 267, unmarried couples are classified by the sex, marital status, race, and Spanish origin of the householder.

Group Quarters

All persons not living in households are classified by the Bureau of the Census as living in group quarters. Two general categories of persons in group quarters are recognized:

Inmates of Institutions—Persons under care or custody in institutions at the time of enumeration are classified as "patients or inmates" of an institution regardless of their length of stay in that place and regardless of the number of people in that place. Institutions include homes, schools, hospitals, or wards for the physically or mentally handicapped; hospitals or wards for mental, tubercular, or chronic disease patients; homes for unmarried mothers; nursing, convalescent, and rest homes for the aged and dependent; orphanages; and correctional institutions.

Other—This category includes all persons living in group quarters who are not inmates of institutions. Rooming and boarding houses, communes, farm and nonfarm workers' dormitories, convents or monasteries, and other living quarters are classified as "other" group quarters if there are 9 or more persons unrelated to the person listed in column 1 of the census questionnaire; or if 10 or more unrelated persons share the unit. Persons residing in certain other types of living arrangements are classified as living in "other" group quarters regardless of the number or relationship of people in the unit. These include persons residing in military barracks, on ships, in college dormitories, or in sorority and fraternity houses; patients in general or maternity wards of hospitals who have no usual residence elsewhere; staff members in institutional quarters; and persons enumerated in missions, flophouses, Salvation Army shelters, railroad stations, etc.

Military quarters include barracks or dormitories on base, transient quarters on base for temporary residents (both civilian and military), and military ships.

Comparability With 1970 Census Data—The 1980 definition of a household differs from that used in 1970 only in the change in the definition of housing unit to eliminate the requirement for complete kitchen facilities for the exclusive use of the household. The household

reference person in 1970 was the "head of the household" (the husband in married-couple families); for 1980 it was changed to "the household member (or one of the members) in whose name the home is owned or rented." In 1970, a unit in which 6 or more unrelated persons were living together was classified as group quarters; for 1980 that requirement was raised to 10 or more unrelated persons.

SEX

The data on sex were derived from answers to question 3, which was asked of all persons. At the time of field review, most cases in which sex was not reported were resolved by determining the appropriate entry from the person's given name and household relationship. When sex remained blank, it was allocated according to the relationship to householder and the age and marital status of the person. The general allocation procedure is described in Appendix D, "Accuracy of the Data."

RACE

The data on race were derived from answers to question 4, which was asked of all persons. The concept of race as used by the Census Bureau reflects self-identification by respondents; it does not denote any clear-cut scientific definition of biological stock. Since the 1980 census obtained information on race through self-identification, the data represent self-classification by people according to the race with which they identify. In this report, households and families are classified by the race of the householder.

For persons who could not provide a single response to the race question, the race of the person's mother was used; however, if a single response could not be provided for the person's mother, the first race reported by the person was used. This is a modification of the 1970 census procedure in which the race of the person's father was used.

The category "White" includes persons who indicated their race as White, as well as persons who did not classify themselves in one of the specific race categories listed on the questionnaire but entered a response such as Canadian, German, Italian, Lebanese, or Polish. In the 1980 census, persons who did not classify themselves in one of the specific race categories but marked "Other" and wrote in entries such as Cuban, Puerto Rican, Mexican, or Dominican were included in the "Other" race category; in the 1970 census, most of these persons were included in the "White" category.

The category "Black" includes persons who indicated their race as Black or Negro, as well as persons who did not classify themselves in one of the specific race categories listed on the questionnaire, but reported entries such as Jamaican, Black Puerto Rican, West Indian, Haitian, or Nigerian.

The category "American Indian, Eskimo, and Aleut" includes persons who classified themselves as such in one of the specific race categories. In addition, persons who did not report themselves in one of the specific race categories but entered the name of an Indian tribe or reported such entries as Canadian Indian, French American Indian, or Spanish American Indian were classified as American Indian.

The category "Asian and Pacific Islander" includes persons who indicated their race as Chinese, Filipino, Japanese, Asian Indian, Korean, Vietnamese, Hawaiian, Samoan, and Guamanian, as well as persons who provided write-in entries of such Asian and Pacific Islander groups as Cambodian, Laotian, Pakistani, and Fijian under the "Other" race category. Also, persons who did not classify themselves in one of the specific race categories but wrote in an entry indicating one of the nine specific categories listed above (e.g., Chinese or Filipino) were classified accordingly. For example, entries of Nipponese and Japanese American were classified as Japanese, entries of Taiwanese and Cantonese as Chinese, etc.

"Race, n.e.c." includes all other persons not included in the categories "White," "Black," "American Indian, Eskimo, and Aleut," and "Asian and Pacific Islander." Persons reporting in the "Other" race category and providing write-in entries such as Eurasian, Cosmopolitan, Interracial, or a Spanish origin group (e.g., Mexican, Cuban, or Puerto Rican) were included in "Race, n.e.c." During the coding operations, each of the subgroups comprising "Race, n.e.c." were identified separately; plans are to provide figures for the largest component groups in subsequent 1980 census reports.

In table 255 where information is only presented for selected racial groups, the data for the category "Other races" includes the "American Indian, Eskimo, and Aleut" and "Race, n.e.c." population.

If the race entry was missing on the questionnaire for a member of a household, an answer was assigned in the computer according to the reported entries of race of other household members using specific rules of precedence of household relationship. If race was not entered for anyone in the household (excluding paid employees), the race of a householder in a previously processed household was assigned. This procedure is a variation of the general allocation process described in Appendix D, "Accuracy of the Data."

Comparability Between Sample and 100-percent Data for Racial Groups—The data on racial groups shown in this report may differ from comparable figures shown in other 1980 census reports. Such differences are the result of sampling variability, nonsampling error, and an additional edit and review performed on the sample questionnaires. The data in this report are based on a sample whereas certain other reports (e.g., the PC80-1-B series) present data based on 100-percent tabulations. Sample data are subject to sampling variability, as explained in Appendix D, "Accuracy of the Data."

During the sample processing, the responses in the race question underwent more extensive review and edit than performed during the previous processing stages. Additional efforts were made to assign write-in entries to specific race categories and to resolve inconsistent and incomplete responses. The impact of this further work varies substantially by racial group and by geographic area, but is generally negligible. Most affected is the "Other" race category since a number of persons originally counted therein in the 100-percent tabulations were shifted into specific race categories in the sample tabulations. For instance, a number of persons who marked the "Other" race category supplied a write-in entry (e.g., Canadian, Polish, Lebanese, Black Puerto Rican, or Jamaican) which indicated that they belonged in one of the specific race categories. Furthermore, persons in the "Other" category reported as Cambodian,

Laotian, Thai, etc., were combined into an "Other Asian and Pacific Islander" category which, together with the specific Asian and Pacific Islander categories (e.g., Japanese, Chinese, Filipino, etc.), covers the entire Asian and Pacific Islander population. This total is obtainable only from the sample tabulations, not from the 100-percent tabulations.

Information now available indicates that, since the effects of the additional review and edit were generally limited and rather varied, the 100-percent tabulations are usually the preferable source for data on racial groups. That is, in the case of figures available for racial groups, both in this report and the PC80-1-B report for this state, the latter source is usually the preferred one. In the case of distributions for subjects covered only on a sample basis (e.g., education, labor force status, income, etc.) and data for the entire Asian and Pacific Islander population, the sample figures are the only data available and should be used within the context of the sampling variability associated with them.

Comparability With 1970 Census Data—Differences in census procedures and reporting by respondents in the 1980 census and 1970 census seriously affect the comparability for certain race groups. First, a large number of Spanish origin persons reported their race differently in the 1980 census than in the 1970 census; this difference in reporting has a substantial impact on the population totals and comparability for the "White" population and the "Race, n.e.c." or "Other" race population (shown as "All other races" in most 1970 publications). A much larger proportion of the Spanish origin population in 1980 than in 1970 reported their race in the questionnaire category "Other." Second, in 1970, most persons who marked the "Other" race category and wrote in a Spanish designation such as Mexican, Venezuelan, Latino, etc., were reclassified as "White." In 1980, such persons were not reclassified but remained in the "Other" category. As a result of this procedural change and the differences in reporting by this population, the proportion of the Spanish origin population classified as "Other" race in the 1980 census was substantially higher than that in the 1970 census. Nationally, in 1970, only 1 percent of Spanish origin persons were classified as "Other" race and 93 percent as "White." The 1980 census sample data showed a much larger proportion, 38 percent, of Spanish origin persons reported their races as "Other" and only 58 percent reported "White." As a consequence of these differences, 1980 population totals for "White" and "Race, n.e.c." are not comparable with corresponding 1970 figures.

The 1980 census was the first in which data were collected separately for Eskimos and Aleuts in all States. In 1970, these data were available only for Alaska. Since Eskimos and Aleuts are highly concentrated in Alaska, this change does not seriously affect the comparability of 1980 and 1970 data for these racial groups at the national level.

The 1980 total for the Asian and Pacific Islander population reflects a high level of immigration during the 1970's as well as a number of changes in census procedures which were developed, in part, as a result of this high level of immigration. First, the number of Asian and Pacific Islander categories listed separately on the 1980 census questionnaire was expanded to include four additional groups: Vietnamese, Asian Indian, Guamanian, and Samoan. Asian Indians were classified as "White" in 1970 but were included in the "Asian and Pacific Islander" category in 1980. The Vietnamese, Guamanian, and Samoan populations were included in the "Other" race category in the 1970 census but were included in the "Asian and Pacific Islander" category in 1980. Second, "Other Asian and Pacific Islander" groups such as Cambodian, Laotian, Pakistani, and Fijian were identified and tabulated as Asian and Pacific Islander in sample tabulations in the 1980 census; in 1970, most of these groups were included in the "Other" race category.

In 1980, data were collected separately for Hawaiians and Koreans in all States, but in 1970, these data were not collected for Alaska. (On the 1970 census questionnaire used in Alaska, Eskimo and Aleut were substituted for these two categories.) Since the numbers of Hawaiians and Koreans were small in Alaska, this questionnaire change does not have a major impact on the comparability of the 1980 and 1970 data for Hawaiians and Koreans at the national level.

AGE

The data on age were derived from answers to question 5, which was asked of all persons. Only the information in items 5b and 5c (on month and year of birth) was read into the computer. Answers to item 5a (on age at last birthday) were used during field review to fill in any blanks in question 5c. The age classification is based on the age of the person in completed years as of April 1, 1980. The data on age represent the difference between date of birth and April 1, 1980.

The median ages shown in this report were computed on the basis of more detailed intervals than shown in the tables. If the median fell in the terminal category of an age distribution, the method of presentation was to show the initial age of the terminal category followed by a plus sign; thus, if the median fell in the category "85 years and over," it is shown as "85+."

In each census since 1940, the Bureau of the Census has assigned the age of a person when it was not reported. In censuses before 1940, with the exception of 1880, persons of unknown age were shown as a separate category. In 1960, 1970, and 1980, assignment of unknown ages was performed by the general allocation procedure described in Appendix D, "Accuracy of the Data."

MARITAL STATUS

The data on marital status were derived from answers to question 6, which was asked of all persons. The marital status classification refers to the status at the time of enumeration. Persons classified as "Now married" include those who have been married only once and have never been widowed or divorced as well as those currently married persons who remarried after having been widowed or divorced. Persons reported as separated are those living apart because of marital discord, with or without a legal separation. Persons in common-law marriages are classified as now married, persons whose only marriage had been annulled are classified as never married, and all persons under 15 years old are classified as never married. All persons classified as never married are shown as "single" in this report.

Married persons with "spouse present" are men or women whose wife or husband was enumerated as a member of the same household, including those whose spouse may have been temporarily absent for such reasons as travel or hospitalization. Married persons with "spouse absent" are men or women whose wife or husband was not enumerated as a member of the same household, and all married persons living in group quarters. Married persons with "spouse absent, other" are those whose husband or wife was not enumerated as a member of the same household, excluding persons who were separated. Included are those whose husband or wife was employed and living away from home, absent in the Armed Forces, or an inmate of an institution.

By definition, the number of married men, spouse present, shown in this report should be identical with the number of married women, spouse present. However, the two figures may not be exactly the same because, in the weighting of the sample figures to represent total counts, husbands and their wives were sometimes given different weights.

When marital status was not reported, it was allocated according to the relationship to householder and sex and age of the person. The general allocation process is described in Appendix D, "Accuracy of the Data."

SPANISH/HISPANIC ORIGIN

Information on persons of Spanish/Hispanic origin or descent from the 1980 census was derived from answers to question 7 which was asked of all persons.

Persons of Spanish/Hispanic origin or descent are those who reported either Mexican, Puerto Rican, Cuban, or other Spanish/Hispanic origin in question 7. Persons who reported "other Spanish/Hispanic" origin were those whose origins are from Spain or the Spanish-speaking countries of Central or South America, or they are persons identifying their origin or descent as being Spanish, Spanish-American, Hispano, Latino, etc.

Origin or descent can be regarded as the ancestry, nationality group, lineage, or country in which the person or person's parents or ancestors were born before their arrival in the United States. It is important to note that persons of Spanish origin may be of any race. In this report, households and families are classified by the Spanish origin of the householder.

Persons of more than one type of Spanish origin and persons of both a Spanish and some other origin(s) who were in doubt as to how to report a specific origin were classifed according to the origin of the person's mother. If a single origin was not provided for the person's mother, then the first origin reported by the person was recorded. If any household member failed to respond to the Spanish/Hispanic origin question, a response was assigned by computer in the sample edit operation according to available related information such as ancestry and place of birth reported for the household member. If such information was not reported, origin was assigned from entries of other household members using specific rules of precedence of household relationship. If no origin was reported for any household member (excluding a paid employee), then an origin was assigned from another household with a householder of the same race. This procedure is a variation of the general allocation process described in Appendix D, "Accuracy of the Data."

Limitation of the Data--A preliminary evaluation study of the reporting in the 1980 census item on Spanish origin indicated that there was misreporting in the Mexican origin category by White and Black persons in certain areas. The study results showed evidence that the misreporting occurred in the South (excluding Texas), the Northeast (excluding the New York City area), and a few States in the North Central Region. Also, results based on available data suggest that the impact of potential misreporting of Mexican origin in the 1980 census is severe in those portions of the above-mentioned regions where the Spanish origin population is generally sparse. However, 1980 census data on the Mexican origin population, or total Spanish origin population, at the national level, are not seriously affected by the reporting problem. For a more detailed discussion of the evaluation of the Spanish origin item, see the 1980 population census Supplementary Reports, Series PC80-S1-7, *"Persons of Spanish Origin by State: 1980."*

Comparability Between Sample and 100-Percent Data for the Spanish Origin Population—The data on the Spanish origin population shown in this report may differ from comparable figures shown in other 1980 census reports. Such differences are the results of sampling variability, nonsampling error, and more extensive edit procedures performed for the Spanish origin item on the sample questionnaires. The data in this report are based on a sample, whereas certain other reports (e.g., the PC80-1-B series) present data based on 100-percent tabulations. Sample data are subject to sampling variability, as explained in Appendix D, "Accuracy of the Data."

Information now available indicates that, since the effects of the more extensive edit were generally limited, the 100-percent tabulations are usually the preferable source for data on the Spanish origin population. That is, in the case of figures available for Spanish origin groups, both in this report and the corresponding PC80-1-B report, the latter source is usually the preferred one. In the case of distributions for subjects covered only on a sample basis (e.g., education, labor force status, income, etc.), the sample figures are the only data available and should be used within the context of the sampling variability associated with them.

Comparability With 1970 Census Data—The 1980 data on Spanish origin are not directly comparable with those of 1970 because of several factors; namely, overall improvements in the 1980 census, better coverage of the population, improved question design, and an effective public relations campaign by the Census Bureau with the assistance of national and community ethnic groups. These efforts at census improvement explain, in part, the large increase in the number of Hispanics over 1970. Also, these efforts undoubtedly resulted in the inclusion of a sizable but unknown number of persons of Hispanic origin who are in the country in other than legal status.

In the 1980 census Spanish origin question, specific changes in design from the 1970 question included the placement of the category "No (not Spanish/Hispanic)" as the first category in that question. (The corresponding category appeared last in the 1970 question.) Also, the category "Central or South American" was deleted because in 1970 some

respondents misinterpreted the category; furthermore, the designations "Mexican-Amer." and "Chicano" were added to the Spanish origin question in 1980. In the 1970 census, the question on Spanish origin was asked of only a 5-percent sample of the population; in the 1980 census, the Spanish origin question was asked of everyone in the Nation.

SCHOOL ENROLLMENT

The data on school enrollment were derived from answers to questions 8, 9, and 10. Persons are classified as enrolled in school if they reported attending a "regular" school or college at any time between February 1, 1980, and the time of enumeration. Regular schooling is defined as nursery school, kindergarten, elementary school, and schooling which leads to a high school diploma or college degree. Schooling in trade or business schools, company training, or schooling obtained through a tutor was to be reported only if the course credits obtained were regarded as transferable to a regular elementary school, high school, or college. Children were included as enrolled in nursery school only if the school included instruction as an important and integral phase of its program. Children enrolled in "Head Start" programs, or similar programs sponsored by local agencies to provide preprimary education to young children, were included as enrolled in school. Persons who had been enrolled in a regular school since February 1, 1980, but who had not actually attended, for example because of illness, were counted as enrolled in school. Schooling which is generally regarded as *not* "regular" includes that given in nursery schools which simply provide custodial day care; in specialized vocational, trade, or business schools; in on-the-job training; and through correspondence courses.

Public, Church-Related, or Other Private School—Persons who were enrolled in school were also classified as attending a public, church-related, or other private school. In general, a "public" school is defined as any school which is controlled and supported primarily by a local, State, or Federal government agency. A "church-related" school is defined here as a private school which is controlled or supported primarily by a religious organization. An "other private" school is defined as a school controlled or supported primarily by private groups other than religious organizations.

In using the public/private school distinction for college enrollment, some caution should be exercised, since there is evidence that, in some parts of the country, the classification of individual schools may not be entirely clear, and census data may differ considerably from administrative figures.

Level and Year of School in Which Enrolled—Persons who were enrolled in school were classified according to the level and year of school in which they were enrolled as reported in question 9. The levels which are separately identified in this report are nursery school, kindergarten, elementary school, high school, and college. Children in "Head Start" or similar programs were counted under "nursery" or "kindergarten" as appropriate. Elementary school, as defined here, includes grades 1 to 8, and high school includes grades 9 to 12. Persons attending junior high school are reported in elementary school or high school according to their grade. The term "college" includes junior or community colleges, 4-year colleges, universities, and graduate or professional schools.

Comparability With Earlier Census Data—School enrollment questions in some form have been included in the census since 1840; grade attended was added in 1940. The wording of the type-of-school question was changed from "parochial" in 1970 to "church-related" in 1980 in an attempt to make the affiliation with a religious group clearer to respondents. The intention was to include all schools controlled by religious groups rather than only particular denominations or religions.

The corresponding question on schooling in the 1930 census applied to a somewhat longer period, the period since the preceding September 1; in addition, the question was not restricted as to the type of school the person was attending. In 1940 the question referred to the period since the preceding March 1. In 1950 the reference period was changed to that between February 1 and the time of enumeration. The same reference period was used in 1960, 1970, and 1980.

The age range for which enrollment data have been obtained has varied for the several censuses. Information on enrollment was recorded for persons of all ages in 1930 and 1940, for persons 5 to 29 years old in 1950, for those 5 to 34 years old in 1960, and for those 3 years old and over in 1970 and 1980. Most of the published enrollment figures relate to ages 5 to 20 in 1930, 5 to 24 in 1940, 5 to 29 in 1950, 5 to 34 in 1960, 3 to 34 in 1970, and 3 years old and over in 1980. The extended age coverage for the published enrollment data in the recent censuses reflects increased interest in the number of persons who are attending regular colleges and universities at older ages.

In the 1940 census, grade of enrollment was available for the first time; grade or year could be identified for elementary school through college. In 1950, kindergarten enrollment was separately identified for the first time. In 1970 nursery school enrollment was added to the levels of school separately identified.

Comparability With Data From Other Sources—Data on school enrollment are also collected and published by other Federal, State, and local governmental agencies. This information is generally obtained from reports of school systems and institutions of higher learning and from other surveys and censuses. These data are only roughly comparable with data collected by the Bureau of the Census, however, because of differences in definitions, subject matter covered, time references, and enumeration methods.

YEARS OF SCHOOL COMPLETED

The data on years of school completed were derived from answers to questions 9 and 10. These questions on educational attainment applied only to progress in "regular" schools as defined under the definition for school enrollment. The first question called for the highest grade attended, regardless of "skipped" or "repeated" grades. Persons whose education was received in foreign school systems or an ungraded school were expected to report the approximate equivalent grade in the regular American school system. An instruction printed on the form, "If high school was finished by

equivalency test (GED), mark '12'" (meaning grade 12), was to ensure that persons who dropped out of school before high school graduation but later earned a diploma with an equivalency test would be counted as high school graduates. Those diploma recipients who also attended college would be credited with college attendance as reported.

The second question on educational attainment asked whether or not the highest grade attended had been finished. It was to be answered "Yes" if the person has successfully completed the entire grade or year indicated in question 9. If the person had completed only part of the year, had dropped out, or failed to pass the last grade attended, the question was to be answered "No." If the person was still attending school in that grade, he or she answered "Now attending."

The number in each category of highest grade of school completed represents the combination of (a) persons who reported the indicated grade as the highest grade attended and that they had finished it, (b) those who had attended the next higher grade but had not finished it, and (c) those still attending the next higher grade. Persons who have not completed the first year of elementary school are classified as having no years of school completed.

"Percent high school graduates" includes persons who completed four years of high school by graduation or an equivalency test and persons who reported that they had attended some level of college.

Comparability With Earlier Census Data—Educational attainment questions in terms of years of school completed have been included in the census since 1940. From 1840 to 1930, only a question on basic literacy was included. In 1940, a single question was asked on highest grade of school completed. However, respondents frequently reported the grade or year in which they were enrolled, or had last been enrolled, instead of the one completed. The two-question approach used since 1950 was designed to reduce this kind of error. The 1980 instruction for persons who received a high school diploma by virtue of passing an equivalency test was not included on past census questionnaires. Persons who took equivalency tests may or may not have been reported as high school graduates in earlier censuses; however, completing high school by such means was not as common in earlier decades as it was in the decade prior to the 1980 census.

Median School Years Completed—The median number of school years completed was computed on the basis of intervals for years under 8 and a continuous series of numbers for 8 years of school completed and above (e.g., completion of the 1st year of high school was treated as completion of the 9th year, completion of the 1st year of college, as completion of the 13th year, etc.). Persons completing a given school year were assumed to be distributed evenly within the interval from .0 to .9 of the year. In fact, at the time of census enumeration, most of the enrolled persons had completed at least three-fourths of a school year beyond the highest grade completed, whereas a large majority of persons who were not enrolled had not attended any part of a grade beyond the highest one completed. The effect of the assumption is to place the median for younger persons slightly below, and for older persons slightly above, the true median.

The same procedure for computing this median has been used in the 1940, 1950, 1960, and 1970 censuses. Because of the inexact assumption as to the distribution within an interval, this median is more appropriately used for comparing different groups and the same group at different dates than as an absolute measure of educational attainment.

NATIVITY AND PLACE OF BIRTH

The data on nativity and place of birth were derived from answers to questions 11 and 12.

Nativity—Information on place of birth was used to classify the population of the United States into two major categories: Native and Foreign born. The category "Native" comprises persons born in the United States, Puerto Rico, or an outlying area of the United States. Also included in this category is the small number of persons who were born at sea or in a foreign country but have at least one American parent. Persons not classified as "Native" were classified as "Foreign born." When information on place of birth was missing, nativity was assigned on the basis of related information and the answers to question 12a on citizenship of persons born in a foreign country. Prior to the 1970 census, persons not reporting nativity were generally classifed as native.

There may be slight differences between the data in this report on nativity and place of birth and similar data shown in the Supplementary Reports, *Advance Estimates of Social, Economic, and Housing Characteristics,* PHC80-S2. Any such differences are a result of minor errors corrected after the release of PHC80-S2 reports.

Place of Birth—Respondents were instructed to report place of birth in terms of the mother's usual State of residence at the time of the birth rather than in terms of the location of the hospital if the birth occurred in a hospital. In this report, the native population is classified in the following groups: persons born in the State in which they were residing at the time of the census; persons born in a different State, by region; and persons born abroad or at sea with at least one American parent. Persons born in a foreign country were asked to report their country of birth according to international boundaries as recognized by the United States government on April 1, 1980. Since numerous changes in boundaries of foreign countries have occurred in the last century, some of these persons may have reported their country of birth in terms of boundaries that existed at the time of their birth or emigration, or in accordance with their own national preference. Selected countries of birth are shown in this report.

Persons not reporting place of birth were assigned the birthplace of another family member or were allocated the response of another person with similar characteristics. Persons allocated as "foreign born" were not allocated a specific country of birth. In previous censuses, place of birth data were not allocated. Data on the State of birth of the native population have been collected in each census beginning with that of 1850. For the more recent censuses, State of birth has been published for the native population of the urban, rural-nonfarm, and rural-farm parts of States, and of individ-

ual cities above a specified size, SMSA's, and counties.

CITIZENSHIP AND YEAR OF IMMIGRATION

Data on citizenship and year of immigration were derived from answers to questions 12a and 12b, which were asked of persons who reported being born in a foreign country. Persons who were born abroad or at sea and who had at least one American parent were to report themselves as "Born abroad of American parents."

Citizenship—Information on citizenship was used to classify the population into two major categories: citizens and noncitizens. Citizens are further classified as native, as defined above, or as naturalized. It was assumed that all native persons were citizens. Similar questions on citizenship were asked in the decennial censuses of 1820, 1830, 1870, 1890 through 1950, and 1970.

If citizenship was not reported, a response was assigned by computer using the responses of other persons based on year of immigration and country of birth.

Year of Immigration—Foreign-born persons were to indicate in question 12b the period which covered the year they came to stay permanently in the United States. A question on year of immigration was asked in each decennial census from 1890 to 1930 and in 1970. If year of immigration was not reported, a response was assigned using the responses of other persons based on age and race.

LANGUAGE SPOKEN AT HOME AND ABILITY TO SPEAK ENGLISH

The data on language spoken at home and English ability were derived from answers to questions 13a, 13b, and 13c. The questions were intended to measure the extent to which languages other than English were currently being spoken and the number of persons who felt that their English ability was limited. These statistics are used to identify geographic areas with large numbers of non-English speakers, areas with concentrations of speakers of a particular non-English language, and areas where large numbers of limited English speakers reside. The questions were not intended to determine which language was a person's main language, or whether a person was fluent in the non-English language that he or she reported. Therefore, persons who reported speaking a language other than English may have also spoken English at home and they may have been more fluent in English than in the non-English language.

Language Spoken at Home—Persons were asked in question 13a whether they currently spoke a language other than English at home. Those persons who reported speaking a language other than English were asked in question 13b to report what language they spoke. Their answers were coded using a detailed language list which distinguished approximately 400 languages. In the tables in this report only a few major languages could be shown separately. The remaining languages which were reported specifically by persons were grouped in an "Other specified language" category.

When the language was not on the detailed language list or when a person failed to report any language, and it could not be allocated based upon other information supplied by the person, the response was included in the "Unspecified language" category.

In the tabulations in table 256 for persons under 5 years old living with at least one parent the child is classified according to the language of the parent who speaks a language other than English at home. If two parents are present and they speak different non-English languages, the child is classified by the language of the mother.

Ability to Speak English—Persons who reported that they spoke a language other than English at home were also asked in question 13c to characterize their ability to speak English. These responses were extremely subjective; they were the person's own perception about his or her own ability or, because census forms are usually filled by one household member, may have represented the perception of another household member.

Comparability—Information on language has been collected in every census since 1890. The comparability of these data among censuses is limited by changes in question wording, by the categories of the population to whom the question was addressed, and by the detail that was published.

For the census years, 1910 through 1940 and in 1960 and 1970, a question on "mother tongue" was asked, that is, persons were asked to report the language spoken in childhood or the language spoken before a foreign-born person immigrated to the United States. In the 1910 and 1920 censuses, statistics on mother tongue were published for the foreign stock (i.e., foreign born and native of foreign or mixed parentage) White population; in 1930, for the foreign-born White population; in 1940, for native White of native parentage and the White foreign stock; in 1960 for all foreign-born persons; and in 1970, for all persons. Ability to speak English, a simple "Yes" or "No" question, was asked in the censuses of 1890 through 1930.

There may be slight differences between the data in this report on language spoken at home and ability to speak English and similar data shown in the *Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas*, PHC80-3, reports and in the *Supplementary Reports, Advance Estimates of Social, Economic, and Housing Characteristics*, PHC80-S2. Any such differences are a result of minor errors corrected after the release of the PHC80-3 and the PHC80-S2 reports.

RESIDENCE IN 1975

The data on residence in 1975 were derived from answers to question 15 which asked for the State (or foreign country), county, and city of residence on April 1, 1975. Residence in 1975 is used in conjunction with current residence to determine the extent of residential mobility of the population. The category "Same house" includes all persons 5 years old and over who did not move during the 5 years as well as those who had moved but by 1980 had returned to their 1975 residence. The category "Different house in the United States" includes persons who lived in the United States in 1975 but in a different

house (or apartment) from the one they occupied on April 1, 1980. These persons were subdivided into three groups according to their 1975 residence: "Different house, same county," "Different county, same State," and "Different State." The last group was further subdivided by region of 1975 residence. The category "Abroad" includes those with residence in a foreign country, Puerto Rico, or an outlying area of the United States in 1975, including members of the Armed Forces and their dependents. When no information on residence in 1975 was collected for a person, information for other family members was used, if available. All cases of nonresponse, or incomplete response not assigned based on information from other family members, were allocated based on the 1975 residence of other persons with similar characteristics who provided complete information.

