# CENSUS TRANSPORTATION PLANNING PACKAGE 2000 (CTPP2000)

# Definition of Subject Characteristics

To obtain additional information on these and other Census 2000 subjects, see the list of *Census 2000 Contacts* on the Internet at http://www.census.gov/contacts/www/c-census2000.html**.**

# Definition of Subject Characteristics
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# Introduction

The Census Transportation Planning Package (CTPP2000) is a continuation of a program established for the 1970 census and continued for the 1980 and 1990 censuses. The CTPP is a set of special tabulations of 2000 census data tailored to meet the data needs of transportation planners nationwide.

The 2000 CTPP was sponsored by the State Departments of Transportation under a pooled funding arrangement with the American Association of State Highway and Transportation Officials (AASHTO). The Federal Highway Administration, the Federal Transit Administration, and the Bureau of Transportation Statistics also provided funding to develop the CTPP Program.

The CTPP2000 is a series of tabulations for various levels of geography, including state, county, place, census tract and block group, and traffic analysis zone (TAZ). The tables in the CTPP relate social and demographic characteristics of persons, households, and workers to the journey-to-work characteristics, such as travel time and travel mode to work.

The most important item to the transportation community from Census 2000 is the journey-to-work data. The Census 2000 questionnaire (see Appendix J) included many items that are vital to transportation planning at the State and local government levels

A working group consisting of members from the sponsors and experts in the field from the State and Metropolitan Planning Organizations (MPOs) was established to develop the specifications for the CTPP-2000 tabulations.

Three types of data tabulations are provided in the CTPP:

- **Place of residence** tables show the number and characteristics of housing units, persons, and workers who live in each geographic area.
- **Place of work** tables show the number and characteristics of persons who work in each geographic area (regardless of where they live), and
- **Commuter flow** tables show the number and characteristics of persons in each worktrip origin-destination pair of geographic areas.

The three types of data tabulations are produced for a full range of areas in the geographic hierarchy. Summary levels include State, county, minor civil division, and place. At the detailed geographic level, users choose to receive data either for census tracts, or for block groups, or for TAZs.

The **statewide** tabulations provide data for households, persons, and workers in the state and for workers who work in the state. The statewide component contains data matrices for residence area geography, for workplace geography, and for travel flows between workers' residence area and workplace area. Data was tabulated for the state, each county, county subdivision, and places of 2,500 or more persons. Totals for state parts of (MSAs), CMSAs, and PMSAs will also be provided, as will urbanized area totals (place of residence data only).

**Urban** tabulations were produced for the metropolitan planning organization (MPO) in each area where Census TIGER/Line files contain address ranges. This generally includes all urbanized areas except some of the most newly-defined. The urban tabulations contain the same matrices as the statewide tabulations. Like the statewide component, the urban component contains data matrices for residence area geography, for workplace geography, and for travel flows between workers' residence area and workplace area. Data were tabulated for either for standard census geography like census tracts or block groups, or for locally-defined custom geographic areas like traffic analysis zones (TAZs), at the request of the Metropolitan Planning Organization. In addition to this detailed geography, subtotals for MSA, CMSA,

PMSA, and urbanized area (place of residence data only) are also provided.

## CTPP PROFILES

The first data product of the Census Transportation Planning Package 2000 (CTPP2000) was the CTPP Profiles (November 2002). The Census Bureau prepared profile sheets for States, Counties and New England MCDs, which are posted on the AASHTO web page at http://ctpp.transportation.org in both html format and pdf format. One convenience of these profile sheets is that they include data from both 1990 and 2000 Censuses for some basic characteristics such as household size, vehicle availability, means of transportation to work, and travel time to work.

# POPULATION CHARACTERISTICS

## AGE

The data on age, which was asked of all people, were derived from answers to the long-form questionnaire item 4 and short-form questionnaire Item 6. The age classification is based on the age of the person in complete years as of April 1, 2000. The age of the person usually was derived from their date of birth information. Their reported age was used only when date of birth information was unavailable.

Data on age are used to determine the applicability of some of the sample questions for a person and to classify other characteristics in census tabulations. Age data are needed to interpret most social and economic characteristics used to plan and examine many programs and policies. Therefore, age is tabulated by single years of age and by many different groupings, such as five-year age groups.

### Median age

Median age divides the age distribution into two equal parts: one-half of the cases falling below the median age and one-half above the median. Median age is computed on the basis of a single year of age standard distribution (see the “Standard Distributions” section under “Derived Measures”). Median age is rounded to the nearest tenth. (For more information on medians, see "Derived Measures.")

***Limitation of the data.*** The most general limitation for many decades has been the tendency of people to over report ages or years of birth that end in zero or five. This phenomenon is called “age heaping.” In addition, the counts in the 1970 and 1980 censuses for people 100 years old and over were substantially overstated. So also were the counts of people 69 years old in 1970 and 79 years old in 1980. Improvements have been made since then in the questionnaire design and in the imputation procedures which have minimized these problems.

Review of detailed 1990 census information indicated that respondents tended to provide their age as of the date of completion of the questionnaire, not their age as of April 1, 1990. One reason this happened was that respondents were not specifically instructed to provide their age as of April 1, 1990. Another reason was that data collection efforts continued well past the census date. In addition, there may have been a tendency for respondents to round their age up if they were close to having a birthday. It is likely that approximately 10 percent of people in most age groups were actually one year younger. For most single years of age, the misstatements were largely offsetting. The problem is most pronounced at age zero because people lost to age one probably were not fully offset by the inclusion of babies born after April 1, 1990. Also, there may have been more rounding up to age one to avoid reporting age as zero years. (Age in complete months was not collected for infants under age one.)

The reporting of age one year older than true age on April 1, 1990, is likely to have been greater in areas where the census data were collected later in calendar year 1990. The magnitude of this problem was much less in the 1960, 1970, and 1980 censuses where age was typically derived from respondent data on year of birth and quarter of birth.

These shortcomings were minimized in Census 2000 because age was usually calculated from exact date of birth and because respondents were specifically asked to provide their age as of April 1, 2000. (For more information on the design of the age question, see the section below that discusses "Comparability.")

***Comparability.*** Age data have been collected in every census. For the first time since 1950, the 1990 data were not available by quarter year of age. This change was made so that coded information could be obtained for both age and year of birth. In 2000, each individual has both an age and an exact date of birth. In each census since 1940, the age of a person was assigned when it was not reported. In censuses before 1940, with the exception of 1880, people of unknown age were shown as a separate category. Since 1960, assignment of unknown age has been performed by a general procedure described as "imputation." The specific procedures for imputing age have been different in each census. (For more information on imputation, see "Accuracy of the Data.")

## DISABILITY STATUS

The data on disability status were derived from answers to long-form questionnaire items 16 and 17. Item 16 was a two-part question that asked about the existence of the following long-lasting conditions: (a) blindness, deafness, or a severe vision or hearing impairment, (sensory disability) and (b) a condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying (physical disability). Item 16 was asked of a sample of the population five years old and over.

Item 17 was a four-part question that asked if the individual had a physical, mental, or emotional condition lasting six months or more that made it difficult to perform certain activities. The four activity categories were: (a) learning, remembering, or concentrating (mental disability); (b) dressing, bathing, or getting around inside the home (self-care disability); (c) going outside the home alone to shop or visit a doctor's office (going outside the home disability); and (d) working at a job or business (employment disability). Categories 17a and 17b were asked of a sample of the population five years old and over; 17c and 17d were asked of a sample of the population 16 years old and over.

For data products which use the items individually, the following terms are used: sensory disability for 16a, physical disability for 16b, mental disability for 17a, self-care disability for 17b, going outside the home disability for 17c, and employment disability for 17d.

For data products which use a disability status indicator, individuals were classified as having a disability if any of the following three conditions was true: (1) they were five years old and over and had a response of "yes" to a sensory, physical, mental or self-care disability; (2) they were 16 years old and over and had a response of "yes" to going outside the home disability; or (3) they were 16 to 64 years old and had a response of "yes" to employment disability.

***Comparability.*** The 1990 census data products did not include a general disability status indicator. Furthermore, a comparable indicator could not be constructed since the conceptual framework of the 1990 census was more limited. The questionnaire included only three types of disability in questions with four subparts. The questions asked about whether an individual had a condition that had lasted for six months or more and which (1) limited the kind or amount of work that he or she could do at a job, (2) prevented the individual from working at a job, (3) made it difficult to go outside the home alone (for example, to shop or visit a doctor's office), and (4) made it difficult to take care of his or her own personal needs such as bathing, dressing, or getting around inside the home. The 1990 disability questions were asked on the long form questionnaire of the population 15 years old and over.

## EDUCATIONAL ATTAINMENT

Data on educational attainment were derived from answers to long-form questionnaire item 9, which was asked of a sample of the population. Data on attainment are tabulated for the population 25 years old and over. However, when educational attainment is cross-tabulated by other variables, the universe may

change. (For example, when educational attainment is crossed by disability status, the data are tabulated for the civilian noninstitutionalized population 18 to 34 years old.) People are classified according to the highest degree or level of school completed.

The order in which degrees were listed on the questionnaire suggested that doctorate degrees were "higher" than professional school degrees, which were "higher" than master's degrees. The question included instructions for people currently enrolled in school to report the level of the previous grade attended or the highest degree received. Respondents who did not report educational attainment or enrollment level were assigned the attainment of a person of the same age, race, Hispanic or Latino origin, occupation and sex, where possible, who resided in the same or a nearby area. Respondents who filled more than one box were edited to the highest level or degree reported.

The question included a response category which allowed respondents to report completing the 12th grade without receiving a high school diploma. It allowed people who received either a high school diploma or the equivalent, for example, passed the Test of General Educational Development (G.E.D.) and did not attend college, to be reported as "high school graduate(s)." The category "Associate degree" included people whose highest degree is an associate degree, which generally requires two years of college level work and is either in an occupational program that prepares them for a specific occupation, or an academic program primarily in the arts and sciences. The course work may or may not be transferable to a bachelor's degree. Master's degrees include the traditional MA and MS degrees and field-specific degrees such as MSW, MEd, MBA, MLS, and MEng. Some examples of professional degrees include medicine, dentistry, chiropractic, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology. Vocational and technical training such as barber school training; business, trade, technical, and vocational schools; or other training for a specific trade are specifically excluded.

### High school graduate or higher

This category includes people whose highest degree was a high school diploma or its equivalent, people who attended college but did not receive a degree, and people who received a college, university, or professional degree. People who reported completing the 12th grade but not receiving a diploma are not high school graduates.

### Not enrolled, not high school graduate

This category includes people of compulsory school attendance age or above who were not enrolled in school and were not high school graduates. These people may be referred to as "high school dropouts." However, there is no criterion regarding when they "dropped out" of school, so they may have never attended high school.

***Comparability.*** From 1840 to 1930, the census measured educational attainment by means of a basic literacy question. In 1940, a single question was asked on highest grade of school completed. In the 1950 to 1980 censuses, a two-part question was used to construct highest grade or year of school completed. The question asked (1) the highest grade of school attended and (2) whether that grade was finished. For people who have not attended college, the response categories in the current educational attainment question should produce data which are comparable to data on highest grade completed from earlier censuses. For people who attended college, there is less comparability between years of school completed and highest degree.

Beginning in 1990, the response categories for people who have attended college were modified from earlier censuses because there was some ambiguity in interpreting responses in terms of the number of years of college completed. For instance, it was not clear whether "completed the fourth year of college,"

"completed the senior year of college," and "college graduate" were synonymous. Research conducted shortly before the 1990 census suggests that these terms were more distinct than in earlier decades, and this change may have threatened the ability to estimate the number of "college graduates" from the number of people reported as having completed the fourth or a higher year of college. It was even more difficult to make inferences about post-baccalaureate degrees and "Associate" degrees from highest year of college completed. Thus, comparisons of post-secondary educational attainment in the 2000 and 1990 censuses with data from the earlier censuses should be made with great caution.

Changes between 1990 and Census 2000 were slight. The two associate degree categories in 1990 were combined into one for Census 2000. “Some college, no degree” was split into two categories, “Some college credit, but less than 1 year,” and “1 or more years of college, no degree.” Prior to 1990, the college levels reported began with “Completed 1 year of college.” Beginning in 1990, the first category was “Some college, no degree,” which allowed people with less than 1 year of college to be given credit for college. Prior to 1990, they were included in “High school, 4 years.” The two revised categories will accommodate comparisons with either data series and allow the tabulation of students who completed at least one year of college, as some data users wish. This will not change the total number who completed some college.

The category “12$^{th}$ grade, no diploma” was counted as high school completion or “Completed high school, 4 years” prior to 1990 and as “Less than high school graduate” in 1990 and 2000. In the 1960 and subsequent censuses, people for whom educational attainment was not reported were assigned the same attainment level as a similar person whose residence was in the same or a nearby area. In the 1940 and 1950 censuses, people for whom educational attainment was not reported were not allocated.

In censuses prior to 1990, "median school years completed" was used as a summary measure of educational attainment. Using the current educational attainment question, the median can only be calculated for groups of which less than half the members have attended college. "Percent high school graduate or higher" and "percent bachelor's degree or higher" are summary measures which can be calculated from the present data and offer quite readily interpretable measures of differences between population subgroups.

## EMPLOYMENT STATUS

The data on employment status (referred to as labor force status in previous censuses), were derived from answers to long-form questionnaire items 21and 25, which were asked of a sample of the population 15 years old and over. The series of questions on employment status was designed to identify, in this sequence: (1) people who worked at any time during the reference week; (2) people who did not work during the reference week, but who had jobs or businesses from which they were temporarily absent (excluding people on layoff); (3) people on temporary layoff who expected to be recalled to work within the next six months or who had been given a date to return to work, and who were available for work during the reference week; and (4) people who did not work during the reference week, who had looked for work during the reference week or the three previous weeks, and who were available for work during the reference week. (For more information, see “Reference Week.”)

The employment status data shown in Census 2000 tabulations relate to people 16 years old and over. In the 1940, 1950, and 1960 censuses, employment status data were presented for people 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 by the U.S. Department of Labor. The 1970 census was the last to show employment data for people 14 and 15 years old.

## Employed

All civilians 16 years old and over who were either (1) "at work" — those who did any work at all during the reference week as paid employees, worked in their own business or profession, worked on their own farm, or worked 15 hours or more as unpaid workers on a family farm or in a family business; or (2) were "with a job but not at work" — those who did not work during the reference week, but who had jobs or businesses from which they were temporarily absent because of illness, bad weather, industrial dispute, vacation, or other personal reasons. Excluded from the employed are people whose only activity consisted of work around their own house (painting, repairing, or own home housework) or unpaid volunteer work for religious, charitable, and similar organizations. Also excluded are all institutionalized people and people on active duty in the United States Armed Forces.

## Civilian employed

This term is defined exactly the same as the term “employed” above.

## Unemployed

All civilians 16 years old and over were classified as unemployed if they were neither "at work" nor "with a job but not at work" during the reference week, were looking for work during the last four weeks, and were available to start a job. Also included as unemployed were civilians 16 years old and over who: did not work at all during the reference week, were on temporary layoff from a job, had been informed that they would be recalled to work within the next six months or had been given a date to return to work, and were available to return to work during the reference week, except for temporary illness. Examples of job seeking activities were:

- Registering at a public or private employment office
- Meeting with prospective employers
- Investigating possibilities for starting a professional practice or opening a business
- Placing or answering advertisements
- Writing letters of application
- Being on a union or professional register

## Civilian labor force

Consists of people classified as employed or unemployed in accordance with the criteria described above.

## Labor force

All people classified in the civilian labor force (i.e., “employed” and “unemployed” people), plus members of the U.S. Armed Forces (people on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard).