The number of persons who were living in a different house in 1975 is somewhat less than the total number of moves during the 5-year period. Some persons in the same house at the two dates had moved during the 5-year period but by the time of enumeration had returned to their 1975 residence. Other persons who were living in a different house had made one or more intermediate moves. For similar reasons, the number of persons living in a different county or a different State may understate the number of moves these persons made.

Similar questions on mobility were asked in the 1940, 1950, 1960, and 1970 censuses. The questions in the 1950 census, however, applied to residence one year earlier rather than 5 years earlier. Although the questions in the 1940 census covered a 5-year period, comparability with that census is reduced somewhat because of different definitions and categories of tabulation. Comparability with the 1970 and 1960 censuses is also somewhat reduced because nonresponse was not allocated in those earlier censuses.

Data on residence in 1975 are based on approximately one-half of the full census sample (see appendix D). Therefore, figures in tabulations involving residence in 1975 may differ from tabulations based on the full sample. For example, the number of persons 5 years old and over derived from residence in 1975 tabulations may not agree with other tabulations by age.

ACTIVITY IN 1975

The data on activity in 1975 come from answers to question 17 which asked persons 15 years old and over whether they were "in the Armed Forces," "attending college," or "working full or part-time at a job or business" in 1975. Nonresponse was allocated based on answers to other questions and related characteristics. The data are only shown for persons 21 years and over (i.e., persons who were 16 years and over in 1975).

VETERAN STATUS

The data on veteran status were derived from responses to question 18. A "veteran," as defined in census publications, is a person 16 years old or over who has served but is not now serving on active duty in the Armed Forces of the United States. Persons are classified as veterans if they were ever on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or Coast Guard, even if the time served was short. Persons in the National Guard or in military reserve units are classified as veterans only if they were ever called to active duty. All other civilians 16 years old and over are classified as nonveterans.

Period of Service—Persons who indicated in question 18a that they were veterans were asked to indicate the period or periods in which they served (question 18b). Persons serving in more than one period were classified in the most recent wartime period of service. For example, persons who served both during the Korean conflict and the post-Korean peacetime era between February 1955 and July 1964 were classified in the "Korean conflict" category. If the same person had also served during the Vietnam era, he or she would instead be included in the "Vietnam era and Korean conflict" category. The data were edited to eliminate reported period(s) of service which were inconsistent with the age of the person.

Comparability With Earlier Census Data—Veteran status was asked of both men and women in the 1980 census, the first time such data were collected for women. The wording of the question was changed from the 1970 version in order to make more clear the appropriate response for persons who served in National Guard or reserve units only.

Two categories of period of service were added since 1970; the post-Korean peacetime era between February 1955 and July 1964, and the post-Vietnam peacetime era beginning in May 1975. As in 1970, persons reporting more than one period of service are shown in the most recent wartime period of service category.

FERTILITY (CHILDREN EVER BORN)

The data on children ever born were derived from answers to question 20, which was asked of women 15 years old and over, regardless of marital status. Excluded were still-births, stepchildren, and adopted children. Ever-married women were instructed to include all children born to them before and during their most recent marriage, children no longer living, and children away from home, as well as children who were still living in the home. Never-married women were instructed to include all children born to them.

In the 1980 census, a terminal category of "12 or more" was used for recording the number of children ever born. For purposes of computing the total number of children ever born, the terminal category was given a mean value of 13.

Comparability With Earlier Census Data—The wording of the question on children ever born was the same in 1980 as in 1970. In 1970, however, the question on children ever born was asked of all ever-married women but only of never-married women who received self-administered questionnaires. In virtually all of the tables in 1970 census volumes, data presented on children ever born to all women assumed that single women were childless even though it was known that some of the women have had children. Therefore, rates and numbers of children ever born to all women are not comparable between the 1980 reports and previous census reports, since the 1980 census reports include data on children ever born to single women. Data presented for children ever born to women ever married are comparable between the

1980 census and previous censuses containing this question.

MARITAL HISTORY

The data on marital history were derived from answers to question 21, which was asked of persons 15 years and over.

Information on whether married more than once and on age at first marriage has been obtained in each census since 1940. In 1970 and 1980, the question on how the first marriage ended was also included.

For all persons reported as now married, separated, widowed, or divorced at the time of the enumeration, data were obtained on the date of the first marriage. From this information and from current age, data on age at first marriage and years since first marriage were derived. For each person who had been married more than once, information was obtained on how the first marriage ended. Persons shown as "known to have been widowed" include currently widowed persons and those currently married or divorced persons married more than once whose first marriage ended in widowhood. Persons shown as "known to have been divorced" include currently divorced persons and those currently married or widowed persons who were married more than once and whose first marriage did not end in widowhood.

When marital history was not reported or was incomplete, it was allocated according to age, sex, and marital status of the person, relationship to householder, and age of the oldest own child present in the household. Consistency was maintained between the marital histories of husband and wife when they were reported as members of the same household.

PLACE OF WORK

The data on place of work were derived from answers to question 23, which was asked only of persons who indicated in question 22 that they had worked at any time during the reference week (see below for definition of reference week). Data are tabulated for workers 16 years and over; that is, members of the Armed Forces and civilians who were at work during the reference week. Place of work refers to the geographic location at which workers carried out their occupational activities during the reference week. The exact address (number and street) of the place of work was asked, as well as the place (city, town, village, borough, etc.); whether or not the place of work was inside or outside its incorporated (legal) limits; and the county, State, and ZIP code. If the person's employer operated in more than one location, the exact address of the location or branch where the respondent worked was requested. When the number and street name could not be given, the building name or other physical location description was to be entered. Persons who worked at more than one location were asked to report the one at which they worked the greatest number of hours during the reference week. Persons who regularly worked in several locations during the reference week were requested to give the address at which they began work each day. For cases in which daily work was not begun at a central place each day, the person was asked to provide as much information as possible which described the area in which he or she worked most during the reference week.

For purposes of this report, place-of-work locations are summarized to present the main destinations of workers living in the State and in each SMSA of 250,000 or more. Work places for the residents of the State include, in addition to the State itself, each contiguous State. The category "in noncontiguous state or abroad" includes persons who worked in a State that does not border their State of residence and persons who worked outside the United States. Place-of-work locations for residents of SMSA's are defined with respect to the boundaries of the SMSA as inside the SMSA and "outside SMSA of residence." Locations within each SMSA are further divided into the central business district (CBD) of the central city, elsewhere in the central city, and outside the central city. For SMSA's with more than one central city and/or CBD, the data reflect the total for all such areas.

A CBD is an area of very high land valuation characterized by a high concentration of retail businesses, service businesses, offices, theaters, and hotels, and by high traffic flow. CBD's consist of one or more whole census tracts, and have been defined only in SMSA central cities and other SMSA cities with populations of 50,000 or more. CBD's are designated by local Census Statistical Area Committees in consultation with the Census Bureau. Some eligible cities do not have a CBD because they chose not to participate in the CBD delineation program. In order to be counted as working in the CBD, a respondent had to provide enough information to allow the workplace to be coded to the census tract level. Since some respondents did not do this, the number of persons shown to be working in the CBD is usually understated by an unknown amount.

Persons were tabulated as working in a central city if they reported working inside its legal limits, or reported the city as their place of work without specifying whether or not they worked inside its legal boundaries. Persons who reported working outside the limits of a central city were tabulated as working outside the city.

Data on place of work are based on approximately one-half of the full census sample (see appendix D). Therefore, figures in tabulations involving place of work may differ from tabulations based on the full sample. For example, the number of workers 16 years old and over from place-of-work tabulations may not agree with the same category shown for means of transportation to work tabulations.

MEANS OF TRANSPORTATION TO WORK

The data on means of transportation to work were derived from answers to questions 24b, 24c, and 24d which were asked only of persons who indicated in question 22 that they had worked at any time during the reference week (see below for definition of reference week). Means of transportation to work refers to the principal mode of travel or type of conveyance that the person usually used to get from home to work during the reference week. Persons who used different means of transportation on different days of the week were asked to specify the one they used most often. Persons who used more than one means of transportation to get to work each day were asked to report the one used for the longest distance during the work trip.

The category "Private vehicle" includes workers using a car (including company cars but excluding taxicabs), a truck of one-ton capacity or less, or a van. The category "Public transportation" includes workers who used a bus or streetcar, subway or elevated train, railroad, or taxicab.

A question on carpooling (question 24c) was asked of all workers who reported their means of transportation to work as "car," "truck," or "van." The category "Drive alone" includes persons who usually drove alone to work, as well as persons who were driven to work by someone who then drove back home or to a nonwork destination. The category "Carpool" includes workers who reported that they usually shared driving, drove others, or rode as a passenger during the reference week.

Private Vehicle Occupancy—The data on private vehicle occupancy were derived from answers to question 24d, which was asked of persons who indicated in question 22 that they had worked at any time during the reference week (see below for definition of reference week), and who reported in question 24c that they usually shared driving, drove others, or rode as a passenger in a car, truck, or van. Private vehicle occupancy refers to the number of persons who usually rode to work in the vehicle during the reference week. The measure "persons per private vehicle" is obtained by dividing the number of persons who reported using a car, truck, or van to get to work by the number of such vehicles that they used. The number of vehicles used is derived by counting each person who drove alone as one vehicle, each person who reported being in a two-person carpool as one-half vehicle, each person who reported being in a three-person carpool as one-third vehicle, and so on, and then summing all the vehicles.

Travel Time to Work—The data on travel time to work were derived from answers to question 24a, which was asked of persons who indicated in question 22 that they had worked at any time during the reference week (see below for definition of reference week). Travel time to work refers to the total number of minutes that it usually took the person to get from home to work during the reference week. The elapsed time includes time spent waiting for public transportation, picking up passengers in carpools and time spent in other activities related to getting to work.

REFERENCE WEEK

The data on labor force status and journey to work relate to the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed by enumerators. This week is not the same for all respondents since the enumeration was not completed in one week. However, for the majority of persons the reference week for the 1980 census was the last week in March 1980. Passover and Good Friday occurred in the following week (the first week of April, 1980). Many workers presumably took time off for these observances. These holidays could have affected the data on hours worked for some areas if the first week in April was the reference week for a significant number of persons. The holidays probably did not affect the overall measurement of labor force status since labor force data are based on work activity during the entire reference week.

LABOR FORCE STATUS

The data on labor force status were derived from answers to questions 22, 25, and 26.

The series of questions on labor force status was asked of all persons 15 years old and over and was designed to identify, in this sequence: (a) persons who worked at any time during the reference week; (b) persons who did not work during the reference week but who had jobs or businesses from which they were temporarily absent (excluding layoff); (c) persons on layoff; and (d) persons who did not work during the reference week, but who were looking for work during the last four weeks and were available for work during the reference week.

Most of the labor force status data in this and other 1980 census reports relate to persons 16 years old and over. Some tables showing labor force status, however, include persons 15 years old; these persons are classified as "not in labor force" by definition. In 1940, 1950, and 1960, labor force status data were presented for persons 14 years old and over. The change in the universe was made in 1970 to agree with the official measurement of the labor force as revised in January 1967. Selected labor force status data were shown in 1970 for persons 14 and 15 years old, but are not presented for 1980.

Employed—Employed persons include all civilians 16 years old and over who were either (a) "at work" —those who did any work at all during the reference week as paid employees or in their own business or profession, or on their own farm, or who worked 15 hours or more as unpaid workers on a family farm or in a family business; or (b) were "with a job but not at work" —those who did not work during the reference week but had jobs or businesses from which they were temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons. Excluded from the employed are persons whose only activity consisted of work around the house or volunteer work for religious, charitable, and similar organizations.

Unemployed—Persons are classified as unemployed if they were civilians 16 years old and over and (a) were neither "at work" nor "with a job but not at work" during the reference week, (b) were looking for work during the last 4 weeks, and (c) were available to accept a job. Examples of jobseeking activities are: (1) registering at a public or private employment office, (2) meeting with prospective employers, (3) investigating possibilities for starting a professional practice or opening a business, (4) placing or answering advertisements, (5) writing letters of application, and (6) being on a union or professional register.

Also included as unemployed are persons who did not work at all during the reference week and were waiting to be called back to a job from which they had been laid off.

Civilian Labor Force—The civilian labor force consists of persons classified as employed or unemployed in accordance with the criteria described above.

Experienced Unemployed—Unemployed persons who have worked at any time in the past are classified as the "Experienced unemployed."

Experienced Civilian Labor Force—The "experienced civilian labor force" comprises the employed and the experienced unemployed.

Labor Force—The labor force includes all persons classified in the civilian labor force plus members of the Armed Forces (persons on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard).

Not in Labor Force—All persons 16 years old and over who are not classified as members of the labor force are defined as "Not in labor force." This category consists mainly of students, housewives, retired workers, seasonal workers enumerated in an "off" season who were not looking for work, inmates of institutions, disabled persons, and persons doing only incidental unpaid family work (less than 15 hours during the reference week).

Worker—The term "Worker" appears in connection with several subjects in this report: journey-to-work items, class of worker, weeks worked in 1979, and number of workers in family in 1979. Its meaning varies and, therefore, should be determined in each case by referring to the definition of the subject in which it appears.

Comparability With Earlier Census Data—The questionnaire items and labor force status concepts for the 1980 census were essentially identical to those used in the 1970 census. However, these concepts differed in many respects from those associated with the 1950 and 1960 censuses; see the Volume 1 publications from the 1970 census for more information.

Comparability With Data From Other Sources—Because employment data from the census are obtained from respondents in households, they differ from statistics based on reports from individual business establishments, farm enterprises, and certain government programs. Persons employed at more than one job are counted only once in the census and are classified according to the job at which they worked the greatest number of hours during the reference week. In statistics based on reports from business and farm establishments, persons who work for more than one establishment may be counted more than once. Moreover, other series, unlike those presented here, may exclude private household workers, unpaid family workers, and self-employed persons, but may include workers less than 16 years of age.

An additional difference in the date arises from the fact that persons who had a job but were not at work are included with the employed in the statistics shown here whereas many of these persons are likely to be excluded from employment figures based on establishment payroll reports. Furthermore, the labor force status data in this report include persons on the basis of place of residence regardless of where they work, whereas establishment data report persons at their place of work regardless of where they live. This latter consideration is particularly significant when comparing data for workers who commute between areas.

For a number of reasons, the unemployment figures of the Bureau of the Census are not comparable with published figures on unemployment compensation claims. For example, figures on unemployment compensation claims exclude persons who have exhausted their benefit rights, as well as new workers who have not earned rights to unemployment insurance, and persons losing jobs not covered by unemployment insurance systems (including some workers in agriculture, domestic services, and religious organizations, and self-employed and unpaid family workers). In addition, the qualifications for drawing unemployment compensation differ from the definition of unemployment used by the Bureau of the Census. Persons working only a few hours during the week and persons temporarily absent from work for reasons other than layoff are sometimes eligible for unemployment compensation but are classified as "employed" in the census reports. Differences in the geographical distribution of unemployment data arise because the place where claims are filed may not necessarily be the same as the place of residence of the unemployed worker.

The figures on labor force status from the decennial census are generally comparable with similar data collected in the Current Population Survey. However, some differences may exist because of variations in enumeration and processing techniques.

Actual Hours Worked—All persons in the sample who reported working during the reference week were asked to report in item 22b the number of hours that they worked. The statistics on hours worked pertain to the number of hours actually worked at all jobs, and do not necessarily reflect the number of hours usually worked or the scheduled number of hours. The number of persons who worked only a small number of hours is probably understated since such persons sometimes consider themselves as not working.

Year Last Worked—The data on year last worked were derived from answers to question 27. The data are tabulated for persons 16 years old and over who were not at work during the reference week. The data pertain to the most recent year in which a person did any work for pay or profit, or worked without pay on a family farm or in a family business, or was on active duty in the Armed Forces. In addition to persons who marked "never worked" in question 27, the "never worked" category in tabulations includes persons 16 years old and over who reported that they last worked when they were 14 years old or younger.

LABOR FORCE STATUS IN 1979

The data on labor force status in 1979 were derived from answers to question 31. Persons 16 years old and over are classified as "In labor force in 1979" if (a) in 1979 they worked 1 or more weeks for pay or profit (including weeks on paid vacation or on paid sick leave) or worked without pay on a family farm or in a family business, or were on active duty in the Armed Forces; or (b) had any weeks of unemployment in 1979. The categories "Worked in 1979" and "With unemployment in 1979" are not mutually exclusive.

Worked in 1979 (Work Status in 1979)—Persons 16 years old and over who worked 1 or more weeks according to the criteria described below are classified as "Worked in 1979;" all other persons 16 years old and over are classified as "Did not work in 1979." Some tables showing work status in 1979 include 15 year olds; these persons are classified as "Did not work in 1979," by definition.

Weeks Worked in 1979—The data on weeks worked in 1979 were derived from answers to questions 31a and 31b. Question 31b (Weeks worked in 1979) was asked of persons 16 years and over

who indicated in question 31a that they worked in 1979.

The data pertain to the number of weeks during 1979 in which a person did any work for pay or profit (including paid vacation and sick leave) or worked without pay on a family farm or in a family business. Weeks of active service in the Armed Forces are also included. It is probable that the number of persons who worked in 1979 and the number of weeks worked are understated since there is some tendency for respondents to forget intermittent or short periods of employment or to exclude weeks worked without pay.

Usual Hours Worked in 1979—The data on usual hours worked per week in 1979 were derived from answers to question 31c. This question was asked of persons 16 years and over who indicated that they worked in 1979.

The data pertain to the number of hours a person *usually* worked during the weeks worked in 1979. The respondent was to report the number of hours worked per week in the majority of the weeks he or she worked in 1979. If the hours worked per week varied considerably during 1979, the respondent was to report an approximate average of the hours worked per week. The statistics on usual hours worked per week in 1979 are not necessarily related to the data on actual hours worked during the census reference week (question 22b).

Persons 16 years old and over who reported that they usually worked 35 or more hours each week during the weeks they worked are classified as "Usually worked full time;" persons who reported that they usually worked 1 to 34 hours are classified as "Usually worked part time."

Year-Round Full-Time Workers—Persons 16 years old and over who usually worked 35 hours or more per week for 50 to 52 weeks in 1979 are classified as "Year-round full-time workers."

With Unemployment in 1979—Persons 16 years old and over who had one or more weeks of unemployment in 1979 according to the criteria described below are classified as "With unemployment in 1979."

The data on weeks of unemployment in 1979 pertain to the number of weeks during 1979 in which a person 16 years old and over did not work but spent any time looking for work (that is, trying to get a job or start a business or professional practice) or on layoff from a job. Examples of looking for work are presented in the definition of *unemployed.* Excluded from weeks of unemployment are any weeks in which the person worked, even for one hour; or any weeks for which the person received any wages or salary; or in which the person was on active duty in the Armed Forces, on paid vacation, or on paid leave. The question on weeks of unemployment did not inquire whether persons who reported looking for work were available to accept a job. The number of weeks of unemployment is the total number of weeks accumulated during the entire calendar year 1979, regardless of whether the periods of unemployment were continuous.

Mean Weeks of Unemployment—The mean is based on the distribution of persons with unemployment by individual weeks of unemployment from 1 to 52 weeks.

Number of Workers in Family in 1979—The term "Worker" as used for these data is defined according to the criteria described in the section on "Worked in 1979."

Comparability With Earlier Census Data—The data on weeks worked collected in the 1980 census are comparable with data from the 1970 and 1960 censuses but may not be entirely comparable with data from the 1940 and 1950 censuses. On the three most recent census questionnaires, two separate questions were used to obtain this information. The first identified persons with any work experience during the year and, thus, indicated those persons for whom the questions on number of weeks worked was applicable. In 1940 and 1950, however, the questionnaires contained only a single question on number of weeks worked.

In 1970, persons responded to the weeks worked question by indicating one of six weeks-worked intervals; in 1980, persons were asked to enter the specific number of weeks they worked.

The data on weeks looking for work in previous year (1979) were collected in 1980 for the first time since the 1890 census; the data on usual hours worked were collected for the first time ever in the 1980 census.

OCCUPATION, INDUSTRY, AND CLASS OF WORKER

The data on industry, occupation, and class of worker were derived from answers to questions 28, 29, and 30.

This series of questions was used to obtain industry, occupation, and class of worker information for the employed, the experienced unemployed, and experienced workers not currently in the labor force. The last two categories apply to persons who had worked at some time during the previous five years. All three items related to one specific job that the person held. For an employed person, the information referred to the job held during the reference week. Those who were employed at two or more jobs reported the job at which they worked the greatest number of hours during the reference week. For experienced unemployed persons and for those not in the labor force, the information referred to the last job that they held.

Clerical staff in the Bureau's processing offices converted the written industry and occupation descriptions from the questionnaire to identifying codes by relating these descriptions to an entry in the 1980 Census of Population: *Alphabetical Index of Industries and Occupations* (PHC80-R3), 1982, U.S. Government Printing Office, Washington, D.C. For the industrial code, however, these coders first referred to a Company Name List. This list, prepared from the Standard Statistical Establishment List developed by the Bureau of the Census for use in the economic censuses and surveys, contains the names of establishments and their Standard Industrial Classification code converted to population census equivalents. This listing facilitates coding and helps maintain industrial classification comparability.

This report presents industry and occupation data for the employed and for the experienced civilian labor force. Class of worker information is shown for employed persons only.

Occupation Classification System

The system developed for the 1980 census consists of 503 specific occupation categories arranged into 6 summary and 13 major occupation groups. The 1980 Census of Population: *Classified Index of Industries and Occupations* (PHC80-R4), 1982, U.S. Government Printing Office, Washington, D.C., provides information on the composition of the detailed categories in the census system.

This classification was developed to be consistent with the 1980 *Standard Occupational Classification Manual* (SOC), published by the U.S. Department of Commerce, Office of Federal Statistical Policy and Standards. This is the first time there was a United States standard to use in developing the census occupational classification. The SOC Manual presents a list of 12 principles used in occupational classification. The primary principles used were as follows: 1) the classification should realistically reflect the current occupational structure of the United States, and 2) an occupation should be classified on the basis of work performed. The use of the SOC has affected comparability with the classifications used in earlier censuses. See the section on "Comparability."

In this report several levels of classification are presented. They range from 13 occupational categories to 482 categories. In this longest list, 36 of the 503 categories in the system have been combined into 14 categories. In addition, all but the shortest levels include some occupational categories subdivided by industry or class of worker groups; these subcategories bring the most detailed tables to over 700 individual categories. For tables 279 to 282 an "intermediate" classification of 121 categories was used. The relationship between the detailed and intermediate levels of occupational classification is provided in list A at the end of this appendix.

Industry Classification System

The industry classification system developed for the 1980 Census of Population consists of 231 categories classified into 13 major industry groups. Since 1940 the industrial classification has been based on the *Standard Industrial Classification Manual* (SIC). The 1980 census classification was developed from the 1972 SIC published by the Executive Office of the President, Office of Management and Budget, and the 1977 supplement to that manual. The 1980 Census of Population: *Classified Index of Industries and Occupations* (PHC80-R4), 1982, U.S. Government Printing Office, Washington, D.C., provides additional information on the census industry classification system.

Several levels of classification are presented in this report. The most detailed tabulation contains the full industry detail plus a few class of worker subcategories. Table 285 shows this level of detail. An "intermediate" classification, used in tables 286 and 287, has 140 industry lines. The relationship between the detailed and intermediate levels of industrial classification is provided in list B at the end of this appendix. A one-page condensed tabulation is used for tables 288, 289, and 290. The relationship between this condensed tabulation and the two longer ones is presented in list C at the end of this appendix.

Relation to Standard Industrial Classification.—The Standard Industrial Classification (SIC) was developed under the sponsorship of the Office of Management and Budget and is designed for the classification of establishments by type of industrial activity in which they are engaged. One of the major purposes of the SIC is to promote uniformity and comparability in the presentation of statistical data collected by various agencies. Accordingly, in the Census of Population the industry categories are defined in these terms. However, population census reports, which are collected from households, differ in nature and detail from those obtained from establishment reports. Therefore, the population census classification system, though defined in SIC terms, cannot reflect the full detail of the SIC system.

In addition, population census data may differ from other industrial data because the dates to which the data refer may not be the same; workers who live in one geographic area and work in another may be reported at their place of residence by the population census but at their place of work in surveys; and dual jobholders may be counted in the reports of two establishments but counted in the census for only their major job.

Relation of Some Industry Groups to Similar Occupations or Class of Worker.—The industry category "public administration" is limited to regular government functions such as legislative, judicial, administrative, and regulatory activities of governments. Other government organizations such as schools, hospitals, liquor stores, and bus lines are classified by industry according to the activity in which they are engaged. On the other hand, the class of worker government categories include all government workers.

Some occupation groups are closely related to certain industries. Operators of transportation equipment, farm operators and workers, and private household workers account for major portions of their respective industries of transportation, agriculture, and private households. The industry categories, however, include persons in other occupations. For example, persons employed in agriculture include truck drivers and bookkeepers; persons employed in the transportation industry include mechanics, freight handlers and bookkeepers; and persons employed in the private household industry include chauffers, gardeners, and secretaries.

Class of Worker

The class of worker item on the questionnaire consists of seven categories which are defined as follows:

1. *Private wage and salary workers*—Persons who worked for a private employer for wages, salary, commission, tips, pay-in-kind, or at piece rates. Private employers include churches and other non-profit organizations.

2. *Government workers*—Persons who worked for any governmental unit, regardless of the activity of the particular agency. This category is subdivided by the level of government: (a) Federal, (b) State, and (c) local (county and its political subdivisions such as cities, villages, and townships). Employees of the United Nations, other international organizations, and foreign governments are classified as Federal government employees. Most employees of the District of Columbia government are classified as local government employees.

3. *Self-employed workers*—
   a. Own business not incorporated—Persons who worked for profit or fees in their own unincorporated business, profession, or trade, or who operated a farm. Included here are the owner-operators of large stores and manufacturing establishments as well as small merchants, independent craftspersons and professionals, farmers, peddlers, and other persons who conducted enterprises of their own.
   b. Own business incorporated—Persons who consider themselves self-employed but work for corporations. In most cases the respondents will own or be part of a group that owns controlling interest in the corporation. Since all workers of a corporation are defined as wage and salary workers, this category is tabulated with "Private wage and salary workers," and is sometimes shown as a subcategory of that group.

4. *Unpaid family workers*—Persons who worked without pay on a farm or in a business operated by a person to whom they are related by blood or marriage. These are usually the children or the wife of the owner of a business or farm. About one quarter of the unpaid family workers are farm workers.

Edit and Allocation Procedures—Occasionally respondents supplied industry, occupation, or class of worker descriptions which were not sufficiently specific for precise classification or did not report on these items. Some of these cases were corrected through the field editing process and during the coding and tabulation operations. In the coding operation certain types of incomplete entries were corrected using the *Alphabetical Index of Industries and Occupations.* For example, it is possible in certain situations to assign an industry code based on the occupation reported.

Following the coding operation, there was a computer edit and allocation process. The edit first determined whether a respondent was in the universe which required an industry and occupation code. The codes for the three items (industry, occupation, and class of worker) were checked to make sure they were valid and were edited for their relation to each other. Invalid and inconsistent codes were either blanked or changed to a consistent code.

If one or more of the three codes were blank after the edit, a code was allocated from a "similar" person based on other items such as age, sex, education, farm or nonfarm residence, and weeks worked. (For further information, see appendix D, page D–7.) This was the first census that allocated industry and occupation to detailed categories.

Comparability With Earlier Census Data—Comparability of industry and occupation data is affected by a number of factors, a major one being the systems used to classify the questionnaire responses. For both the industry and occupation classification systems, the basic structures were generally the same from 1940 to 1970, but changes in the individual categories limited comparability of the data from one census to another. These changes resulted from the need to recognize the "birth" of new industries and occupations, the "death" of others, and growth and decline in existing industries and occupations, as well as the desire of analysts and other users for increased detail in presentation of the data. Probably the greatest cause of incomparability is the movement of a segment of a category to a different category in the next census. Such movements are necessitated by changes in functions and respondent terminology, and refinement of category composition.

In the 1980 census, the industry classification underwent limited change to reflect recent changes to the SIC. The occupation classification however was substantially revised because of the adoption of the Standard Occupational Classification by Federal agencies (see "Occupation Classification System"). During this entire period, from 1940 to 1980, the number of categories in the industry classification system increased from 132 to 231, and in the occupation system from 224 to 503.

Other factors that affect data comparability include the universe to which the data refer (in 1970, the age cutoff for labor force was changed from 14 years to 16 years); how the industry and occupation questions are worded on the questionnaire (for example, important changes were made in 1970); improvements in the coding procedures (the Company Name List technique was introduced in 1960); and how the "not reported" cases are handled. Prior to 1970, nonresponses were placed in residual "Industry not reported" and "Occupation not reported" categories. In 1970, an allocation process was introduced through which these cases were assigned to major groups. In 1980, the "Not reported" cases were assigned to individual categories. Therefore, the 1980 data for individual categories include some numbers of persons who would have been tabulated in a "Not reported" category in previous censuses.

Tables 276 and 285 of this report show 1970 industry and occupation data revised to be comparable with the 1980 data. The adjustments to the 1970 data are based on a 1970 census sample of about 120,000 labor force cases which were recoded to the 1980 industry and occupation schemes.

The following publications contain information on the various factors affecting comparability and are particularly useful for understanding differences in the occupation and industry information from earlier censuses: U.S. Bureau of the Census, Sixteenth Census Reports, Population, *Comparative Occupation Statistics for the United States, 1870 to 1940;* U.S. Bureau of the Census, *Occupational Trends in the United States,* 1900 to 1950, Working Paper No. 5, 1958; U.S. Bureau of the Census, *Changes Between the 1950 and 1960 Occupation and Industry Classifications-With Detailed Adjustments of 1950 Data to the 1960 Classifications,* Technical Paper No. 18, 1968; and U.S. Bureau of the Census, *1970 Occupation and Industry Classification Systems in Terms of their 1960 Occupation and Industry Elements,* Technical Paper No. 26, 1972.

Comparability With Other Data—Comparability between the statistics presented in this volume and statistics from other sources is affected by many of the factors described in the section on "Labor Force Status." These factors are primarily geographic differences between residence and place of work, different dates of reference, and differences in counts because of dual job holding. Industry data from population censuses cover all industries and all kinds of workers, whereas data from establishments often exclude private household workers, government workers,

and the self-employed. Also, the replies from household respondents may differ in detail and nature from those obtained from establishments.

Occupation data from the census and data from government licensing agencies, professional associations, trade unions, etc., may not be as comparable as expected. Organizational listings often include persons not in the labor force or persons devoting all or most of their time to another occupation; or the same person may be included in two or more different listings. In addition, relatively few organizations, except for those requiring licensing, attain complete coverage of membership in a particular occupation field.

INCOME IN 1979

The data on income in 1979 were derived from answers to questions 32 and 33. Information on money income received in the calendar year 1979 was requested from persons 15 years old and over. "Total income" is the algebraic sum of the amounts reported separately for wage or salary income; nonfarm net self-employment income; farm net self-employment income; interest, dividend, net royalty or rental income; Social Security or Railroad Retirement income; public assistance or welfare income; and all other income. "Earnings" is defined as the algebraic sum of wage or salary income and net income from farm and nonfarm self-employment. The earnings figures represent the amount of income received regularly before deductions for personal income taxes, Social Security, bond purchases, union dues, medicare deductions, etc.

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" from food stamps, public housing subsidies, medical care, employer contributions for pensions, etc.; 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.

There may be differences between the data in this report on income in 1979 and similar data shown in the *Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas,* PHC80-3, reports and in the Supplementary Reports, *Advance Estimates of Social, Economic and Housing Characteristics,* PHC80-S2. Any such differences are a result of errors corrected after the release of the PHC80-3 and the PHC80-S2 reports.

Type of Income

The seven types of income reported in the census are defined as follows:

Wage or Salary Income—Total money earnings received during the calendar year 1979 for work performed as an employee. It includes wages, salary, Armed Forces pay, commissions, tips, piece-rate payments, and cash bonuses earned, before deductions were made for taxes, bonds, pensions, union dues, etc.

Nonfarm Self-Employment Income—Net money income (gross receipts minus expenses) from one's own business, professional enterprise, or partnership. Gross receipts include the value of all goods sold and services rendered. Expenses include costs of goods purchased, rent, heat, light, power, depreciation charges, wages and salaries paid, business taxes (not personal income taxes), etc.

Farm Self-Employment Income—Net money income (gross receipts minus operating expenses) from the operation of a farm by a person on his own account, as an owner, renter, or sharecropper. Gross receipts include the value of all products sold, receipts from government farm programs, money received from the rental of farm equipment to others, and incidental receipts from the sale of wood, sand, gravel, etc. Operating expenses include cost of feed, fertilizer, seed, and other farming supplies, cash wages paid to farmhands, depreciation charges, cash rent, interest on farm mortgages, farm building repairs, farm taxes (not State and Federal personal income taxes), etc. The value of fuel, food, or other farm products used for family living is not included as part of net income.

Interest, Dividend, or Net Rental Income—Includes interest on savings or bonds, dividends from stockholdings or membership in associations, net royalties, and net income from rental of property to others and receipts from boarders or lodgers.

Social Security Income—Includes Social Security pensions and survivors benefits and permanent disability insurance payments made by the Social Security Administration, prior to deductions for medical insurance, and railroad retirement insurance payments from the U.S. Government. "Medicare" reimbursements are not included.

Public Assistance Income—Includes (1) supplementary security income payments made by Federal or State welfare agencies to low income persons who are aged (65 years old or over), blind, or disabled; (2) aid to families with dependent children, and (3) general assistance. Separate payments received for hospital or other medical care (vendor payments) are excluded from this item.

All Other Income—Includes unemployment compensation, veterans' payments, public or private pensions, alimony or child support, workers' compensation, periodic payments from estates and trust funds, periodic receipts from annuities or insurance, contributions received periodically from persons not living in the household, military family allotments, net gambling winnings, and other kinds of periodic income other than earnings.

Income of Households—Due to increased demand in the 1970's by a wide variety of data users, information on the income of households is presented for all geographic areas in this report. Household income includes the income of the householder and all other persons 15 years old and over in the household, whether related to the householder or not. Since many households consist of only one person, average household income is usually less than average family income.

Income of Families and Unrelated Individuals—In the compilation of statistics on family income, the incomes of all members 15 years old and over in each family are summed and treated as a single amount. However, for unrelated individuals 15 years old and over, the total amount of their own income is used. Although the income statistics cover the calendar year 1979, the characteristics

of persons and the composition of families refer to the time of enumeration (April 1980). 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 1979 if these persons no longer resided with the family at the time of enumeration. On the other hand, family income amounts reported by related persons who did not reside with the family during 1979 but who were members of the family at the time of enumeration are included. However, the composition of most families was the same during 1979 as in April 1980.

Median Income—The median income is the amount which divides the distribution into two equal groups, one having incomes above the median and the other having incomes below the median. For households, families, and unrelated individuals the median income is based on the distribution of the total number of units including those with no income. The median for persons is based on persons with income. The median income values for all households, families, and unrelated individuals are computed on the basis of more detailed income intervals than shown in this report. Median income figures of $30,000 or less are generally calculated using linear interpolation; all other median income amounts are derived through Pareto interpolation. For a detailed description of these interpolation procedures, see Appendix B of the Current Population Reports, Series P-60, No. 129, *Money Income of Families and Persons in the United States: 1979.*

Mean Income—The mean income is the amount obtained by dividing the total income of a particular statistical universe by the number of units in that universe. Thus, mean household income is obtained by dividing total household income by the total number of households. For the various types of income the means are based on households having those types of income.

Care should be exercised in using and interpreting mean income values for small subgroups of the population. Since the mean is strongly influenced by extreme values in the distribution, it is especially susceptible to the effects of sampling variability, misreporting, and processing errors. The median, which is not affected by extreme values, is, therefore, a better measure than the mean when the population base is small. The mean, nevertheless, is shown in this report for most small subgroups because, when weighted according to the number of cases, the means can be added to obtain summary measures for areas and groups other than those shown in this report.

Limitations of the Data—Since questionnaire entries for income are frequently based on memory and not on records, many persons tend to forget minor or irregular sources of income, and therefore, underreport their income. Underreporting tends to be more pronounced for income sources that are not derived from earnings, such as Social Security, public assistance, or net income from interest, dividends, and rentals. In addition, there are errors of reporting due to misunderstanding of the income questions. One such error is the reporting of gross rather than net dollar amounts for the two questions on net self-employment income, which results in an overstatement of these items. Another common error is the reporting of identical dollar amounts in two of the seven type of income items where a respondent with only one source of income assumed that the second amount should be entered to represent total income. Such instances of overreporting would have an impact on the level of mean nonfarm or farm self-employment income and mean total income published for the various geographical subdivisions of the State.

Extensive review procedures were instituted in the coding operation to reduce some of these reporting errors and to improve the accuracy of the income data. Moreover, many reporting errors were rectified through the coding and the computer editing procedures, with the result that consistency of reported income items with work experience, occupation, and class-of-worker information was improved. For example, if a person reported he was self-employed on his own farm, not incorporated, but had reported wage and salary earnings only, the latter amount was shifted to net farm self-employment income. Also, if a person reported total income only, the amount was generally assigned to one of the type of income items according to responses to the work experience and class-of-worker questions. Another type of problem involved nonreporting of income data. Where income information was not reported, computer allocation procedures were devised to impute appropriate values (either no income or positive or negative dollar amounts) for the missing entries. These procedures are described in Appendix D, "Accuracy of the Data."

In income tables for households, families, and unrelated individuals, the lowest income group (e.g., less than $2,500) includes units that were classified as having no 1979 income. Many of these were living on income "in kind," savings, or gifts, were newly created families or were families in which the sole breadwinner had recently died or left the household. However, many of the families and unrelated individuals who reported no income probably had some money income which was not recorded in the census.

The income data in this report cover money income only. The fact that many farm families receive an important part of their income in the form of "free" housing and goods produced and consumed on the farm rather than in money should be taken into consideration in comparing the income of farm and nonfarm residents. Nonmoney income is also received by some nonfarm residents. Such income often takes the form of business expense accounts, use of business transportation and facilities, or partial compensation by business for medical and educational expenses. Many low income families also receive income "in kind" from public welfare programs. In comparing income data for 1979 with earlier years, it should be noted that an increase or decrease in money income does not necessarily represent a comparable change in real income, unless adjustments for changes in prices are made.

Comparability

Data From Earlier Censuses—The income data collected in the 1960 and 1970 censuses are basically similar to the 1980 census data, but there are variations in the detail of the questions. In 1970, information on income was obtained from all members in every fifth housing unit and small group quarters (less than 15 persons) and every fifth person in all other group quarters. Each person was required to report (a) wage or salary

income, (b) net nonfarm self-employment, (c) net farm self-employment, (d) Social Security or railroad retirement, (e) public assistance or welfare payments, and (f) income from all other sources in 1969.

Between the 1970 and 1980 censuses, there were also some changes in the processing of the data. In the 1970 census, all missing values were imputed either as "None" or as a dollar amount. If a person reported a dollar amount in (a) wage or salary income, (b) net nonfarm self-employment income, or (c) net farm self-employment income, the person was considered as unallocated only if no further dollar amounts were imputed for any additional missing entries. In the 1980 census, all persons with missing values in one or more of the seven type of income items *and* total income were designated as allocated. If total income was reported *and* one or more of the type of income fields was not answered, then the entry in total income was generally assigned to one of the income types according to the socioeconomic characteristics of the income recipient. This person was designated as unallocated. Moreover, there was a difference in the method of computer derivation of aggregate income from individual amounts that were coded in tens, hundreds, and thousands of dollars in the coding operation. In the 1970 census processing, $50 and $5,000, respectively, were added by the computer to each amount coded in hundreds of dollars (under $100,000) and tens of thousands ($100,000 or more). Entries of $990,000 or more were treated as $995,000, and losses of $9,900 or more were treated as minus $9,950. In the 1980 census, income amounts less than $100,000 were coded in tens of dollars, and amounts of $100,000 or more were coded in thousands of dollars; $5 was added to each amount coded in tens of dollars and $500 to each amount coded in thousands of dollars. Entries of $999,000 or more were treated as $999,500, and losses of $9,990 or more were treated as $9,995 in all of the computer derivations of income aggregates. The coding schemes used in both the 1970 and 1980 censuses were developed to accommodate space limitations on the questionnaires.

In both the 1970 and 1980 censuses, all nonrespondents on income (whether heads of families or other persons) were assigned the reported income of persons with similar characteristics, as described generally in Appendix D, "Accuracy of the Data."

In 1960, data on income were obtained from all members in every fourth housing unit and from every fourth person 14 years old and over living in group quarters. Each person was requested to report (a) wage or salary income, (b) net self-employment income, and (c) income other than earnings received in 1959. An assumption was made in the editing process that no other type of income was received by a person who reported the receipt of either wage and salary income or self-employment income but who had failed to report the receipt of other money income.

In 1950, information on income was obtained from every fifth person 14 years old and over. If the sample person was the head of the family, the income questions were repeated for the other family members as a group in order to obtain the income of the whole family. In the tabulations of family income for the 1950 census, if only the head's income was reported, it was assumed that there was no other income in the family.

In 1940, all persons 14 years old and over were asked to report (a) the amount of wages or salary received in 1939 and (b) whether income amounting to $50 or more was received in 1939 from sources other than wages or salaries.

Income Tax Data—For several reasons, the income data shown in this report are not directly comparable with those which may be obtained from statistical summaries of income tax returns. Income, as defined for tax purposes, differs somewhat from the Bureau of the Census concept. Moreover, the coverage of income tax statistics is different because of the exemptions of persons having small amounts of income and the inclusion of net capital gains in tax returns. Furthermore, members of some families file separate returns and others file joint returns; consequently the income reporting unit is not consistently either a family or a person.

Social Security Administration Earnings Record Data—The earnings data shown in this report are not directly comparable with earnings records of the Social Security Administration. The earnings record data for 1979 exclude the earnings of most civilian government employees, some employees of nonprofit organizations, workers covered by the Railroad Retirement Act, and persons not covered by the program because of insufficient earnings. Furthermore, earnings received from any one employer in excess of $22,900 in 1979 are not covered by earnings records. Finally, since census data are obtained from household questionnaires, they may differ from Social Security Administration earnings record data, which are based upon employers' reports and the Federal income tax returns of self-employed persons.

Bureau of Economic Analysis Income Series—The Bureau of Economic Analysis (BEA), of the Department of Commerce publishes annual data on aggregate and per capita personal income received by the population for each State, standard metropolitan statistical areas, and selected counties. Aggregate income estimates based on the income statistics shown in this report usually would be less than those shown in the BEA income series for several reasons. The Bureau of the Census data are obtained directly from households, whereas the BEA income series is estimated largely on the basis of data from administrative records of business and governmental sources. Moreover, the definitions of income are different. The BEA income series includes some items not included in the income data shown in this report, such as income "in kind," income received by nonprofit institutions, the value of services of banks and other financial intermediaries rendered to persons without the assessment of specific changes, medicare payments, and the income of persons who died or emigrated prior to April 1, 1980. On the other hand, the census income data include contributions for support received from persons not residing in the same household and employee contributions for social insurance.

POVERTY STATUS IN 1979

Definitions

The data on poverty status were derived from answers to the same questions as the income data (see the section on "Income in 1979").

Poverty statistics presented in this report are based on a definition origi-

nated by the Social Security Administration in 1964 and subsequently modified by Federal interagency committees in 1969 and 1980. At the core of this definition is the 1961 economy food plan, the least costly of four nutritionally adequate food plans designed by the Department of Agriculture. It was determined from the Agriculture Department's 1955 survey of food consumption that families of three or more persons spend approximately one-third of their income on food; hence the poverty level for these families was set at three times the cost of the economy food plan. For smaller families and persons living alone, the cost of the economy food plan was multiplied by factors that were slightly higher in order to compensate for the relatively larger fixed expenses for these smaller households.

The income cutoffs used by the Bureau of the Census to determine the poverty status of families and unrelated individuals consist of a set of 48 thresholds arranged in a two-dimensional matrix consisting of family size (from one person to nine or more persons) cross-classified by presence and number of family members under 18 years old (from no children present to eight or more children present). Unrelated individuals and two-person families are further differentiated by age of the householder (under 65 years old and 65 years old and over). The total income of each family or unrelated individual is tested against the appropriate poverty threshold to determine the poverty status of that family or unrelated individual. If the total income is less than the corresponding cutoff, the family or unrelated individual is classified as below the poverty level. The number of persons below the poverty level is the sum of the number of persons in families with incomes below the poverty level and the number of unrelated individuals with incomes below the poverty level.

The poverty thresholds are revised annually to allow for changes in the cost of living as reflected in the Consumer Price Index. The average poverty threshold for a family of four persons was $7,412 in 1979. (See table at end of appendix.)

Poverty thresholds are computed on a national basis only. No attempt has been made to adjust these thresholds for regional, State, or local variations in the cost of living. For a detailed discussion of the poverty definition, see U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 133, *Characteristics of the Population Below the Poverty Level: 1980.*

There may be slight differences between the data in this report on poverty status in 1979 and similar data shown in the *Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas,* PHC80-3, reports and in the Supplementary Reports, *Advance Estimates of Social, Economic, and Housing Characteristics,* PHC80-S2. Any such differences are a result of errors in the income data which were corrected after the release of the PHC80-3 and the PHC80-S2 reports.

Persons for Whom Poverty Status is Determined—Poverty status is determined for all persons except inmates of institutions, persons in military group quarters and in college dormitories, and unrelated individuals under 15 years old. When the line, "Persons for whom poverty status is determined," appears under the heading, "All Income Levels in 1979," it shows the total population minus persons in the four groups listed above. When the same line appears under the heading, "Income in 1979 Below Poverty Level," it shows the number of such persons who are classified as being below the poverty level. In tables that contain only poverty data, the above exclusions are stated in the headnote and the word "persons" is used in place of "persons for whom poverty status is determined."

Poverty Status Excluding Social Security and/or Public Assistance Income—Poverty status is normally computed on the basis of total family or unrelated individual income. In table 308 poverty status is also computed on the basis of total family or unrelated individual income less any public assistance or Social Security income. In these tabulations persons in families are classified as with Social Security income and/or public assistance income if any family member received such income in 1979.

Specified Poverty Levels—Because the poverty levels currently in use by the Federal government do not meet all the needs of data users, some of the data are presented for alternate levels ranging from 75 percent to 200 percent of the current poverty level. These specified poverty levels are obtained by multiplying the income cutoffs at the poverty level by the appropriate factor. For example, the average income cutoff at 125 percent of poverty level was $9,265 ($7,412 x 1.25) in 1979 for a family of four persons.

Weighted Average Thresholds at the Poverty Level—The average thresholds shown in the first column of the table were weighted by the presence and number of children. For example, the weighted average threshold for a given family size is obtained by multiplying the threshold for each presence and number of children category within the given family size by the number of families in that category. These products are then aggregated across the entire range of presence and number of children categories, and the aggregate is divided by the total number of families in the group to yield the weighted average threshold at the poverty level for that family size.

Since the basic thresholds used to determine the poverty status of families and unrelated individuals are applied to all families and unrelated individuals, the weighted average poverty thresholds are derived using all families and unrelated individuals rather than just those classified as being below the poverty level. To obtain the weighted poverty thresholds for families and unrelated individuals below alternate poverty levels, the weighted thresholds shown in the table may be multiplied directly by the appropriate factor. The weighted average thresholds presented in the table are based on the March 1980 Current Population Survey. However, it is felt that these thresholds would not differ significantly from those based on the 1980 census.

Income Deficit—Income deficit is the difference between the total income of families and unrelated individuals below the poverty level and their respective poverty thresholds. In computing the income deficit, families reporting a net income loss are assigned zero dollars and for such cases the deficit is equal to the poverty threshold. This measure provides an estimate of the amount which would be required to raise the incomes of all poor families and unrelated individuals to their respective poverty thresholds. The

income deficit is thus a measure of the degree of impoverishment of a family or unrelated individual. However, caution must be exercised in comparing the average deficits of families with different characteristics. Apparent differences in average income deficits may, to some extent, be a function of differences in family size.

Mean Income Deficit—The mean income deficit is the amount obtained by dividing the total income deficit of a group below the poverty level by the number of families (or unrelated individuals) in that group. The mean deficits shown in table 310 of this report may differ slightly from the means previously published in the *General Social and Economic Characteristics,* PC80-1-C reports. These differences are due to different rounding procedures used in tabulating the income deficits in the two report series.

Median Income Deficit—The median income deficit is the amount which divides the distribution into two equal parts, one having an income deficit above the median and the other having an income deficit below the median.

Comparability

Earlier Censuses—The poverty definition used in the 1980 census differs slightly from the one used in the 1970 census. Three technical modifications were made to the definition used in the 1970 census as described below:

1. The separate thresholds for families with a female householder with no husband present and all other families were eliminated. For the 1980 census, the weighted average of the poverty thresholds for these two types of families were applied to all types of families, regardless of the sex of the householder.
2. Farm families and farm unrelated individuals no longer have a set of poverty thresholds that are lower than the thresholds applied to nonfarm families and unrelated individuals. Instead, the nonfarm thresholds were applied to all families and unrelated individuals regardless of residence.
3. The thresholds by size of family were extended from seven or more persons to nine or more persons.

These changes result in a minimal increase in the number of poor at the national level. For a complete discussion of these modifications and their impact, see Current Population Reports, Series P-60, No. 133.

The population covered in the poverty statistics derived from the 1980 census is essentially the same as in the 1970 census. The only difference is that in 1980, unrelated individuals under 15 years old were excluded from the poverty universe, while in 1970, only those under 14 years old were excluded. The poverty data from the 1960 census exclude all persons in group quarters and include all unrelated individuals regardless of age. It is unlikely that these differences in population coverage would have a significant impact when comparing the poverty data for persons from the 1980, 1970, and 1960 censuses.

Current Population Survey—Because of differences in the questionnaires and data collection procedures, estimates of the number of persons below the poverty level by various characteristics from the 1980 census are generally higher than those reported in the March 1980 Current Population Survey (CPS). The number of poor persons from the 1980 census was 27.4 million compared to 26.1 million derived from the March 1980 CPS. The comparable figures for families below the poverty level were 5.7 million and 5.5 million, respectively.

Limitations

The term "Poverty" connotes a complex set of economic, social, and psychological conditions. The statistics presented in this report provide only estimates of economic poverty based on the receipt of money income before taxes. Readers should also be aware that for many different reasons there is a tendency for respondents to underreport their income. Overall, income earned from wages or salary is more accurately reported than other sources of income. (For a complete discussion of the limitations of the income data, see the section on "Income in 1979.")

It should be pointed out that nonmoney income is not considered in determining poverty status. In recent years, however, receipts from nonmoney transfers such as food stamps, housing subsidies, and health benefits have become an increasingly important element in the income of poor persons. For further information on the subject of valuing noncash benefits, see U.S. Bureau of the Census, Technical Paper 50, *Alternative Methods for Valuing Selected In-Kind Transfer Benefits and Measuring Their Effect on Poverty.* For a complete discussion of the limitations of the poverty concept, see Current Population Reports, Series P-60, No. 133.

Thresholds at the Poverty Level in 1979 by Size of Family and Number of Related Children Under 18 Years

(Figures in dollars. For meaning of symbols, see Introduction)

Size of Family Unit	Weighted average thresholds	Related children under 18 years								
		None	1	2	3	4	5	6	7	8 or more
1 person (unrelated individual)	3,686	...	...	...	...	...	...	...	...	...
Under 65 years	3,774	3,774	...	...	...	...	...	...	...	...
65 years and over	3,479	3,479	...	...	...	...	...	...	...	...
2 persons	4,723	...	...	...	...	...	...	...	...	...
Householder under 65 years	4,876	4,858	5,000	...	...	...	...	...	...	...
Householder 65 years and over	4,389	4,385	4,981	...	...	...	...	...	...	...
3 persons	5,787	5,674	5,839	5,844	...	...	...	...	...	...
4 persons	7,412	7,482	7,605	7,356	7,382	...	...	...	...	...
5 persons	8,776	9,023	9,154	8,874	8,657	8,525	...	...	...	...
6 persons	9,915	10,378	10,419	10,205	9,999	9,693	9,512	...	...	...
7 persons	11,237	11,941	12,016	11,759	11,580	11,246	10,857	10,429	...	...
8 persons	12,484	13,356	13,473	13,231	13,018	12,717	12,334	11,936	11,835	...
9 or more persons	14,812	16,066	16,144	15,929	15,749	15,453	15,046	14,677	14,586	14,024

List A. INTERMEDIATE OCCUPATIONAL CLASSIFICATION (150 ITEMS) WITH COMPONENT DETAILED CATEGORIES

This list presents the relationship between the detailed occupation stub (e.g., table 278) and the intermediate stub (e.g., table 279). The occupation groups marked with an asterisk (*) are not shown in the tables using the intermediate classification but can be derived by subtraction. Numbers in parentheses following the occupation categories are the SOC definitions.

EXECUTIVE, ADMINISTRATIVE, AND MANAGERIAL OCCUPATIONS

1. Officials and administrators, public administration
   - Legislators, chief executives and general administrators; public administration (111, 112)
   - Administrators and officials, public administration (1132, 1139)
   - Administrators, protective services (1131)
2. Administrators, education and related fields (128)
3. Managers, medicine and health (131)
4. Other specified managers
   - Financial managers (122)
   - Personnel and labor relations managers (123)
   - Purchasing managers (124)
   - Managers, marketing, advertising, and public relations (125)
   - Managers, properties and real estate (1353)
   - Postmasters and mail superintendents (1344)
   - Funeral directors (part 1359)
5. Managers and administrators, n.e.c., salaried (121, 126, 127, 132—139, exc. 1344, 1353, part 1359)
6. Manufacturing
   - Nondurable goods
   - Durable goods
7. Transportation, communications, and other public utilities
   - Transportation
   - Communications, utilities and sanitary services
8. Wholesale and retail trade
   - Wholesale trade
   - General merchandise stores
   - Food, bakery, and dairy stores
   - Automotive dealers and gasoline stations
   - Eating and drinking places
   - Other retail trade
9. All other industries
   - Construction
   - Finance, insurance, and real estate
   - Business and repair services
   - Personal services
   - All other industries
10. Managers and administrators, n.e.c., self-employed
11. Construction
12. Manufacturing
    - Nondurable goods
    - Durable goods
13. Wholesale and retail trade
    - Wholesale trade
    - General merchandise stores
    - Food, bakery, and dairy stores
    - Automotive dealers and gasoline stations
    - Eating and drinking places
    - Other retail trade
14. All other industries
    - Transportation
    - Communications, utilities and sanitary services
    - Finance, insurance, and real estate
    - Business and repair services
    - Personal services
    - All other industries
15. Management related occupations
16. Accountants and auditors (1412)
17. Buyers and purchasing agents (144)

EXECUTIVE, ADMINISTRATIVE, AND MANAGERIAL OCCUPATIONS—CON.

Management related occupations—Con.

- * Other management related occupations
  - Underwriters (1414)
  - Other financial officers (1415, 1419)
  - Management analysts (142)
  - Personnel, training, and labor relations specialists (143)
  - Business and promotion agents (145)
  - Construction inspectors (1472)
  - Inspectors and compliance officers, except construction (1473)
  - Management related occupations, n.e.c. (149)

PROFESSIONAL SPECIALTY OCCUPATIONS

18. Architects (161)
19. Electrical and electronic engineers (1633, 1636)
20. Mechanical engineers (1635)
21. Other engineers
    - Aerospace engineers (1622)
    - Metallurgical and materials engineers (1623)
    - Mining engineers (1624)
    - Petroleum engineers (1625)
    - Chemical engineers (1626)
    - Nuclear engineers (1627)
    - Civil engineers (1628)
    - Agricultural engineers (1632)
    - Industrial engineers (1634)
    - Marine engineers and naval architects (1637)
    - Engineers, n.e.c. (1639)
22. Surveyors and mapping scientists (164)
23. Mathematical and computer scientists
24. Computer systems analysts and scientists (171)
    - * Other mathematical and computer scientists
      - Operations and systems researchers and analysts (172)
      - Actuaries (1732)
      - Statisticians (1733)
      - Mathematical scientists, n.e.c. (1739)
25. Natural scientists
    - Physicists and astronomers (1842, 1843)
    - Chemists, except biochemists (1845)
    - Atmospheric and space scientists (1846)
    - Geologists and geodesists (1847)
    - Physical scientists, n.e.c. (1849)
    - Agricultural and food scientists (1853)
    - Biological and life scientists (1854)
    - Forestry and conservation scientists (1852)
    - Medical scientists (1855)
26. Physicians (261)
27. Dentists (262)
28. Other health diagnosing occupations
    - Veterinarians (27)
    - Optometrists (281)
    - Podiatrists (283)
    - Health diagnosing practitioners, n.e.c. (289)
29. Health assessment and treating occupations
30. Registered nurses (29)
31. Pharmacists (301)
32. Therapists
    - Inhalation therapists (3031)
    - Occupational therapists (3032)
    - Physical therapists (3033)
    - Speech therapists (3034)
    - Therapists, n.e.c. (3039)

PROFESSIONAL SPECIALTY OCCUPATIONS—CON.

Health assessment and treating occupations—Con.
* Physicians' assistants (304)
33. Teachers, librarians, and counselors
34. Teachers, postsecondary
Biological science teachers (2213)
Chemistry teachers (2214)
Physics teachers (2215)
Other natural science teachers (2212, 2216)
Psychology teachers (2217)
Economics teachers (2218)
History teachers (2222)
Other social science teachers (2223—2225)
Engineering teachers (2226)
Mathematical and computer science teachers (2227, 2228)
Medical science teachers (2231)
Health specialties teachers (2232)
Business, commerce, and marketing teachers (2233)
Art, drama, and music teachers (2235)
English teachers (2238)
Foreign language teachers (2242)
Other specified teachers (2234, 2236, 2237, 2243—2249)
Postsecondary teachers, subject not specified
35. Teachers, elementary and prekindergarten
Teachers, prekindergarten and kindergarten (231)
Teachers, elementary school (232)
36. Teachers, secondary school (233)
37. Other teachers, librarians, and counselors
Teachers, special education (235)
Teachers, n.e.c. (236—239)
Counselors, educational and vocational (24)
Librarians (251)
Archivists and curators (252)
38. Social scientists and urban planners
Economists (1912)
Psychologists (1915)
Sociologists (1916)
Social scientists, n.e.c. (1913, 1914, 1919)
Urban planners (192)
39. Social and recreation workers
Social workers (2032)
Recreation workers (2033)
40. Religious workers
Clergy (2042)
Religious workers, n.e.c. (2049)
41. Lawyers and judges
Lawyers (211)
Judges (212)
42. Writers, artists, entertainers, and athletes
Authors (321)
Technical writers (398)
Designers (322)
Musicians and composers (323)
Actors and directors (324)
Painters, sculptors, craft-artists, and artist printmakers (325)
Photographers (326)
Dancers (327)
Artists, performers, and related workers, n.e.c. (328, 329)
Editors and reporters (331)
Public relations specialists (332)
Announcers (333)
Athletes (34)

TECHNICIANS AND RELATED SUPPORT OCCUPATIONS

43. Health technologists and technicians
44. Licensed practical nurses (366)
* Other health technologists and technicians
Clinical laboratory technologists and technicians (362)
Dental hygienists (363)
Health record technologists and technicians (364)
Radiologic technicians (365)
Health technologists and technicians, n.e.c. (369)

TECHNICIANS AND RELATED SUPPORT OCCUPATIONS—CON.