## Not in labor force

All people 16 years old and over who are not classified as members of the labor force. This category consists mainly of students, individuals taking care of home or family, retired workers, seasonal workers enumerated in an off-season who were not looking for work, institutionalized people (all institutionalized people are placed in this category regardless of any work activities they may have done in the reference week), and people doing only incidental unpaid family work (fewer than 15 hours during the reference week).

### Worker

The terms “worker“ and “work” appear in connection with several subjects: employment status, journey-to-work, class of worker, and work status in 1999. Their meaning varies and, therefore, should be determined by referring to the definition of the subject in which they appear. When used in the concepts “Workers in Family,” “Workers in Family in 1999,” and “Full-time, Year-Round Workers,” the term “worker” relates to the meaning of work defined for the “Work Status in 1999" subject.

### Full-time, year-round workers

See “Work status in 1999.”

***Limitation of the data.*** The census may understate the number of employed people because people who have irregular, casual, or unstructured jobs sometimes report themselves as not working. The number of employed people "at work" is probably overstated in the census (and conversely, the number of employed "with a job, but not at work" is understated) since some people who were on vacation or sick leave erroneously reported themselves as working. This problem has no effect on the total number of employed people. The reference week for the employment data is not the same calendar week for all people. Since people can change their employment status from one week to another, the lack of a uniform reference week may mean that the employment data do not reflect the reality of the employment situation of any given week. (For more information, see "Reference Week.")

Note: The Census Bureau is aware there may be a problem or problems in the employment-status data of Census 2000 Summary File 3 (including tables P38, P43–P46, P149A-I, P150A-I, PCT35, PCT69A-I, and PCT70A-I). The labor force data for some places where colleges are located appear to overstate the number in the labor force, the number unemployed, and the percent unemployed, probably because of reporting or processing error. The exact cause is unknown, but the Census Bureau will continue to research the problem.

***Comparability.*** The questionnaire items and employment status concepts for Census 2000 are essentially the same as those used in the 1970 to 1990 censuses. However, these concepts differ in many respects from those associated with the 1950 and 1960 censuses. Since 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. People 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, people who work for more than one establishment may be counted more than once. Moreover, some establishment-based tabulations may exclude private household workers, unpaid family workers, and self-employed people, but may include workers less than 16 years old. Census tabulations count people who had a job but were not at work among the employed, but these people may be excluded from employment figures based on establishment payroll reports. Furthermore, census employment tabulations include people on the basis of place of residence regardless of where they work, whereas establishment data report people 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 several reasons, the unemployment figures of the Census Bureau are not comparable with published figures on unemployment compensation claims. For example, figures on unemployment compensation claims exclude people who have exhausted their benefit rights, new workers who have not earned rights to unemployment insurance, and people 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 Census Bureau. People working only a few hours during the week and people with a job, but not at work are sometimes eligible for unemployment compensation but are classified as "employed" in the census. 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 employment status from the decennial census are generally comparable with similar data collected in the Current Population Survey, which is the official source of the monthly national unemployment rate. However, some differences may exist because of variations between the two data sources in enumeration and processing techniques.

## GRADE IN WHICH ENROLLED

The data on grade or level in which enrolled were derived from long-form questionnaire item 8b, which was asked of a sample of the population. People who were enrolled in school were classified as enrolled in "Nursery school, preschool," "Kindergarten," "Grade 1 to 4" or "Grade 5 to 8," "Grade 9 to 12," "College undergraduate years (freshman to senior)" or "Graduate and professional school (for example: medical, dental, or law school)."

***Comparability.*** Grade of enrollment was first available in the 1940 census, where it was obtained from responses to the question on highest grade of school completed. Enumerators were instructed that "for a person still in school, the last grade completed will be the grade preceding the one in which he or she was now enrolled." From 1950 to 1980, grade of enrollment was obtained from the highest grade attended in the two-part question used to measure educational attainment. (For more information, see the discussion under "Educational Attainment.") The form of the question from which level of enrollment was derived in the 1990 census most closely corresponds to the question used in 1940. While data from prior censuses can be aggregated to provide levels of enrollment comparable to the 1990 census and Census 2000, the data from these sources cannot be disaggregated to show single grade of enrollment as in previous censuses.

In the 1990 census, people who were enrolled in school were classified as enrolled in "preprimary school," "elementary or high school," or "college," according to their response to long-form questionnaire item 12 (years of school completed or highest degree received). Those who were enrolled and reported completing nursery school or less were classified as enrolled in "preprimary school," which includes kindergarten. Similarly, those enrolled who had completed at least kindergarten, but not high school, were classified as enrolled in elementary or high school. The enrolled who also reported completing high school or some college or having received a post-secondary degree were classified as enrolled in "college." Those who reported completing the twelfth grade but receiving "NO DIPLOMA" were classified as enrolled in high school.

The Census 2000 question is the first to be asked only of the enrolled and does not serve to measure both year of enrollment and educational attainment. While the attainment item in 1990 served the needs for educational attainment data better than the question used in earlier censuses, it did not serve reporting of enrollment level well.

## GROUP QUARTERS

The group quarters population includes all people not living in households. Two general categories of people in group quarters are recognized: (1) the institutionalized population and (2) the

noninstitutionalized population.

### Institutionalized Population

The institutionalized population includes people under formally authorized, supervised care or custody in institutions at the time of enumeration; such as correctional institutions, nursing homes, and juvenile institutions.

### Noninstitutionalized Population

The noninstitutionalized population includes all people who live in group quarters other than institutions; such as college dormitories, military quarters, and group homes. Also included are staff residing at institutional group quarters.

[For a complete description of the types of group quarters included in Census 2000, see the Technical Documentation for Summary File 1, 2000 Census of Population and Housing, at: [http://www.census.gov/prod/cen2000/doc/sf1.pdf].

## HISPANIC OR LATINO

The data on the Hispanic or Latino population, which was asked of all people, were derived from answers to long-form questionnaire Item 5, and short-form questionnaire Item 7. The terms “Spanish,” “Hispanic origin,” and “Latino” are used interchangeably. Some respondents identify with all three terms, while others may identify with only one of these three specific terms. Hispanics or Latinos who identify with the terms “Spanish,” “Hispanic,” or “Latino” are those who classify themselves in one of the specific Hispanic or Latino categories listed on the questionnaire – “Mexican,” “Puerto Rican,” or "Cuban" – as well as those who indicate that they are "other Spanish, Hispanic, or Latino.” People who do not identify with one of the specific origins listed on the questionnaire but indicate that they are "other Spanish, Hispanic, or Latino” are those whose origins are from Spain, the Spanish-speaking countries of Central or South America, the Dominican Republic, or people identifying themselves generally as Spanish, Spanish-American, Hispanic, Hispano, Latino, and so on. All write-in responses to the "other Spanish/Hispanic/Latino" category were coded.

Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. People who identify their origin as Spanish, Hispanic, or Latino may be of any race.

Some tabulations are shown by the origin of the householder. In all cases where the origin of households, families, or occupied housing units is classified as Spanish, Hispanic, or Latino, the origin of the householder is used. (For more information, see the discussion of householder under "Household Type and Relationship.")

If an individual could not provide a Hispanic origin response, their origin was assigned using specific rules of precedence of household relationship. For example, if origin was missing for a natural-born daughter in the household, then either the origin of the householder, another natural-born child, or the spouse of the householder was assigned. If Hispanic origin was not reported for anyone in the household, the origin of a householder in a previously processed household with the same race was assigned. This procedure is a variation of the general imputation procedures described in “Accuracy of the Data,” and is similar to those used in 1990, except that for Census 2000, race and Spanish surnames were used to assist in assigning an origin. (For more information, see the “Comparability” section below.)

***Comparability.*** There are two important changes to the Hispanic origin question for Census 2000. First,

the sequence of the race and Hispanic origin questions for Census 2000 differs from that in 1990; in 1990, the race question preceded the Hispanic origin question. Testing prior to Census 2000 indicated that response to the Hispanic origin question could be improved by placing it before the race question without affecting the response to the race question. Second, there is an instruction preceding the Hispanic origin question indicating that respondents should answer both the Hispanic origin and the race questions. This instruction was added to give emphasis to the distinct concepts of the Hispanic origin and race questions, and to emphasize the need for both pieces of information.

Furthermore, there has been a change in the processing of the Hispanic origin and race responses. In 1990, the Hispanic origin question and the race question had separate edits; therefore, although information may have been present on the questionnaire, it was not fully utilized due to the discrete nature of the edits. However, for Census 2000, there was a joint race and Hispanic origin edit which for example, made use of race responses in the Hispanic origin question to impute a race if none was given.

## HOUSEHOLD TYPE AND RELATIONSHIP

### Household

A household includes all of the people who occupy a housing unit. (People not living in households are classified as living in group quarters.) A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room occupied (or if vacant, intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live separately from any other people in the building and that 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 people who share living quarters.

In 100-percent tabulations, the count of households or householders always equals the count of occupied housing units. In sample tabulations, the numbers may differ as a result of the weighting process.

#### *Average household size*

A measure obtained by dividing the number of people in households by the total number of households (or householders). In cases where household members are tabulated by race or Hispanic origin, household members are classified by the race or Hispanic origin of the householder rather than the race or Hispanic origin of each individual. Average household size is rounded to the nearest hundredth.

### Relationship to Householder

#### *Householder*

The data on relationship to householder were derived from the question, “How is this person related to Person 1,” which was asked of Persons 2 and higher in housing units. One person in each household is designated as the householder (Person 1). In most cases, the householder is the person, or one of the people, in whose name the home is owned, being bought, or rented. If there is no such person in the household, any adult household member 15 years old and over could be designated as the householder (i.e., Person 1).

Households are classified by type according to the sex of the householder and the presence of

relatives. Two types of householders are distinguished: family householders and nonfamily householders. A family householder is a householder living with one or more individuals related to him or her by birth, marriage, or adoption. The householder and all of the people in the household related to him or her are family members. A nonfamily householder is a householder living alone or with nonrelatives only.

### *Spouse (husband/wife)*

A spouse (husband/wife) is a person married to and living with a householder. People in formal marriages, as well as people in common-law marriages, are included. The number of spouses is equal to the number of "married-couple families" or "married-couple households" in 100-percent tabulations. Marital status categories cannot be inferred from the 100-percent tabulations since the marital status question was not included on the 100-percent form. In sample tabulations, the number of spouses may not be equal to the number of married-couple households due to the differences in the weighting procedures for sample data.

### *Child*

A child is a son or daughter by birth, a stepchild, or an adopted child of the householder, regardless of the child's age or marital status. The category excludes sons-in-law, daughters-in-law, and foster children.

*Natural-born son/daughter.* Natural-born son/daughter includes a son or daughter of the householder by birth, regardless of the age of the child.

*Adopted son/daughter.* Adopted son/daughter includes a son or daughter of the householder by legal adoption, regardless of the age of the child. If a stepson/stepdaughter of the householder has been legally adopted by the householder, the child is then classified as an adopted child.

*Stepson/stepdaughter.* Stepson/stepdaughter includes a son or daughter of the householder through marriage but not by birth, regardless of the age of the child. If a stepson/stepdaughter of the householder has been legally adopted by the householder, the child is then classified as an adopted child.

*Own child.* Own child is a never-married child under 18 years who is a son or daughter of the householder by birth, marriage (a stepchild), or adoption. For 100-percent tabulations, own children consists of all sons/daughters of householders who are under 18 years old. For sample data, own children consist of sons/daughters of householders who are under 18 years old and who have never been married. Therefore, numbers of own children of householders may be different in these two tabulations since marital status was not collected as a 100-percent item in Census 2000.

In certain tabulations, own children are further classified as living with two parents or with one parent only. Own children living with two parents are by definition found only in married-couple families. In a subfamily, an “own child” is a child under 18 years old who is a natural-born child, stepchild, or an adopted child of a mother in a mother-child subfamily, a father in father-child subfamily, or either spouse in a married-couple subfamily. (Note: In the tabulation under “EMPLOYMENT STATUS” of own children under 6 years by employment status of parents, the number of “own children” includes any child under 6 years old in a family or a subfamily who is a son or daughter, by birth, marriage, or adoption, of a member of the householder’s family, but not necessarily of the householder).

*Related children.* Related children include the sons and daughters of the householder (including natural-born, adopted or stepchildren) and all other people under 18 years old, regardless of marital status, in the household, who are related to the householder, except the spouse of the householder. Foster children are not included since they are not related to the householder.

### *Other relatives*

Other relatives include any household member related to the householder by birth, marriage, or adoption, but not included specifically in another relationship category. In certain detailed tabulations, the following categories may be shown:

*Grandchild.* A grandchild is a grandson or granddaughter of the householder.

*Brother/sister*. Brother/sister refers to the brother or sister of the householder, including stepbrothers, stepsisters, and brothers and sisters by adoption. Brothers-in-law and sisters-in-law are included in the “Other relative” category on the questionnaire.

*Parent.* Parent refers to the father or mother of the householder, including a stepparent or adoptive parent. Fathers-in-law and mothers-in-law are included in the "Parent-in-law" category on the questionnaire.

*Parent-in-law.* A parent-in-law is the mother-in-law or father-in-law of the householder.

*Son-in-law/daughter-in-law.* A son-in-law/daughter-in-law, by definition, is a spouse of the child of the householder.

*Other relatives.* Other relatives include anyone not listed in a reported category above who is related to the householder by birth, marriage, or adoption (brother-in-law, grandparent, nephew, aunt, cousin, and so forth).

### *Nonrelatives*

Nonrelatives include any household member not related to the householder by birth, marriage, or adoption, including foster children. The following categories may be presented in more detailed tabulations:

*Roomer, boarder.* A roomer or boarder is a person who lives in a room in the household of Person 1 (householder). Some sort of cash or noncash payment (e.g., chores) is usually made for their living accommodations.

*Housemate or roommate.* A housemate or roommate is a person who is not related to the householder and who shares living quarters primarily to share expenses.

*Unmarried partner.* An unmarried partner is a person who is not related to the householder, who shares living quarters, and who has a close personal relationship with the householder.

*Foster child.* A foster child is a person who is under 18 years old placed by the local government in a household to receive parental care. They may be living in the household for just a brief period or for several years. Foster children are nonrelatives of the householder. If the foster child is also related to the householder, the child should be classified as that specific relative.

*Other nonrelatives*. Other nonrelatives include individuals who are not related by birth, marriage, or adoption to the householder and who are not described by the categories given above.

*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 Type

A family includes a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of his or her family. A family household may contain people not related to the householder, but those people are not included as part of the householder's family in census tabulations. Thus, the number of family households is equal to the number of families, but family households may include more members than do families. A household can contain only one family for purposes of census tabulations. Not all households contain families since a household may be comprised of a group of unrelated people or of one person living alone.

Families are classified by type as either a "married-couple family" or "other family" according to the presence of a spouse. "Other family" is further broken out according to the sex of the householder. The data on family type are based on answers to questions on sex and relationship that were asked on a 100-percent basis.

*Married-couple family*

This category includes a family in which the householder and his or her spouse are enumerated as members of the same household.

*Other family*

*Male householder, no wife present*

This category includes a family with a male maintaining a household with no wife of the householder present.

*Female householder, no husband present*

This category includes a family with a female maintaining a household with no husband of the householder present.

*Nonfamily household*

This category includes a householder living alone or with nonrelatives only.

## Average family size

A measure obtained by dividing the number of people in families by the total number of families (or family householders). In cases where this measure is tabulated by race or Hispanic origin, the race or Hispanic origin refers to that of the householder rather than to the race or Hispanic origin

of each individual. Average family size is rounded to the nearest hundredth.

*Subfamily*

A subfamily is a married couple with or without own children under 18 years old who are never-married, or a single parent with one or more own never-married children under 18 years old. A subfamily does not maintain their own household, but lives in a household where the householder or householder's spouse is a relative. Subfamilies are defined during processing of sample data.