45. Engineering and science technicians
46. Electrical and electronic technicians (3711)
47. Drafting and surveying technicians (372, 373)
* Other engineering and science technicians
Industrial engineering technicians (3712)
Mechanical engineering technicians (3713)
Engineering technicians, n.e.c. (3719)
Biological technicians (382)
Chemical technicians (3831)
Science technicians, n.e.c. (3832, 3833, 384, 389)
48. Technicians, except health, engineering, and science
49. Airplane pilots and navigators (825)
50. Computer programmers (3971, 3972)
* Other technicians, except health, engineering, and science
Air traffic controllers (392)
Broadcast equipment operators (393)
Tool programmers, numerical control (3974)
Legal assistants (396)
Technicians, n.e.c. (399)

SALES OCCUPATIONS

51. Supervisors and proprietors, sales occupations (40)
52. Supervisors and proprietors, sales occupations — self-employed
* Supervisors and proprietors, sales occupations — salaried
53. Sale representatives, finance and business services
Insurance sales occupations (4122)
Real estate sales occupations (4123)
Securities and financial services sales occupations (4124)
Advertising and related sales occupations (4153)
Sales occupations, other business service (4152)
54. Sales representatives, commodities except retail
Sales engineers (421)
Sales representatives, mining, manufacturing, and wholesale (423, 424)
55. Sales workers, retail and personal services
56. Cashiers
* Other sales workers, retail and personal service
Sales workers, motor vehicles and boats (4342, 4344)
Sales workers, apparel (4346)
Sales workers, shoes (4351)
Sales workers, furniture and home furnishings (4348)
Sales workers, radio, TV, hi-fi, and appliances (4343, 4352)
Sales workers, hardware and building supplies (4353)
Sales workers, parts (4367)
Sales workers, other commodities (4345, 4347, 4354, 4356, 4359, 4362, 4369)
Sales counter clerks (4363)
Street and door-to-door sales workers (4366)
News vendor (4365)
57. Sales related occupations
Demonstrators, promoters and models, sales (445)
Auctioneers (447)
Sales support occupations, n.e.c. (444, 446, 449)

ADMINISTRATIVE SUPPORT OCCUPATIONS, INCLUDING CLERICAL

58. Supervisors, administrative support occupations, including clerical
Supervisors, general office (4511, 4513, 4514, 4516, 4519, 4529)
Supervisors, computer equipment operators (4512)
Supervisors, financial records processing (4521)
Chief communications operators (4523)
Supervisors; distribution, scheduling, and adjusting clerks (4522, 4524—4528)
59. Computer equipment operators
Computer operators (4612)
Peripheral equipment operators (4613)
60. Secretaries, stenographers, and typists

ADMINISTRATIVE SUPPORT OCCUPATIONS, INCLUDING CLERICAL—CON.

Secretaries, stenographers, and typists—Con.
61. Secretaries (4622)
* Stenographers and typists
Stenographers (4623)
Typists (4624)
62. Receptionists (4645)
63. File clerks (4696)
64. Financial records processing occupations
65. Bookkeepers, accounting, and auditing clerks (4712)
* Other financial records processing occupations
Payroll and timekeeping clerks (4713)
Billing clerks (4715)
Cost and rate clerks (4716)
Billing, posting, and calculating machine operators (4718)
66. Telephone operators (4732)
67. Mail and message distributing occupations
Postal clerks, except mail carriers (4742)
Mail carriers, postal service (4743)
Mail clerks, except postal service (4744)
Messengers (4745)
68. Traffic, shipping, stock and inventory clerks
Traffic, shipping, and receiving clerks (4753)
Stock and inventory clerks (4754)
69. Insurance adjusters, examiners, and investigators (4782)
70. Bank tellers (4791)
71. Data-entry keyers (4793)
72. Other administrative support occupations
Interviewers (4642)
Hotel clerks (4643)
Transportation ticket and reservation agents (4644)
Information clerks, n.e.c. (4649)
Classified-ad-clerks (4662)
Correspondence clerks (4663)
Order clerks (4664)
Personnel clerks, except payroll and timekeeping (4692)
Library clerks (4694)
Records clerks (4699)
Duplicating machine operators (4722)
Mail preparing and paper handling machine operators (4723)
Office machine operators, n.e.c. (4729)
Telegraphers (4733)
Communications equipment operators, n.e.c. (4739)
Dispatchers (4751)
Production coordinators (4752)
Meter readers (4755)
Weighers, measurers and checkers (4756)
Samplers (4757)
Expediters (4758)
Material recording, scheduling, and distributing clerks, n.e.c. (4759)
Investigators and adjusters, except insurance (4783)
Eligibility clerks, social welfare (4784)
Bill and account collectors (4786)
General office clerks (463)
Proofreaders (4792)
Statistical clerks (4794)
Teachers' aides (4795)
Administrative support occupations, n.e.c. (4787, 4799)

PRIVATE HOUSEHOLD OCCUPATIONS

73. Private household occupations
Launderers and ironers (503)
Cooks, private household (504)
Housekeepers and butlers (505)
Child care workers, private household (506)
Private household cleaners and servants (502, 507, 509)

PROTECTIVE SERVICE OCCUPATIONS

74. Firefighting occupations (5123)
75. Police and detectives, public service (5132)

PROTECTIVE SERVICE OCCUPATIONS—CON.

76. Guards
Crossing guards (5142)
Guards and police, except public service (5144)
Protective service occupations, n.e.c. (5149)
77. Other protective service occupations
Supervisors, firefighting and fire prevention occupations (5111)
Supervisors, police and detectives (5112)
Supervisors, guards (5113)
Fire inspection and fire prevention occupations (5122)
Sheriffs, bailiffs, and other law enforcement officers (5134)
Correctional institution officers (5133)

SERVICE OCCUPATIONS, EXCEPT PROTECTIVE AND HOUSEHOLD

78. Food preparation and service occupations
79. Waiters and food counter workers
Waiters and waitresses (5213)
Food counter, fountain and related occupations (5216)
80. Cooks
Cooks, except short order (5214)
Short-order cooks (5215)
* Other food service occupations
Supervisors, food preparation and service occupations (5211)
Bartenders (5212)
Kitchen workers, food preparation (5217)
Waiters' and waitresses' assistants (5218)
Miscellaneous food preparation occupations (5219)
81. Health service occupations
82. Nursing aides, orderlies, and attendants (5236)
* Other health service occupations
Dental assistants (5232)
Health aides, except nursing (5233)
83. Cleaning and building service occupations
Supervisors, cleaning and building service workers (5241)
Maids and housemen (5242,5249)
Janitors and cleaners (5244)
Elevator operators (5245)
Pest control occupations (5246)
84. Personal service occupations
85. Barbers, hairdressers and cosmetologists (5252, 5253)
* Other personal service occupations
Supervisors, personal service occupations (5251)
Attendants, amusement and recreation facilities (5254)
Guides (5255)
Ushers (5256)
Public transportation attendants (5257)
Baggage porters and bellhops (5262)
Welfare service aides (5263)
Child care workers, except private household (5264)
Personal service occupations, n.e.c. (5258, 5269)

FARMING, FORESTRY, AND FISHING OCCUPATIONS

86. Farm operators and managers
Farmers, except horticultural (5512—5514)
Horticultural specialty farmers (5515)
Managers, farms, except horticultural (5522—5524)
Managers, horticultural specialty farms (5525)
87. Farm occupations, except managerial
Supervisors, farm workers (5611)
Farm workers (5612—5617)
Marine life cultivation workers (5618)
Nursery workers (5619)
88. Related agricultural occupations
Supervisors, related agricultural occupations (5621)
Groundskeepers and gardeners, except farm (5622)
Animal caretakers, except farm (5624)
Graders and sorters, agricultural products (5625)
Inspectors, agricultural products (5627)
89. Forestry and fishing occupations
Supervisors, forestry and logging workers (571)

FARMING, FORESTRY, AND FISHING OCCUPATIONS—CON.

Forestry and fishing occupations—Con.
- Forestry workers, except logging (572)
- Timber cutting and logging occupations (573, 579)
- Captains and other officers, fishing vessels (part 8241)
- Fishers (583)
- Hunters and trappers (584)

PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS

90. Automobile mechanics, including body
    - Automobile mechanics (6111)
    - Automobile body and related repairers (6115)
91. Aircraft mechanics (6113, 6116)
92. Heating, air conditioning, and refrigeration mechanics (616)
93. Other mechanics and repairers
    - Supervisors, mechanics and repairers (60)
    - Bus, truck, and stationary engine mechanics (6112)
    - Small engine repairers (6114)
    - Heavy equipment mechanics (6117)
    - Farm equipment mechanics (6118)
    - Industrial machinery repairers (613)
    - Machinery maintenance occupations (614)
    - Electronic repairers, communications and industrial equipment (6151, 6153, 6155)
    - Data processing equipment repairers (6154)
    - Household appliance and power tool repairers (6156)
    - Telephone line installers and repairers (6157)
    - Telephone installers and repairers (6158)
    - Miscellaneous electrical and electronic equipment repairers (6152, 6159)
    - Camera, watch, and musical instrument repairers (6171, 6172)
    - Locksmiths and safe repairers (6173)
    - Office machine repairers (6174)
    - Mechanical controls and valve repairers (6175)
    - Elevator installers and repairers (6176)
    - Millwrights (6178)
    - Specified mechanics and repairers, n.e.c. (6177, 6179)
    - Not specified mechanics and repairers
94. Carpenters (6422)
95. Electricians (6432)
96. Painters, construction and maintenance (6442)
97. Plumbers, pipefitters, and steamfitters (645)
98. Other construction trades
    - Supervisors; brickmasons, stonemasons, and tile setters (6312)
    - Supervisors; carpenters and related workers (6313)
    - Supervisors; electricians and power transmission installers (6314)
    - Supervisors; painters, paperhangers, and plasterers (6315)
    - Supervisors; plumbers, pipefitters, and steamfitters (6316)
    - Supervisors; n.e.c. (6311, 6318)
    - Brickmasons and stonemasons (6412, 6413)
    - Tile setters, hard and soft (6414, part 6462)
    - Carpet installers (Part 6462)
    - Drywall installers (6424)
    - Electrical power installers and repairers (6433)
    - Paperhangers (6443)
    - Plasterers (6444)
    - Concrete and terrazzo finishers (6463)
    - Glaziers (6464)
    - Insulation workers (6465)
    - Paving, surfacing, and tamping equipment operators (6466)
    - Roofers (6468)
    - Sheetmetal duct installers (6472)
    - Structural metal workers (6473)
    - Drillers, earth (6474)
    - Construction trades, n.e.c. (6467, 6475, 6476, 6479)
99. Extractive occupations
    - Supervisors, extractive occupations (632)
    - Drillers, oil well (652)
    - Explosives workers (653)
    - Mining machine operators (654)
    - Mining occupations, n.e.c. (656)

PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS—CON.

100. Supervisors, production occupations (67, 71)
101. Manufacturing
    - Nondurable goods
    - Durable goods
    - * Nonmanufacturing industries
        - Transportation, communications, and other public utilities
        - Wholesale and retail trade
        - All other industries
102. Tool and die makers (6811)
103. Machinists (6813)
104. Sheet metal workers (6824)
105. Other precision metal workers
    - Precision assemblers, metal (6812)
    - Boilermakers (6814)
    - Precision grinders, filers, and tool sharpeners (6816)
    - Patternmakers and model makers, metal (6817)
    - Lay-out workers (6821)
    - Precious stones and metals workers (Jewelers) (6822, 6866)
    - Engravers, metal (6823)
    - Miscellaneous precision metal workers (6829)
106. Precision textile, apparel, and furnishings machine workers
    - Dressmakers (Part 6852, part 7752)
    - Tailors (Part 6852)
    - Upholsterers (6853)
    - Shoe repairers (6854)
    - Apparel and fabric patternmakers (6856)
    - Miscellaneous precision apparel and fabric workers (6859, part 7752)
107. Plant and system operators
    - Water and sewage treatment plant operators (691)
    - Power plant operators (Part 693)
    - Stationary engineers (Part 693, 7668)
    - Miscellaneous plant and system operators (692, 694, 695, 696)
108. Other precision production occupations
    - Patternmakers and model makers, wood (6831)
    - Cabinet makers and bench carpenters (6832)
    - Furniture and wood finishers (6835)
    - Miscellaneous precision woodworkers (6839)
    - Hand molders and shapers, except jewelers (6861)
    - Patternmakers, lay-out workers, and cutters (6862)
    - Optical goods workers (6864, part 7477, part 7677)
    - Dental laboratory and medical appliance technicians (6865)
    - Bookbinders (6844)
    - Electrical and electronic equipment assemblers (6867)
    - Miscellaneous precision workers, n.e.c. (6869)
    - Butchers and meat cutters (6871)
    - Bakers (6872)
    - Food batchmakers (6873, 6879)
    - Inspectors, testers, and graders (6881, 828)
    - Adjusters and calibrators (6882)

MACHINE OPERATORS, ASSEMBLERS, AND INSPECTORS

109. Metalworking and plastic working machine operators
    - Lathe and turning machine set-up operators (7312)
    - Lathe and turning machine operators (7512)
    - Milling and planing machine operators (7313, 7513)
    - Punching and stamping press machine operators (7314, 7317, 7514, 7517)
    - Rolling machine operators (7316, 7516)
    - Drilling and boring machine operators (7318, 7518)
    - Grinding, abrading, buffing and polishing machine operators (7322, 7324, 7522)
    - Forging machine operators (7319, 7519)
    - Numerical control machine operators (7326)
    - Miscellaneous metal, plastic, stone, and glass working machine operators (7329, 7529)
110. Printing machine operators
    - Printing machine operators (7443, 7643)
    - Photoengravers and lithographers (6842, 7444, 7644)
    - Typesetters and compositors (6841, 7642)
    - Miscellaneous printing machine operators (6849, 7449, 7649)

MACHINE OPERATORS, ASSEMBLERS, AND INSPECTORS—CON.

111. Textile, apparel, and furnishings machine operators
112. Textile machine operators
    Winding and twisting machine operators (7451, 7651)
    Knitting, looping, taping, and weaving machine operators (7452, 7652)
    Textile cutting machine operators (7654)
    Miscellaneous textile machine operators (7459, 7659)
113. Textile sewing machine operators (7655)
114. Laundering and dry cleaning machine operators (6855, 7658)
    * Shoe and pressing machine operators
        Shoe machine operators (7656)
        Pressing machine operators (7657)
115. Other specified machine operators
    Fabricating machine operators, n.e.c. (7339, 7539)
    Molding and casting machine operators (7315, 7342, 7515, 7542)
    Metal plating machine operators (7343, 7543)
    Heat treating equipment operators (7344, 7544)
    Miscellaneous metal and plastic processing machine operators (7349, 7549)
    Wood lathe, routing, and planing machine operators (7431, 7432, 7631, 7632)
    Sawing machine operators (7433, 7633)
    Shaping and joining machine operators (7435, 7635)
    Nailing and tacking machine operators (7636)
    Miscellaneous woodworking machine operators (7434, 7439, 7634, 7639)
    Cementing and gluing machine operators (7661)
    Packaging and filling machine operators (7462, 7662)
    Extruding and forming machine operators (7463, 7663)
    Mixing and blending machine operators (7664)
    Separating, filtering, and clarifying machine operators (7476, 7666, 7676)
    Compressing and compacting machine operators (7467, 7667)
    Painting and paint spraying machine operators (7669)
    Roasting and baking machine operators, food (7472, 7672)
    Washing, cleaning, and pickling machine operators (7673)
    Folding machine operators (7474, 7674)
    Furnace, kiln, and oven operators, except food (7675)
    Crushing and grinding machine operators (Part 7477, part 7677)
    Slicing and cutting machine operators (7478, 7678)
    Motion picture projectionists (Part 7479)
    Photographic process machine operators (6863, 6868, 7671)
116. Miscellaneous machine operators, n.e.c. (Part 7479, 7665, 7679)
117. Machine operators, not specified
    Miscellaneous and not specified machine operators by industry:
118. Food and kindred products
119. Textile mill and finished textile products
        Textile mill products
        Apparel and other finished textile products
120. Paper and allied products
121. Other nondurable goods
        Tobacco manufactures
        Printing, publishing, and allied industries
        Chemicals and allied products
        Petroleum and coal products
        Rubber and miscellaneous plastics products
        Leather and leather products
122. Metal industries
        Blast furnaces, steelworks, rolling and finishing mills
        Other primary metal industries
        Fabricated metal industries
123. Machinery, including electrical
        Machinery, except electrical
        Electrical machinery, equipment, and supplies
124. Transportation equipment
        Motor vehicles and motor vehicle equipment
        Other transportation equipment

MACHINE OPERATORS, ASSEMBLERS, AND INSPECTORS—CON.

Miscellaneous and not specified machine operators by industry: —Con.
125. Other durable goods
        Lumber and wood products, except furniture
        Furniture and fixtures
        Stone, clay, glass, and concrete products
        Professional and photographic equipment and watches
        Miscellaneous manufacturing industries
        Not specified manufacturing industries
126. Transportation, communications, and other public utilities
127. Wholesale and retail trade
        Wholesale trade
        Retail trade
128. All other industries
        Construction
        Business and repair services
        Public administration
        All other industries
129. Welders and cutters (7332, 7532, 7714)
130. Assemblers (772, 774)
131. Other fabricators and hand working occupations
    Solderers and brazers (7333, 7533, 7717)
    Hand cutting and trimming occupations (7753)
    Hand molding, casting, and forming occupations (7754, 7755)
    Hand painting, coating and decorating occupations (7756)
    Hand engraving and printing occupations (7757)
    Hand grinding and polishing occupations (7758)
    Miscellaneous hand working occupations (7759)
132. Production inspectors, testers, samplers, and weighers
    Production inspectors, checkers, and examiners (782, 787)
    Production testers (783)
    Production samplers and weighers (784)
    Graders and sorters, except agricultural (785)

TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

133. Motor vehicle operators
134. Truck drivers and driver-sales workers
        Truck drivers, heavy (8212, 8213)
        Truck drivers, light (8214)
        Driver-sales workers (8218)
135. Bus drivers (8215)
    * Other motor vehicle operators
        Supervisors, motor vehicle operators (8111)
        Taxicab drivers and chauffeurs (8216)
        Parking lot attendants (874)
        Motor transportation occupations, n.e.c. (8219)
136. Rail and water transportation occupations
    Railroad conductors and yardmasters (8113)
    Locomotive operating occupations (8232)
    Railroad brake, signal, and switch operators (8233)
    Rail vehicle operators, n.e.c. (8239)
    Ship captains and mates, except fishing boats (Part 8241, 8242)
    Sailors and deckhands (8243)
    Marine engineers (8244)
    Bridge, lock, and lighthouse tenders (8245)
137. Material moving equipment operators
138. Excavating, grading, and dozer machine operators
        Excavating and loading machine operators (8316)
        Grader, dozer, and scraper operators (8317)
    * Other material moving equipment operators
        Supervisors, material moving equipment operators (812)
        Operating engineers (8312)
        Longshore equipment operators (8313)
        Hoist and winch operators (8314)
        Crane and tower operators (8315)
        Industrial truck and tractor equipment operators (8318)
        Miscellaneous material moving equipment operators (8319)

HANDLERS, EQUIPMENT CLEANERS, HELPERS, AND LABORERS

139. Construction laborers (871)
140. Freight, stock, and material handlers
    Garbage collectors (8722)
    Stevedores (8723)
    Stock handlers and baggers (8724)
    Machine feeders and offbearers (8725)
    Freight, stock, and material handlers, n.e.c. (8726)
141 Garage and service station related occupations (873)
142. Hand packers and packagers (8761)
143. Other specified handlers, equipment cleaners, and helpers
    Supervisors; handlers, equipment cleaners, and laborers, n.e.c. (85)
    Helpers, mechanics and repairers (863)
    Helpers, construction trades (8641—8645, 8648)
    Helpers, surveyor (8646)
    Helpers, extractive occupations (865)
    Production helpers (861, 862)
    Vehicle washers and equipment cleaners (875)
144. Laborers, except construction (8769)
145. Nondurable goods manufacturing
    Food and kindred products
    Textile mill and finished textile products
    Paper and allied products
    Chemicals and allied products
    Rubber and miscellaneous plastics products
    Other nondurable goods

HANDLERS, EQUIPMENT CLEANERS, HELPERS, AND LABORERS—CON.

Laborers, except construction (8769)—Con.
146. Durable goods manufacturing
147. Metal industries
    Primary metal industries
    Fabricated metal industries
    * Other durable goods
        Furniture, lumber, and wood products
        Stone, clay, glass, and concrete products
        Machinery, except electrical
        Transportation equipment
        Other durable goods
    Not specified manufacturing
148. Transportation, communications, and other public utilities
149. Wholesale and retail trade
    Wholesale trade
    Retail trade
150. All other industries
    Business and repair services
    Public administration
    All other industries

List B. INTERMEDIATE INDUSTRIAL CLASSIFICATION (144 ITEMS) WITH COMPONENT DETAILED CATEGORIES

This list presents the relationship between the detailed industry stub (e.g., table 285) and the intermediate industry stub (e.g., table 286). The industry groups marked with an asterisk (*) are not shown in the tables using the intermediate classification but can be derived by subtraction. Numbers in parentheses following the industry categories are the SIC definitions.

AGRICULTURE, FORESTRY, AND FISHERIES

1. Agricultural production
    Agricultural production, crops (01)
    Agricultural production, livestock (02)
2. Agricultural services, including horticultural
    Agricultural services, except horticultural (07 except 078)
    Horticultural services (078)
3. Forestry and fisheries
    Forestry (03)
    Fishing, hunting, and trapping (09)

MINING

4. Metal mining (10)
5. Coal mining (11, 12)
6. Crude petroleum and natural gas extraction (13)
7. Nonmetallic mining and quarrying, except fuel (14)

CONSTRUCTION

8. Construction (15, 16, 17)

MANUFACTURING

9. Meat products (201)
10. Dairy products (202)
11. Canned and preserved fruits and vegetables (203)
12. Bakery products (205)
13. Beverage industries (208)
14. Other food industries
    Grain mill products (204)
    Sugar and confectionery products (206)

MANUFACTURING—CON.

Other food industries—Con.
    Miscellaneous food preparations and kindred products (207, 209)
    Not specified food industries
15. Tobacco manufactures (21)
16. Knitting mills (225)
17. Yarn, thread, and fabric mills (221—224, 228)
18. Other textile mill products
    Dyeing and finishing textiles, except wool and knit goods (226)
    Floor coverings, except hard surface (227)
    Miscellaneous textile mill products (229)
19. Apparel and other finished textile products
    Apparel and accessories, except knit (231—238)
    Miscellaneous fabricated textile products (239)
20. Paper and allied products
    Pulp, paper, and paperboard mills (261-263, 266)
    Miscellaneous paper and pulp products (264)
    Paperboard containers and boxes (265)
21. Printing, publishing, and allied industries
22. Newspaper publishing and printing (271)
    * Printing, publishing, and allied industries, except newspapers (272—279)
23. Chemicals and allied products
24. Plastics, synthetics, and resins (282)
25. Drugs (283)
    * Other chemicals and allied products
        Soaps and cosmetics (284)
        Paints, varnishes, and related products (285)
        Agricultural chemicals (287)
        Industrial and miscellaneous chemicals (281, 286, 289)

MANUFACTURING—CON.

26. Petroleum and coal products
27. Petroleum refining (291)
    * Miscellaneous petroleum and coal products (295, 299)
28. Rubber and miscellaneous plastics products (30)
29. Footwear, except rubber and plastic products (313, 314)
30. Leather and leather products, except footwear (311, 315–317, 319)
31. Logging (241)
32. Sawmills, planing mills, and millwork (242, 243)
33. Wood buildings, mobile homes, and miscellaneous wood products
    Wood buildings and mobile homes (245)
    Miscellaneous wood products (244, 249)
34. Furniture and fixtures (25)
35. Stone, clay, glass, and concrete products
36. Glass and glass products (321–323)
37. Cement, concrete, gypsum, and plaster products (324, 327)
    * Other stone, clay, and miscellaneous nonmetallic mineral products
      Structural clay products (325)
      Pottery and related products (326)
      Miscellaneous nonmetallic mineral and stone products (328, 329)
38. Blast furnaces, steelworks, rolling and finishing mills (331)
39. Iron and steel industries (332)
40. Primary nonferrous industries
    Primary aluminum industries (3334, part 334, 3353–3355, 3361)
    Other primary metal industries (3331–3333, 3339, part 334, 3351, 3356, 3357, 3362, 3369, 339)
41. Fabricated metal industries
42. Cutlery, handtools, and other hardware (342)
43. Fabricated structural metal products (344)
44. Metal forgings and stampings (346)
    * Other fabricated metal industries
      Screw machine products (345)
      Ordnance (348)
      Miscellaneous fabricated metal products (341, 343, 347, 349)
      Not specified metal industries
45. Farm machinery and equipment (352)
46. Construction and material handling machines (353)
47. Metalworking machinery (354)
48. Office, accounting, and computing machines
    Office and accounting machines (357 except 3573)
    Electronic computing equipment (3573)
49. Other machinery, except electrical
    Engines and turbines (351)
    Machinery, except electrical, n.e.c. (355, 356, 358, 359)
    Not specified machinery
50. Household appliances (363)
51. Radio, TV, and communication equipment (365, 366)
52. Other electrical machinery, equipment, and supplies
    Electrical machinery, equipment, and supplies, n.e.c. (361, 362, 364, 367, 369)
    Not specified electrical machinery, equipment, and supplies
53. Motor vehicles and motor vehicle equipment (371)
54. Aircraft, space vehicles, and parts
    Aircraft and parts (372)
    Guided missiles, space vehicles, and parts (376)
55. Ship and boat building and repairing (373)
56. Other transportation equipment
    Railroad locomotives and equipment (374)
    Cycles and miscellaneous transportation equipment (375, 379)
57. Professional and photographic equipment and watches
    Scientific and controlling instruments (381, 382)
    Optical and health services supplies (383, 384, 385)
    Photographic equipment and supplies (386)
    Watches, clocks, and clockwork operated devices (387)
    Not specified professional equipment
58. Miscellaneous manufacturing industries
    Toys, amusement, and sporting goods (394)
    Other miscellaneous manufacturing industries (39 except 394)
59. Not specified manufacturing industries

TRANSPORTATION, COMMUNICATIONS, AND OTHER PUBLIC UTILITIES

60. Railroads (40)
61. Bus service and urban transit (41 except 412)
62. Taxicab service (412)
63. Trucking service and warehousing
    Trucking service (421, 423)
    Warehousing and storage (422)
64. U.S. Postal Service (43)
65. Water transportation (44)
66. Air transportation (45)
67. Other transportation
    Pipe lines, except natural gas (46)
    Services incidental to transportation (47)
68. Radio and television broadcasting (483)
69. Telephone (wire and radio)
70. Telegraph and miscellaneous communication services (482, 489)
71. Electric and gas utilities
    Electric light and power (491)
    Gas and steam supply systems (492, 496)
    Electric and gas, and other combinations (493)
72. Water supply, sanitary services, and other utilities
    Water supply and irrigation (494, 497)
    Sanitary services (495)
    Not specified utilities

WHOLESALE TRADE

73. Motor vehicles and equipment (501)
74. Lumber and construction materials (503)
75. Electrical goods (506)
76. Hardware, plumbing and heating supplies (507)
77. Machinery, equipment, and supplies (508)
78. Other wholesale, durable goods
    Furniture and home furnishings (502)
    Sporting goods, toys, and hobby goods (504)
    Metals and minerals, except petroleum (505)
    Not specified electrical and hardware products
    Scrap and waste materials (5093)
    Miscellaneous wholesale, durable goods (5094, 5099)
79. Drugs, chemicals, and allied products (512, 516)
80. Groceries and farm products
    Groceries and related products (514)
    Farm products — raw materials (515)
81. Petroleum products (517)
82. Other wholesale, nondurable goods
    Paper and paper products (511)
    Apparel, fabrics, and notions (513)
    Alcoholic beverages (518)
    Farm supplies (5191)
    Miscellaneous wholesale, nondurable goods (5194, 5198, 5199)
    Not specified wholesale trade

RETAIL TRADE

83. Hardware and building material retailing
    Lumber and building material retailing (521, 523)
    Hardware stores (525)
84. General merchandise stores
85. Department stores (531)
    * Other general merchandise stores
      Variety stores (533)
      Miscellaneous general merchandise stores (539)
86. Food, bakery, and dairy stores
    Grocery stores (541)
    Dairy products stores (545)
    Retail bakeries (546)
    Food stores, n.e.c. (542, 543, 544, 549)
87. Motor vehicle dealers (551, 552)
88. Auto and home supply stores (553)
89. Gasoline service stations (554)
90. Miscellaneous vehicle dealers (555, 556, 557, 559)

RETAIL TRADE—CON.

91. Apparel and accessory stores
    Apparel and accessory stores, except shoe (56 except 566)
    Shoe stores (566)
92. Furniture, home furnishings, and appliance stores
    Furniture and home furnishings stores (571)
    Household appliances, TV, and radio stores (572, 573)
93. Eating and drinking places (58)
94. Drug stores (591)
95. Other retail trade
    Retail nurseries and garden stores (526)
    Mobile home dealers (527)
    Liquor stores (592)
    Sporting goods, bicycles, and hobby stores (5941, 5945, 5946)
    Book and stationary stores (5942, 5943)
    Jewelry stores (5944)
    Sewing, needlework, and piece goods stores (5949)
    Mail order houses (5961)
    Vending machine operators (5962)
    Direct selling establishments (5963)
    Fuel and ice dealers (598)
    Retail florists (5992)
    Miscellaneous retail stores (593, 5947, 5948, 5993, 5994, 5999)
    Not specified retail trade

FINANCE, INSURANCE, AND REAL ESTATE

96. Banking (60)
97. Credit agencies, other than banks
    Savings and loan associations (612)
    Credit agencies, n.e.c. (61 except 612)
98. Security, commodity brokerage, and investment companies (62, 67)
99. Insurance (63, 64)
100. Real estate, including real estate—insurance—law offices (65, 66)

BUSINESS AND REPAIR SERVICES

101. Advertising (731)
102. Services to dwellings and other buildings (734)
103. Commercial research, management, and data processing services
    Commercial research, development, and testing labs (7391, 7397)
    Business management and consulting services (7392)
    Computer and data processing services (737)
104. Detective and protective services (7393)
105. Other business services
    Personnel supply services (736)
    Business services, n.e.c. (732, 733, 735, 7394—7396, 7399)
106. Automotive repair and services
    Automotive services, except repair (751, 752, 754)
    Automotive repair shops (753)
107. Other repair services
    Electrical repair shops (762, 7694)
    Miscellaneous repair services (763, 764, 7692, 7699)

PERSONAL SERVICES

108. Private households (88)
109. Hotels and lodging places
    Hotels and motels (701)
    Lodging places, except hotels and motels (702, 703, 704)
110. Laundry, cleaning, and garment services (721)
111. Barber and beauty shops
    Beauty shops (723)
    Barber shops (724)

PERSONAL SERVICES—CON.

112. Other personal services
    Funeral service and crematories (726)
    Shoe repair shops (725)
    Dressmaking shops (part 729)
    Miscellaneous personal services (722, part 729)

ENTERTAINMENT AND RECREATION SERVICES

113. Theaters and motion pictures (78, 792)
114. Other entertainment and recreation services
    Bowling alleys, billiard and pool parlors (793)
    Miscellaneous entertainment and recreation services (791, 794, 799)

PROFESSIONAL AND RELATED SERVICES

115. Offices of health practitioners
    Offices of physicians (801, 803)
    Offices of dentists (802)
    Offices of chiropractors (8041)
    Offices of optometrists (8042)
    Offices of health practitioners, n.e.c. (8049)
116. Hospitals (806)
117. Nursing and personal care facilities (805)
118. Health services, n.e.c. (807, 808, 809)
119. Legal services (81)
120. Elementary and secondary schools (821)
121. Government (Class of worker entries of Federal, State, or local government)
    * Private (Class of worker entries other than government)
122. Colleges and universities (822)
123. Government
    * Private
124. Libraries (823)
125. Other educational services
    Business, trade, and vocational schools (824)
    Educational services, n.e.c. (829)
126. Child day care service (835)
127. Residential care facilities, without nursing (836)
128. Other social services
    Job training and vocational rehabilitation services (833)
    Social services, n.e.c. (832, 839)
129. Museums, art galleries, and zoos (84)
130. Religious organizations (866)
131. Engineering, architectural, and surveying services (891)
132. Accounting, auditing, and bookkeeping services (893)
133. Noncommercial educational and scientific research (892)
134. Miscellaneous professional and related services
    Membership organizations (861—865, 869)
    Miscellaneous professional and related services (899)

PUBLIC ADMINISTRATION

135. Executive and legislative offices (911—913)
136. General government, n.e.c. (919)
137. Local government
    * Federal and State government
138. Justice, public order, and safety (92)
139. Local government
    * Federal and State government
140. Public finance, taxation, and monetary policy (93)
141. Administration of human resources programs (94)
142. Administration of environmental quality and housing programs (95)
143. Administration of economic programs (96)
144. National security and international affairs (97)

List C. CONDENSED INDUSTRIAL CLASSIFICATION USED IN TABLES 288-290 AS RELATED TO COMPONENT DETAILED CATEGORIES PRESENTED IN LIST B

Agriculture (Items 1, 2)

Forestry and Fisheries (Item 3)

Mining (Items 4–7)

Construction (Item 8)

Manufacturing
- Nondurable goods
  - Meat products (Item 9)
  - Canned and preserved produce and beverages (Items 11, 13)
  - Bakery products (Item 12)
  - Other food industries (Items 10, 14)
  - Yarn, thread, and fabric mills (Item 17)
  - Other textile mill products (Items 16, 18)
  - Apparel and other finished textile products (Item 19)
  - Paper and allied products (Item 20)
  - Printing, publishing, and allied industries (Item 21)
  - Chemicals and allied products (Item 23)
  - Petroleum and coal products (Item 26)
  - Rubber and miscellaneous plastics products (Item 28)
  - Footwear, except rubber and plastic (Item 29)
  - Other nondurable goods (Items 15, 30)
- Durable goods
  - Logging (Item 31)
  - Sawmills, planing mills, and millwork (Item 32)
  - Wood buildings, mobile homes, and miscellaneous wood products (Item 33)
  - Furniture and fixtures (Item 34)
  - Stone, clay, glass, and concrete products (Item 35)
    - Cement, concrete, gypsum, and plaster products (Item 37)
  - Primary iron and steel industries (Items 38, 39)
  - Primary nonferrous industries (Item 40)
  - Fabricated metal industries (Items 41–44)
  - Machinery, except electrical (Items 45–49)
    - Office, accounting, and computing machines (Item 48)
  - Electrical machinery, equipment, and supplies (Items 50–52)
    - Radio, TV, and communication equipment (Item 51)
  - Motor vehicles and motor vehicle equipment (Item 53)
  - Aircraft, space vehicles, and parts (Item 54)
  - Other transportation equipment (Items 55, 56)
  - Professional and photographic equipment and watches (Item 57)
  - Miscellaneous manufacturing industries (Item 58)
- Not specified manufacturing industries (Item 59)

Transportation, Communications, and Other Public Utilities
- Railroads (Item 60)
- Bus service and urban transit (Item 61)
- Trucking service and warehousing (Item 63)
- U.S. Postal Service (Item 64)
- Water transportation (Item 65)
- Air transportation (Item 66)
- All other transportation (Items 62, 67)
- Communications (Items 68–70)
- Electric and gas utilities (Item 71)
- Water supply, sanitary services, and other utilities (Item 72)

Wholesale Trade (Items 73–82)
- Groceries and farm products (Item 80)

Retail Trade
- Hardware and building material retailing (Item 83)
- General merchandise stores (Item 84)
- Food, bakery, and dairy stores (Item 86)
- Automotive dealers and auto supply stores (Items 87, 88, 90)
- Gasoline service stations (Item 89)
- Apparel and accessory stores (Item 91)
- Furniture, home furnishings, and appliance stores (Item 92)
- Eating and drinking places (Item 93)
- Drug stores (Item 94)
- Other retail trade (Item 95)

Finance, Insurance, and Real Estate
- Banking and credit agencies (Items 96, 97)
- Insurance (Item 99)
- Other finance and real estate (Items 98, 100)

Business and Repair Services
- Advertising (Item 101)
- Commercial research, management, and data processing services (Item 103)
- Automotive repair and services (Item 106)
- Other business and repair services (Items 102, 104, 105, 107)

Personal Services
- Private households (Item 108)
- Hotels and lodging places (Item 109)
- Laundry, cleaning, and garment services (Item 110)
- Barber and beauty shops (Item 111)
- Other personal services (Item 112)

Entertainment and Recreation Services (Items 113, 114)

Professional and Related Services
- Health services (Items 115–118)
  - Hospitals (Item 116)
- Educational services
  - Elementary and secondary schools (Item 120)
    - Government (Item 121)
  - Colleges and universities (Item 122)
    - Government (Item 123)
  - Other educational services (Items 124, 125)
- Social services, religious and membership organizations (Items 126–128, 130, part 134)
- Legal, engineering, and other professional services (Items 119, 131–133, part 134)

Public Administration (Items 135–144)

Appendix C.—General Enumeration and Processing Procedures

USUAL PLACE OF RESIDENCE. . C–1
Armed Forces. C–1
Crews of Merchant Vessels C–1
Persons Away at School C–1
Persons in Institutions C–1
Persons Away From Their Residence on Census Day C–1
Americans Abroad. C–2
Citizens of Foreign Countries. . . C–2
DATA COLLECTION PROCEDURES. C–2
PROCESSING PROCEDURES. . . . C–2

USUAL PLACE OF RESIDENCE

In accordance with census practice dating back to the first U.S. census in 1790, each person enumerated in the 1980 census was counted as an inhabitant of his or her "usual place of residence," which is generally construed to mean the place where the person lives and sleeps most of the time. This place is not necessarily the same as the person's legal residence or voting residence. In the vast majority of cases, however, the use of these different bases of classification would produce substantially the same statistics, although there might be appreciable differences for a few areas.

The implementation of this practice has resulted in the establishment of residence rules for certain categories of persons whose usual place of residence is not immediately apparent. Furthermore, this practice means that persons were not always counted as residents of the place where they happened to be staying on Census Day (April 1). Persons without a usual place of residence, however, were counted where they happened to be staying.

Armed Forces

Members of the Armed Forces living on a military installation were counted, as in every previous census, as residents of the area in which the installation was located; members of the Armed Forces not living on a military installation were counted as residents of the area in which they were living. Family members of Armed Forces personnel were counted where they were living on Census Day (i.e., with the Armed Forces personnel or at another location, as the case might be).

Each Navy ship was attributed to the municipality that the Department of the Navy designated as its homeport, except for those ships which were deployed to the 6th or 7th Fleet on Census Day. As was done in the 1970 census, naval personnel aboard deployed ships were defined in the 1980 census as part of the overseas population, because deployment to the 6th or 7th Fleet implies a long-term overseas assignment.

In homeports with fewer than 1,000 naval personnel assigned to ships, the crews were counted aboard the ship. In homeports with 1,000 or more naval personnel assigned to ships, the naval personnel who indicated that they had a usual residence within 50 miles of the homeport of their ship were attributed to that residence.

When a homeport designated by the Navy was contained in more than one municipality, ships homeported and berthed there on Census Day were assigned by the Bureau of the Census to the municipality in which the land immediately adjacent to the dock or pier was actually located. Other ships attributed by the Navy to that homeport, but which were not physically present and not deployed to the 6th or 7th Fleet on Census Day, were allocated to the municipality named on the Navy's homeport list.

Crews of Merchant Vessels

Shipboard Census Reports were mailed to crews of merchant vessels through the ships' respective owner-operators based on lists of U.S. flag merchant vessels obtained from the Maritime Administration, U.S. Department of Commerce.

If the ship was berthed in a U.S. port on Census Day, the crew was enumerated as of that port. If the ship was not berthed in a U.S. port but was inside the territorial waters of the United States, the crew was enumerated as of (a) the port of destination if that port was inside the United States or (b) the homeport of the ship if its port of destination was outside the United States. Crews of U.S. flag vessels which were outside U.S. territorial waters on Census Day and crews of vessels flying a foreign flag were not enumerated in the 1980 census.

Persons Away at School

College students were counted as residents of the area in which they were living while attending college, as they have been since 1950. However, children in boarding schools below the college level were counted at their parental home.

Persons in Institutions

Inmates of institutions, who ordinarily live there for considerable periods of time, were counted as residents of the area where the institution was located. Patients in short-term wards (general, maternity, etc.) of hospitals were counted at their usual place of residence; if they had no usual place of residence, they were counted at the hospital.

Persons Away From Their Residence on Census Day

Persons in hotels, motels, etc., on the night of March 31, 1980, were requested to fill out a census form for assignment of their census information back to their homes if they indicated that no one was at home to report them in the census. A similar approach was used for persons visiting in private residences, as well as for Americans who left the United States during March 1980 via major intercontinental air or ship carriers for temporary travel abroad. In addition, information on persons away from their usual place of residence was obtained from other members of their families, resident managers, neighbors, etc. If an entire household was expected to be

away during the whole period of the enumeration, information on that household was obtained from neighbors. A matching process was used to eliminate duplicate reports for persons who reported for themselves while away from their usual residence and who were also reported at this usual residence by someone else.

A special enumeration was conducted in such facilities as missions, flophouses, jails, detention centers, etc., on the night of April 6, 1980, and persons enumerated therein were counted as residents of the area in which the establishment was located.

Americans Abroad

Americans who were overseas for an extended period (in the Armed Forces, working at civilian jobs, studying in foreign universities, etc.) were not included in the population of any State or the District of Columbia. On the other hand, Americans who were temporarily abroad on vacations, business trips, and the like were counted at their usual residence in the United States.

Citizens of Foreign Countries

Citizens of foreign countries having their usual residence (legally or illegally) in the United States on Census Day, including those working here (but not living at an embassy, ministry, legation, chancellery, or consulate) and those attending school (but not living at an embassy, etc.), were included in the enumeration, as were members of their families living with them. However, citizens of foreign countries temporarily visiting or traveling in the United States or living on the premises of an embassy, etc., were not enumerated in the 1980 census.

DATA COLLECTION PROCEDURES

The 1980 census was conducted primarily through self-enumeration. A census questionnaire was delivered by postal carriers to every housing unit several days before Census Day, April 1, 1980. This questionnaire included explanatory information and was accompanied by an instruction guide. Spanish-language versions of the questionnaire and instruction guide were available on request. The questionnaire was also available in narrative translation in 32 languages.

In most areas of the United States, altogether containing about 95 percent of the population, the householder was requested to fill out and mail back the questionnaire on Census Day. Approximately 83 percent of these households returned their forms by mail. Households that did not mail back a form and vacant housing units were visited by an enumerator. Households that returned a form with incomplete or inconsistent information that exceeded a specified tolerance were contacted by telephone or, if necessary, by a personal visit, to obtain the missing information.

In the remaining (mostly sparsely settled) area of the country, which contained about 5 percent of the population, the householder was requested to fill out the questionnaire and hold it until visited by an enumerator. Incomplete and unfilled forms were completed by interview during the enumerator's visit. Vacant units were enumerated by a personal visit and observation.

Each housing unit in the country received one of two versions of the census questionnaire: a short-form questionnaire containing a limited number of basic population and housing questions or a long-form questionnaire containing these basic questions as well as a number of additional questions. A sampling procedure was used to determine those units which were to receive the long-form questionnaire. Two sampling rates were employed. For most of the country, one in every six housing units (about 17 percent) received the long form or sample questionnaire; in counties, incorporated places and minor civil divisions estimated to have fewer than 2,500 inhabitants, every other housing unit (50 percent) received the sample questionnaire to enhance the reliability of sample data in small areas.

Special questionnaires were used for the enumeration of persons in group quarters such as colleges and universities, hospitals, prisons, military installations, and ships. These forms contained the population questions but did not include any housing questions. In addition to the regular census questionnaires, the Supplementary Questionnaire for American Indians was used in conjunction with the short form on Federal and State reservations and in the historic areas of Oklahoma (excluding urbanized areas) for households that had at least one American Indian, Eskimo, or Aleut household member.

PROCESSING PROCEDURES

The 1980 census questionnaires were processed in a manner similar to that for the 1970 and 1960 censuses. They were designed to be processed electronically by the Film Optical Sensing Device for Input to Computer (FOSDIC). For most items on the questionnaire, the information supplied by the respondent or obtained by the enumerator was indicated by marking the answers in predesignated positions that would be "read" by FOSDIC from a microfilm copy of the questionnaire and transferred onto computer tape with no intervening manual processing. The computer tape did not include information on individual names and addresses.

The data processing was performed in two stages. For 100-percent data, all short forms, and pages 2 and 3 of the long forms (which have the same questions as the short form), were microfilmed, "read" by FOSDIC, and transferred onto computer tape for tabulation. For the sample data, the long form (or sample) questionnaires were processed through manual coding operations since some questions required the respondent to provide write-in entries which could not be read by FOSDIC. Census Bureau coders assigned alphabetical or numerical codes to the write-in answers in FOSDIC readable code boxes on each questionnaire. After all coding was completed, the long forms were microfilmed, and the film was "read" by FOSDIC and transferred onto computer tape.

The tape containing the information from the questionnaires was processed on the Census Bureau's computers through a number of editing and tabulation steps. Among the products of this operation were computer tapes from which the tables in this report (and most others in the 1980 census publications) were prepared on phototypesetting equipment at the Government Printing Office.

A more detailed description of the data collection and processing procedures can be obtained from the 1980 Census of Population and Housing, *Users' Guide*, PHC80-R1.

Appendix D.—Accuracy of the Data

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INTRODUCTION

The data presented in this publication are based on the 1980 census sample. The data are estimates of the actual figures that would have resulted from a complete count. Estimates can be expected to vary from the complete count result because they are subject to two basic types of error—sampling and nonsampling. The sampling error in the data arises from the selection of persons and housing units to be included in the sample. The nonsampling error, which affects both sample and complete count data, is the result of all other errors that may occur during the collection and processing phases of the census. A more detailed discussion of both sampling and nonsampling error and a description of the estimation procedure are given in this appendix.

SAMPLE DESIGN

While every person and housing unit in the 1980 census was enumerated on a questionnaire that requested certain basic demographic information (e.g., age, race, relationship), a sample of persons and housing units was enumerated on a questionnaire that requested additional information. The basic sampling unit for the 1980 census was the housing unit, including all occupants. For persons living in group quarters, the sampling unit was the person. Two sampling rates were employed. In counties, incorporated places, and minor civil divisions estimated to have fewer than 2,500 persons (based on precensus estimates), one-half of all housing units and persons in group quarters were to be included in the sample. In all other areas one-sixth of the housing units or persons in group quarters were sampled. The purpose of this scheme was to provide relatively more reliable estimates for small areas. When both sampling rates were taken into account across the Nation, approximately 19 percent of the Nation's housing units were included in the census sample.

The sample designation method depended on the data collection procedures. In areas containing about 95 percent of the population, the census was taken by the mailout/mailback procedure. For these areas, the Bureau of the Census either purchased a commercial mailing list which was updated and corrected by Census Bureau field staff, or prepared a mailing list by canvassing and listing each address in the area prior to Census Day. These lists were computerized, and every sixth unit (for 1-in-6 areas) or every second unit (for 1-in-2 areas) was designated as a sample unit by computer. Both of these lists were also corrected by the Post Office.

In non-mailout/mailback areas, a blank listing book with designated sample lines (every sixth or every second line) was prepared for the enumerator. Beginning about Census Day, the enumerator systematically canvassed the area and listed all housing units in the listing book in the order they were encountered. Completed questionnaires, including sample information for any housing unit which was listed on a designated sample line, were collected.

In both types of data collection procedure areas, an enumerator was responsible for a small geographic area known as an enumeration district, or ED. An ED usually represented the average workload area for one enumerator.

In order to reduce the cost of processing, a scheme was designed, while the sample questionnaires were being processed, to select a subsample of questionnaires on which the place of work and migration data items would be coded. The sample questionnaires were processed by work units consisting of 1980 census ED's. In work units (ED's) where the place of work and migration data items had not yet been coded, every other sample questionnaire within the work unit was selected for these coding operations. In work units where the place of work and migration data items already had been coded, all sample questionnaires were included in the tabulation.

ERRORS IN THE DATA

Since the data in this publication are based on a sample, they may differ somewhat from complete count figures that would have been obtained if all persons within housing units, and persons living in group quarters had been enumerated using the same questionnaires, instructions, enumerators, etc. The deviation of a sample estimate from the average of all possible samples is called the sampling error. The standard error of a survey estimate is a measure of the variation among the estimates from the possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The sample estimate and its estimated standard error permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. The method of calculating standard errors and confidence intervals for the data in this report is given below.

In addition to the variability which

arises from the sampling procedures, both sample data and complete-count data are subject to nonsampling error. Nonsampling error may be introduced during each of the many extensive and complex operations used to collect and process census data. For example, operations such as editing, reviewing, or handling questionnaires may introduce error into the data. A more detailed discussion of the sources of nonsampling error is given in the section on "Control of Nonsampling Error" in this appendix.

Nonsampling error may affect the data in two ways. Errors that are introduced randomly will increase the variability of the data and should therefore be reflected in the standard error. Errors that tend to be consistent in one direction will make both sample and complete-count data biased in that direction. For example, if respondents consistently tend to underreport their income, then the resulting counts of households or families by income category will be skewed toward the lower income categories. Such biases are not reflected in the standard error.

Calculation of Standard Errors

Totals and Percentages—Tables A through D in this appendix contain the information necessary to calculate the standard errors of sample estimates in this report. In order to perform this calculation, it is necessary to know the unadjusted standard error for the characteristic, given in table A or B, that would result under a simple random sample design (of persons, families, or housing units) and estimation technique; the adjustment factor for the particular characteristic estimated, given in table C; and the number of persons in the tabulation area and the percent of those in sample, given in table D. The adjustment factors reflect the effects of the actual sample design and complex ratio estimation procedure used for the 1980 census.

To calculate the approximate standard error of an estimate for a geographic area, follow the steps given below:

a. Obtain the unadjusted standard error from table A or B (or from the formula given below the table) for the estimated total or percentage, respectively.
b. Find the geographic area with which you are working in table D and obtain the person "percent in sample" figure for this area.
c. Use table C to obtain the factor for the characteristic (e.g., work disability, school enrollment) and the range that contains the percent in sample with which you are working. Multiply the unadjusted standard error by this factor. If the estimate is a cross-tabulation of more than one characteristic, use the largest factor.

As is evident from the formulas below tables A and B, the unadjusted standard errors of zero estimates or of very small estimated totals or percentages approach zero. This is also the case for very large percentages or estimated totals that are close to the size of the tabulation areas to which they correspond. These estimated totals and percentages are, nevertheless, still subject to sampling and nonsampling variability, and an estimated standard error of zero (or a very small standard error) is not appropriate.

For estimated percentages that are less than 2 or greater than 98, use the *unadjusted* standard errors in table B that appear in the "2 or 98" row. For an estimated total that is less than 50 or within 50 of the total size of the tabulation area, use an *unadjusted* standard error of 16.

An illustration of the use of the tables is given in a later section of this appendix.

Differences—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 following three situations:

a. For the difference between a sample estimate and a complete-count value, use the standard error of the sample estimate.
b. For the difference between (or sum of) two sample estimates, the appropriate standard error is approximately the square root of the sum of the two individual standard errors squared; that is, for standard errors Se_x and Se_y of estimates x and y:

$$Se_{(x+y)} = Se_{(x-y)} \doteq \sqrt{(Se_x)^2 + (Se_y)^2}$$

This method, however, will underestimate (overestimate) the standard error if the two items in a sum are highly positively (negatively) correlated or if the two items in a difference are highly negatively (positively) correlated. This method may also be used for the difference between (or sum of) sample estimates from two censuses or between a census sample and another survey. The standard error for estimates not based on the 1980 census sample must be obtained from an appropriate source outside of this publication.
c. For the difference between two estimates, one of which is a subclass of the other, use the tables directly where the calculated difference is the estimate of interest.

Means—The standard error of a mean depends upon the variability of the distribution on which the mean is based, the size of the sample, the sample design (e.g., the use of households as a sampling unit), and the estimation procedure used.

An approximation to the standard error of the mean may be obtained as follows: compute the variance of the distribution on which the mean is based; multiply this value by five and divide the product by the total count of units in the distribution; obtain the square root of this quotient and multiply the result by the adjustment factor from table C that is appropriate for the characteristic on which the mean is based.

Medians—For the standard error of a median of a characteristic, it is necessary to examine the distribution from which the median is derived, as the size of the base and the distribution itself affect the standard error. An approximate method is given here. As the first step, compute one-half of the number on which the median is based (refer to this result as N/2). Treat N/2 as if it were an ordinary estimate and obtain its standard error as instructed above using tables A, C, and D. Compute the desired confidence interval about N/2. Starting with the lowest value of the characteristic, cumulate the frequencies in each category of the characteristic until the sum equals or

first exceeds the lower limit of the confidence interval about N/2. By linear interpolation, obtain a value of the characteristic corresponding to this sum. This is the lower limit of the confidence interval of the median. In a similar manner, cumulate frequencies starting from the highest value of the characteristic until the sum equals or exceeds the count in excess of the upper limit of the interval about N/2. Interpolate as before to obtain the upper limit of the confidence interval for the estimated median.

Confidence Intervals

A sample estimate and its estimated standard error may be used to construct confidence intervals about the estimate. These intervals are ranges that will contain the average value of the estimated characteristic that results over all possible samples with a known probability. For example, if all possible samples that could result under the 1980 census sample design were independently selected and surveyed under the same conditions, and if the estimate and its estimated standard error were calculated for each of these samples, then:

(1) Approximately 68 percent of the intervals from one estimated standard error below the estimate to one estimated standard error above the estimate would contain the average result from all possible samples; and

(2) Approximately 95 percent of the intervals from two estimated standard errors below the estimate to two estimated standard errors above the estimate would contain the average result from all possible samples.

The intervals are referred to as 68 percent and 95 percent confidence intervals, respectively.

The average value of the estimated characteristic that could be derived from all possible samples is or is not contained in any particular computed interval. Thus we cannot make the statement that the average value has a certain probability of falling between the limits of the calculated confidence interval. Rather, one can say with a specified probability or confidence that the calculated confidence interval includes the average estimate from all possible samples (approximately the complete-count value).

Confidence intervals may also be constructed for the difference between two sample figures. This is done by computing the difference between these figures, obtaining the standard error of the difference (using the formula given earlier), and then forming a confidence interval for this estimated difference as above. One can then say with specified confidence that this interval includes the difference that would have been obtained by averaging the results from all possible samples.

The estimated standard errors given in this report do not include all portions of the variability due to nonsampling error that may be present in the data. Thus, the standard errors calculated represent a lower bound of the total error. As a result, confidence intervals formed using these estimated standard errors may not meet the stated levels of confidence (i.e., 68 or 95 percent). Thus, some care must be exercised in the interpretation of the data in this publication based on the estimated standard errors.

For more information on confidence intervals and nonsampling error, see any standard sampling theory text.

Use of Tables to Compute Standard Errors

See appendix D of PHC80-3, *Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas,* or PC80-1-C, *General Social and Economic Characteristics,* for examples showing the computation of standard errors and formation of confidence intervals.

ESTIMATION PROCEDURE

The estimates which appear in this publication were obtained from an iterative ratio estimation procedure which resulted in the assignment of a weight to each sample person or housing unit record. For any given tabulation area, a characteristic total was estimated by summing the weights assigned to the persons or housing units in the tabulation area which possessed the characteristic. Estimates of family or household characteristics were based on the weights assigned to the family members designated as householders. Each sample person or housing unit record was assigned exactly one weight to be used to produce estimates of all characteristics. For example, if the weight given to a sample person or housing unit had the value five, all characteristics of that person or housing unit would be tabulated with a weight of five. The estimation procedure, however, did assign weights which vary from person to person or housing unit to housing unit.

The estimation procedure used to assign the weights was performed in geographically defined "weighting areas." Weighting areas were generally formed of adjoining portions of geography, which closely agreed with census tabulation areas within counties. Weighting areas were required to have a minimum sample of 400 persons. Weighting areas were never allowed to cross state or county boundaries. In small counties with a sample count of less than 400 persons, the minimum required sample condition was relaxed to permit the entire county to become a weighting area.

Within a weighting area, the ratio estimation procedure for persons was performed in three stages. For persons the first stage employed 17 household-type groups. The second stage used two groups: householders and nonhouseholders. The third stage could potentially use 160 age-sex-race-Spanish origin groups. The stages were as follows:

PERSONS

Stage I—Type of Household

Group	*Persons in Housing Units With a Family With Own Children Under 18*
1	2 persons in housing unit
2	3 persons in housing unit
3	4 persons in housing unit
4	5 to 7 persons in housing unit
5	8 or more persons in housing unit
	Persons in Housing Units With a Family Without Own Children Under 18
6-10	2 persons in housing unit through 8 or more persons in housing unit

Persons in All Other Housing Units

11	1 person in housing unit
12-16	2 persons in housing unit through 8 or more persons in housing unit
17	*Persons in Group Quarters*

Stage II—Householder/Nonhouseholder

Group	
1	Householder
2	Nonhouseholder (including persons in group quarters)

Stage III—Age/Sex/Race/Spanish Origin

Group	*White Race*
	Persons of Spanish Origin
	Male
1	0 to 4 years of age
2	5 to 14 years of age
3	15 to 19 years of age
4	20 to 24 years of age
5	25 to 34 years of age
6	35 to 44 years of age
7	45 to 64 years of age
8	65 years of age or older
	Female
9-16	Same age categories as groups 1 to 8
	Persons Not of Spanish Origin
17-32	Same age and sex categories as groups 1 to 16
	Black Race
33-64	Same age-sex-Spanish origin categories as groups 1 to 32
	Asian, Pacific Islander Race
65-96	Same age-sex-Spanish origin categories as groups 1 to 32
	American Indian, Eskimo, or Aleut Race
97-128	Same age-sex-Spanish origin categories as groups 1 to 32
	Other Race (includes those races not listed above)
129-160	Same age-sex-Spanish origin categories as groups 1 to 32

Within a weighting area, the first step in the estimation procedure was to assign each sample person record an initial weight. This weight was approximately equal to the inverse of the probability of selecting a person for the census sample.

The next step in the estimation procedure was to combine, if necessary, the groups in each of the three stages prior to the repeated ratio estimation in order to increase the reliability of the ratio estimation procedure. For the first and second stages, any group that did not meet certain criteria concerning the unweighted sample count or the ratio of the complete count to the initially weighted sample count, was combined, or collapsed, with another group in the same stage according to a specified collapsing pattern. At the third stage, the "other" race category was collapsed with the "White" race category before the above collapsing criteria as well as an additional criterion concerning the number of complete count persons in each category were applied.

As the final step, the initial weights underwent three stages of ratio adjustment which used the groups listed above. At the first stage, the ratio of the complete census count to the sum of the initial weights for each sample person was computed for each stage I group. The initial weight assigned to each person in a group was then multiplied by the stage I group ratio to produce an adjusted weight. In stage II, the stage I adjusted weights were again adjusted by the ratio of the complete census count to the sum of the stage I weights for sample persons in each stage II group. Finally, the stage II weights were adjusted at stage III by the ratio of the complete census count to the sum of the stage II weights for sample persons in each stage III group. The three stages of adjustment were performed twice (two iterations) in the order given above. The weights obtained from the second iteration for stage III were assigned to the sample person records. However, to avoid complications in rounding for tabulated data, only whole number weights were assigned. For example, if the final weight for the persons in a particular group was 7.2, then one-fifth of the sample persons in this group were randomly assigned a weight of 8 and the remaining four-fifths received a weight of 7.

Separate weights were derived for tabulating the place of work and migration data items. The weights were obtained by adjusting the weight derived above for persons on questionnaires selected for coding by the reciprocal of the ED coding rate and a ratio adjustment to ensure that the sum of the weights and the complete count total population figure would agree.