In some labor force tabulations, both one-parent families and one-parent subfamilies are included in the total number of children living with one parent, while both married-couple families and married-couple subfamilies are included in the total number of children living with two parents.

### Unmarried-Partner Household

An unmarried-partner household is a household that includes a householder and an "unmarried partner." An "unmarried partner" can be of the same or of the opposite sex of the householder. An "unmarried partner" in an "unmarried-partner household" is an adult who is unrelated to the householder, but shares living quarters and has a close personal relationship with the householder. An unmarried-partner household may also be a family household or a nonfamily household, depending on the presence or absence of another person in the household who is related to the householder. There may be only one unmarried-partner per household, and an unmarried partner may not be included in a married-couple household as the householder cannot have both a spouse and an unmarried partner.

***Comparability.*** The 1990 relationship category, "Natural-born or adopted son/daughter" has been replaced by "Natural-born son/daughter" and "Adopted son/daughter." The following categories were added in Census 2000: "Parent-in-law" and "Son-in-law/daughter-in-law." The 1990 nonrelative category, "Roomer, boarder, or foster child" was replaced by two categories: "Roomer, boarder" and "Foster child." In 2000, foster children had to be in the local government's foster care system to be so classified. In 1990, foster children were estimated to be those children in households who were not related to the householder and for whom there were no people 18 years old and over who may have been their parents. In 1990, stepchildren who were adopted by the householder were still classified as stepchildren. In 2000, stepchildren who were legally adopted by the householder were classified as adopted children. Own children shown in 100-percent tabulations may be of any marital status. For comparability with previous censuses, own children shown for sample data are still restricted to never-married children. Some tables may show relationship to householder and be labeled "child." These tabulations include all marital status categories of natural-born, adopted, or stepchildren. Because of changes in editing procedures, same sex unmarried-partner households in 1990 should not compared with same sex unmarried-partner households in Census 2000.

## INCOME IN 1999

The data on income in 1999 were derived from answers to long-form questionnaire items 31 and 32, which were asked of a sample of the population 15 years old and over. "Total income" is the sum of the amounts reported separately for wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income. "Earnings" are defined as the sum of wage or salary income and net income from self-employment. "Earnings" represent the amount of income received regularly for people 16 years old and over before deductions for personal income taxes, Social

Security, bond purchases, union dues, Medicare deductions, etc.

Receipts from the following sources are not included as income: capital gains, 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 individuals, etc.; withdrawal of bank deposits; money borrowed; tax refunds; exchange of money between relatives living in the same household; and gifts and lump-sum inheritances, insurance payments, and other types of lump-sum receipts.

## Income Type in 1999

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

### *Wage or salary income*

Wage or salary income includes total money earnings received for work performed as an employee during the calendar year 1999. 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.

### *Self-employment income*

Self-employment income includes both farm and nonfarm self-employment income. *Nonfarm self-employment income* includes 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* includes net money income (gross receipts minus operating expenses) from the operation of a farm by a person on his or her own account, as an owner, renter, or sharecropper. Gross receipts include the value of all products sold, 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, dividends, or net rental income*

Interest, dividends, or net rental income includes interest on savings or bonds, dividends from stockholdings or membership in associations, net income from rental of property to others and receipts from boarders or lodgers, net royalties, and periodic payments from an estate or trust fund.

### *Social Security income*

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

*Supplemental Security Income (SSI)*

Supplemental Security Income (SSI) is a nationwide U.S. assistance program administered by the Social Security Administration that guarantees a minimum level of income for needy aged, blind, or disabled individuals. The census questionnaire for Puerto Rico asked about the receipt of SSI; however, SSI is not a federally administered program in Puerto Rico. Therefore, it is probably not being interpreted by most respondents the same as SSI in the United States. The only way a resident of Puerto Rico could have appropriately reported SSI would have been if they lived in the United States at any time during calendar year 1999 and received SSI.

*Public assistance income*

Public assistance income includes general assistance and Temporary Assistance to Needy Families (TANF). Separate payments received for hospital or other medical care (vendor payments) are excluded. This does not include Supplemental Security Income (SSI).

*Retirement income*

Retirement income includes: (1) retirement pensions and survivor benefits from a former employer; labor union; or federal, state, or local government; and the U.S. military; (2) income from worker's compensation; disability income from companies or unions; federal, state, or local government; and the U.S. military; (3) periodic receipts from annuities and insurance; and (4) regular income from IRA and KEOGH plans. This does not include Social Security income.

*All other income*

All other income includes unemployment compensation, Veterans' Administration (VA) payments, alimony and child support, contributions received periodically from people not living in the household, military family allotments, and other kinds of periodic income other than earnings.

## Income of households

This includes the income of the householder and all other individuals 15 years old and over in the household, whether they are related to the householder or not. Because many households consist of only one person, average household income is usually less than average family income. Although the household income statistics cover calendar year 1999, the characteristics of individuals and the composition of households refer to the time of enumeration (April 1, 2000). Thus, the income of the household does not include amounts received by individuals who were members of the household during all or part of calendar year 1999 if these individuals no longer resided in the household at the time of enumeration. Similarly, income amounts reported by individuals who did not reside in the household during 1999 but who were members of the household at the time of enumeration are included. However, the composition of most households was the same during 1999 as at the time of enumeration.

## Income of families

In compiling statistics on family income, the incomes of all members 15 years old and over related to the householder are summed and treated as a single amount. Although the family income statistics cover calendar year 1999, the characteristics of individuals and the composition of families refer to the time of enumeration (April 1, 2000). Thus, the income of the family does not include amounts received by individuals who were members of the family during all or part of calendar year 1999 if these individuals no longer resided with the family at the time of enumeration. Similarly, income amounts reported by individuals who did not reside with the

family during 1999 but who were members of the family at the time of enumeration are included. However, the composition of most families was the same during 1999 as at the time of enumeration.

### Income of individuals

Income for individuals is obtained by summing the eight types of income for each person 15 years old and over. The characteristics of individuals are based on the time of enumeration (April 1, 2000), even though the amounts are for calendar year 1999.

### Median income

The median divides the income distribution into two equal parts: one-half of the cases falling below the median income and one-half above the median. For households and families, the median income is based on the distribution of the total number of households and families including those with no income. The median income for individuals is based on individuals 15 years old and over with income. Median income for households, families, and individuals is computed on the basis of a standard distribution (see the “Standard Distributions” section under “Derived Measures”). Median income is rounded to the nearest whole dollar. Median income figures are calculated using linear interpolation if the width of the interval containing the estimate is $2,500 or less. If the width of the interval containing the estimate is greater than $2,500, Pareto interpolation is used. (For more information on medians and interpolation, see "Derived Measures.")

### Aggregate income

Aggregate income is the sum of all incomes for a particular universe. Aggregate income is subject to rounding, which means that all cells in a matrix are rounded to the nearest hundred dollars. (For more information, see “Aggregate” under “Derived Measures.”)

### Mean income

Mean income is the amount obtained by dividing the aggregate 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. (The aggregate used to calculate mean income is rounded. For more information, see “Aggregate income.”)

For the various types of income, the means are based on households having those types of income. For households and families, the mean income is based on the distribution of the total number of households and families including those with no income. The mean income for individuals is based on individuals 15 years old and over with income. Mean income is rounded to the nearest whole dollar.

Care should be exercised in using and interpreting mean income values for small subgroups of the population. Because the mean is influenced strongly 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 some data products for most small subgroups because, when weighted according to the number of cases, the means can be added to obtained summary measures for areas and groups other than those shown in census tabulations. (For more information on means, see "Derived Measures.")

### Earnings

Earnings are defined as the sum of wage or salary income and net income from self-employment. "Earnings" represent the amount of income received regularly for people 16 years old and over before deductions for personal income taxes, Social Security, bond purchases, union dues, Medicare deductions, etc.

### Median earnings

The median divides the earnings distribution into two equal parts: one-half of the cases falling below the median earnings and one-half above the median. Median earnings is restricted to individuals 16 years old and over and is computed on the basis of a standard distribution (see the "Standard Distributions" section under "Derived Measures"). Median earnings figures are calculated using linear interpolation if the width of the interval containing the estimate is $2,500 or less. If the width of the interval containing the estimate is greater than $2,500, Pareto interpolation is used. (For more information on medians and interpolation, see "Derived Measures.")

### Aggregate earnings

Aggregate earnings are the sum of wage/salary and net self-employment income for a particular universe of people 16 years old and over. Aggregate earnings are subject to rounding, which means that all cells in a matrix are rounded to the nearest hundred dollars. (For more information, see "Aggregate" under "Derived Measures.")

### Mean earnings

Mean earnings is calculated by dividing aggregate earnings by the population 16 years old and over with earnings. (The aggregate used to calculate mean earnings is rounded. For more information, see "Aggregate earnings.") Mean earnings is rounded to the nearest whole dollar. (For more information on means, see "Derived Measures.")

### Per capita income

Per capita income is the mean income computed for every man, woman, and child in a particular group. It is derived by dividing the total income of a particular group by the total population in that group. (The aggregate used to calculate per capita income is rounded. For more information, see "Aggregate" under "Derived Measures.") Per capita income is rounded to the nearest whole dollar. (For more information on means, see "Derived Measures.")

***Limitation of the data.*** Since answers to income questions are frequently based on memory and not on records, many people tended to forget minor or sporadic 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 public assistance, interest, dividends, and net rental income.

Extensive computer editing procedures were instituted in the data processing operation to reduce some of these reporting errors and to improve the accuracy of the income data. These procedures corrected various reporting deficiencies and improved the consistency of reported income items associated with work experience and information on occupation and class of worker. For example, if people reported they were self employed on their own farm, not incorporated, but had reported wage and salary earnings only, the latter amount was shifted to self-employment income. Also, if any respondent reported total income only, the amount was generally assigned to one of the types 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, procedures were devised to impute appropriate values with either no income or positive or negative dollar amounts for the missing entries. (For more information on imputation, see “Accuracy of the Data.”)

In income tabulations for households and families, the lowest income group (for example, less than $10,000) includes units that were classified as having no 1999 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 households and families who reported no income probably had some money income which was not reported in the census.

***Comparability.*** The income data collected in the 1970, 1980 and 1990 censuses are similar to Census 2000 data, but there are variations in the detail of the questions. In 1990, income information for 1989 was collected from people in approximately 17 percent of all housing units and group quarters. Each person 15 years old and over was required to report:

- Wage or salary income
- Net nonfarm self-employment income
- Net farm self-employment income
- Interest, dividend, or net rental or royalty income
- Social Security or Railroad Retirement income
- Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance income
- Retirement, survivor, or disability income
- Income from all other sources

Since the number of respondents reporting farm self-employment income has become smaller over the years, the farm and non-farm self-employment items were combined into one item for Census 2000. Data users are still able to obtain an estimate of “farm self-employment” income by looking at net self-employment income in combination with other labor force related questions such as “occupation of longest job.” Supplemental Security Income (SSI) was asked separately from other public assistance income or welfare received from a state or local welfare office in Census 2000.

Between the 1990 census and Census 2000, there were minor differences in the processing of the data. In both censuses, all people with missing values in one or more of the detailed type of income items were designated as allocated. Each missing entry was imputed either as a "no" or as a dollar amount. If total income was reported and one or more of the type of income fields was not answered, then the entry in total income generally was assigned to one of the income types according to the socioeconomic characteristics of the income recipient. This person was designated as unallocated.

In 2000 and 1990, all non-respondents with income not reported (whether householders or other people) were assigned the reported income of people with similar characteristics. (For more information on imputation, see "Accuracy of the Data.")

In 1980, income information for 1979 was collected from people in approximately 19 percent of all housing units and group quarters. Each person 15 years old and over was required to report:

- Wage or salary income
- Net nonfarm self-employment income

- Net farm self-employment income
- Interest, dividend, or net rental or royalty income
- Social Security or Railroad Retirement income
- Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance income
- Income from all other sources

There was a difference in the method of computer derivation of aggregate income from individual amounts. 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 $9,999 or more were treated as minus $9,999. In the 1990 and 2000 censuses, income amounts less than $999,999 were keyed to the nearest dollar. Amounts of $999,999 or more were treated as $999,999 and losses of $9,999 or more were treated as minus $9,999 in all of the computer derivations of aggregate income.

In 1970, information on income in 1969 was obtained from all members in every fifth housing unit 14 years old and over and small group quarters (less than 15 people) and every fifth person in all other group quarters. Each person 14 years old and over was required to report:

- Wage or salary income
- Net nonfarm self-employment income
- Net farm self-employment income
- Social Security or Railroad Retirement income
- Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance income
- Income from all other sources

If a person reported a dollar amount in wage or salary, net nonfarm self-employment income, or 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 1960, data on income were obtained from all members 14 years old and over in every fourth housing unit and from every fourth person 14 years old and over living in group quarters. Each person was required to report wage or salary income, net self-employment income, and 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 but who had failed to report the receipt of other money income.

For several reasons, the income data shown in census tabulations are not directly comparable with those that may be obtained from statistical summaries of income tax returns. Income, as defined for federal tax purposes, differs somewhat from the Census Bureau concept. Moreover, the coverage of income tax statistics is different because of the exemptions of people 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.

The earnings data shown in census tabulations are not directly comparable with earnings records of the Social Security Administration. The earnings record data for 1999 excluded the earnings of some civilian

government employees, some employees of nonprofit organizations, workers covered by the Railroad Retirement Act, and people not covered by the program because of insufficient earnings. Because 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 people.

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 states, metropolitan areas, and selected counties. Aggregate income estimates based on the income statistics shown in census products usually would be less than those shown in the BEA income series for several reasons. The Census Bureau 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 census publications, such as income "in kind," income received by nonprofit institutions, the value of services of banks and other financial intermediaries rendered to people without the assessment of specific charges, Medicare payments, and the income of people who died or emigrated prior to April 1, 2000. On the other hand, the census income data include contributions for support received from people not residing in the same household if the income is received on a regular basis.

In comparing income data for 1999 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.

## INDUSTRY, OCCUPATION, AND CLASS OF WORKER

The data on industry, occupation, and class of worker were derived from answers to long-form questionnaire items 27, 28, and 29 respectively, which were asked of a sample of the population 15 years old and over. Information on industry relates to the kind of business conducted by a person's employing organization; occupation describes the kind of work a person does on the job.

For employed people, the data refer to the person's job during the reference week. For those who worked at two or more jobs, the data refer to the job at which the person worked the greatest number of hours during the reference week. For unemployed people, the data refer to their last job. The industry and occupation statistics are derived from the detailed classification systems developed for Census 2000 as described below.

Respondents provided the data for the tabulations by writing on the questionnaires descriptions of their industry and occupation. These descriptions were data captured and sent to an automated coder (computer software), which assigned a portion of the written entries to categories in the classification system. The automated system assigned codes to 59 percent of the industry entries and 56 percent of the occupation entries. Those cases not coded by the computer were referred to clerical staff in the Census Bureau's National Processing Center in Jeffersonville, Indiana, for coding. The clerical staff converted the written questionnaire responses to codes by comparing these responses to entries in the *Alphabetical Index of Industries and Occupations*. For the industry code, these coders also referred to an Employer Name List. This list, prepared from the American Business Index (ABI), contained the names of business establishments and their North American Industrial Classification System (NAICS) codes converted to population census equivalents. This list facilitated coding and maintained industrial classification comparability.

## Industry

The industry classification system used during Census 2000 was developed for the census and consists of 265 categories for employed people, classified into 14 major industry groups. From 1940 through 1990, the industrial classification has been based on the *Standard Industrial Classification (SIC) Manual*. The Census 2000 classification was developed from the 1997 North American Industry Classification System (NAICS) published by the Office of Management and Budget, Executive Office of the President. NAICS is an industry description system that groups establishments into industries based on the activities in which they are primarily engaged.

The NAICS differs from most industry classifications because it is a supply-based or production-oriented economic concept. Census data, which were collected from households, differ in detail and nature from those obtained from establishment surveys. Therefore, the census classification system, while defined in NAICS terms, cannot reflect the full detail in all categories.

NAICS shows a more detailed hierarchical structure than that used for Census 2000. The expansion from 11 divisions in the SIC to 20 sectors in the NAICS provides groupings that are meaningful and useful for economic analysis. Various statistical programs that previously sampled or published at the SIC levels face problems with the coverage for 20 sectors instead of 11 divisions. These programs requested an alternative aggregation structure for production purposes which was approved and issued by the Office of Management and Budget on May 15, 2001, in the clarification Memorandum No. 2, "NAICS Alternate Aggregation Structure for Use by U.S. Statistical Agencies." Several census data products will use the alternative aggregation, while others, such as Summary File 3 and Summary File 4, will use more detail.

## Occupation

The occupational classification system used during Census 2000 consists of 509 specific occupational categories for employed people arranged into 23 major occupational groups. This classification was developed based on the *Standard Occupational Classification (SOC) Manual: 2000*, which includes a hierarchical structure showing 23 major occupational groups divided into 96 minor groups, 449 broad groups, and 821 detailed occupations. For Census 2000, tabulations with occupation as the primary characteristic present several levels of occupational detail.

Some occupation groups are related closely to certain industries. Operators of transportation equipment, farm operators and workers, and healthcare providers account for major portions of their respective industries of transportation, agriculture, and health care. However, the industry categories include people in other occupations. For example, people employed in agriculture include truck drivers and bookkeepers; people employed in the transportation industry include mechanics, freight handlers, and payroll clerks; and people employed in the health care industry include occupations such as security guard, and secretary.

## Class of Worker

The data on class of worker were derived from answers to long-form questionnaire item 29. The information on class of worker refers to the same job as a respondent's industry and occupation, categorizing people according to the type of ownership of the employing organization. The class of worker categories are defined as follows:

### *Private wage and salary workers*

Private wage and salary workers include people who worked for wages, salary, commission,

tips, pay-in-kind, or piece rates for a private-for-profit employer or a private not-for-profit, tax-exempt, or charitable organization. Self-employed people whose business was incorporated are included with private wage and salary workers because they are paid employees of their own companies. Some tabulations present data separately for these subcategories: "for-profit," "not-for-profit," and "own business incorporated."

*Government workers*

Government workers include people who were employees of any federal, tribal, state, or local governmental unit, regardless of the activity of the particular agency. For some tabulations, the data were presented separately for federal (includes tribal), state, and local governments. Employees of foreign governments, the United Nations, or other formal international organizations were classified as “federal government,” unlike the 1990 census when they were classified as “private not-for-profit.”

*Self-employed in own not incorporated business workers*

Self-employed in own not incorporated business workers includes people who worked for profit or fees in their own unincorporated business, professional practice, or trade, or who operated a farm.

*Unpaid family workers*

Unpaid family workers includes people who worked 15 hours or more without pay in a business or on a farm operated by a relative.

*Self-employed in own incorporated business workers*

In tabulations, this category is included with private wage and salary workers because they are paid employees of their own companies.

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.

In some cases, respondents supplied industry, occupation, or class of worker descriptions which were not sufficiently specific for a precise classification or did not report on these items at all. In the coding operation, certain types of incomplete entries were corrected using the *Alphabetical Index of Industries and Occupations*. For example, it was possible in certain situations to assign an industry code based on the occupation reported, or vice versa.

Following the coding operations, there was a computer edit and an 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 ensure 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 was blank after the edit, a code was assigned from a "similar" person based on other items such as age, sex, education, farm or nonfarm residence, and weeks worked. If all of the labor force and income data were blank, all of these economic items were assigned from one other person or one other household who provided all the necessary data.

***Comparability.*** Comparability of industry and occupation data was affected by a number of factors, primarily 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 were needed to recognize the "birth" of new industries and occupations, the “death" of others, the growth and decline in existing industries and occupations, and the desire of analysts and other users for more detail in the presentation of the data. Probably the greatest cause of noncomparability is the movement of a segment of a category to a different category in the next census. Changes in the nature of jobs and respondent terminology, and refinement of category composition made these movements necessary. The 1990 occupational classification system was essentially the same as the 1980 census. However, the industry classification had minor changes between 1980 and 1990 that reflected changes to the Standard Industrial Classification (SIC).

In Census 2000, both the industry and occupation classifications had major revisions to reflect changes to the North American Industrial Classification System (NAICS) and the Standard Occupational Classification (SOC). The conversion of the census classifications in 2000 means that the 2000 classification systems are not comparable to the classifications used in the 1990 census and earlier.

Other factors that affected data comparability over the decades include the universe to which the data referred (in 1970, the age cutoff for labor force was changed from 14 years old to 16 years old); the wording of the industry and occupation questions on the questionnaire (for example, important changes were made in 1970); improvements in the coding procedures (the Employer Name List technique was introduced in 1960); and how the "not reported" cases were handled. Prior to 1970, they were placed in the residual categories, "industry not reported" and "occupation not reported." In 1970, an allocation process was introduced that assigned these cases to major groups. In Census 2000, as in 1980 and 1990, the "not reported" cases were assigned to individual categories. Therefore, the 1980, 1990, and Census 2000 data for individual categories include some numbers of people who would have been tabulated in a "not reported" category in previous censuses.

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, *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; 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; and U.S. Bureau of the Census, *The Relationship between the 1970 and 1980 Industry and Occupation Classification Systems*, Technical Paper No. 59, 1988. For citations for earlier census years, see the 1980 Census of Population report, PC80-1-D, *Detailed Population Characteristics*.

The 1990 census introduced an additional class of worker category for "private not-for-profit" employers, which is also used for Census 2000. This category is a subset of the 1980 category "employee of private employer" so there is no comparable data before 1990. Also in 1990, employees of foreign governments, the United Nations, etc., were classified as "private not-for-profit," rather than “Federal Government” as in 1970, 1980, and Census 2000. While in theory, there was a change in comparability, in practice, the small number of U.S. residents working for foreign governments made this change negligible.

Comparability between the statistics on industry and occupation from Census 2000 and statistics from other sources is affected by many of the factors described in the "Employment Status" section. These

factors are primarily geographic differences between residence and place of work, different dates of reference, and differences in counts because of dual job holdings. 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 have differed 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 people not in the labor force or people 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, attained complete coverage of membership in a particular occupational field.

## JOURNEY TO WORK

### Place of Work

The data on place of work were derived from answers to long-form questionnaire item 22, which was asked of a sample of the population 15 years old and over. This question was asked of people who indicated in question 21 that they worked at some time during the reference week. (For more information, see "Reference Week.")

Data were tabulated for workers 16 years old and over; that is, members of the Armed Forces and civilians who were at work during the reference week. Data on place of work refer to the geographic location at which workers carried out their occupational activities during the reference week. The exact address (number and street name) of the place of work was asked, as well as the place (city, town, or post office); whether or not the place of work was inside or outside the limits of that city or town; and the county, state or foreign country, 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 were unknown, a description of the location, such as the building name or nearest street or intersection, was to be entered.

In areas where the workplace address was coded to the block level, people were tabulated as working inside or outside a specific place based on the location of that address, regardless of the response to question 22c concerning city/town limits. In areas where it was impossible to code the workplace address to the block level, people were tabulated as working in a place if a place name was reported in question 22b and the response to question 22c was either "yes" or the item was left blank. In selected areas, census designated places (CDPs) may appear in the tabulations as places of work. The accuracy of place-of-work data for CDPs may be affected by the extent to which their census names were familiar to respondents, and by coding problems caused by similarities between the CDP name and the names of other geographic jurisdictions in the same vicinity.

Place-of-work data are given for minor civil divisions (MCDs) (generally, cities, towns, and townships) in 12 selected states (Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin), based on the responses to the place-of-work question. The MCDs in these 12 states also serve as general-purpose local governments that generally can perform the same governmental functions as incorporated places. The U.S. Census Bureau presents data for the MCDs in all data products in which it provides data for places. Many towns and townships are regarded locally as

equivalent to a place, and therefore, were reported as the place of work. When a respondent reported a locality or incorporated place that formed a part of a township or town, the coding and tabulating procedure was designed to include the response in the total for the township or town.

***Limitation of the data.*** The data on place of work relate to a reference week; that is, 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 because the enumeration was not completed in one week.

However, for the majority of people, the reference week for Census 2000 is the week ending with April 1, 2000. The lack of a uniform reference week means that the place-of-work data reported in Census 2000 do not exactly match the distribution of workplace locations observed or measured during an actual work week.

The place-of-work data are estimates of people 16 years old and over who were both employed and at work during the reference week (including people in the Armed Forces). People 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 are not included in the place-of-work data. Therefore, the data on place of work understate the total number of jobs or total employment in a geographic area during the reference week. It also should be noted that people who had irregular, casual, or unstructured jobs during the reference week may have erroneously reported themselves as not working.

The address where the individual worked most often during the reference week was recorded on the Census 2000 questionnaire. If a worker held two jobs, only data about the primary job (the one worked the greatest number of hours during the preceding week) was requested. People 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 to describe the area in which he or she worked most during the reference week.

***Comparability.*** The wording of the question on place of work was substantially the same in Census 2000, the 1990 census, and the 1980 census. However, data on place of work from Census 2000 and the 1990 census are based on the full census sample, while data from the 1980 census were based on only about one-half of the full sample.

For the 1980 census, nonresponse or incomplete responses to the place-of-work question were not allocated, resulting in the use of "not reported" categories in the 1980 publications. However, for Census 2000 and the 1990 census, when place of work was not reported or the response was incomplete, a work location was allocated to the person based on their means of transportation to work, travel time to work, industry, and location of residence and workplace of others. Census 2000 and 1990 census tabulations, therefore, do not contain a "not reported" category for the place-of-work data.

Comparisons between 1980, 1990, or Census 2000 data on the gross number of workers in particular commuting flows, or the total number of people working in an area, should be made with extreme caution. Any apparent increase in the magnitude of the gross numbers may be due solely to the fact that for Census 2000 and the 1990 census, the "not reported" cases have been distributed among specific place-of-work destinations, instead of tallied in a separate category, as

in 1980.

## Means of Transportation to Work

The data on means of transportation to work were derived from answers to long-form questionnaire item 23a, which was asked of a sample of the population 15 years old and over. This question was asked of people who indicated in question 21 that they worked at some time during the reference week. (For more information, see "Reference Week.") Means of transportation to work refers to the principal mode of travel or type of conveyance that the worker usually used to get from home to work during the reference week. Data were tabulated for workers 16 years old and over; that is, members of the Armed Forces and civilians who were at work during the reference week.

People who used different means of transportation on different days of the week were asked to specify the one they used most often, that is, the greatest number of days. People 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 "Car, truck, or van -- drove alone" includes people who usually drove alone to work, as well as people who were driven to work by someone who then drove back home or to a nonwork destination during the reference week. The category “Car, truck, or van -- carpooled” include workers who reported that two or more people usually rode to work in the vehicle during the reference week. The category "Public transportation" includes workers who usually used a bus or trolley bus, streetcar or trolley car, subway or elevated, railroad, ferryboat, or taxicab during the reference week. Público is included in the “Public transportation” category in Puerto Rico. The category "Other means" includes workers who used a mode of travel which is not identified separately. The category "Other means" may vary from table to table, depending on the amount of detail shown in a particular distribution.

The means of transportation data for some areas may show workers using modes of public transportation that are not available in those areas (for example, subway or elevated riders in a metropolitan area where there actually is no subway or elevated service). This result is largely due to people who worked during the reference week at a location that was different from their usual place of work (such as people away from home on business in an area where subway service was available) and people who used more than one means of transportation each day but whose principal means was unavailable where they lived (for example, residents of nonmetropolitan areas who drove to the fringe of a metropolitan area and took the commuter railroad most of the distance to work).

## Private Vehicle Occupancy

The data on private vehicle occupancy were derived from answers to long-form questionnaire item 23b, which was asked of a sample of the population 15 years old and over. This question was asked of people who indicated in question 21 that they worked at some time during the reference week and who reported in question 23a that their means of transportation to work was "Car, truck, or van." (For more information, see "Reference Week.") Data were tabulated for workers 16 years old and over; that is, members of the Armed Forces and civilians who were at work during the reference week.

Private vehicle occupancy refers to the number of people who usually rode to work in the vehicle during the reference week. The category "Drove alone," includes people who usually drove alone to work as well as people who were driven to work by someone who then drove back home or to

a nonwork destination. The category "Carpooled," includes workers who reported that two or more people usually rode to work in the vehicle during the reference week.

### Workers per car, truck, or van

This is obtained by dividing the number of people 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 of a vehicle, each person who reported being in a three-person carpool as one-third of a vehicle, and so on, and then summing all the vehicles. Workers per car, truck, or van is rounded to the nearest hundredth.

### Time Leaving Home to Go to Work

The data on time leaving home to go to work were derived from answers to long-form questionnaire item 24a, which was asked of a sample of the population 15 years old and over. This question was asked of people who indicated in question 21 that they worked at some time during the reference week and who reported in question 23a that they worked outside their home. The departure time refers to the time of day that the person usually left home to go to work during the reference week. (For more information, see "Reference Week.") Data were tabulated for workers 16 years old and over; that is, members of the Armed Forces and civilians who were at work during the reference week.

### Travel Time to Work

The data on travel time to work were derived from answers to long-form questionnaire item 24b, which was asked of a sample of the population 15 years old and over. This question was asked of people who indicated in question 21 that they worked at some time during the reference week and who reported in question 23a that they worked outside their home. Travel time to work refers to the total number of minutes that it usually took the person to get from home to work each day 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. (For more information, see "Reference Week.") Data were tabulated for workers 16 years old and over; that is, members of the Armed Forces and civilians who were at work during the reference week.

### Aggregate travel time to work (minutes)

Aggregate travel time to work (minutes) is calculated by adding together all the number of minutes each worker traveled to work (one way) for specified travel times and/or means of transportation. Aggregate travel time to work is zero if the aggregate is zero, is rounded to four minutes if the actual aggregate is one to seven minutes, and is rounded to the nearest multiple of five minutes for all other values (if the aggregate is not already evenly divisible by five). (For more information, see “Aggregate” under “Derived Measures.”)

### Mean travel time to work (minutes)

Mean travel time to work is the average travel time in minutes that workers usually took to get from home to work (one way) during the reference week. This measure is obtained by dividing the total number of minutes taken to get from home to work by the number of workers 16 years old and over who did not work at home. The travel time includes time spent waiting for public transportation, picking up passengers in carpools, and time spent in other activities related to getting to work. Mean travel times of workers having specific characteristics also are computed.

For example, the mean travel time of workers traveling 45 or more minutes is computed by dividing the aggregate travel time of workers whose travel time was 45 or more minutes by the number of workers whose travel time was 45 or more minutes. Mean travel time to work is rounded to the nearest tenth. (For more information on means, see "Derived Measures.")

## POVERTY STATUS IN 1999

The poverty data were derived from answers to long-form questionnaire items 31 and 32, the same questions used to derive income data. (For more information, see “Income in 1999.”) The Census Bureau uses the federal government’s official poverty definition. The Social Security Administration (SSA) developed the original poverty definition in 1964, which federal interagency committees subsequently revised in 1969 and 1980. The Office of Management and Budget’s (OMB’s) *Directive 14* prescribes this definition as the official poverty measure for federal agencies to use in their *statistical* work.