The ratio estimation procedure for housing units was essentially the same as that for persons. The major difference was that the occupied housing unit ratio estimation procedure was done in two stages and the vacant housing unit ratio estimation procedure was done in one stage. The first stage for occupied housing units employed 16 household-type categories and the second stage could potentially use 190 tenure-race-Spanish origin-value/rent groups. For vacant housing units, three groups were utilized. The stages for the ratio estimation for housing units were as follows:

OCCUPIED HOUSING UNITS

Stage I—Type of Household

Group	*Housing Units With a Family With Own Children Under 18*
1	2 persons in housing unit
2	3 persons in housing unit
3	4 persons in housing unit
4	5 to 7 persons in housing unit
5	8 or more persons in housing unit
	Housing Units With a Family Without Own Children Under 18
6-10	2 persons in housing unit through 8 or more persons in housing unit
	All Other Housing Units
11	1 person in housing unit
12-16	2 persons in housing unit through 8 or more persons in housing unit

Stage II—Tenure/Race and Origin of Householder/Value or Rent

Group	*Owner*
	White Race (householder)
	Persons of Spanish Origin (householder)
	Value of House
1	$0 to $9,999

2	$10,000 to $19,999
3	$20,000 to $24,999
4	$25,000 to $49,999
5	$50,000 to $99,999
6	$100,000 to $149,999
7	$150,000+
8	Other Owners

Persons Not of Spanish Origin

9-16 Same value categories as groups 1 to 8

Black Race

17-32 Same value—Spanish origin categories as groups 1 to 16

Asian, Pacific Islander Race

33-48 Same value—Spanish origin categories as groups 1 to 16

American Indian, Eskimo or Aleut Race

49-64 Same value—Spanish origin categories as groups 1 to 16

Other Race (incluces those races not listed above)

65-80 Same value—Spanish origin categories as groups 1 to 16

Renter

White Race

Persons of Spanish Origin Rent Categories

81	$1 to $59
82	$60 to $99
83	$100 to $149
84	$150 to $199
85	$200 to $249
86	$250 to $299
87	$300 to $399
88	$400 to $499
89	$500+
90	Other Renter
91	No Cash Rent

Persons not of Spanish origin

92-102 Same rent categories as groups 81 to 91

Black Race

103-124 Same rent—Spanish origin categories as groups 81 to 102

Asian, Pacific Islander Race

125-146 Same rent—Spanish origin categories as groups 81 to 102

American Indian, Eskimo or Aleut Race

147-168 Same rent—Spanish origin categories as groups 81 to 102

Other Race (includes those races not listed above)

169-190 Same rent—Spanish origin categories as groups 81 to 102

VACANT HOUSING UNITS

Group	
1	*Vacant for Rent*
2	*Vacant for Sale*
3	*Other Vacant*

The estimates produced by this procedure realize some of the gains in sampling efficiency that would have resulted if the population had been stratified into the ratio estimation groups before sampling, and the sampling rate had been applied independently to each group. The net effect is a reduction in both the standard error and the possible bias of most estimated characteristics to levels below what would have resulted from simply using the initial (unadjusted) weight. A by-product of this estimation procedure is that the estimates from the sample will, for the most part, be consistent with the complete-count figures for the population and housing unit groups used in the estimation procedure.

CONTROL OF NONSAMPLING ERROR

As mentioned above, nonsampling error is present in both sample and complete count data. If left unchecked, this error could introduce serious bias into the data, the variability of which could increase dramatically over that which would result purely from sampling. While it is impossible to completely eliminate nonsampling error from an operation as large and complex as the 1980 census, the Bureau of the Census attempted to control the sources of such error during the collection and processing operations. The primary sources of nonsampling error and the programs instituted for control of this error are described below. The success of these programs, however, was contingent upon how well the instructions were actually carried out during the census. To the extent possible, both the effects of these programs and the amount of error remaining after their application will be evaluated.

Undercoverage—It is possible for some housing units or persons to be entirely missed by the census. This undercoverage of persons and housing units can introduce biases into the data. Several extensive programs were developed to focus on this important problem.

- The Postal Service reviewed mailing lists and reported housing unit addresses which were missing, undeliverable, or duplicated in the listings.
- The purchased commercial mailing list was updated and corrected by a complete field review of the list of housing units during a precanvass operation.
- A record check was performed to reduce the undercoverage of individual persons in selected areas. Independent lists of persons, such as driver's license holders, were matched with the household rosters in the census listings. Persons not matched to the census rosters were followed up and added to the census counts if they were found to have been missed.
- A recheck of units initially classified as vacant or nonexistent was utilized to further reduce the undercoverage of persons.

More extensive discussions of programs developed to reduce undercoverage will be published as the analyses of those programs are completed.

Respondent and Enumerator Error—The person answering the questionnaire or responding to the questions posed by an enumerator could serve as a source of error by offering incorrect or incomplete information. To reduce this source of error, questions were phrased as clearly as possible based on precensus tests, and detailed instructions for completing the questionnaire were provided to each household. In addition, respondents' answers were edited for completeness and consistency and followed up as necessary. For example, if labor force items were incomplete for a person 15 years or older, field edit procedures would recognize the

situation and a followup attempt to obtain the information would be made.

The enumerator may misinterpret or otherwise incorrectly record information given by a respondent; may fail to collect some of the information for a person or household; or may collect sample data for households that were not designated as part of the sample. To control these problems, the work of enumerators was carefully monitored. Field staff were prepared for their tasks by using standardized training packages which included experience in using census materials. A sample of the households interviewed by enumerators for nonresponse was reinterviewed to control for the possibility of data for fabricated persons being submitted by enumerators. Also, the estimation procedure was designed to control for biases that would result from the collection of data from households not designated for the sample.

Processing Error—The many phases of processing the census represent potential sources for the introduction of nonsampling error. The processing of the census questionnaires includes the field editing, followup, and transmittal of completed questionnaires; the manual coding of write-in responses; and the electronic data processing. The various field, coding, and computer operations undergo a number of quality control checks to insure their accurate application.

Nonresponse—Nonresponse to particular questions on the census questionnaire allows for the introduction of bias into the data, since the characteristics of the nonrespondents have not been observed and may differ from those reported by respondents. As a result, any allocation procedure using respondent data may not completely reflect this difference either at the element level (individual person or housing unit) or on the average. Some protection against the introduction of large biases is afforded by minimizing nonresponse. In the census, nonresponse was substantially reduced during the field operations, by the various edit and followup operations aimed at obtaining a response for every question. Characteristics, for the nonresponses remaining after these operations, were allocated by the computer using reported data for a person or housing unit with similar characteristics. The allocation procedure is described in more detail below.

EDITING OF UNACCEPTABLE DATA

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

In the field, questionnaires were reviewed for omissions and certain inconsistencies by a census clerk or an enumerator and, if necessary, a followup was made to obtain missing information, or to correct inconsistencies. In addition, a hand edit of questionnaires was done in the central processing offices. As a rule, however, editing was performed by hand only when it could not be done effectively by machine.

As one of the first steps in machine editing, the configuration of marks on the questionnaire column was scanned electronically to determine whether it contained information for a person or merely spurious marks. If the column contained entries for at least two of the basic characteristics (relationship, sex, race, age, marital status, Spanish origin), the inference was made that the marks represented a person. In cases in which two or more basic characteristics were available for only a portion of the people in the unit, other information on the questionnaire provided by an enumerator was used to determine the total number of persons. Names were not used as a criterion of the presence of a person because the electronic scanning did not distinguish any entry in the name space.

After the field operations were completed, it was found (as expected) that some questionnaires were not fully filled out or that for a particular person or housing unit, certain items of information were inconsistent with other information on the questionnaire. As in previous censuses, allocations or the assignment of acceptable entries were used to replace blanks or unacceptable entries. The allocation procedure was based on using information reported for another person or housing unit with related characteristics similar to those of the person or housing unit for whom allocation was necessary. Thus, a person who was reported as a 20-year-old son of the householder, but for whom marital status was not reported, was assigned the same marital status as that of the last son processed in the same age group by the computer. The assignment of acceptable codes in place of blanks or unacceptable entries, is designed to enhance the usefulness of the data.

The 1980 census data on the economic questions such as industry, occupation, class of worker, work experience, and income were processed using an allocation system which assigned values to missing entries in these questions, as necessary, from a single respondent with similar socioeconomic characteristics. In the 1970 census, allocation of each of the economic items was conducted separately; thus, assigned values could come from more than one respondent.

Prior to the allocation of all economic variables, the computer records were sorted according to such characteristics as sex, race and ethnicity, household relationship, years of school completed, and geographic area. The actual allocation operation was implemented in the following manner:

1. The computer stored in a series of matrices reported economic information of persons by selected characteristics such as age, disability status, presence of children, veteran's status, employment status, occupation, industry, class of worker status, work experience in 1979, level of earnings in 1979, and value of housing unit or monthly rent.

2. The stored entries in the various matrices were retained in the computer only until a succeeding person having the same set of characteristics was processed through the computer. Then the economic question responses of the succeeding person were stored in place of those previously stored.

3. When one or more of the economic questions was not reported, or the entry was unacceptable, the variables assigned to this person were those stored in the appropriate matrix for the last person who otherwise had the same set of characteristics.

The use of this single allocation system insured that the distribution of economic variable assignments would correspond closely to the entries of persons who had actually reported in the census.

Table A. Unadjusted Standard Errors for Estimated Totals

[Based on a 1-in-6 simple random sample]

Estimated Total 1/	Size of publication area 2/													
	500	1 000	2 500	5 000	10 000	25 000	50 000	100 000	250 000	500 000	1 000 000	5 000 000	10 000 000	25 000 000
50.....	16	16	16	16	16	16	16	16	16	16	16	16	16	16
100.....	20	21	22	22	22	22	22	22	22	22	22	22	22	22
250.....	25	30	35	35	35	35	35	35	35	35	35	35	35	35
500.....	-	35	45	45	50	50	50	50	50	50	50	50	50	50
1 000.....	-	-	55	65	65	70	70	70	70	70	70	70	70	70
2 500.....	-	-	-	80	95	110	110	110	110	110	110	110	110	110
5 000.....	-	-	-	-	110	140	150	150	160	160	160	160	160	160
10 000.....	-	-	-	-	-	170	200	210	220	220	220	220	220	220
15 000.....	-	-	-	-	-	170	230	250	270	270	270	270	270	270
25 000.....	-	-	-	-	-	-	250	310	340	350	350	350	350	350
75 000.....	-	-	-	-	-	-	-	310	510	570	590	610	610	610
100 000.....	-	-	-	-	-	-	-	-	550	630	670	700	700	710
250 000.....	-	-	-	-	-	-	-	-	-	790	970	1 090	1 100	1 100
500 000.....	-	-	-	-	-	-	-	-	-	-	1 120	1 500	1 540	1 570
1 000 000....	-	-	-	-	-	-	-	-	-	-	-	2 000	2 120	2 190
5 000 000....	-	-	-	-	-	-	-	-	-	-	-	-	3 540	4 470
10 000 000...	-	-	-	-	-	-	-	-	-	-	-	-	-	5 480

1/ For estimated totals larger than 10 000 000, the standard error is somewhat larger than the table values. The formula given below should be used to calculate the standard error.

$$Se\ (\hat{Y}) = \sqrt{5\hat{Y}\ (1-\frac{\hat{Y}}{N})}$$

N = Size of area

$\hat{Y}$ = Estimate of characteristic total

2/ The total count of persons in the area if the estimated total is a person characteristic, or the total count of housing units in the area if the estimated total is a housing unit characteristic.

Table B. Unadjusted Standard Error in Percentage Points for Estimated Percentages

[Based on a 1-in-6 simple random sample]

Estimated Percentage	Base of percentage 1/												
	500	750	1 000	1 500	2 500	5 000	7 500	10 000	25 000	50 000	100 000	250 000	500 000
2 or 98.....	1.4	1.1	1.0	0.8	0.6	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1
5 or 95.....	2.2	1.8	1.5	1.3	1.0	0.7	0.6	0.5	0.3	0.2	0.2	0.1	0.1
10 or 90.....	3.0	2.4	2.1	1.7	1.3	0.9	0.8	0.7	0.4	0.3	0.2	0.1	0.1
15 or 85.....	3.6	2.9	2.5	2.1	1.6	1.1	0.9	0.8	0.5	0.4	0.3	0.2	0.1
20 or 80.....	4.0	3.3	2.8	2.3	1.8	1.3	1.0	0.9	0.6	0.4	0.3	0.2	0.1
25 or 75.....	4.3	3.5	3.1	2.5	1.9	1.4	1.1	1.0	0.6	0.4	0.3	0.2	0.1
30 or 70.....	4.6	3.7	3.2	2.6	2.0	1.4	1.2	1.0	0.6	0.5	0.3	0.2	0.1
35 or 65.....	4.8	3.9	3.4	2.8	2.1	1.5	1.2	1.1	0.7	0.5	0.3	0.2	0.2
50.....	5.0	4.1	3.5	2.9	2.2	1.6	1.3	1.1	0.7	0.5	0.4	0.2	0.2

1/ For a percentage and/or base of percentage not shown in the table, the formula given below may be used to calculate the standard error.

$$Se\ (\hat{p}) = \sqrt{\frac{5}{B}\ \hat{p}(100-\hat{p})}$$

B = Base of estimated percentage

$\hat{p}$ = Estimated percentage

Table C. Standard Error Adjustment Factors

[Percent of persons in sample]

Characteristics	Less than 19 Percent	19 to 33 Percent	More than 33 Percent
Urban and rural	1.1	1.0	0.7
Age, sex, race, and Spanish origin	1.2	1.2	0.7
Household and family type	1.1	1.1	0.7
Household relationship	1.3	1.3	0.9
Subfamily type	1.3	1.3	0.6
Household size	1.1	1.1	0.6
Marital status	1.0	1.0	0.6
Children ever born	1.0	1.0	0.5
Language usage and ability to speak English	1.6	1.5	1.0
Ancestry	1.9	1.9	1.2
Type of group quarters	0.9	0.8	0.6
Citizenship	1.6	1.3	1.0
Nativity and place of birth	3.0	3.0	1.7
Residence in 1975 and year of immigration	4.4	4.4	2.9
Place of work	2.3	2.3	1.3
Travel time to work	1.8	1.8	1.1
Means of transportation to work and private vehicle occupancy	1.3	1.2	0.7
School enrollment	1.5	1.4	0.8
Year of school completed	1.3	1.2	0.7
Veteran status and period of service	1.1	1.1	0.6
Work and public transportation disability	1.2	1.1	0.6
School enrollment and years of school completed by labor force status	1.3	1.2	0.7
Labor force status	1.2	1.1	0.8
Hours worked per week and weeks worked in 1979	1.1	1.0	0.7
Unemployment in 1979	1.2	1.2	0.7
Industry and occupation	1.2	1.1	0.6
Class of worker	1.3	1.3	0.8
Household income	1.1	1.1	0.6
Income type	1.3	1.3	0.8
Family income	1.1	1.1	0.6
Unrelated individual income	1.2	1.2	0.6
Workers in family	1.3	1.2	0.8
Poverty status: Family	1.1	1.1	0.7
Poverty status: Persons	2.4	2.4	1.3
Poverty status: Unrelated individuals	1.2	1.2	0.7

Table D. **Percent of Persons in Sample: 1980**

(FOR MEANINGS OF SYMBOLS, SEE INTRODUCTION. FOR DEFINITION OF TERMS, SEE APPENDIXES A AND B)

	PERSONS	
	100-PERCENT COUNT	PERCENT IN SAMPLE
BOSTON-LAWRENCE-LOWELL, MASS.-N.H.	3 448 122	15.4
CHICAGO-GARY-KENOSHA, ILL.-IND.-WIS.	7 869 542	15.9
CINCINNATI-HAMILTON, OHIO-KY.-IND.	1 660 278	17.4
CLEVELAND-AKRON-LORAIN, OHIO	2 834 062	16.8
DAYTON-SPRINGFIELD, OHIO	1 013 955	18.3
DETROIT-ANN ARBOR, MICH.	4 618 161	16.5
HOUSTON-GALVESTON, TEX.	3 101 293	15.5
INDIANAPOLIS-ANDERSON, IND.	1 305 911	18.9
LOS ANGELES-LONG BEACH-ANAHEIM, CALIF.	11 497 568	15.4
MIAMI-FORT LAUDERDALE, FLA.	2 643 981	14.5
MILWAUKEE-RACINE, WIS.	1 570 275	17.0
NEW YORK-NEWARK-JERSEY CITY, N.Y.-N.J.-CONN.	16 121 297	15.2
PHILADELPHIA-WILMINGTON-TRENTON, PA.-DEL.-N.J.-MD.	5 547 902	16.5
PROVIDENCE-RIVER FALL, R.I.-MASS.	1 096 047	15.7
SAN FRANCISCO-OAKLAND-SAN JOSE, CALIF.	5 179 784	15.2
SEATTLE-TACOMA, WASH.	2 093 112	16.1

Appendix E.—Facsimiles of Respondent Instructions and Questionnaire Pages

INSTRUCTIONS FOR QUESTIONS 1 THROUGH 10

1. List in question 1 (on page 1), the names of all the people who usually live here. Then turn to pages 2 and 3 where there are columns to list up to seven persons. In the first column print the name of one of the household members in whose name this home is owned or rented. If no household member owns or rents the living quarters, list in the first column any adult household member who is not a roomer, boarder, or paid employee. Print the names of the other household members, if any, in the columns which follow, using question 1 as a checklist.

2. Fill a circle to show how each person is related to the person in column 1.

   A stepchild or legally adopted child of the person in column 1 should be marked **Son/daughter**. Foster children or wards living in the household should be marked **Roomer, boarder.**

3. Be sure to fill a circle for the sex of each person.

4. Fill the circle for the category with which the person most closely identifies. If you fill the **Indian (American)** or **Other** circle, be sure to print the name of the specific Indian tribe or specific group.

5. Enter age at last birthday in the space provided (enter "0" for babies less than one year old). Also enter month and year of birth, *and* fill the appropriate circles. For an illustration of how to complete question 5, see the example on pages 4 and 5. If age or month or year of birth is not known, give your best estimate.

6. If the person's only marriage was annulled, mark **Never married.**

7. A person is of Spanish/Hispanic origin or descent if the person *identifies* his or her ancestry with one of the listed groups, that is, Mexican, Puerto Rican, etc. Origin or descent (ancestry) may be viewed as the nationality group, the lineage, or country in which the person or the person's parents or ancestors were born.

8. Do not count enrollment in a trade or business school, company training, or tutoring unless the course would be accepted for credit at a regular elementary school, high school, or college. A *public* school is any school or college which is controlled and supported primarily by a local, county, State, or Federal Government.

9. Fill only one circle. Mark the highest grade *ever* attended even if the person did not finish it. If the person is still in school, mark the grade in which now enrolled. Schooling received in foreign or ungraded schools should be reported as the equivalent grade or year in the regular American school system. If uncertain whether a Head Start program is for nursery school or kindergarten, mark the circle for **Nursery school.**

   If the person skipped or repeated grades, mark the highest grade ever attended regardless of how long it took to get there. Persons who did not attend any college but who completed high school by finishing the 12th grade or by passing an equivalency test, such as the General Educational Development (GED) examination, should fill the circle for the 12th grade.

10. Mark **Finished this grade (or year)** only if the person finished the *entire* grade or year marked in question 9 or if the highest grade was completed by passing a high school equivalency test.

INSTRUCTIONS FOR QUESTIONS H4 THROUGH H12

H4. Mark only one circle. *This address* means the house or building number where your living quarters are located.

H5. Mark the second circle only if you *must* go through someone else's living quarters to get to your own.

H6. Consider that you have hot water even if you have it only part of the time.

Mark **Yes, but also used by another household** if someone else who lives in the same building, but is not a member of your household, also uses the facilities. Mark this circle also if the occupants of living quarters now vacant would also use the facilities in your living quarters.

H7. 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 bathrooms, kitchenettes, strip or pullman kitchens, utility rooms, or unfinished attics, unfinished basements, or other space used for storage.

H8. Mark **Owned or being bought** if 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, military housing, 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.

H9. A *condominium* is housing in which the apartments or houses in a development are individually owned, but the common areas, such as lobbies, halls, etc., are jointly owned. The person owning a condominium very likely has a mortgage on the particular unit.

H10b. 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.

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. If this is a condominium unit, enter the estimated value for your living quarters and your share of the common elements.

H12. Report the rent agreed to or contracted for, even if the rent is unpaid or paid by someone else.

If rent is not paid by the month, change the rent to a monthly amount; and then fill the appropriate circle in question H12.

If rent is paid:	Multiply rent by:
By the day	30
By the week	4
Every other week	2

If rent is paid:	Divide rent by:
4 times a year	3
2 times a year	6
Once a year	12

INSTRUCTIONS FOR QUESTIONS H13 THROUGH H20

H13. Mark only one circle.

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.

Mark **A one-family house detached from any other house** when a mobile home or trailer has had one or more rooms added or built onto it; a porch or shed is not considered a room.

Count all occupied and vacant living quarters in the house or building, but not stores or office space.

H14a. Do not count unfinished basements or unfinished attics. However, a basement or attic with finished room(s) for living purposes should be counted as a story.

H15a. 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.

H16. 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 one of the categories for *individual well.*

Drilled wells, or small diameter wells, are usually less than 1½ feet in diameter. *Dug wells* are generally hand dug and are wider.

H17. 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.

H19. The term *person in column 1* refers to the person listed in the first column on page 2. This person should be the household member (or one of the members) in whose name the house is owned or rented. If there is no such person, any adult household member can be the person in column 1. Mark when this person last moved into *this* house or apartment.

H20. This question refers to the type of *heating equipment* and not to the fuel used.

An *electric heat pump* is sometimes known as a reverse cycle system. It may be centrally installed with ducts to the rooms or individual heat pumps in the rooms.

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 and does not have ducts leading to other rooms.

Any heater that you plug into an electric outlet should be counted as a *portable room heater.*

INSTRUCTIONS FOR QUESTIONS H21 THROUGH H32

H21. *Gas from underground pipes* is piped in from a central system such as one operated by 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.

H22. If your living quarters are rented, enter the costs for utilities and fuels only if you pay for them in addition to the rent entered in H12. If already included in rent, fill the appropriate circle.

The amounts to be reported should be for the past 12 months, that is, for electricity and gas, the monthly *average* for the past 12 months; for water and other fuels, the *total* amount for the past 12 months.

Estimate as closely as possible when exact costs are not known.

Report amounts even if your bills are unpaid or 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.

H23. The kitchen sink, stove, and refrigerator must be located in the building but do *not* have to be in the same room. Portable cooking equipment is not considered as a range or cook stove.

H26. Answer Yes *only* if the telephone is located *in* your living quarters.

H27. Count only equipment used to cool the air by means of a refrigeration unit.

H28– H29. Count company cars (including police cars and taxicabs) and company trucks that are regularly kept at home and used by household members. Do *not* count cars or trucks permanently out of working order.

H30– H32. *Do not answer these questions if you live in a cooperative, regardless of the number of units in the structure.*

H30. Report taxes for all taxing jurisdictions even if they are included in mortgage payment, not paid yet, paid by someone else, or are delinquent.

H31. When premiums are paid on other than a yearly basis, convert to a yearly basis and enter the yearly amount, even if no payment was made during the past 12 months.

H32a. The word "mortgage" is used as a general term to indicate all types of loans which are secured by real estate.

b. A second or junior mortgage is also secured by real estate but has been made by the homeowner in addition to the first mortgage.

c. Enter a monthly amount even if it is unpaid or paid by someone else. If the amount is paid on some other periodic basis, see instructions for H12 to change it to a monthly amount.

INSTRUCTIONS FOR QUESTIONS 11 THROUGH 14

11. *For persons born in the United States:*
Print the name of the State in which this person's mother was living when this person was born. For persons born in a hospital, do not give the State in which the hospital was located unless the hospital and the mother's home were in the same State or the location of the mother's home is not known. For example, if a person was born in a hospital in Washington, D.C., but the mother's home was in Virginia at the time of the person's birth, enter "Virginia."

For persons born outside the United States:
Print the full name of the foreign country or Puerto Rico, Guam, etc., where the person was born. Use international boundaries as now recognized by the United States. Specify whether Northern Ireland or Ireland (Eire); East or West Germany; England, Scotland or Wales (*not* Great Britain or United Kingdom). Specify the particular island in the Caribbean, *not*, for example, West Indies.

12. This question is only for persons born in a foreign country. Fill the **Yes, a naturalized citizen** circle only if the person has *completed* the naturalization process and is now a citizen.

If the person has entered the U.S. more than once, fill the circle for the year he or she came to stay permanently.

13a. Mark **No, only speaks English** if the person always speaks English *at home*; then skip to question 14.

Mark **Yes** if the person speaks a language other than English *at home*. Do *not* mark **Yes** for a language spoken only at school or if speaking ability is limited to a few expressions or slang.

b. Print the non-English language spoken *at home*. If this person speaks two or more non-English languages *at home* and cannot determine which is spoken most often, report the first language the person learned to speak.

c. Fill the circle that best describes the person's *ability* to speak English.

(1) The circle **Very well** should be filled for persons who have no difficulty speaking English.

(2) The circle **Well** *should be filled for persons who have only minor* problems which do not seriously limit their ability to speak English.

(3) The circle **Not well** should be filled for persons who are seriously limited in their ability to speak English.

(4) The circle **Not at all** should be filled for persons who do not speak English at all.

14. Print the ancestry group with which the person *identifies*. Ancestry (or origin or descent) may be viewed as the nationality group, the lineage, or the country in which the person or the person's parents or ancestors were born before their arrival in the United States. Persons who are of more than one origin and who cannot identify with a single group should print their multiple ancestry (for example, German-Irish).

Be specific; for example, if ancestry is "Indian," specify whether American Indian, Asian Indian, or West Indian. Distinguish Cape Verdean from Portuguese, and French Canadian from Canadian.

A religious group should not be reported as a person's ancestry.

INSTRUCTIONS FOR QUESTIONS 15 THROUGH 20

15a. Mark **Yes, this house** if this person lived in this same house or apartment on April 1, 1975, but moved away and came back between then and now. Mark **No, different house** if this person lived in the same building but in a different apartment (or in the same mobile home or trailer but on a different trailer site).

b. If this person lived in a different house or apartment on April 1, 1975, give the location of this person's usual home at that time.

Part (1) If the person was living in the United States on April 1, 1975, print the name of the State. If the person did *not* live in the United States on April 1, 1975, print the full name of the foreign country or Puerto Rico, Guam, etc.

Part (2) If in Louisiana, print the parish name. If in Alaska, print the borough name. If in New York City – print the borough name if the county name is not known. If an independent city, leave blank.

Part (3) If in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island or Vermont, print the name of the town rather than the name of the village or city, unless the name of the town is unknown.

Part (4) Mark **Yes** if you know that the location is *now* inside the limits of a city, town, village or other incorporated place, even if it was not inside the limits on April 1, 1975.

17a. Mark **Yes** only if this person was on *active* duty in the U.S. Army, Navy, Air Force, Marine Corps, or Coast Guard. Mark **No** if the person was in the National Guard or the reserves.

b. Mark **Yes** if the person was attending a college or university either *full or part time and was enrolled for credit toward a degree.* Mark **No** if the person was taking only non-credit courses or was attending a vocational or trade school, such as secretarial school.

c. Mark **Yes, full time** if the person worked full time (35 hours or more per week). Mark **Yes, part time** if the person worked part time (less than 35 hours per week). Mark **No** if the person only did unpaid volunteer work, housework or yard work at own home, or if the only work done was as a resident of an institution.

18a. Mark **Yes** if this person was ever on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or Coast Guard, even if the time served was short. For persons in the National Guard or military reserve units, mark **Yes** *only* if the person was ever called to active duty; mark **No** if the only service was active duty for training.

b. If this person served during more than one period, fill all circles which apply, even if service was for a short time.

19. The term "health condition" refers to any physical or mental problem which has lasted for 6 *or more* months. A serious problem with seeing, hearing, or speech should be considered a health condition. Pregnancy or a temporary health problem such as a broken bone that is expected to heal normally should *not* be considered a health condition.

20. Count all children born alive, including any who have died (even shortly after birth) or who no longer live with her.

INSTRUCTIONS FOR QUESTIONS 21 THROUGH 26

21. If the exact date of marriage is not known, give your best estimate.

22a. Mark **Yes** if the person worked, either full or part time, on any day of last week (Sunday through Saturday).

Count as work:

Work for someone else for wages, salary, piece rate, commission, tips, or payments "in kind" (for example, food, lodging received as payment for work performed).

Work in own business, professional practice, or farm.

Any work in a family business or farm, paid or not.

Any part-time work including babysitting, paper routes, etc.

Active duty in Armed Forces.

Do not count as work:

Housework or yard work at home.

Unpaid volunteer work.

Work done as a resident of an institution.

b. Give the *actual* number of hours worked at *all jobs last week,* even if that was more or fewer hours than usually worked.

23. If the person worked at several locations, but reported to the same location each day to begin work, print where he or she reported. If the person did not report to the same location each day to begin work, print the words "various locations" for 23a, and give as much information as possible in the remainder of 23 to identify the area in which he or she worked *most* last week.

If the person's employer operates in more than one location (such as a grocery store chain or public school system), give the exact address of the location or branch where the person worked.

If the person worked in a foreign country or Puerto Rico, Guam, etc., print the name of the country in 23e and leave the other parts of 23 blank.

24a. Travel time is from door to door. Include time taken waiting for public transportation, picking up passengers in carpools, etc.

b. Mark **Worked at home** for a person who works on a farm where he or she lives, or in an office or shop in the person's home.

c. If the person was driven to work by someone who then drove back home or to a non-work destination, mark **Drive alone.**

d. Do not include riders who rode to school or some other non-work destination.

25. If the person works only during certain seasons or on a day-to-day basis when work is available, mark **No.**

26a. Mark **Yes** if the person tried to get a job or to start a business or professional practice at any time in the last *four* weeks; for example, registered at an employment office, went to a job interview, placed or answered ads, or did anything toward starting a business or professional practice.

b. Mark **No, already has a job** if the person was on layoff or was expecting to report to a job within 30 days.