### Derivation of the Current Poverty Measure

When the Social Security Administration (SSA) created the poverty definition in 1964, it focused on family food consumption. The U.S. Department of Agriculture (USDA) used its data about the nutritional needs of children and adults to construct food plans for families. Within each food plan, dollar amounts varied according to the total number of people in the family and the family’s composition, such as the number of children within each family. The cheapest of these plans, the Economy Food Plan, was designed to address the dietary needs of families on an austere budget.

Since the USDA’s 1955 Food Consumption Survey showed that families of three or more people across all income levels spent roughly one-third of their income on food, the SSA multiplied the cost of the Economy Food Plan by three to obtain dollar figures for the poverty thresholds. Since the Economy Food Plan budgets varied by family size and composition, so too did the poverty thresholds. For two person families, the thresholds were adjusted by slightly higher factors because those households had higher fixed costs. Thresholds for unrelated individuals were calculated as a fixed proportion of the corresponding thresholds for two person families.

The poverty thresholds are revised annually to allow for changes in the cost of living as reflected in the Consumer Price Index (CPI-U). The poverty thresholds are the same for all parts of the country — they are not adjusted for regional, state or local variations in the cost of living. For a detailed discussion of the poverty definition, see U.S. Census Bureau, *Current Population Reports*, “Poverty in the United States: 1999," P-60-210.

### How Poverty Status is Determined

The poverty status of families and unrelated individuals in 1999 was determined using 48 thresholds (income cutoffs) arranged in a two dimensional matrix. The matrix consists of family size (from one person to nine or more people) 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 were further differentiated by the age of the reference person (RP) (under 65 years old and 65 years old and over).

To determine a person’s poverty status, one compares the person’s total family income with the poverty threshold appropriate for that person’s family size and composition (see table below). If the total income of that person’s family is less than the threshold appropriate for that family, then the person is considered poor, together with every member of his or her family. If a person is not living with anyone related by birth, marriage, or adoption, then the person’s own income is compared with his or her poverty threshold.

## Weighted average thresholds

Even though the official poverty data are based on the 48 thresholds arranged by family size and number of children within the family, data users often want to get an idea of the "average" threshold for a given family size. The weighted average thresholds provide that summary. They are weighted averages because for any given family size, families with a certain number of children may be more or less common than families with a different number of children. In other words, among three-person families, there are more families with two adults and one child than families with three adults. To get the weighted average threshold for families of a particular size, multiply each threshold by the number of families for whom that threshold applies; then add up those products, and divide by the total number of families who are of that family size.

For example, for three-person families, 1999 weighted thresholds were calculated in the following way using information from the 2000 Current Population Survey:

| Family type | Number of families | | Threshold |
|---|---|---|---|
| no children (three adults) | 5,213 | * | $13,032 = $67,935,816 |
| one child (two adults) | 8,208 | * | $13,410 = $110,069,280 |
| two children (one adult) | 2,656 | * | $13,423 = $35,651,488 |
| Totals | 16,077 | | $213,656,584 |

Source: Current Population Survey, March 2000.

Dividing $213,656,584 by 16,077 (the total number of three-person families) yields $13,290, the weighted average threshold for three-person families. Please note that the thresholds are weighted not just by the number of poor families, but by all families for which the thresholds apply: the thresholds are used to determine which families are *at or above* poverty, as well as below poverty.

## Individuals for whom poverty status is determined

Poverty status was determined for all people except institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old. These groups also were excluded from the numerator and denominator when calculating poverty rates. They are considered neither "poor" nor "nonpoor."

## Specified poverty levels

For various reasons, the official poverty definition does not satisfy all the needs of data users. Therefore, some of the data reflect the number of people below different percentages of the poverty level. These specified poverty levels are obtained by multiplying the official thresholds by the appropriate factor. For example, the average income cutoff at 125 percent of the poverty level was $21,286 ($17,029 x 1.25) in 1999 for family of four people.

**Poverty Threshold in 1999, by Size of Family and Number of Related Children Under 18 Years Old (Dollars)**

| Size of family unit | Weighted average threshold | Related children under 18 years old | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | None | One | Two | Three | Four | Five | Six | Seven | Eight or More |
| One person (unrelated individual) | 8501 | | | | | | | | | |
| Under 65 years old | 8667 | 8667 | | | | | | | | |
| 65 years and over old and over | 7990 | 7990 | | | | | | | | |
| | | | | | | | | | | |
| Two people | 10869 | | | | | | | | | |
| Householder under 65 years old | 11214 | 11156 | 11483 | | | | | | | |
| Householder 65 years old and over | 10075 | 10070 | 11440 | | | | | | | |
| | | | | | | | | | | |
| Three people | 13290 | 13032 | 13410 | 13423 | | | | | | |
| Four people | 17029 | 17184 | 17465 | 16895 | 16954 | | | | | |
| Five people | 20127 | 20723 | 21024 | 20380 | 19882 | 19578 | | | | |
| Six people | 22727 | 23835 | 23930 | 23436 | 22964 | 22261 | 21845 | | | |
| Seven people | 25912 | 27425 | 27596 | 27006 | 26595 | 25828 | 24934 | 23953 | | |
| Eight people | 28967 | 30673 | 30944 | 30387 | 29899 | 29206 | 28327 | 27412 | 27180 | |
| Nine people or more | 34417 | 36897 | 37076 | 36583 | 36169 | 35489 | 34554 | 33708 | 33499 | 32208 |

## Income deficit

Income deficit represents 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 the impoverishment of a family or unrelated individual. However, please use caution when 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.

## Aggregate income deficit

Aggregate income deficit refers only to those families or unrelated individuals who are classified as below the poverty level. It is defined as the group (e.g., type of family) sum total of

differences between the appropriate threshold and total family income or total personal income. Aggregate income deficit is subject to rounding, which means that all cells in a matrix are rounded to the nearest hundred dollars. (For more information, see "Aggregate" under "Derived Measures.")

### Mean income deficit

Mean income deficit represents the amount obtained by dividing the total income deficit for a group below the poverty level by the number of families (or unrelated individuals) in that group. (The aggregate used to calculate mean income deficit is rounded. For more information, see "Aggregate income deficit.") As mentioned above, please use caution when comparing mean income deficits of families with different characteristics, as apparent differences may to some extent be a function of differences in family size. Mean income deficit is rounded to the nearest whole dollar. (For more information on means, see "Derived Measures.")

***Comparability*.** The poverty definition used in the 1980 census and later differed slightly from the one used in the 1970 census. Three technical modifications were made to the definition used in the 1970 census:

1. Beginning with the 1980 census, the Office of Management and Budget eliminated any distinction between thresholds for "families with a female householder with no husband present" and all other families. The new thresholds — which apply to all families regardless of the householder's sex — were a weighted average of the old thresholds.

2. The Office of Management and Budget eliminated any differences between farm families and nonfarm families, and farm and nonfarm unrelated individuals. In the 1970 census, the farm thresholds were 85 percent of those for nonfarm families, whereas in 1980 and later the same 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 people in 1970 to nine or more people in 1980 and later.

These changes resulted in a minimal increase in the number of poor at the national level. For a complete discussion of these modifications and their impact, see U.S. Census Bureau, *Current Population Reports*, "Characteristics of the Population Below the Poverty Level: 1980," P-60, No. 133.

With respect to poverty, the population covered in the 1970 census was almost the same as that covered in the 1980 census and later. The only difference was that in 1980 and after, unrelated individuals under 15 years old were excluded from the poverty universe, while in 1970, only those under age 14 were excluded. The limited poverty data from the 1960 census excluded all people in group quarters and included all unrelated individuals regardless of age. It was unlikely that these differences in population coverage would have had significant impact when comparing the poverty data for people since the 1960 census.

### Household poverty data

Poverty status is not defined for households – only for families and unrelated individuals. Because some data users need poverty data at the household level, we have provided a few matrices which show tallies of households by the poverty status of the *householder*. In these matrices, the householder's poverty status is computed exactly the same way as described above. Therefore, to determine whether or not a "household" was in poverty, anyone who is not related

to the householder is ignored.

*Example #1:* Household #1 has six members–a married couple, Alice and Albert, with their 10-year-old nephew, Aaron, and another married couple, Brian and Beatrice, with their 6-year-old son, Ben. Alice is the householder. Brian, Beatrice, and Ben are not related to Alice.

| Household member | Relationship to Alice | Income |
|---|---|---|
| Alice | self (householder) | $ 5,000 |
| Albert | spouse | $ 40,000 |
| Aaron | related child | $ 0 |
| Brian | unrelated individual | $ 0 |
| Beatrice | unrelated individual | $ 5,000 |
| Ben | unrelated individual | $ 0 |

The total income of Alice's family is $45,000, and their poverty threshold is $13,410, since there are three people in the family, with one member under age 18. Their income is greater than their threshold, so they are not classified as poor. Their ratio of income to poverty is 3.36 ($45,000 divided by $13,410). Alice's income-to-poverty ratio is also 3.36, because everyone in the same family has the same poverty status.

Even though Brian, Beatrice and Ben would be classified as poor if they lived in their own household, the household is not classified as poor because the householder, Alice, is not poor, as was shown in the computation above.

*Example #2:* Household #2 consists of four adults, Claude, Danielle, Emily and Francis, who are unrelated to each other and are living as housemates. Claude, who is age 30, is the householder.

| Household member | Relationship to Claude | Income |
|---|---|---|
| Claude | self (householder) | $ 4,500 |
| Danielle | unrelated individual | $ 82,000 |
| Emily | unrelated individual | $ 28,000 |
| Francis | unrelated individual | $ 40,000 |

Because Claude is under age 65 and is not living with any family members, his poverty threshold is $8,667. Since his income, $4,500, is less than his threshold, he is considered poor. His ratio of income to poverty is 0.52 ($4,500 divided by $8,667).

Household #2 would be classified as poor because its householder, Claude, is poor, even though the other household members (who are not related to Claude) are not in poverty.

## RACE

The data on race, which was asked of all people, were derived from answers to long-form questionnaire item 6 and short-form questionnaire Item 8. The concept of race, as used by the Census Bureau, reflects self-identification by people according to the race or races with which they most closely identify. These categories are socio-political constructs and should not be interpreted as being scientific or anthropological in nature. Furthermore, the race categories include both racial and national-origin groups.

The racial classifications used by the Census Bureau adhere to the October 30, 1997, *Federal Register Notice* entitled, "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity," issued by the Office of Management and Budget (OMB). These standards govern the categories used to collect and present federal data on race and ethnicity. The OMB requires five minimum categories (White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander) for race. The race categories are described below with a sixth category, "Some other race," added with OMB approval. In addition to the five race groups, the OMB also states that respondents should be offered the option of selecting one or more races.

If an individual did not provide a race response, the race or races of the householder or other household members were assigned using specific rules of precedence of household relationship. For example, if race was missing for a natural-born child in the household, then either the race or races of the householder, another natural-born child, or the spouse of the householder were assigned. If race was not reported for anyone in the household, the race or races of a householder in a previously processed household were assigned. This procedure is a variation of the general imputation procedures described in "Accuracy of the Data."

### White

A person having origins in any of the original peoples of Europe, the Middle East, or North Africa. It includes people who indicate their race as "White" or report entries such as Irish, German, Italian, Lebanese, Near Easterner, Arab, or Polish.

### Black or African American

A person having origins in any of the Black racial groups of Africa. It includes people who indicate their race as "Black, African Am., or Negro," or provide written entries such as African American, Afro-American, Kenyan, Nigerian, or Haitian.

### American Indian or Alaska Native

A person having origins in any of the original peoples of North and South America (including Central America) and who maintain tribal affiliation or community attachment. It includes people who classified themselves as described below.

#### *American Indian*

This category includes people who indicated their race as "American Indian," entered the name of an Indian tribe, or reported such entries as Canadian Indian, French American Indian, or Spanish American Indian.

#### *American Indian tribe*

Respondents who identified themselves as American Indian were asked to report their enrolled or principal tribe. Therefore, tribal data in tabulations reflect the written entries reported on the questionnaires. Some of the entries (for example, Iroquois, Sioux, Colorado River, and Flathead) represent nations or reservations. The information on tribe is based on self-identification and therefore does not reflect any designation of federally- or state-recognized tribe. Information on American Indian tribes is presented in summary files. The information for Census 2000 is derived from the American Indian Tribal Classification List for the 1990 census that was updated based on a December 1997, *Federal Register Notice,* entitled "Indian Entities Recognized and Eligible to Receive Service From the United States Bureau of Indian Affairs," Department of the

Interior, Bureau of Indian Affairs, issued by the Office of Management and Budget.

*Alaska Native*

This category includes written responses of Eskimos, Aleuts, and Alaska Indians as well as entries such as Arctic Slope, Inupiat, Yupik, Alutiiq, Egegik, and Pribilovian. The Alaska tribes are the Alaskan Athabascan, Tlingit, and Haida. The information for Census 2000 is based on the American Indian Tribal Classification List for the 1990 census, which was expanded to list the individual Alaska Native Villages when provided as a written response for race.

**Asian**

A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. It includes "Asian Indian," "Chinese," "Filipino," "Korean," "Japanese," "Vietnamese," and "Other Asian."

*Asian Indian*

This category includes people who indicated their race as "Asian Indian" or identified themselves as Bengalese, Bharat, Dravidian, East Indian, or Goanese.

*Chinese*

This category includes people who indicate their race as "Chinese" or who identify themselves as Cantonese or Chinese American. In some census tabulations, written entries of Taiwanese are included with Chinese while in others they are shown separately.

*Filipino*

This category includes people who indicate their race as "Filipino" or who report entries such as Philipino, Philipine, or Filipino American.

*Japanese*

This category includes people who indicate their race as "Japanese" or who report entries such as Nipponese or Japanese American.

*Korean*

This category includes people who indicate their race as "Korean" or who provide a response of Korean American.

*Vietnamese*

This category includes people who indicate their race as "Vietnamese" or who provide a response of Vietnamese American.

*Cambodian*

This category includes people who provide a response such as Cambodian or Cambodia.

*Hmong*

This category includes people who provide a response such as Hmong, Laohmong, or Mong.

*Laotian*

This category includes people who provide a response such as Laotian, Laos, or Lao.

*Thai*

This category includes people who provide a response such as Thai, Thailand, or Siamese.

*Other Asian*

This category includes people who provide a response of Bangladeshi; Bhutanese; Burmese; Indochinese; Indonesian; Iwo Jiman; Madagascar; Malaysian; Maldivian; Nepalese; Okinawan; Pakistani; Singaporean; Sri Lankan; or Other Asian, specified and Other Asian, not specified.

**Native Hawaiian or Other Pacific Islander**

A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. It includes people who indicate their race as "Native Hawaiian," "Guamanian or Chamorro," "Samoan," and "Other Pacific Islander."

*Native Hawaiian*

This category includes people who indicate their race as "Native Hawaiian" or who identify themselves as "Part Hawaiian" or "Hawaiian."

*Guamanian or Chamorro*

This category includes people who indicate their race as such, including written entries of Guam or Chamorro.

*Samoan*

This category includes people who indicate their race as "Samoan" or who identify themselves as American Samoan or Western Samoan.

*Other Pacific Islander*

This category includes people who provide a write-in response of a Pacific Islander group such as Carolinian; Chuukese (Trukese); Fijian; Kosraean; Melanesian; Micronesian; Northern Mariana Islander; Palauan; Papua New Guinean; Pohnpeian; Polynesian; Solomon Islander; Tahitian; Tokelauan; Tongan; Yapese; or Other Pacific Islander, specified and Other Pacific Islander, not specified.

**Some other race**

This category includes all other responses not included in the "White," "Black or African American," "American Indian or Alaska Native," "Asian," and "Native Hawaiian or Other Pacific Islander" race categories described above. Respondents providing write-in entries such as multiracial, mixed, interracial, or a Hispanic/Latino group (for example, Mexican, Puerto Rican, or Cuban) in the "Some other race" write-in space are included in this category.

**Two or more races**

People may have chosen to provide two or more races either by checking two or more race response check boxes, by providing multiple write-in responses, or by some combination of

check boxes and write-in responses. The race response categories shown on the questionnaire are collapsed into the five minimum races identified by the OMB, and the Census Bureau "Some other race" category. For data product purposes, "Two or more races" refers to combinations of two or more of the following race categories:

White
Black or African American
American Indian and Alaska Native
Asian
Native Hawaiian and Other Pacific Islander
Some other race

There are 57 possible combinations (see below) involving the race categories shown above. Thus, according to this approach, a response of "White" and "Asian" was tallied as two or more races, while a response of "Japanese" and "Chinese" was not because "Japanese" and "Chinese" are both Asian responses. Tabulations of responses involving reporting of two or more races within the American Indian and Alaska Native, Asian, or Native Hawaiian and Other Pacific Islander categories are available in other data products.

**Two or More Races (57 Possible Specified Combinations)**

1. White; Black or African American
2. White; American Indian and Alaska Native
3. White; Asian
4. White; Native Hawaiian and Other Pacific Islander
5. White; Some other race
6. Black or African American; American Indian and Alaska Native
7. Black or African American; Asian
8. Black or African American; Native Hawaiian and Other Pacific Islander
9. Black or African American; Some other race
10. American Indian and Alaska Native; Asian
11. American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander
12. American Indian and Alaska Native; Some other race
13. Asian; Native Hawaiian and Other Pacific Islander
14. Asian; Some other race
15. Native Hawaiian and Other Pacific Islander; Some other race
16. White; Black or African American; American Indian and Alaska Native
17. White; Black or African American; Asian
18. White; Black or African American; Native Hawaiian and Other Pacific Islander
19. White; Black or African American; Some other race
20. White; American Indian and Alaska Native; Asian
21. White; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander
22. White; American Indian and Alaska Native; Some other race
23. White; Asian; Native Hawaiian and Other Pacific Islander
24. White; Asian; Some other race
25. White; Native Hawaiian and Other Pacific Islander; Some other race
26. Black or African American; American Indian and Alaska Native; Asian
27. Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander
28. Black or African American; American Indian and Alaska Native; Some other race

29. Black or African American; Asian; Native Hawaiian and Other Pacific Islander
30. Black or African American; Asian; Some other race
31. Black or African American; Native Hawaiian and Other Pacific Islander; Some other race
32. American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander
33. American Indian and Alaska Native; Asian; Some other race
34. American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some other race
35. Asian; Native Hawaiian and Other Pacific Islander; Some other race
36. White; Black or African American; American Indian and Alaska Native; Asian
37. White; Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander
38. White; Black or African American; American Indian and Alaska Native; Some other race
39. White; Black or African American; Asian; Native Hawaiian and Other Pacific Islander
40. White; Black or African American; Asian; Some other race
41. White; Black or African American; Native Hawaiian and Other Pacific Islander; Some other race
42. White; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander
43. White; American Indian and Alaska Native; Asian; Some other race
44. White; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some other race
45. White; Asian; Native Hawaiian and Other Pacific Islander; Some other race
46. Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and other Pacific Islander
47. Black or African American; American Indian and Alaska Native; Asian; Some other race
48. Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some other race
49. Black or African American; Asian; Native Hawaiian and Other Pacific Islander; Some other race
50. American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some other race
51. White; Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander
52. White; Black or African American; American Indian and Alaska Native; Asian; Some other race
53. White; Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some other race
54. White; Black or African American; Asian; Native Hawaiian and Other Pacific Islander; Some other race
55. White; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some other race
56. Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some other race
57. White; Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some other race

Given the many possible ways of displaying data on two or more races, data products will provide varying levels of detail. The most common presentation shows a single line indicating "Two or more races." Some data products provide totals of all 57 possible combinations of two or more races, as well as subtotals of people reporting a specific number of races, such as people

reporting two races, people reporting three races, and so on.

In other presentations on race, data are shown for the total number of people who reported one of the six categories alone or in combination with one or more other race categories. For example, the category, “Asian alone or in combination with one or more other races” includes people who reported Asian alone and people who reported Asian in combination with White, Black or African American, Native Hawaiian and Other Pacific Islander, and Some other race. This number, therefore, represents the maximum number of people who reported as Asian in the question on race. When this data presentation is used, the individual race categories will add to more than the total population because people may be included in more than one category.

### Coding of race write-in responses

Census 2000 included an automated review, computer edit, and coding operation on a 100-percent basis for the write-in responses to the race question, similar to that used in the 1990 census. There were two types of coding operations: (1) automated coding where a write-in response was automatically coded if it matched a write-in response already contained in a database known as the “master file,” and (2) expert coding which took place when a write-in response did not match an entry already on the master file, and was sent to expert clerical coders familiar with the subject matter. During 100-percent processing of Census 2000 questionnaires, subject-matter specialists reviewed and coded written entries from four response categories on the race item: American Indian or Alaska Native, Other Asian, Other Pacific Islander, and Some other race. The Other Asian and Other Pacific Islander response categories shared the same write-in area on the questionnaire. Write-in responses such as Laotian or Thai, and Guamanian or Tongan were reviewed, coded, and tabulated as “Other Asian” and “Other Pacific Islander,” respectively, in the census. All tribal entries were coded as either American Indian or as Alaska Native.

***Comparability.*** The data on race in Census 2000 are not directly comparable to those collected in previous censuses. The October 1997 revised standards issued by the OMB led to changes in the question on race for Census 2000. The Census 2000 Dress Rehearsal data were the first to reflect these changes. First, respondents were allowed to select more than one category for race. Second, the sequence of the questions on race and Hispanic origin changed. In 1990, the question on race (item 4) preceded the question on Hispanic origin (item 7) with two intervening questions. For Census 2000, the question on race immediately follows the question on Hispanic origin. Third, there were terminology changes to the response categories, such as spelling out "American" instead of "Amer." for the American Indian or Alaska Native category; and adding "Native" to the Hawaiian response category. The 1990 category, “Other race,” was renamed “Some other race.”

Other differences that may affect comparability involve the individual categories on the Census 2000 questionnaire. The 1990 category, “Asian and Pacific Islander,” was separated into two categories, “Asian” and “Native Hawaiian and Other Pacific Islander” for Census 2000. Accordingly, on the Census 2000 questionnaire, there were seven Asian categories and four Native Hawaiian and Other Pacific Islander categories. The two residual categories, “Other Asian” and “Other Pacific Islander,” replaced the 1990 single category “Other API.” The 1990 categories, “American Indian,” “Eskimo,” and “Aleut,” were combined into “American Indian and Alaska Native.” American Indians and Alaska Natives can report one or more tribes.

As in 1980 and 1990, people who reported a Hispanic or Latino ethnicity in the question on race and did not mark a specific race category were classified in the “Some other race” category (“Other” in 1980 and

"Other race" in 1990). They commonly provided a write-in entry such as Mexican, Puerto Rican, or Latino. In the 1970 census, most of these responses were included in the "White" category. In addition, some ethnic entries that in 1990 may have been coded as White or Black are now shown in the "Some other race" group.

## REFERENCE WEEK

The data on employment status and commuting to work are related to a one-week time period, known as the reference week. For each person, this week is the full calendar week, Sunday through Saturday, preceding the date the questionnaire was completed. This calendar week is not the same for all people since the enumeration was not completed in one week. The occurrence of holidays during the enumeration period probably had no effect on the overall measurement of employment status.

## SCHOOL ENROLLMENT AND EMPLOYMENT STATUS

Tabulation of data on school enrollment, educational attainment, and employment status for the population 16 to 19 years old allows for calculating the proportion of people 16 to 19 years old who are not enrolled in school and not high school graduates ("dropouts") and an unemployment rate for the "dropout" population. Definitions of the three topics and descriptions of the census items from which they were derived are presented in "Educational Attainment," "Employment Status," and "School Enrollment and Type of School."

***Comparability.*** The tabulation of school enrollment by employment status is similar to that published in 1980 and 1990 census reports. The 1980 census tabulation included a single data line for Armed Forces; school enrollment, educational attainment, and employment status data were shown for the civilian population only. In 1970, a tabulation was included for 16 to 21 year old males not attending school.

## SCHOOL ENROLLMENT AND TYPE OF SCHOOL

Data on school enrollment were derived from answers to long-form questionnaire items 8a and 8b, which were asked of a sample of the population. People were classified as enrolled in school if they reported attending a "regular" public or private school or college at any time between February 1, 2000 and the time of enumeration. The question included instructions to "include only nursery school or preschool, kindergarten, elementary school, and schooling which leads to a high school diploma or a college degree" as regular school or college. Respondents who did not answer the enrollment question were assigned the enrollment status and type of school of a person with the same age, sex, and race/Hispanic or Latino origin whose residence was in the same or a nearby area.

### Public and private school

Public and private school includes people who attended school in the reference period and indicated they were enrolled by marking one of the questionnaire categories for either "public school, public college" or "private school, private college." Schools supported and controlled primarily by a federal, state, or local government are defined as public (including tribal schools). Those supported and controlled primarily by religious organizations or other private groups are private.

***Comparability.*** School enrollment questions have been included in the census since 1840; highest grade attended was first asked in 1940; type of school was first asked in 1960. Before 1940, the enrollment question in various censuses referred to attendance in the preceding
6 months or the preceding year. In 1940, the reference was to attendance in the month preceding the census, and in the 1950 and subsequent censuses, the question referred to attendance in the two months preceding the census date.

Until the 1910 census, there were no instructions limiting the kinds of schools in which enrollment was to be counted. Starting in 1910, the instructions indicated that attendance at "school, college, or any educational institution" was to be counted. In 1930 an instruction to include "night school" was added. In the 1940 instructions, night school, extension school, or vocational school were included only if the school was part of the regular school system. Correspondence school work of any kind was excluded. In the 1950 instructions, the term "regular school" was introduced, and it was defined as schooling which "advances a person towards an elementary or high school diploma or a college, university, or professional school degree." Vocational, trade, or business schools were excluded unless they were graded and considered part of a regular school system. On-the-job training was excluded, as was nursery school. Instruction by correspondence was excluded unless it was given by a regular school and counted towards promotion. In 1960, the question used the term "regular school or college" and a similar, though expanded, definition of "regular" was included in the instruction, which continued to exclude nursery school. Because of the use of mailed questionnaires in the 1960 census, it was the first census in which instructions were written for the respondent as well as enumerators. In the 1970 census, the questionnaire used the phrase "regular school or college" and included instructions to "count nursery school, kindergarten, and schooling which leads to an elementary school certificate, high school diploma, or college degree." Instructions in a separate document specified that to be counted as regular school, nursery school must include instruction as an important and integral phase of its program, and continued the exclusion of vocational, trade, and business schools. The 1980 census question was very similar to the 1970 question, but the separate instruction booklet did not require that nursery school include substantial instructional content in order to be counted. Instructions included in the 1990 respondent instruction guide, which was mailed with the census questionnaire, further specified that enrollment in a trade or business school, company training, or tutoring were not to be included unless the course would be accepted for credit at a regular elementary school, high school, or college. The instruction guide defines a public school as "any school or college controlled and supported by a local, county, state, or federal government." Schools supported and controlled primarily by religious organizations or other private groups were defined as private. In Census 2000 there was no separate instruction guide. The questionnaire reference book used by enumerators and telephone assistance staff contained these definitions for those who asked questions.

The age range for which enrollment data have been obtained and published has varied over the censuses. Information on enrollment was recorded for people of all ages in the 1930 and 1940 censuses and 1970 through 2000 censuses; for people under 30 years old, in 1950; and for people 5 to 34 years old in 1960. Most of the published enrollment figures referred to people 5 to 20 years old in the 1930 census, 5 to 24 in 1940, 5 to 29 in 1950, 5 to 34 in 1970, and three years old and over in 1980 and later years. This growth in the age group whose enrollment was reported reflects increased interest in the number of children in preprimary schools and in the number of older people attending colleges and universities. In the 1950 and subsequent censuses, college students were enumerated where they lived while attending college, whereas in earlier censuses, they generally were enumerated at their parental homes. This change should not affect the comparability of national figures on college enrollment since 1940; however, it may affect the comparability over time of enrollment figures at sub-national levels.

Type of school was first introduced in the 1960 census, where a separate question asked the enrolled person whether he/she was in a "public" or "private" school. Beginning with the 1970 census, the type of school was incorporated into the response categories for the enrollment question and the terms were changed to "public," "parochial," and "other private." In the 1980 census, "private, church related" and "private, not church related" replaced "parochial" and "other private." In 1990 and 2000, "public" and "private" were used. Data on school enrollment also were collected and published by other federal, state, and local government agencies. Where these data were obtained from administrative records of school

systems and institutions of higher learning, they were only roughly comparable to data from population censuses and household surveys because of differences in definitions and concepts, subject matter covered, time references, and enumeration methods. At the local level, the difference between the location of the institution and the residence of the student may affect the comparability o f census and administrative data. Differences between the boundaries of school districts and census geographic units may also affect these comparisons.

## SEX

The data on sex, which was asked of all people, were derived from answers to long-form questionnaire Item 3 and short-form questionnaire Item 5. Individuals were asked to mark either “male” or “female” to indicate their sex. For most cases in which sex was not reported, it was determined from the person's given (i.e., first) name and household relationship. Otherwise, sex was imputed according to the relationship to the householder and the age of the person. (For more information on imputation, see “Accuracy of the Data.”)

### Sex ratio

A measure derived by dividing the total number of males by the total number of females, and then multiplying by 100. This measure is rounded to the nearest tenth.

***Comparability.*** A question on the sex of individuals has been included in every census. Census 2000 was the first time that first name was used for imputation of cases where sex was not reported.

## WORK STATUS IN 1999

The data on work status in 1999 were derived from answers to long-form questionnaire item 30a, which was asked of a sample of the population 15 years old and over. People 16 years old and over who worked one or more weeks according to the criteria described below are classified as "Worked in 1999." All other people 16 years old and over are classified as "Did not work in 1999." Some earnings tabulations showing work status in 1999 include 15 year olds; these people, by definition, are classified as "Did not work in 1999."

### Weeks worked in 1999

The data on weeks worked in 1999 were derived from answers to long-form questionnaire item 30b, which was asked of people 15 years old and over who indicated in long-form questionnaire item 30a that they worked in 1999. The data were tabulated for people 16 years old and over and pertain to the number of weeks during 1999 in which a person did any work for pay or profit (or took paid vacation or paid sick leave) or worked without pay on a family farm or in a family business. Weeks on active duty in the Armed Forces also are included as weeks worked.

### Median weeks worked in 1999

Median weeks worked in 1999 divides the weeks worked distribution into two equal parts: one-half of the cases falling below the median weeks worked and one-half above the median. Median weeks worked in 1999 is computed on the basis of a standard distribution (see the “Standard Distributions” section under “Derived Measures”). Median weeks worked is rounded to the nearest whole number. (For more information on medians, see "Derived Measures.")

### Usual hours worked per week in 1999

The data on usual hours worked in 1999 were derived from answers to long-form questionnaire item 30c. This question was asked of people 15 years old and over who indicated that they

worked in 1999 in question 30a, and the data are tabulated for people 16 years old and over. The respondent was asked to report the number of hours usually worked during the weeks worked in 1999. If their hours varied considerably from week to week during 1999, the respondent was asked to report an approximate average of the hours worked each week. People 16 years old and over who reported that they usually worked 35 or more hours each week are classified as "Usually worked full time"; people who reported that they usually worked 1 to 34 hours each week are classified as "Usually worked part time."