Mark **No, temporarily ill** if the person expects to be able to work within 30 days.

Mark **No, other reasons** if the person could not have taken a job because he or she was going to school, taking care of children, etc.

INSTRUCTIONS FOR QUESTIONS 27 THROUGH 29

27. Look at the instructions for 22a to see what to count as work. Mark **Never worked** if the person: (1) never worked at any kind of job or business, either full or part time, (2) never did any work, with or without pay, in a family business or farm *and* (3) never served in the Armed Forces.

28a. If the person worked for a company, business, or government agency, print the name of the company, not the name of the person's supervisor. If the person worked for an individual or a business that has no company name, print the name of the individual worked for. If the person worked in his or her own business, print "self-employed."

b. Print two or more words to tell what the business, industry, or individual employer named in 28a does. If there is more than one activity, describe only the major activity *at the place where the person works.* Enter what is made, what is sold, or what service is given.

Some examples of what is needed to make an answer acceptable are shown on the census form and here.

Unacceptable	Acceptable
Furniture company	Metal furniture manufacturing
Grocery store	Wholesale grocery store
Oil company	Retail gas station
Ranch	Cattle ranch

c. Mark **Manufacturing** if the factory, plant, mill, etc., mostly makes things, even if it also sells them.

Mark **Wholesale trade** if the business mostly sells things to stores or other companies.

Mark **Retail trade** if the business mostly sells things (not services) to individuals.

Mark **Other** if the main activity of the employer is not making or selling things. Some examples of **Other** are farming, construction, and services such as those provided by hotels, dry cleaners, repair shops, schools, and banks.

29a. Print two or more words to describe the kind of work the person does. If the person is a trainee, apprentice, or helper, include that in the description.

Some examples of what is needed to make an answer acceptable are shown on the census form and here.

Unacceptable	Acceptable
Clerk	Production clerk
Helper	Carpenter's helper
Mechanic	Auto engine mechanic
Nurse	Registered nurse

b. Print the most important things that the person does on the job. Some examples are shown on the census form.

INSTRUCTIONS FOR QUESTIONS 30 THROUGH 33

30. If the person was an employee of a *private* nonprofit organization, such as a church, fill the first circle.

Mark **Local government employee** for a teacher working in an elementary or secondary public school.

31a. Look at the instructions for question 22a to see what to count as work.

b. Count every week in which the person did any work at all, even for an hour.

c. If the hours worked each week varied considerably, give the best estimate of the hours usually worked most weeks.

d. Count every week in which the person did not work at all, but spent any time looking for work or on layoff from a job. *Looking for work* means trying to get a job or start a business or professional practice; *layoff* includes either temporary or indefinite layoff.

32. Fill the **Yes** or **No** circle for each part and enter the appropriate amount. If income from any source was received jointly by household members, report if possible, the appropriate share for each person; otherwise, report the whole amount for only one person and mark **No** for the other person, unless the other person has additional income of the same type.

a. Include sick leave pay. Do not include reimbursement for business expenses and pay "in kind," (for example, food, lodging received as payment for work performed).

b. Include net earnings (gross earnings minus business expenses) from a nonfarm business. If business lost money, write "Loss" above the amount.

c. Include net earnings (gross receipts minus operating expenses) from a farm. If farm lost money, write "Loss" above the amount.

d. Include interest and dividends credited to the person's account (for example, from savings accounts and stock shares), net royalties, and net income from rental property.

e. Include Social Security or Railroad Retirement payments to retired persons, to dependents of deceased insured workers and to disabled workers.

f. Include public assistance or welfare payments received from Federal, State, or local agencies. Do not include private welfare payments.

g. Include all other regular payments, such as government employee retirement, union or private pensions and annuities; unemployment benefits; worker's compensation; Armed Forces allotments; private welfare payments; regular contributions from persons not living in the household; etc.

Do not include lump-sum payments received from the sale of property (capital gains), insurance policies, inheritances, etc.

33. If no income was received in 1979, fill the **None** circle. If total income was a loss, write "Loss" above the amount.

Please fill out this official Census Form and mail it back on Census Day, Tuesday, April 1, 1980

1980 Census of the United States

If the address shown below has the wrong apartment identification, please write the correct apartment number or location here:

DO	A1	A2	A4	A5 L	A6

Your answers are confidential

By law (title 13, U.S. Code), census employees are subject to fine and/or imprisonment for any disclosure of your answers. Only after 72 years does your information become available to other government agencies or the public. The same law requires that you answer the questions to the best of your knowledge.

Para personas de habla hispana

(For Spanish-speaking persons):
SI USTED DESEA UN CUESTIONARIO DEL CENSO EN ESPAÑOL llame a la oficina del censo. El número de teléfono se encuentra en el encasillado de la dirección.

O, si prefiere, marque esta casilla ☐ y devuelva el cuestionario por correo en el sobre que se le incluye.

A message from the Director,
Bureau of the Census . . .

We must, from time to time, take stock of ourselves as a people if our Nation is to meet successfully the many national and local challenges we face. This is the purpose of the 1980 census.

The essential need for a population census was recognized almost 200 years ago when our Constitution was written. As provided by article I, the first census was conducted in 1790 and one has been taken every 10 years since then.

The law under which the census is taken protects the confidentiality of your answers. For the next 72 years — or until April 1, 2052 — only sworn census workers have access to the individual records, and no one else may see them.

Your answers, when combined with the answers from other people, will provide the statistical figures needed by public and private groups, schools, business and industry, and Federal, State, and local governments across the country. These figures will help all sectors of American society understand how our population and housing are changing. In this way, we can deal more effectively with today's problems and work toward a better future for all of us.

The census is a vitally important national activity. Please do your part by filling out this census form accurately and completely. If you mail it back promptly in the enclosed postage-paid envelope, it will save the expense and inconvenience of a census taker having to visit you.

Thank you for your cooperation.

U.S. Department of Commerce
Bureau of the Census
Form D-2

Form Approved:
O.M.B. No. 41-S78006

Please continue →

How to fill out your Census Form

See the filled-out example in the yellow instruction guide. This guide will help with any problems you may have.

If you need more help, call the Census Office. The telephone number of the local office is shown at the bottom of the address box on the front cover.

Use a black pencil to answer the questions. Black pencil is better to use than ballpoint or other pens.

Fill circles "O" completely, like this: ●

When you write in an answer, print or write clearly.

Make sure that answers are provided for everyone here.

See page 4 of the guide if a roomer or someone else in the household does not want to give you all the information for the form.

Answer the questions on pages 1 through 5, and then starting with pages 6 and 7, fill a pair of pages for each person in the household.

Check your answers. Then write your name, the date, and telephone number on page 20.

Mail back this form on Tuesday, April 1, or as soon afterward as you can. Use the enclosed envelope; no stamp is needed.

Please start by answering Question 1 below.

Question 1

List in Question 1

- Family members living here, including babies still in the hospital.
- Relatives living here.
- Lodgers or boarders living here.
- Other persons living here.
- College students who stay here while attending college, even if their parents live elsewhere.
- Persons who usually live here but are temporarily away (including children in boarding school below the college level)
- Persons with a home elsewhere but who stay here most of the week while working.

Do Not List in Question 1

- Any person away from here in the Armed Forces.
- Any college student who stays somewhere else while attending college.
- Any person who usually stays somewhere else most of the week while working there.
- Any person away from here in an institution such as a home for the aged or mental hospital.
- Any person staying or visiting here who has a usual home elsewhere.

1. What is the name of each person who was living here on Tuesday, April 1, 1980, or who was staying or visiting here and had no other home?

Note

If everyone here is staying only temporarily and has a usual home elsewhere, please mark this box ☐.

Then please:

- answer the questions on pages 2 through 5 only, and
- enter the address of your usual home on page 20.

Please continue ↗

Page 2 → *ALSO ANSWER THE HOUSING QUESTIONS ON PAGE 3*

Here are the QUESTIONS ↓	These are the columns for ANSWERS → *Please fill one column for each person listed in Question 1.*	PERSON in column 1	PERSON in column 2
		Last name First name Middle initial	Last name First name Middle initial
2. How is this person related to the person in column 1? *Fill one circle.* *If "Other relative" of person in column 1, give exact relationship, such as mother-in-law, niece, grandson, etc.*		*START in this column with the household member (or one of the members) in whose name the home is owned or rented. If there is no such person, start in this column with any adult household member.*	If relative of person in column 1: ○ Husband/wife ○ Father/mother ○ Son/daughter ○ Other relative → ○ Brother/sister If not related to person in column 1: ○ Roomer, boarder ○ Other nonrelative → ○ Partner, roommate ○ Paid employee
3. Sex *Fill one circle.*		○ Male ■ ○ Female	○ Male ■ ○ Female
4. Is this person — *Fill one circle.*		○ White ○ Asian Indian ○ Black or Negro ○ Hawaiian ○ Japanese ○ Guamanian ○ Chinese ○ Samoan ○ Filipino ○ Eskimo ○ Korean ○ Aleut ○ Vietnamese ○ Other — *Specify* → ○ Indian (Amer.) *Print tribe* →	○ White ○ Asian Indian ○ Black or Negro ○ Hawaiian ○ Japanese ○ Guamanian ○ Chinese ○ Samoan ○ Filipino ○ Eskimo ○ Korean ○ Aleut ○ Vietnamese ○ Other — *Specify* → ○ Indian (Amer.) *Print tribe* →
5. Age, and month and year of birth *a. Print age at last birthday.* *b. Print month and fill one circle.* *c. Print year in the spaces, and fill one circle below each number.*		a. Age at last birthday b. Month of birth ○ Jan.—Mar. ○ Apr.—June ○ July—Sept. ○ Oct.—Dec. c. Year of birth 1 ● 8 ○ 9 ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○	a. Age at last birthday b. Month of birth ○ Jan.—Mar. ○ Apr.—June ○ July—Sept. ○ Oct.—Dec. c. Year of birth 1 ● 8 ○ 9 ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○
6. Marital status *Fill one circle.*		○ Now married ○ Separated ○ Widowed ○ Never married ○ Divorced	○ Now married ○ Separated ○ Widowed ○ Never married ○ Divorced
7. Is this person of Spanish/Hispanic origin or descent? *Fill one circle.*		○ No (not Spanish/Hispanic) ○ Yes, Mexican, Mexican-Amer., Chicano ○ Yes, Puerto Rican ■ ○ Yes, Cuban ○ Yes, other Spanish/Hispanic	○ No (not Spanish/Hispanic) ○ Yes, Mexican, Mexican-Amer., Chicano ○ Yes, Puerto Rican ■ ○ Yes, Cuban ○ Yes, other Spanish/Hispanic
8. Since February 1, 1980, has this person attended regular school or college at any time? *Fill one circle. Count nursery school, kindergarten, elementary school, and schooling which leads to a high school diploma or college degree.*		○ No, has not attended since February 1 ○ Yes, public school, public college ○ Yes, private, church-related ○ Yes, private, not church-related	○ No, has not attended since February 1 ○ Yes, public school, public college ○ Yes, private, church-related ○ Yes, private, not church-related
9. What is the highest grade (or year) of regular school this person has ever attended? *Fill one circle.* *If now attending school, mark grade person is in. If high school was finished by equivalency test (GED), mark "12."*		**Highest grade attended:** ○ Nursery school ○ Kindergarten Elementary through high school *(grade or year)* 1 2 3 4 5 6 7 8 9 10 11 12 ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ College *(academic year)* ■ 1 2 3 4 5 6 7 8 or more ○ ○ ○ ○ ○ ○ ○ ○ ○ Never attended school — *Skip question 10*	**Highest grade attended:** ○ Nursery school ○ Kindergarten Elementary through high school *(grade or year)* 1 2 3 4 5 6 7 8 9 10 11 12 ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ College *(academic year)* ■ 1 2 3 4 5 6 7 8 or more ○ ○ ○ ○ ○ ○ ○ ○ ○ Never attended school — *Skip question 10*
10. Did this person finish the highest grade (or year) attended? *Fill one circle.*		○ Now attending this grade *(or year)* ○ Finished this grade *(or year)* ○ Did not finish this grade *(or year)*	○ Now attending this grade *(or year)* ○ Finished this grade *(or year)* ○ Did not finish this grade *(or year)*
		CENSUS USE ONLY A. ○ I ○ N ○ ○	*CENSUS USE ONLY* A. ○ I ○ N ○ ○

If you listed more than 7 persons in Question 1, please see note on page 4.

NOW PLEASE ANSWER QUESTIONS H1—H12 FOR YOUR HOUSEHOLD

PERSON in column 7

Last name

First name — Middle initial

If relative of person in column 1:
- O Husband/wife
- O Son/daughter
- O Brother/sister
- O Father/mother
- O Other relative

If not related to person in column 1:
- O Roomer, boarder
- O Partner, roommate
- O Paid employee
- O Other nonrelative

O Male O Female

- O White
- O Black or Negro
- O Japanese
- O Chinese
- O Filipino
- O Korean
- O Vietnamese
- O Indian (Amer.) *Print tribe*
- O Asian Indian
- O Hawaiian
- O Guamanian
- O Samoan
- O Eskimo
- O Aleut
- O Other — *Specify*

a. Age at last birthday

b. Month of birth
- O Jan.—Mar.
- O Apr.—June
- O July—Sept.
- O Oct.—Dec.

c. Year of birth

1 ● 8 O 9 O | Ø O 1 O 2 O 3 O 4 O 5 O 6 O 7 O 8 O 9 O | Ø O 1 O 2 O 3 O 4 O 5 O 6 O 7 O 8 O 9 O

- O Now married
- O Widowed
- O Divorced
- O Separated
- O Never married

- O No (not Spanish/Hispanic)
- O Yes, Mexican, Mexican-Amer., Chicano
- O Yes, Puerto Rican
- O Yes, Cuban
- O Yes, other Spanish/Hispanic

CENSUS USE ONLY — A. O I — O N — O O

H1. Did you leave anyone out of Question 1 because you were not sure if the person should be listed — *for example, a new baby still in the hospital, a lodger who also has another home, or a person who stays here once in a while and has no other home?*
- O Yes — *On page 4 give name(s) and reason left out.*
- O No

H2. Did you list anyone in Question 1 who is away from home now — *for example, on a vacation or in a hospital?*
- O Yes — *On page 4 give name(s) and reason person is away.*
- O No

H3. Is anyone visiting here who is not already listed?
- O Yes — *On page 4 give name of each visitor for whom there is no one at the home address to report the person to a census taker.*
- O No

H4. How many living quarters, occupied and vacant, are at this address?
- O One
- O 2 apartments or living quarters
- O 3 apartments or living quarters
- O 4 apartments or living quarters
- O 5 apartments or living quarters
- O 6 apartments or living quarters
- O 7 apartments or living quarters
- O 8 apartments or living quarters
- O 9 apartments or living quarters
- O 10 or more apartments or living quarters
- O This is a mobile home or trailer

H5. Do you enter your living quarters —
- O Directly from the outside or through a common or public hall?
- O Through someone else's living quarters?

H6. Do you have complete plumbing facilities in your living quarters, that is, hot and cold piped water, a flush toilet, and a bathtub or shower?
- O Yes, for this household only
- O Yes, but also used by another household
- O No, have some but not all plumbing facilities
- O No plumbing facilities in living quarters

H7. How many rooms do you have in your living quarters? *Do not count bathrooms, porches, balconies, foyers, halls, or half-rooms.*
- O 1 room
- O 2 rooms
- O 3 rooms
- O 4 rooms
- O 5 rooms
- O 6 rooms
- O 7 rooms
- O 8 rooms
- O 9 or more rooms

H8. Are your living quarters —
- O Owned or being bought by you or by someone else in this household?
- O Rented for cash rent?
- O Occupied without payment of cash rent?

H9. Is this apartment (house) part of a condominium?
- O No
- O Yes, a condominium

H10. *If this is a one-family house* —

a. Is the house on a property of 10 or more acres?
O Yes O No

b. Is any part of the property used as a commercial establishment or medical office?
O Yes O No

H11. *If you live in a one-family house or a condominium unit which you own or are buying* —

What is the value of this property, that is, how much do you think this property (house and lot or condominium unit) would sell for if it were for sale?

Do not answer this question if this is —
- A mobile home or trailer
- A house on 10 or more acres
- A house with a commercial establishment or medical office on the property

- O Less than $10,000
- O $10,000 to $14,999
- O $15,000 to $17,499
- O $17,500 to $19,999
- O $20,000 to $22,499
- O $22,500 to $24,999
- O $25,000 to $27,499
- O $27,500 to $29,999
- O $30,000 to $34,999
- O $35,000 to $39,999
- O $40,000 to $44,999
- O $45,000 to $49,999
- O $50,000 to $54,999
- O $55,000 to $59,999
- O $60,000 to $64,999
- O $65,000 to $69,999
- O $70,000 to $74,999
- O $75,000 to $79,999
- O $80,000 to $89,999
- O $90,000 to $99,999
- O $100,000 to $124,999
- O $125,000 to $149,999
- O $150,000 to $199,999
- O $200,000 or more

H12. *If you pay rent for your living quarters* —

What is the monthly rent?

If rent is not paid by the month, see the instruction guide on how to figure a monthly rent.

- O Less than $50
- O $50 to $59
- O $60 to $69
- O $70 to $79
- O $80 to $89
- O $90 to $99
- O $100 to $109
- O $110 to $119
- O $120 to $129
- O $130 to $139
- O $140 to $149
- O $150 to $159
- O $160 to $169
- O $170 to $179
- O $180 to $189
- O $190 to $199
- O $200 to $224
- O $225 to $249
- O $250 to $274
- O $275 to $299
- O $300 to $349
- O $350 to $399
- O $400 to $499
- O $500 or more

FOR CENSUS USE ONLY

A4. Block number — Ø Ø Ø / I I I / 2 2 2 / 3 3 3 / 4 4 4 / 5 5 5 / 6 6 6 / 7 7 7 / 8 8 8 / 9 9 9

A6. Serial number — Ø Ø Ø Ø / I I I I / 2 2 2 2 / 3 3 3 3 / 4 4 4 4 / 5 5 5 5 / 6 6 6 6 / 7 7 7 7 / 8 8 8 8 / 9 9 9 9

B. Type of unit or quarters

Occupied
- O First form
- O Continuation

Vacant
- O Regular
- O Usual home elsewhere

Group quarters
- O First form
- O Continuation

For vacant units

C1. Is this unit for —
- O Year round use
- O Seasonal/Mig. — *Skip C2, C3, and D.*

C2. Vacancy status
- O For rent
- O For sale only
- O Rented or sold, not occupied
- O Held for occasional use
- O Other vacant

C3. Is this unit boarded up?
O Yes O No

D. Months vacant
- O Less than 1 month
- O 1 up to 2 months
- O 2 up to 6 months
- O 6 up to 12 months
- O 1 year up to 2 years
- O 2 or more years

E. Indicators
1. O O Mail return
2. O O Pop./F

O O

F. Total persons — Ø Ø Ø / I I I / 2 2 2 / 3 3 3 / 4 4 4 / 5 5 5 / 6 6 6 / 7 7 7 / 8 8 8 / 9 9 9

Page 4

ALSO ANSWER THESE QUESTIONS

H13. Which best describes this building?
Include all apartments, flats, etc., even if vacant.

- O A mobile home or trailer
- O A one-family house detached from any other house
- O A one-family house attached to one or more houses
- O A building for 2 families
- O A building for 3 or 4 families
- O A building for 5 to 9 families
- O A building for 10 to 19 families
- O A building for 20 to 49 families
- O A building for 50 or more families
- O A boat, tent, van, etc.

H14a. How many stories (floors) are in this building?
Count an attic or basement as a story if it has any finished rooms for living purposes.

- O 1 to 3 — *Skip to H15*
- O 4 to 6
- O 7 to 12
- O 13 or more stories

b. Is there a passenger elevator in this building?

- O Yes
- O No

H15a. Is this building —

- O On a city or suburban lot, or on a place of less than 1 acre? — *Skip to H16*
- O On a place of 1 to 9 acres?
- O On a place of 10 or more acres?

b. Last year, 1979, did sales of crops, livestock, and other farm products from this place amount to —

- O Less than $50 (or None)
- O $50 to $249
- O $250 to $599
- O $600 to $999
- O $1,000 to $2,499
- O $2,500 or more

H16. Do you get water from —

- O A public system *(city water department, etc.)* or private company?
- O An individual drilled well?
- O An individual dug well?
- O Some other source *(a spring, creek, river, cistern, etc.)*?

H17. Is this building connected to a public sewer?

- O Yes, connected to public sewer
- O No, connected to septic tank or cesspool
- O No, use other means

H18. About when was this building originally built? *Mark when the building was first constructed, not when it was remodeled, added to, or converted.*

- O 1979 or 1980
- O 1975 to 1978
- O 1970 to 1974
- O 1960 to 1969
- O 1950 to 1959
- O 1940 to 1949
- O 1939 or earlier

H19. When did the person listed in column 1 move into this house (or apartment)?

- O 1979 or 1980
- O 1975 to 1978
- O 1970 to 1974
- O 1960 to 1969
- O 1950 to 1959
- O 1949 or earlier
- O Always lived here

H20. How are your living quarters heated?
Fill one circle for the kind of heat used most.

- O Steam or hot water system
- O Central warm-air furnace with ducts to the individual rooms *(Do not count electric heat pumps here)*
- O Electric heat pump
- O Other built-in electric units *(permanently installed in wall, ceiling, or baseboard)*
- O Floor, wall, or pipeless furnace
- O Room heaters with flue or vent, burning gas, oil, or kerosene
- O Room heaters without flue or vent, burning gas, oil, or kerosene *(not portable)*
- O Fireplaces, stoves, or portable room heaters of any kind
- O No heating equipment

H21a. Which fuel is used most for house heating?

- O Gas: from underground pipes serving the neighborhood
- O Gas: bottled, tank, or LP
- O Electricity
- O Fuel oil, kerosene, etc.
- O Coal or coke
- O Wood
- O Other fuel
- O No fuel used

b. Which fuel is used most for water heating?

- O Gas: from underground pipes serving the neighborhood
- O Gas: bottled, tank, or LP
- O Electricity
- O Fuel oil, kerosene, etc.
- O Coal or coke
- O Wood
- O Other fuel
- O No fuel used

c. Which fuel is used most for cooking?

- O Gas: from underground pipes serving the neighborhood
- O Gas: bottled, tank, or LP
- O Electricity
- O Fuel oil, kerosene, etc.
- O Coal or coke
- O Wood
- O Other fuel
- O No fuel used

H22. What are the costs of utilities and fuels for your living quarters?

a. Electricity
$ _____ .00 OR
Average monthly cost
- O Included in rent or no charge
- O Electricity not used

b. Gas
$ _____ .00 OR
Average monthly cost
- O Included in rent or no charge
- O Gas not used

c. Water
$ _____ .00 OR
Yearly cost
- O Included in rent or no charge

d. Oil, coal, kerosene, wood, etc.
$ _____ .00 OR
Yearly cost
- O Included in rent or no charge
- O These fuels not used

H23. Do you have complete kitchen facilities? *Complete kitchen facilities are a sink with piped water, a range or cookstove, and a refrigerator.*

- O Yes
- O No

H24. How many bedrooms do you have?
Count rooms used mainly for sleeping even if used also for other purposes.

- O No bedroom
- O 1 bedroom
- O 2 bedrooms
- O 3 bedrooms
- O 4 bedrooms
- O 5 or more bedrooms

H25. 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.

- O No bathroom, or only a half bathroom
- O 1 complete bathroom
- O 1 complete bathroom, plus half bath(s)
- O 2 or more complete bathrooms

H26. Do you have a telephone in your living quarters?

- O Yes
- O No

H27. Do you have air conditioning?

- O Yes, a central air-conditioning system
- O Yes, 1 individual room unit
- O Yes, 2 or more individual room units
- O No

H28. How many automobiles are kept at home for use by members of your household?

- O None
- O 1 automobile
- O 2 automobiles
- O 3 or more automobiles

H29. How many vans or trucks of one-ton capacity or less are kept at home for use by members of your household?

- O None
- O 1 van or truck
- O 2 vans or trucks
- O 3 or more vans or trucks

CENSUS USE

H22a.

H22b.

H22c.

H22d.

Appendix E.—Facsimiles of Respondent Instructions and Questionnaire Pages

FOR YOUR HOUSEHOLD

Page 5

Please answer H30–H32 if you live in a one-family house which you own or are buying, unless this is –

- A mobile home or trailer . . . . . .
- A house on 10 or more acres . . . . . .
- A condominium unit . . . . . .
- A house with a commercial establishment or medical office on the property . . . . .

If any of these, or if you rent your unit or this is a multi-family structure, skip H30 to H32 and turn to page 6.

H30. What were the real estate taxes on this property last year?

$ _____ .00 OR ○ None

H31. What is the annual premium for fire and hazard insurance on this property?

$ _____ .00 OR ○ None

H32a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on this property?

○ Yes, mortgage, deed of trust, or similar debt

○ Yes, contract to purchase

○ No — *Skip to page 6*

b. Do you have a second or junior mortgage on this property?

○ Yes ○ No

c. How much is your total regular monthly payment to the lender?
Also include payments on a contract to purchase and to lenders holding second or junior mortgages on this property.

$ _____ .00 OR ○ No regular payment required — *Skip to page 6*

d. Does your regular monthly payment (amount entered in H32c) include payments for real estate taxes on this property?

○ Yes, taxes included in payment

○ No, taxes paid separately or taxes not required

e. Does your regular monthly payment (amount entered in H32c) include payments for fire and hazard insurance on this property?

○ Yes, insurance included in payment

○ No, insurance paid separately or no insurance

Please turn to page 6 →

FOR CENSUS USE ONLY

	2.	4.		2.	4.		2.	4.
① S.S. Yes ○ No ○	0 0 1 1 2 2 3 3 4 4 5 6 7 8 9	0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9	② S.S. Yes ○ No ○	0 0 1 1 2 2 3 3 4 4 5 6 7 8 9	0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9	③ S.S. Yes ○ No ○	0 0 1 1 2 2 3 3 4 4 5 6 7 8 9	0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9
④ S.S. Yes ○ No ○	2. ■ 0 0 1 1 2 2 3 3 4 4 5 6 7 8 9	4. 0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9	⑤ S.S. Yes ○ No ○	2. ■ 0 0 1 1 2 2 3 3 4 4 5 6 7 8 9	4. 0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9	⑥ S.S. Yes ○ No ○	2. ■ 0 0 1 1 2 2 3 3 4 4 5 6 7 8 9	4. 0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9

	2.	4.	GQ.	H30.	H31.	H32c.
⑦ S.S. Yes ○ No ○	2. ■ 0 0 1 1 2 2 3 3 4 4 5 6 7 8 9	4. 0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9	■ 0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9	0 0 0 0 1 1 1 1 2 2 2 2 3 3 3 3 4 4 4 4 5 5 5 5 6 6 6 6 7 7 7 7 8 8 8 8 9 9 9 9	0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9	0 0 0 0 1 1 1 1 2 2 2 2 3 3 3 3 4 4 4 4 5 5 5 5 6 6 6 6 7 7 7 7 8 8 8 8 9 9 9 9

Page 6

ANSWER THESE QUESTIONS FOR

Name of Person 1 on page 2: _____
Last name | First name | Middle initial

11. In what State or foreign country was this person born?
Print the State where this person's mother was living when this person was born. Do not give the location of the hospital unless the mother's home and the hospital were in the same State.

_____
Name of State or foreign country; or Puerto Rico, Guam, etc.

12. *If this person was born in a foreign country —*
a. Is this person a naturalized citizen of the United States?
- O Yes, a naturalized citizen
- O No, not a citizen
- O Born abroad of American parents

b. When did this person come to the United States to stay?
- O 1975 to 1980
- O 1965 to 1969
- O 1950 to 1959
- O 1970 to 1974
- O 1960 to 1964
- O Before 1950

13a. Does this person speak a language other than English at home?
- O Yes
- O No, only speaks English — *Skip to 14*

b. What is this language?

_____
(For example — Chinese, Italian, Spanish, etc.)

c. How well does this person speak English?
- O Very well
- O Well
- O Not well
- O Not at all

14. What is this person's ancestry? *If uncertain about how to report ancestry, see instruction guide.*

_____
(For example: Afro-Amer., English, French, German, Honduran, Hungarian, Irish, Italian, Jamaican, Korean, Lebanese, Mexican, Nigerian, Polish, Ukrainian, Venezuelan, etc.)

15a. Did this person live in this house five years ago (April 1, 1975)?
If in college or Armed Forces in April 1975, report place of residence there.
- O Born April 1975 or later — *Turn to next page for next person*
- O Yes, this house — *Skip to 16*
- O No, different house

b. Where did this person live five years ago (April 1, 1975)?
(1) State, foreign country, Puerto Rico, Guam, etc.: _____
(2) County: _____
(3) City, town, village, etc.: _____
(4) Inside the incorporated (legal) limits of that city, town, village, etc.?
- O Yes
- O No, in unincorporated area

16. When was this person born?
- O Born before April 1965 — *Please go on with questions 17-33*
- O Born April 1965 or later — *Turn to next page for next person*

17. In April 1975 *(five years ago)* **was this person —**
a. On active duty in the Armed Forces?
- O Yes
- O No

b. Attending college?
- O Yes
- O No

c. Working at a job or business?
- O Yes, full time
- O Yes, part time
- O No

18a. Is this person a veteran of active-duty military service in the Armed Forces of the United States?
If service was in National Guard or Reserves only, see instruction guide.
- O Yes
- O No — *Skip to 19*

b. Was active-duty military service during —
Fill a circle for each period in which this person served.
- O May 1975 or later
- O Vietnam era *(August 1964–April 1975)*
- O February 1955—July 1964
- O Korean conflict *(June 1950–January 1955)*
- O World War II *(September 1940–July 1947)*
- O World War I *(April 1917–November 1918)*
- O Any other time

19. Does this person have a physical, mental, or other health condition which has lasted for 6 or more months and which . . .