### Median usual hours worked per week in 1999

Median usual hours worked per week in 1999 divides the usual hours worked distribution into two equal parts: one-half of the cases falling below the median usual hours worked and one-half above the median. Median usual hours worked per week in 1999 is computed on the basis of a standard distribution (see the "Standard Distributions" section under "Derived Measures"). Median usual hours worked per week is rounded to the nearest whole hour. (For more information on medians, see "Derived Measures.")

### Aggregate usual hours worked per week in 1999

The aggregate usual hours worked per week in 1999 is the number obtained by summing across the usual hours worked values of all people who worked in 1999. (Note that there is one usual hours value for each worker, so the number of items summed equals the number of workers.)

### Mean usual hours worked per week in 1999

Mean usual hours worked per week is calculated by dividing the aggregate number of usual hours worked per week worked in 1999 by the total number of people who worked in 1999. Mean usual hours worked per week is rounded to the nearest tenth. (For more information on means, see "Derived Measures.")

### Full-time, year-round workers

Full-time, year-round workers consists of people 16 years old and over who usually worked 35 hours or more per week for 50 to 52 weeks in 1999. The term "worker" in these concepts refers to people classified as "Worked in 1999" as defined above. The term "worked" in these concepts means "worked one or more weeks in 1999" as defined above under "Weeks Worked in 1999."

***Limitation of the data.*** It is probable that data on the number of people who worked in 1999 and on the number of weeks worked are understated since there was probably a tendency for respondents to forget intermittent or short periods of employment or to exclude weeks worked without pay. There may also have been a tendency for people not to include weeks of paid vacation among their weeks worked, which would result in an underestimate of the number of people who worked "50 to 52 weeks."

***Comparability.*** The data on weeks worked collected in Census 2000 are comparable with data from the 1960 to 1990 censuses, but may not be entirely comparable with data from the 1940 and 1950 censuses. Starting with the 1960 census, two separate questions have been used to obtain this information. The first identifies people with any work experience during the year and, thus, indicates those people for whom the question about number of weeks worked applies. In 1940 and 1950, the questionnaires contained only a single question on number of weeks worked. In 1970, people responded to the question on weeks worked by indicating one of six weeks-worked intervals. In 1980 and 1990, people were asked to enter the specific number of weeks they worked.

## WORKER

The terms “worker” and “work” appear in connection with several subjects: employment status, journey-to-work, class of worker, and work status in 1999. Their meaning varies and, therefore, should be determined by referring to the definition of the subject in which they appear. When used in the concepts “Workers in Family,” “Workers in Family in 1999,” and “Full-Time, Year-Round Workers,” the term “worker” relates to the meaning of work defined for the “Work Status in 1999" subject.

## YEAR OF ENTRY

The data on year of entry were derived from answers to long-form questionnaire item 14 which was asked of a sample of the population. All people born outside the United States were asked for the year in which they came to live in the U.S. This includes people born in Puerto Rico and U.S. Island Areas (such as Guam); people born abroad of American parent(s); and the foreign born. (For more information, see "Place of Birth" and "Citizenship Status.")

***Limitation of the data.*** The census questions on nativity, citizenship status, and year of entry were not designed to measure the degree of permanence of residence in the United States. The phrase "to live" was used to obtain the year in which the person became a resident of the United States. Although the respondent was directed to indicate the year he or she entered the country "to live," it was difficult to be sure that respondents interpreted the phrase as intended.

***Comparability.*** The year of entry questions for the 2000 decennial census and for the American Community Survey (ACS) are identical. This question differs from the year of entry question in the 1990 decennial census. The 1990 decennial census item asked "When did this person come to the United States to stay?" Moreover, the year of entry question in the 1990 census provided respondents with a fixed number of response categories, while the year of entry question in both the 2000 decennial census and the ACS collect year of entry through a write-in space.

# HOUSING HARACTERISTICS

## LIVING QUARTERS

Living quarters are either housing units or group quarters. Living quarters are usually found in structures intended for residential use, but also may be found in structures intended for nonresidential use as well as in places such as tents, vans, and emergency and transitional shelters.

### Housing unit

A housing unit may be a house, an apartment, a mobile home, 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 separately from any other individuals in the building and which have direct access from outside the building or through a common hall. For vacant units, the criteria of separateness and direct access are applied to the intended occupants whenever possible. If that information cannot be obtained, the criteria are applied to the previous occupants.

Both occupied and vacant housing units are included in the housing unit inventory. Boats, recreational vehicles (RVs), vans, tents, and the like are housing units only if they are occupied as someone's usual place of residence. Vacant mobile homes are included provided they are intended for occupancy on the site where they stand. Vacant mobile homes on dealers' lots, at the factory, or in storage yards are excluded from the housing inventory. Also excluded from the housing inventory are quarters being used entirely for nonresidential purposes, such as a store or an office, or quarters used for the storage of business supplies or inventory, machinery, or agricultural products.

### Occupied housing unit

A housing unit is classified as occupied if it is the usual place of residence of the person or group of people living in it at the time of enumeration, or if the occupants are only temporarily absent; that is, away on vacation or a business trip. 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 people who share living quarters.

Occupied rooms or suites of rooms in hotels, motels, and similar places are classified as housing units only when occupied by permanent residents; that is, people who consider the hotel as their usual place of residence or have no usual place of residence elsewhere. If any of the occupants in rooming or boarding houses, congregate housing, or continuing care facilities live separately from others in the building and have direct access, their quarters are classified as separate housing units. The living quarters occupied by staff personnel within any group quarters are separate housing units if they satisfy the housing unit criteria of separateness and direct access; otherwise, they are considered group quarters.

### Vacant housing unit

A housing unit is vacant if no one is living in it at the time of enumeration, unless its occupants are only temporarily absent. Units temporarily occupied at the time of enumeration entirely by people who have a usual residence elsewhere are also classified as vacant. New units not yet occupied are classified as vacant housing units if construction has reached a point where all exterior windows and doors are installed and final usable floors are in place. Vacant units are excluded from the housing inventory if they are open to the elements; that is, the roof, walls,

windows, and/or doors no longer protect the interior from the elements. Also excluded are vacant units with a sign that they are condemned or they are to be demolished.

***Comparability.*** The first Census of Housing in 1940 established the ‘‘dwelling unit’’ concept. Although the term became ‘‘housing unit’’ and the definition was modified slightly in succeeding censuses, the housing unit definition remained essentially comparable between 1940 and 1990. Since 1990, two changes have been made to the housing unit definition.

The first change eliminated the concept of ‘‘eating separately.’’ The elimination of the eating criterion makes the housing unit definition more comparable to the United Nations’ definition of a housing unit that stresses the entire concept of separateness rather than the specific ‘‘eating’’ element. Although the ‘‘eating separately’’ criterion was previously included in the definition of a housing unit, the data collected did not actually allow one to distinguish whether the occupants ate separately from any other people in the building. (Questions that asked households about their eating arrangements have not been included in the census since 1970.) Therefore, the current definition better reflects the information that is used in the determination of a housing unit.

The second change for Census 2000 eliminated the ‘‘number of nonrelatives’’ criterion; that is, ‘‘nine or more people unrelated to the householder’’ which converted housing units to group quarters. This change was prompted by the following considerations: (1) there were relatively few such conversions in 1990; (2) household relationship and housing data were lost by converting these housing units to group quarters; and (3) there was no empirical support for establishing a particular number of nonrelatives as a threshold for these conversions.

In 1960, 1970, and 1980, vacant rooms in hotels, motels, and other similar places where 75 percent or more of the accommodations were occupied by permanent residents were counted as part of the housing inventory. We intended to classify these vacant units as housing units in the 1990 census. However, an evaluation of the data collection procedures prior to the 1990 census indicated that the concept of permanency was difficult and confusing for enumerators to apply correctly. Consequently, in the 1990 census, vacant rooms in hotels, motels, and similar places were not counted as housing units. In Census 2000, we continued the procedure adopted in 1990.

## HOUSEHOLD SIZE

This item is based on the count of people in occupied housing units. All people occupying the housing unit are counted, including the householder, occupants related to the householder, and lodgers, roomers, boarders, and so forth. For products based on population data, ‘‘household size’’ is the number of people in households. The sample count of ‘‘occupied housing units’’ may not match the sample count of ‘‘households.’’ Consequently, the household size measures derived from housing and population-based data also may differ.

### Average household size of occupied unit

A measure obtained by dividing the number of people living in occupied housing units by the number of occupied housing units. This measure is rounded to the nearest hundredth.

### Average household size of owner-occupied unit

A measure obtained by dividing the number of people living in owner-occupied housing units by the total number of owner-occupied housing units. This measure is rounded to the nearest hundredth.

**Average household size of renter-occupied unit**

A measure obtained by dividing the number of people living in renter-occupied housing units by the total number of renter-occupied housing units. This measure is rounded to the nearest hundredth.

## POPULATION IN OCCUPIED UNITS

The data shown for population in occupied units is the total population minus any people living in group quarters. This item is based on the 100-percent count of people in occupied housing units. All people occupying the housing unit are counted, including the householder, occupants related to the householder, and lodgers, roomers, boarders, and so forth.

## POVERTY STATUS OF HOUSEHOLDS IN 1999

The data on poverty status of households were derived from answers to the income questions. The income items were asked on a sample basis.

Since poverty is defined at the family level and not the household level, the poverty status of the household is determined by the poverty status of the householder. Households are classified as poor when the total 1999 income of the householder's family is below the appropriate poverty threshold. (For nonfamily householders, their own income is compared with the appropriate threshold.) The income of people living in the household who are unrelated to the householder is not considered when determining the poverty status of a household, nor does their presence affect the family size in determining the appropriate threshold. The poverty thresholds vary depending upon three criteria: size of family, number of children, and, for 1- and 2-person families, age of the householder.

## TELEPHONE SERVICE AVAILABLE

The data on telephones were obtained from answers to long-form questionnaire Item 41, which was asked on a sample basis at occupied housing units. Households with telephone service have B–62 a telephone in working order and are able to make and receive calls. Households whose service has been discontinued for nonpayment or other reasons are not counted as having telephone service available.

***Comparability.*** In Census 2000, the telephone question emphasizes the availability of service in the house, apartment, or mobile home. Data on telephone service are needed because an individual can own a telephone but have no service to make or receive calls. In 1980 and 1990, respondents were asked about the presence of a telephone in the housing unit. In 1960 and 1970, a unit was classified as having a telephone available if there was a telephone number on which the occupants of the unit could be reached. The telephone could have been in another unit, in a common hall, or outside the building.

## TENURE

The data on tenure, which was asked at all occupied housing units, were obtained from answers to long-form questionnaire Item 33 and short-form questionnaire Item 2. All occupied housing units are classified as either owner occupied or renter occupied.

**Owner occupied**

A housing unit is owner occupied if the owner or co-owner lives in the unit even if it is mortgaged or not fully paid for. The owner or co-owner must live in the unit and usually is Person 1 on the questionnaire. The unit is ''Owned by you or someone in this household with a mortgage or loan'' if it is being purchased with a mortgage or some other debt arrangement, such as a deed of trust, trust deed, contract to purchase, land contract, or purchase agreement. The unit

is also considered owned with a mortgage if it is built on leased land and there is a mortgage on the unit. Mobile homes occupied by owners with installment loans balances are also included in this category.

A housing unit is ‘‘Owned by you or someone in this household free and clear (without a mortgage or loan)’’ if there is no mortgage or other similar debt on the house, apartment, or mobile home including units built on leased land if the unit is owned outright without a mortgage.

The tenure item on the Census 2000 questionnaire distinguishes between units owned with a mortgage or loan and those owned free and clear. In the sample data products, as in the 100-percent products, the tenure item provides data for total owner-occupied units. Detailed information that identifies mortgaged and nonmortgaged units are provided in other sample housing matrices.

**Renter occupied**

All occupied housing units that are not owner occupied, whether they are rented for cash rent or occupied without payment of cash rent, are classified as renter occupied. ‘‘No cash rent’’ units are separately identified in the rent tabulations. Such units are generally provided free by friends or relatives or in exchange for services, such as resident manager, caretaker, minister, or tenant farmer. Housing units on military bases also are classified in the ‘‘No cash rent’’ category. ‘‘Rented for cash rent’’ includes units in continuing care, sometimes called life care arrangements. These arrangements usually involve a contract between one or more individuals and a service provider guaranteeing the individual shelter, usually a house or apartment, and services, such as meals or transportation to shopping or recreation.

***Comparability.*** Data on tenure have been collected since 1890. For 1990, the response categories were expanded to allow the respondent to report whether the unit was owned with a mortgage or loan, or free and clear (without a mortgage). The distinction between units owned with a mortgage and units owned free and clear was added in 1990 to improve the count of owner-occupied units. Research after the 1980 census indicated some respondents did not consider their units owned if they had a mortgage. In Census 2000, we continued with the same tenure categories used in the 1990

## UNITS IN STRUCTURE

The data on units in structure (also referred to as ‘‘type of structure’’) were obtained from answers to long-form questionnaire Item 34, which was asked on a sample basis at both occupied and vacant housing units. A structure is a separate building that either has open spaces on all sides or is separated from other structures by dividing walls that extend from ground to roof. In determining the number of units in a structure, all housing units, both occupied and vacant, are counted. Stores and office space are excluded. The statistics are presented for the number of housing units in structures of specified type and size, not for the number of residential buildings.

**1-unit, detached**

This is a 1-unit structure detached from any other house; that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A 1-family house that contains a business is considered detached as long as the building has open space on all four sides. Mobile homes to which one or more permanent rooms have been added or built also are included.

**1-unit, attached**

This is a 1-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.

**2 or more units**

These are units in structures containing 2 or more housing units, further categorized as units in structures with 2, 3 or 4, 5 to 9, 10 to 19, 20 to 49, and 50 or more units.

**Mobile home**

Both occupied and vacant mobile homes to which no permanent rooms have been added are counted in this category. Mobile homes used only for business purposes or for extra sleeping space and mobile homes for sale on a dealer's lot, at the factory, or in storage are not counted in the housing inventory. In 1990, the category was ''mobile home or trailer.''

**Boat, RV, van, etc.**

This category is for any living quarters occupied as a housing unit that does not fit in the previous categories. Examples that fit in this category are houseboats, railroad cars, campers, and vans.

***Comparability.*** Data on units in structure have been collected since 1940 and on mobile homes and trailers since 1950. In 1970 and 1980, these data were shown only for year-round housing units. A category of ''other'' was used in 1990, but this category was greatly overstated. It was replaced by ''Boat, RV, van, etc.'' in Census 2000. A similar category, ''Boat, tent, van, etc.'' was used in 1980. In Census 2000, this question was asked on a sample basis. In 1990 and prior to 1980, the unit in structure question was asked on a 100-percent basis. In 1980, data on units at address were collected on a 100-percent basis and data on units in structure were collected on a sample basis. The 1980 data on ''units at address'' should not be used a proxy for ''units in structure'' because some multiunit buildings had more than one street address.

## VACANCY STATUS

The data on vacancy status were obtained from Enumerator Questionnaire Item C. Vacancy status and other characteristics of vacant units were determined by census enumerators obtaining information from landlords, owners, neighbors, rental agents, and others. Vacant units are subdivided according to their housing market classification as follows: **For rent.** These are vacant units offered ''for rent,'' and vacant units offered either ''for rent'' or ''for sale.''

**For sale only**

These are vacant units offered ''for sale only,'' including units in cooperatives and condominium projects if the individual units are offered ''for sale only.'' If units are offered either ''for rent'' or ''for sale,'' they are included in the ''for rent'' classification.

**Rented or sold, not occupied**

If any money rent has been paid or agreed upon but the new renter has not moved in as of the date of enumeration, or if the unit has recently been sold but the new owner has not yet moved in, the vacant unit is classified as ''rented or sold, not occupied.''