	Yes	No
a. Limits the kind or amount of work this person can do at a job?	O	O
b. Prevents this person from working at a job?	O	O
c. Limits or prevents this person from using public transportation?	O	O

20. *If this person is a female —*
How many babies has she ever had, not counting stillbirths?
Do not count her stepchildren or children she has adopted.

None	1	2	3	4	5	6
O	O	O	O	O	O	O

7	8	9	10	11	12 or more
O	O	O	O	O	O

21. *If this person has ever been married —*
a. Has this person been married more than once?
- O Once
- O More than once

b. Month and year of marriage? _____ *(Month) (Year)*
Month and year of first marriage? _____ *(Month) (Year)*

c. *If married more than once —* **Did the first marriage end because of the death of the husband (or wife)?**
- O Yes
- O No

22a. Did this person work at any time last week?
- O Yes — *Fill this circle if this person worked full time or part time. (Count part-time work such as delivering papers, or helping without pay in a family business or farm. Also count active duty in the Armed Forces.)*
- O No — *Fill this circle if this person did not work, or did only own housework, school work, or volunteer work.* *Skip to 25*

b. How many hours did this person work last week (at all jobs)?
Subtract any time off; add overtime or extra hours worked.
_____ Hours

23. At what location did this person work last week?
If this person worked at more than one location, print where he or she worked most last week.
If one location cannot be specified, see instruction guide.

a. Address *(Number and street)* _____
If street address is not known, enter the building name, shopping center, or other physical location description.

b. Name of city, town, village, borough, etc.
_____

c. Is the place of work inside the incorporated (legal) limits of that city, town, village, borough, etc.?
- O Yes
- O No, in unincorporated area

d. County _____

e. State _____ **f. ZIP Code** _____

24a. Last week, how long did it usually take this person to get from home to work (one way)?
_____ Minutes

b. How did this person usually get to work last week?
If this person used more than one method, give the one usually used for most of the distance.
- O Car
- O Truck
- O Van
- O Bus or streetcar
- O Railroad
- O Subway or elevated
- O Taxicab
- O Motorcycle
- O Bicycle
- O Walked only
- O Worked at home
- O Other — *Specify* _____

If car, truck, or van in 24b, go to 24c. Otherwise, skip to 28.

FOR CENSUS USE ONLY

Per. No.	11.	13b.		14.	15b.	23.	O VL	24a.
1	1	1		1	1	1	1	1
2	2	2		2	2	2	2	2
3	3	3		3	3	3	3	3
4	4	4		4	4	4	4	4
5	5	5		5	5	5	5	5
6	6	6		6	6	6	6	6
7	7	7		7	7	7	7	7
8	8	8		8	8	8	8	8
9	9	9		9	9	9	9	9

PERSON 1 ON PAGE 2

c. When going to work last week, did this person usually —
- O Drive alone — *Skip to 28*
- O Drive others only
- O Share driving
- O Ride as passenger only

d. How many people, including this person, usually rode to work in the car, truck, or van last week?
- O 2
- O 3
- O 4
- O 5
- O 6
- O 7 or more

After answering 24d, skip to 28.

25. Was this person temporarily absent or on layoff from a job or business last week?
- O Yes, on layoff
- O Yes, on vacation, temporary illness, labor dispute, etc.
- O No

26a. Has this person been looking for work during the last 4 weeks?
- O Yes
- O No — *Skip to 27*

b. Could this person have taken a job last week?
- O No, already has a job
- O No, temporarily ill
- O No, other reasons *(in school, etc.)*
- O Yes, could have taken a job

27. When did this person last work, even for a few days?
- O 1980
- O 1979
- O 1978
- O 1975 to 1977
- O 1970 to 1974
- O 1969 or earlier
- O Never worked

Skip to 31d

28—30. Current or most recent job activity

Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give information for last job or business since 1975.

28. Industry

a. For whom did this person work? *If now on active duty in the Armed Forces, print "AF" and skip to question 31.*

(Name of company, business, organization, or other employer)

b. What kind of business or industry was this?

Describe the activity at location where employed.

(For example: Hospital, newspaper publishing, mail order house, auto engine manufacturing, breakfast cereal manufacturing)

c. Is this mainly — *(Fill one circle)*
- O Manufacturing
- O Wholesale trade
- O Retail trade
- O Other — *(agriculture, construction, service, government, etc.)*

29. Occupation

a. What kind of work was this person doing?

(For example: Registered nurse, personnel manager, supervisor of order department, gasoline engine assembler, grinder operator)

b. What were this person's most important activities or duties?

(For example: Patient care, directing hiring policies, supervising order clerks, assembling engines, operating grinding mill)

30. Was this person — *(Fill one circle)*
- Employee of private company, business, or individual, for wages, salary, or commissions ..... O
- Federal government employee ..... O
- State government employee ..... O
- Local government employee *(city, county, etc.)* ..... O
- Self-employed in own business, professional practice, or farm —
  - Own business not incorporated ..... O
  - Own business incorporated ..... O
- Working without pay in family business or farm ..... O

CENSUS USE

21b. I II II III IV

22b.

28. A B C D E F G H J K L M AF NW

29. N P Q R S T U V W X Y Z

31a. Last year (1979), did this person work, even for a few days, at a paid job or in a business or farm?
- O Yes
- O No — *Skip to 31d*

b. How many weeks did this person work in 1979?

Count paid vacation, paid sick leave, and military service.

Weeks _____

c. During the weeks worked in 1979, how many hours did this person usually work each week?

Hours _____

d. Of the weeks not worked in 1979 (if any), how many weeks was this person looking for work or on layoff from a job?

Weeks _____

32. Income in 1979 —

Fill circles and print dollar amounts.
If net income was a loss, write "Loss" above the dollar amount.
If exact amount is not known, give best estimate. For income received jointly by household members, see instruction guide.

During 1979 did this person receive any income from the following sources?

If "Yes" to any of the sources below — How much did this person receive for the entire year?

a. Wages, salary, commissions, bonuses, or tips from all jobs . . . *Report amount before deductions for taxes, bonds, dues, or other items.*
- O Yes → $ _____ .00 *(Annual amount — Dollars)*
- O No

b. Own nonfarm business, partnership, or professional practice . . . *Report net income after business expenses.*
- O Yes → $ _____ .00 *(Annual amount — Dollars)*
- O No

c. Own farm. . . *Report net income after operating expenses. Include earnings as a tenant farmer or sharecropper.*
- O Yes → $ _____ .00 *(Annual amount — Dollars)*
- O No

d. Interest, dividends, royalties, or net rental income . . . *Report even small amounts credited to an account.*
- O Yes → $ _____ .00 *(Annual amount — Dollars)*
- O No

e. Social Security or Railroad Retirement . . .
- O Yes → $ _____ .00 *(Annual amount — Dollars)*
- O No

f. Supplemental Security (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments . . .
- O Yes → $ _____ .00 *(Annual amount — Dollars)*
- O No

g. Unemployment compensation, veterans' payments, pensions, alimony or child support, or any other sources of income received regularly . . .

Exclude lump-sum payments such as money from an inheritance or the sale of a home.
- O Yes → $ _____ .00 *(Annual amount — Dollars)*
- O No

33. What was this person's total income in 1979?

Add entries in questions 32a through g; subtract any losses.

$ _____ .00 *(Annual amount — Dollars)*

If total amount was a loss, write "Loss" above amount.

OR O None

CENSUS USE ONLY

31b. 31c. 31d.

32a. 32b. 32c. 32d. 32e. 32f. 32g. 33.

→ *Please turn to the next page and answer the questions for Person 2 on page 2*

Appendix F.—Publication and Computer Tape Program

GENERAL F–1
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PHC80-2, Census Tracts F–2
PHC80-3, Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas . . . F–2
PHC80-4, Congressional Districts of the 98th Congress F–2
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PHC80-S2, Advance Estimates of Social, Economic, and Housing Characteristics. F–2
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GENERAL

The results of the 1980 Census of Population and Housing are issued in three forms: printed reports, computer tape files, and microfiche. Most of the reports listed are issued on a flow basis through 1983. A few may be issued later, such as Subject Reports and Evaluation and Reference Reports.

The publications of the 1980 census are released under three subject titles: *1980 Census of Population and Housing, 1980 Census of Population, and 1980 Census of Housing.* The description of the publication program below is organized in sections, by census title, followed by the reports under each title. It should be noted that a number of population census reports contain some housing data and a number of housing census reports contain some population data. Following the description of the publication program are sections on computer tapes, maps, and microfiche.

The data product descriptions include listings of geographic areas for which data are summarized in that product. Note that the term "place" refers to incorporated places and census designated (or unincorporated) places, as well as towns and townships in 11 States (the 6 New England States, the 3 Middle Atlantic States, Michigan, and Wisconsin).

Order forms for these materials are available, subject to availability of the data product, from Data User Services Division, Customer Services, Bureau of the Census, Washington, D.C. 20233; Census Bureau Regional Offices; U.S. Department of Commerce District Offices; and State Data Centers. After issuance, census reports are on file in many libraries and are available for examination at any Department of Commerce District Office or Census Bureau Regional Office.

PUBLICATIONS

Population and Housing Census Reports

PHC80-1, Block Statistics—These reports, which are issued on microfiche rather

than in print form, present population and housing unit totals and statistics on selected characteristics which are based on complete-count tabulations. Data are shown for blocks in urbanized areas and selected adjacent areas, for blocks in places of 10,000 or more inhabitants, and for blocks in areas which contracted with the Census Bureau to provide block statistics.

The set of reports consists of 374 sets of microfiche and includes a report for each standard metropolitan statistical area (SMSA), showing blocked areas within the SMSA, and a report for each State and for Puerto Rico, showing blocked areas outside SMSA's. In addition to microfiche, printed detailed maps showing the blocks covered by the particular report are available as well as a U.S. Summary, which is an index to the set.

PHC80-2, Census Tracts—Statistics for most of the population and housing subjects included in the 1980 census are presented for census tracts in SMSA's and in other tracted areas. Both complete-count data and sample data are included. Most statistics are presented by race and Spanish origin for areas with at least a specified number of persons in the relevant population group.

There is one report for each SMSA, as well as one for each of the States and Puerto Rico which have tracted areas outside SMSA's. In addition, maps showing the boundaries and identification numbers of census tracts in the SMSA are available as well as a U.S. Summary, which is an index to the set.

PHC80-3, Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas—Statistics are presented on total population and on complete-count and sample population characteristics such as age, race, education, disability, ability to speak English, labor force, and income, and on total housing units and housing characteristics such as value, age of structure, and rent. These statistics are shown for the following areas or their equivalents: States, SMSA's, counties, county subdivisions (those which are functioning general-purpose local governments), and incorporated places.

There is one report for each State, the District of Columbia, and Puerto Rico. This series does not include a U.S. Summary.

PHC80-4, Congressional Districts of the 98th Congress—These reports present complete-count and sample data for congressional districts of the 98th Congress. The reports reflect redistricting based on the 1982 elections. One report is issued for each of the 50 States and the District of Columbia.

PHC80-S1-1, Provisional Estimates of Social, Economic, and Housing Characteristics—This report presents provisional estimates based on sample data collected in the 1980 census. Data on social, economic, and housing characteristics are shown for the United States as a whole, each State, the District of Columbia, and SMSA's of 1 million or more inhabitants.

These data are based on a special subsample of the full census sample. The sample, which represents about 1.6 percent of the total population, was developed to provide users with initial data on characteristics of the population and housing units for the Nation and large areas.

PHC80-S2, Advance Estimates of Social, Economic, and Housing Characteristics—These reports present advance sample data from the 1980 census including such social and economic characteristics of the population as education, migration, labor force, and income as well as housing characteristics such as structural information, mortgage, and gross rent.

The set consists of 50 paperbound reports and includes one report for each State and the District of Columbia. No report will be issued for the United States as a whole.

Each report presents population and housing characteristics for the State, its counties or comparable areas, and places of 25,000 or more inhabitants. Selected data are shown for four race groups (White; Black; combined American Indian, Eskimo, and Aleut; and Asian and Pacific Islander) as well as for persons of Spanish origin.

Population Census Reports

PC80-1, Volume 1, Characteristics of the Population—This volume presents final population counts and statistics on population characteristics. It consists of reports for the following 57 areas: the United States, each of the 50 States, the District of Columbia, Puerto Rico, and the Outlying Areas—Guam, the Virgin Islands of the United States, American Samoa, and the Northern Mariana Islands and the remainder of the Trust Territory of the Pacific Islands. The volume consists of four chapters for each area, chapters A, B, C, and D. Chapters A and B present data collected on a complete-count basis, and chapters C and D present estimates based on sample information, except for the Outlying Areas where all data were collected on a complete-count basis.

The population totals presented in chapters A and B may differ from the counts presented earlier in the PHC80-V reports because corrections were made for errors found after the PHC80-V reports were issued. Chapters B, C, and D present statistics by race and Spanish origin for areas with at least a specified number of the relevant population group.

The U.S. Summary reports present statistics for the United States, regions, divisions, States, and selected areas below the State level. The State or equivalent Area reports (which include the District of Columbia, Puerto Rico, and the Outlying Areas) present statistics for the State or equivalent area and its subdivisions.

Statistics for each of the 57 areas are issued in separate paperbound reports of chapters A, B, C, and D.

PC80-1-A, Chapter A, Number of Inhabitants—Final population counts are shown for the following areas or their equivalents: States, counties, county subdivisions, incorporated places and census designated places, standard consolidated statistical areas (SCSA's), SMSA's, and urbanized areas. Selected tables contain population counts by urban and rural residence. Many tables contain population counts from previous censuses.

PC80-1-B, Chapter B, General Population Characteristics—Statistics on household relationship, age, race, Spanish origin, sex, and marital status are shown for the following areas or their equivalents: States, counties (by total and rural residence), county subdivisions, places of 1,000 or more inhabitants, SCSA's,

SMSA's, urbanized areas, American Indian reservations, and Alaska Native villages.

PC80-1-C, Chapter C, General Social and Economic Characteristics—Statistics are presented on nativity, State or country of birth, citizenship and year of immigration for the foreign-born population, language spoken at home and ability to speak English, ancestry, fertility, family composition, type of group quarters, marital history, residence in 1975, journey to work, school enrollment, years of school completed, disability, veteran status, labor force status, occupation, industry, class of worker, labor force status in 1979, income in 1979, and poverty status in 1979. In addition, data on subjects shown in the PC80-1-B reports are presented in this report in more detail.

Each subject is shown for some or all of the following areas or their equivalents: States, counties (by rural and rural-farm residence), places of 2,500 or more inhabitants, SCSA's, SMSA's, urbanized areas, American Indian reservations, and Alaska Native villages.

PC80-1-D, Chapter D, Detailed Population Characteristics—Statistics on most of the subjects covered in the PC80-1-C reports are presented in this report in considerably greater detail and cross-classified by age, race, Spanish origin, and other characteristics. Each subject is shown for the State or equivalent area, and some subjects are also shown for rural residence at the State level. Most subjects are shown for SMSA's of 250,000 or more inhabitants, and a few are shown for central cities of these SMSA's.

PC80-2, Volume 2, Subject Reports—Each of the reports in this volume focuses on a particular subject and provides highly detailed distributions and cross-classifications on a national, regional, and divisional level. A few reports show statistics for States, SMSA's, large cities, American Indian reservations, or Alaska Native villages. Separate reports are issued on such subjects as racial and ethnic groups, type of residence, fertility, families, marital status, migration, education, employment, occupation, industry, journey to work, income, poverty status, and other topics.

PC80-S1, Supplementary Reports—These reports present special compilations of 1980 census statistics dealing with specific population subjects.

Housing Census Reports

HC80-1, Volume 1, Characteristics of Housing Units—This volume presents final housing unit counts and statistics on housing characteristics. It consists of reports for the following 57 areas: the United States, each of the 50 States, the District of Columbia, Puerto Rico, and the Outlying Areas—Guam, the Virgin Islands of the United States, American Samoa, and the Northern Mariana Islands and the remainder of the Trust Territory of the Pacific Islands. The volume consists of two chapters for each area, chapters A and B. Chapter A presents data collected on a complete-count basis, and chapter B presents estimates based on sample information, except for the Outlying Areas where all data were collected on a complete-count basis.

The housing totals presented in this report may differ from the counts presented earlier in the PHC80-V reports because corrections were made for errors found after the PHC80-V reports were issued. Both chapters present statistics by race and Spanish origin for areas with at least a specified number of the relevant population group.

The U.S. Summary reports present statistics for the United States, regions, divisions, States, and selected areas below the State level. The State or equivalent Area reports (which include the District of Columbia, Puerto Rico, and the Outlying Areas) present statistics for the State or equivalent area and its subdivisions.

Statistics for each of the 57 areas are issued in separate paperbound reports of chapters A and B.

HC80-1-A, Chapter A, General Housing Characteristics—Statistics on units at address, tenure, condominium status, number of rooms, persons per room, plumbing facilities, value, contract rent, and vacancy status are shown for some or all of the following areas or their equivalents: States, counties, county subdivisions, places of 1,000 or more inhabitants, SCSA's, SMSA's, urbanized areas, American Indian reservations, and Alaska Native villages. Selected tables contain housing characteristics by urban and rural residence.

HC80-1-B, Chapter B, Detailed Housing Characteristics—Statistics on units in structure, year moved into unit, year structure built, heating equipment, fuels, air-conditioning, source of water, sewage disposal, gross rent, and selected monthly ownership costs are shown for some or all of the following areas or their equivalents: States, counties, places of 2,500 or more inhabitants, SCSA's, SMSA's, urbanized areas, American Indian reservations, and Alaska Native villages. Selected tables show housing characteristics for rural and rural farm residence at the State and county level. Some subjects included in the HC80-1-A reports are also covered in this report in more detail.

HC80-2, Volume 2, Metropolitan Housing Characteristics—This volume presents statistics on most of the 1980 housing census subjects in considerable detail and cross-classification. Most statistics are presented by race and Spanish origin for areas with at least a specified number of the relevant population group. Data are shown for States or equivalent areas, SMSA's and their central cities, and other cities of 50,000 or more inhabitants.

There is one report for each SMSA and one report for each State and Puerto Rico. The set includes a U.S. Summary report showing these statistics for the United States and regions.

HC80-3, Volume 3, Subject Reports—Each of the reports in this volume focuses on a particular subject and provides highly detailed distributions and cross-classifications on a national, regional, and divisional level. Separate reports are issued on housing of the elderly, mobile homes, and American Indian households.

HC80-4, Volume 4, Components of Inventory Change—This volume consists of two reports presenting statistics on the 1980 characteristics of housing units which existed in 1973, as well as on newly constructed units, conversions, mergers, demolitions, and other additions and losses to the housing inventory between 1973 and 1980. These reports present data derived from a sample survey conducted in the fall of 1980. Data are presented for the United States and regions in report I. Report II has two parts: Part A presents data for that group of SMSA's (not individually identified)

with populations of 1 million or more at the time of the 1970 census, and part B presents data for that group of SMSA's (not individually identified) with populations of less than 1 million at the time of the 1970 census.

HC80-5, Volume 5, Residential Finance—This volume consists of one report presenting statistics on the financing of nonfarm homeowner and rental and vacant properties, including characteristics of the mortgage, property, and owner. The statistics are based on a sample survey conducted in the spring of 1981. Data are presented for the United States and regions. Some data are presented by inside and outside SMSA's and by central cities.

HC80-S1-1, Supplementary Reports—These reports present statistics from the 1980 Census of Housing on general characteristics of housing units for the 50 States and the District of Columbia, counties, and independent cities.

Evaluation and Reference Reports

PHC80-E, Evaluation and Research Reports—These reports present the results of the extensive evaluation program conducted as an integral part of the 1980 census. This program relates to such matters as completeness of enumeration and quality of the data on characteristics.

PHC80-R, Reference Reports—These reports present information on the various administrative and methodological aspects of the 1980 census. The series includes:

PHC80-R1, Users' Guide—This report covers subject content, procedures, geography, statistical products, limitations of the data, sources of user assistance, notes on data use, a glossary of terms, and guides for locating data in reports and tape files. The guide is issued in looseleaf form and sold in parts (R1-A, B, etc.) as they are printed.

PHC80-R2, History—This report describes in detail all phases of the 1980 census, from the earliest planning through all stages to the dissemination of data and evaluation of results. It contains detailed discussion of 1980 census questions and their use in previous decennial censuses.

PHC80-R3, Alphabetical Index of Industries and Occupations—This report was developed primarily for use in classifying responses to the questions on the kind of business (industry) and kind of work (occupation) in which the respondent is engaged. The index lists approximately 20,000 industry and 29,000 occupation titles in alphabetical order.

PHC80-R4, Classified Index of Industries and Occupations—This report defines the industrial and occupational classification systems adopted for the 1980 Census of Population. It presents the individual titles that constitute each of the 231 industry and 503 occupation categories in the classification systems. The individual titles are the same as those shown in the Alphabetical Index. The 1980 occupation classification reflects the new U.S. Standard Occupational Classification (SOC). As in the past, the 1980 industry classification reflects the Standard Industrial Classification (SIC).

PHC80-R5, Geographic Identification Code Scheme—This report identifies the names and related geographic codes for each State, county, minor civil division, place, region, division, SCSA, SMSA, American Indian reservation, and Alaska Native village for which the Census Bureau tabulated data from the 1980 census.

COMPUTER TAPES

Summary Tape Files

In addition to the printed and microfiche reports, results of the 1980 census also are provided on computer tape in the form of summary tape files (STF's). These data products have been designed to provide statistics with greater subject and geographic detail than is feasible or desirable to provide in printed and microfiche reports. The STF data are made available at nominal cost. The data are subject to suppression of certain detail where necessary to protect confidentiality.

There are five STF's (listed below), and the amount of geographic and subject detail presented varies. STF's 1 and 2 contain complete-count data, and STF's 3, 4, and 5 contain sample data. Note that the term "cells" used below refers to the number of subject statistics provided for each geographic area, and the number of cells is indicative of the detail of the subject content of the file.

Each of the STF's generally consists of two or more files which provide different degrees of geographic detail and, in some cases, race/Spanish origin cross-classification. For each of the files there is a separate tape or tapes for each State, the District of Columbia, and Puerto Rico. Selected files (STF 1 and STF 3) are also produced for Guam, the Virgin Islands of the United States, American Samoa, and the Northern Mariana Islands and the remainder of the Trust Territory of the Pacific Islands. These tapes are issued on a State-by-State basis and are followed by a national summary tape for the particular file. More complete descriptions of the STF's than given in the summaries below can be found in the technical documentation of the specific file and in the PHC80-R1, *Users' Guide.*

STF 1—This STF provides 321 cells of complete-count population and housing data. Data are summarized for the United States, regions, divisions, States, SCSA's, SMSA's, urbanized areas, congressional districts, counties, county subdivisions, places, census tracts, enumeration districts in unblocked areas, and blocks and block groups in blocked areas. The data include those shown in the PHC80-1, PHC80-3 (complete-count), and PC80-1-A reports.

STF 2—This STF contains 2,292 cells of detailed complete-count population and housing data, of which 962 are repeated for each race and Spanish origin group present in the tabulation area. Data are summarized for the United States, regions, divisions, States, SCSA's, SMSA's, urbanized areas, counties, county subdivisions, places of 1,000 or more inhabitants, census tracts, American Indian reservations, and Alaska Native villages. The data include those shown in the PHC80-2 (complete-count), PC80-1-B, and HC80-1-A reports.

STF 3—This STF contains 1,126 cells of data on various population and housing subjects collected on a sample basis. The areas covered are the same as in STF 1, excluding blocks. The data include those shown in the PHC80-3 (sample) reports.

STF 4—This STF is the geographic counterpart of STF 2, but the number of cells of data is greater (approximately 8,400). STF 4 provides data covering virtually all of the population and housing subjects collected on a sample basis, as well as some of the complete-count subjects. Some of the statistics are repeated for race, Spanish origin, and ancestry groups. Data are summarized for areas similar to those shown in STF 2, except that data for places are limited to those with 2,500 or more inhabitants. The data include those shown in the PHC80-2 (sample), PC80-1-C, and HC80-1-B reports.

STF 5—This STF contains over 100,000 cells of data on various population and housing subjects collected on a sample basis and provides detailed tabulations and cross-classifications for States, SMSA's, counties, cities of 50,000 or more inhabitants and central cities. Most subjects are classified by race and Spanish origin. The data include those shown in the PC80-1-D and HC80-2 reports.

Other Computer Tape Files

P.L. 94-171, Population Counts—In accordance with Public Law (P.L.) 94-171, the Census Bureau provides population tabulations to all States for legislative reapportionment/redistricting. The file is issued on a State-by-State basis. It contains population counts classified by race and Spanish origin. The data are tabulated for the following levels of geography as applicable: States, counties, county subdivisions, incorporated places, census tracts, blocks and block groups in blocked areas, and enumeration districts in unblocked areas. For States participating in the voluntary program to define election precincts in conjunction with the Census Bureau, the data are also tabulated for election precincts.

Master Area Reference Files 1 and 2 (MARF)

MARF 1—This geographic reference file is an extract of STF 1 designed for those who require a master list of geographic codes and areas, along with basic census counts arranged hierarchically from the State down to the block group and enumeration district levels and is issued on a State-by-State basis. The file contains records for States, counties, county subdivisions, places, census tracts, enumeration districts in unblocked areas, and block groups in blocked areas. Each record shows the total population by five race groups, population of Spanish origin, number of housing units, number of households, number of families, and a few other items.

MARF 2—This file is the same as the MARF 1 with the latitude and longitude coordinates for a representative point (centroid) in each block group (BG) or enumeration district (ED) outside block numbered areas.

Geographic Base File/Dual Independent Map Encoding (GBF/DIME)—These files are computer representations of the Metropolitan Map Series, including address ranges and ZIP Codes, which generally cover the urbanized portions of SMSA's. GBF/DIME files are used to assign census geographic codes to addresses (geocoding). The files are available by SMSA.

Public-Use Microdata Samples—Public-use microdata samples are computerized files containing most population and housing characteristics as shown on a sample of individual census records. These files contain no names or addresses, and geographic identification is sufficiently broad to protect confidentiality.

There are three mutually exclusive samples, the A sample including 5 percent of all persons and housing units, and the B and C samples each including 1 percent of all persons and housing units. States and most large SMSA's will be identifiable on one or more of the files. Microdata files allow the user to prepare customized tabulations.

Census/EEO Special File—This file provides sample census data with specified relevance to EEO and affirmative action uses. The file contains two tabulations, one with detailed occupational data and the other with years of school completed by age. The data in both tabulations are crossed by sex, race, and Spanish origin. These data are provided for all counties, for all SMSA's, and for places with a population of 50,000 or more.

MAPS

Maps necessary to define areas are generally published and included as part of the corresponding reports. Maps are published for Block Statistics (PHC80-1) and Census Tracts (PHC80-2), but must be purchased separately from the report. Maps necessary to define enumeration districts are available on a cost-of-reproduction basis.

MICROFICHE

Some of the computer tape products are available on microfiche. The STF microfiche are issued for each State or Area and for the United States. These include:

STF 1 Microfiche—Data from STF 1 are presented in tabular form for all the STF 1 geographic levels described previously, except blocks.

STF 3 Microfiche—Data from STF 3 are presented in tabular form for all the STF 3 geographic levels.

P.L. 94-171 Counts Microfiche—The data from the P.L. 94-171 computer file are presented in a listing format.

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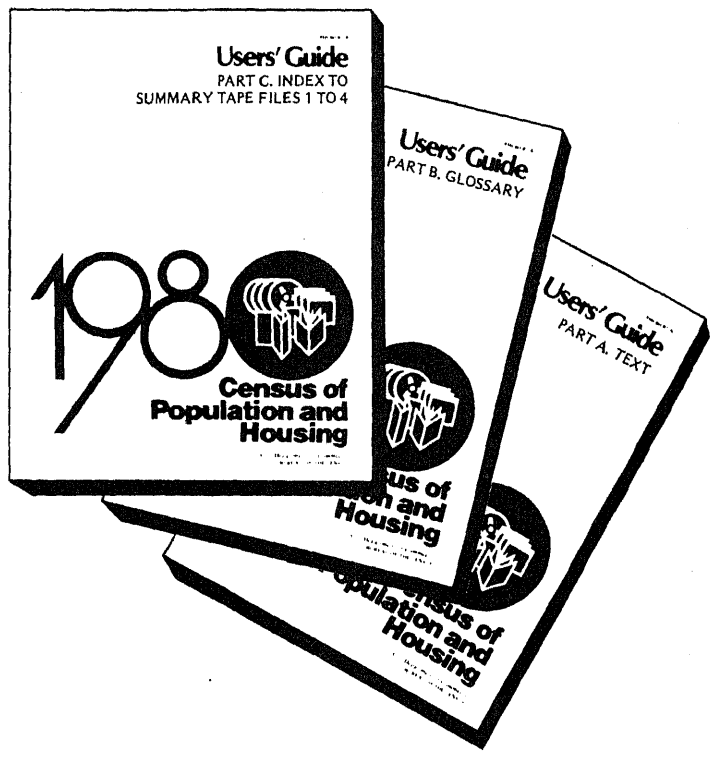
1980 Census of Population and Housing

Users' Guide

The Users' Guide, a reference work on the 1980 census, is now available. It consists of:

- Part A. Text—Covers census data subjects; geographic considerations; reports, tapes, maps, and other products; services available to users; and many other topics.
- Part B. Glossary—Provides detailed definitions of population, housing, geographic, and technical terms.
- Part C. Index to Summary Tape Files 1 to 4—Provides an index, subject-by-subject, to the hundreds of tables in the four major summary tape series. Tells which tables have the desired data and also provides complete descriptions for all tables in these STFs.
- Sources of Assistance—Furnishes addresses and phone numbers of public and private sector organizations offering a variety of products and services, such as tape processing, area profiles, training, and reference assistance.
- Updates—Provide "Part A. Text" revisions on new developments relating to the 1980 census.

Other parts, including an index to reports, are planned for publication later.



Order from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Specify the stock numbers (S/N) given below and make check payable to Superintendent of Documents.

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