**For seasonal, recreational, or occasional use**

These are vacant units used or intended for use only in certain seasons, for weekends, or other occasional use throughout the year. Seasonal units include those used for summer or winter sports or recreation, such as beach cottages and hunting cabins. Seasonal units also may include quarters for such workers as herders and loggers. Interval ownership units, sometimes called shared-ownership or time-sharing condominiums, also are included in this category.

**For migrant workers**

These include vacant units intended for occupancy by migrant workers employed in farm work during the crop season. (Work in a cannery, a freezer plant, or a food-processing plant is not farm work.)

**Other vacant**

If a vacant unit does not fall into any of the categories specified above, it is classified as ‘‘other vacant.’’ For example, this category includes units held for occupancy by a caretaker or janitor, and units held for personal reasons of the owner.

**Available housing**

Available housing units are vacant units that are ‘‘for sale only’’ or ‘‘for rent.’’

**Available housing vacancy rate**

The available housing vacancy rate is the proportion of the housing inventory that is available ‘‘for sale only’’ or ‘‘for rent.’’ It is computed by dividing the number of available units by the sum of occupied units and available units, and then multiplying by 100. This measure is rounded to the nearest tenth.

**Homeowner vacancy rate**

The homeowner vacancy rate is the proportion of the homeowner housing inventory that is vacant ‘‘for sale.’’ It is computed by dividing the number of vacant units ‘‘for sale only’’ by the sum of owner-occupied units and vacant units that are ‘‘for sale only,’’ and then multiplying by 100. This measure is rounded to the nearest tenth.

**Rental vacancy rate**

The rental vacancy rate is the proportion of the rental inventory that is vacant ‘‘for rent.’’ It is computed by dividing the number of vacant units ‘‘for rent’’ by the sum of renter-occupied units and vacant units that are ‘‘for rent,’’ and then multiplying by 100. This measure is rounded to the nearest tenth.

***Comparability.*** Data on vacancy status have been collected since 1940. Since 1990, the category, ‘‘For seasonal, recreational, or occasional use,’’ has been used. In earlier censuses, separate categories were used to collect data on these types of vacant units. Also, in 1970 and 1980, housing characteristics generally were presented only for year-round units. Beginning in 1990 and continuing into Census 2000, housing characteristics are shown for all housing units.

## VEHICLES AVAILABLE

The data on vehicles available were obtained from answers to long-form questionnaire Item 43, which was asked on a sample basis at occupied housing units. These data show the number of passenger cars, vans, and pickup or panel trucks of 1-ton capacity or less kept at home and available for the use of

household members. Vehicles rented or leased for 1 month or more, company vehicles, and police and government vehicles are included if kept at home and used for nonbusiness purposes. Dismantled or immobile vehicles are excluded. Vehicles kept at home but used only for business purposes also are excluded.

**Aggregate vehicles available**

To calculate aggregate vehicles available, a value of ‘‘7’’ is assigned to vehicles available for occupied units falling within the terminal category, ‘‘6 or more.’’ (For more information on aggregates, see ‘‘Derived Measures.’’)

**Vehicles per household (Mean vehicles available)**

Vehicles per household is computed by dividing aggregate vehicles available by the number of occupied housing units. Vehicles per household is rounded to the nearest tenth. (For more information on means, see ‘‘Derived Measures.’’)

***Limitation of the data.*** The statistics do not measure the number of vehicles privately owned or the number of households owning vehicles. No separate question was asked on the number of trucks and vans. The data on automobiles and trucks and vans were presented separately and also as a combined vehicles-available tabulation. The 1990 and Census 2000 data are comparable to the 1980 vehicles-available tabulations. In 1990, the terminal category identified ‘‘7 or more’’; this was changed to ‘‘6 or more’’ in Census 2000.

# GEOGRAPHIC TERMS AND CONCEPTS

## INTRODUCTION – GEOGRAPHIC PRESENTATION OF DATA

In decennial census data products, geographic entities usually are presented in a hierarchical arrangement or as an inventory listing.

A hierarchical geographic presentation shows the geographic entities in a superior/subordinate structure. This structure is derived from the legal, administrative, or a real relationship of the entities. The hierarchical structure is depicted in report tables by means of indentation and is explained for computer-readable media in the geographic coverage portion of the abstract in the technical documentation. An example of hierarchical presentation is the ‘‘standard census geographic hierarchy’’: census block, within block group, within census tract, within place, within county subdivision, within county, within state, within division, within region, within the United States. Graphically, this is shown as:

United States
- State
  - County
    - County subdivision
      - Place (or part)
        - Census tract (or part)
          - Block group (or part)

## BLOCK GROUP (BG)

A block group (BG) consists of all census blocks having the same first digit of their four-digit identifying numbers within a census tract. For example, block group 3 (BG 3) within a census tract includes all blocks numbered from 3000 to 3999. BGs generally contain between 600 and 3,000 people, with an optimum size of 1,500 people. BGs on American Indian reservations, off reservation trust lands, and special places must contain a minimum of 300 people. (Special places include correctional institutions, military installations, college campuses, worker’s dormitories, hospitals, nursing homes, and group homes.)

Most BGs were delineated by local participants as part of the U.S. Census Bureau’s Participant Statistical Areas Program. The U.S. Census Bureau delineated BGs only where a local, state, or tribal government declined to participate or where the U.S. Census Bureau could not identify a potential local or tribal participant.

## CENSUS TRACT

Census tracts are small, relatively permanent statistical subdivisions of a county or statistically equivalent entity delineated by local participants as part of the U.S. Census Bureau’s Participant Statistical Areas Program. The U.S. Census Bureau delineated census tracts where no local participant existed or where a local or tribal government declined to participate. The primary purpose of A–11 Census 2000 Geographic Terms and Concepts census tracts is to provide a stable set of geographic units for the presentation of decennial census data. This is the first decennial census for which the entire United States is covered by census tracts. For the 1990 census, some counties had census tracts and others had block numbering areas (BNAs). For Census 2000, all BNAs were replaced by census tracts, which may or may not represent the same areas.

Census tracts in the United States, Puerto Rico, and the Virgin Islands of the United States generally have between 1,500 and 8,000 people, with an optimum size of 4,000 people. Counties and statistically

equivalent entities with fewer than 1,500 people have a single census tract. Census tracts on American Indian reservations, off-reservation trust lands, and special places must contain a minimum of 1,000 people. (Special places include correctional institutions, military installations, college campuses, workers' dormitories, hospitals, nursing homes, and group homes.) When first delineated, census tracts are designed to be relatively homogeneous with respect to population characteristics, economic status, and living conditions. The spatial size of census tracts varies widely depending on the density of settlement. Census tract boundaries are delineated with the intention of being maintained over many decades so that statistical comparisons can be made from decennial census to decennial census. However, physical changes in street patterns caused by highway construction, new developments, and so forth, may require occasional boundary revisions. In addition, census tracts occasionally are split due to population growth or combined as a result of substantial population decline.

Census tracts are identified by a four-digit basic number and may have a two-digit numeric suffix; for example, 6059.02. The decimal point separating the four-digit basic tract number from the two-digit suffix is shown in the printed reports and on census maps. In computer-readable files, the decimal point is implied. Many census tracts do not have a suffix; in such cases, the suffix field is either left blank or is zero-filled. Leading zeros in a census tract number (for example, 002502) are shown only in computer-readable files. Census tract suffixes may range from .01 to .98. For the 1990 census, the .99 suffix was reserved for census tracts/block numbering areas (BNAs) that contained only crews-of-vessels population; for Census 2000, the crews-of-vessels population is included with the related census tract.

Census tract numbers range from 1 to 9999 and are unique within a county or statistically equivalent entity. The U.S. Census Bureau reserves the basic census tract numbers 9400 to 9499 for census tracts delineated within or to encompass American Indian reservations and off-reservation trust lands that exist in multiple states or counties. The number 0000 in computer-readable files identifies a census tract delineated to provide complete coverage of water area in territorial seas and the Great Lakes.

## COMBINED ZONE

A combined zone (CZ) is a statistical entity delineated by state transportation officials for tabulating traffic-related census data–especially journey-to-work and place-of-work statistics. A CZ consists of one or more analysis zones. Combined zones have not been previously delineated. Unlike in 1990, the CTPP2000 does not strictly separate the urban and statewide parts. Since the local transportation planning officials had priority in submitting TAZs for their counties, we allowed states to develop aggregations of TAZs or tracts for statewide planning in the form of Combined Zones.

Each CZ is identified by a six-character alphanumeric code that is unique within county or statistically equivalent entity. For the 1990 census, TAZ codes were unique within CTPP area, which generally conformed to a metropolitan area. This is not necessarily the case in 2000.

## COUNTY (OR STATISTICALLY EQUIVALENT ENTITY)

The primary legal divisions of most states are termed ''counties.'' In Louisiana, these divisions are known as parishes. In Alaska, which has no counties, the statistically equivalent entities are census areas, city and boroughs (as in Juneau City and Borough), a municipality (Anchorage), and organized boroughs. Census areas are delineated cooperatively for data presentation purposes by the state of Alaska and the U.S. Census Bureau. In four states (Maryland, Missouri, Nevada, and Virginia), there are one or more incorporated places that are independent of any county organization and thus constitute primary divisions of their states; these incorporated places are known as ''independent cities'' and are treated as equivalent to counties for data presentation purposes. (In some data presentations, they may be treated as county subdivisions and places.) The District of Columbia has no primary divisions, and the entire area is

considered equivalent to a county for data presentation purposes.

Each county and statistically equivalent entity is assigned a three-digit Federal Information Processing Standards (FIPS) code that is unique within state. These codes are assigned in alphabetical order of county or county equivalent within state, except for the independent cities, which are assigned codes higher than and following the listing of counties.

## COUNTY SUBDIVISION

County subdivisions are the primary divisions of counties and statistically equivalent entities for data presentation purposes. They include census county divisions, census subareas, minor civil divisions (MCDs), unorganized territories, and incorporated places that are independent of any MCD.

Each county subdivision is assigned a five-digit Federal Information Processing Standards (FIPS) code in alphabetical order within each state.

## METROPOLITAN AREA (MA)

The general concept of a metropolitan area (MA) is one of a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus. Some MAs are defined around two or more nuclei.

The MAs and the central cities within an MA are designated and defined by the federal Office of Management and Budget, following a set of official standards that are published in a Federal Register Notice. These standards were developed by the interagency Federal Executive Committee on Metropolitan Areas, with the aim of producing definitions that are as consistent as possible for all MAs nationwide.

Each MA must contain either a place with a minimum population of 50,000 or a U.S. Census Bureau-defined urbanized area and a total MA population of at least 100,000 (75,000 in New England). An MA contains one or more central counties. An MA also may include one or more outlying counties that have close economic and social relationships with the central county. An outlying county must have a specified level of commuting to the central counties and also must meet certain standards regarding metropolitan character, such as population density, urban population, and population growth. In New England, MAs consist of groupings of cities and county subdivisions (mostly towns) rather than whole counties.

The territory, population, and housing units in MAs are referred to as ‘‘metropolitan.’’ The metropolitan category is subdivided into ‘‘inside central city’’ and ‘‘outside central city.’’ The territory, population, and housing units located outside territory designated ‘‘metropolitan’’ are referred to as ‘‘nonmetropolitan.’’ The metropolitan and nonmetropolitan classification cuts across the other hierarchies; for example, generally there are both urban and rural territory within both metropolitan and nonmetropolitan areas.

To meet the needs of various users, the standards provide for a flexible structure of metropolitan definitions that classify each MA either as a metropolitan statistical area (MSA) or as a consolidated metropolitan statistical area divided into primary metropolitan statistical areas. In New England, there also is an alternative county-based definition of MSAs known as the New England County Metropolitan Areas. (See definitions below.) Documentation of the MA standards and how they are applied is available from the Census Bureau WEB page, www.census.gov.

## METROPOLITAN STATISTICAL AREA (MSA)

Metropolitan statistical areas (MSAs) are metropolitan areas (MAs) that are not closely associated with other MAs. These areas typically are surrounded by nonmetropolitan counties (county subdivisions in New England).

## METROPOLITAN PLANNING ORGANIZATION REGION (MPO REGION)

MPO Regions are defined by each MPO as their planning region. The region is an aggregation of counties (or MCDs in New England). The regions should mostly correlate to the Metropolitan Areas, but are not necessarily exact to the official definitions. Instead the MPO Region reflects the area that the MPO expects to be planning for over the course of the decade.

## PLACE

Places, for the reporting of decennial census data, include census designated places, consolidated cities, and incorporated places. Each place is assigned a five-digit Federal Information Processing Standards (FIPS) code, based on the alphabetical order of the place name within each state. If place names are duplicated within a state and they represent distinctly different areas, a separate code is assigned to each place name alphabetically by primary county in which each place is located, or if both places are in the same county, alphabetically by their legal description (for example, ‘‘city’’ before ‘‘village’’).

## PUBLIC USE MICRODATA AREA (PUMA)

A public use microdata area (PUMA) is a decennial census area for which the U.S. Census Bureau provides specially selected extracts of raw data from a small sample of long-form census records that are screened to protect confidentiality. These extracts are referred to as ‘‘public use microdata sample (PUMS)’’ files. Since 1960, data users have been using these files to create their own statistical tabulations and data summaries.

For Census 2000, state, District of Columbia, and Puerto Rico participants, following U.S. Census Bureau criteria, delineated two types of PUMAs within their states. PUMAs of one type comprise areas that contain at least 100,000 people. The PUMS files for these PUMAs contain a 5-percent sample of the long-form records. The other type of PUMAs, super-PUMAs, comprise areas of at least 400,000 people. The sample size is 1 percent for the PUMS files for super-PUMAs. PUMAs cannot be in more than one state or statistically equivalent entity. The larger 1-percent PUMAs are aggregations of the smaller 5-percent PUMAs.

## STATE (OR STATISTICALLY EQUIVALENT ENTITY)

States are the primary governmental divisions of the United States. The District of Columbia is treated as a statistical equivalent of a state for data presentation purposes. For Census 2000, the U.S. Census Bureau also treats a number of entities that are not legal divisions of the United States as statistically equivalent to a state: American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, Puerto Rico, and the Virgin Islands of the United States.

Each state and statistically equivalent entity is assigned a two-digit numeric Federal Information Processing Standards (FIPS) code in alphabetical order by state name. The census code is assigned on the basis of the geographic sequence of each state within each census division; the first digit of the code identifies the respective division.

## TRAFFIC ANALYSIS ZONE (TAZ)

A traffic analysis zone (TAZ) is a statistical entity delineated by state and/or local transportation officials for tabulating traffic-related census data–especially journey-to-work and place-of-work statistics. A TAZ

usually consists of one or more census blocks, block groups, or census tracts. For the 1990 census, TAZs were defined as part of the Census Transportation Planning Package (CTPP). The U.S. Census Bureau first provided data for TAZs in conjunction with the 1980 census, when it identified them as ‘‘traffic zones.’’

Each TAZ is identified by a six-character alphanumeric code that is unique within county or statistically equivalent entity. For the 1990 census, TAZ codes were unique within CTPP area, which generally conformed to a metropolitan area. This is not necessarily the case in 2000.

## URBAN AND RURAL (URBANIZED AREA)

The U.S. Census Bureau classifies as urban all territory, population, and housing units located within urbanized areas (UAs) and urban clusters (UCs). It delineates UA and UC boundaries to encompass densely settled territory, which generally consists of:

- A cluster of one or more block groups or census blocks each of which has a population density of at least 1,000 people per square mile at the time.
- Surrounding block groups and census blocks each of which has a population density of at least 500 people per square mile at the time.
- Less densely settled blocks that form enclaves or indentations, or are used to connect discontiguous areas with qualifying densities.

Rural consists of all territory, population, and housing units located outside of UAs and UCs.

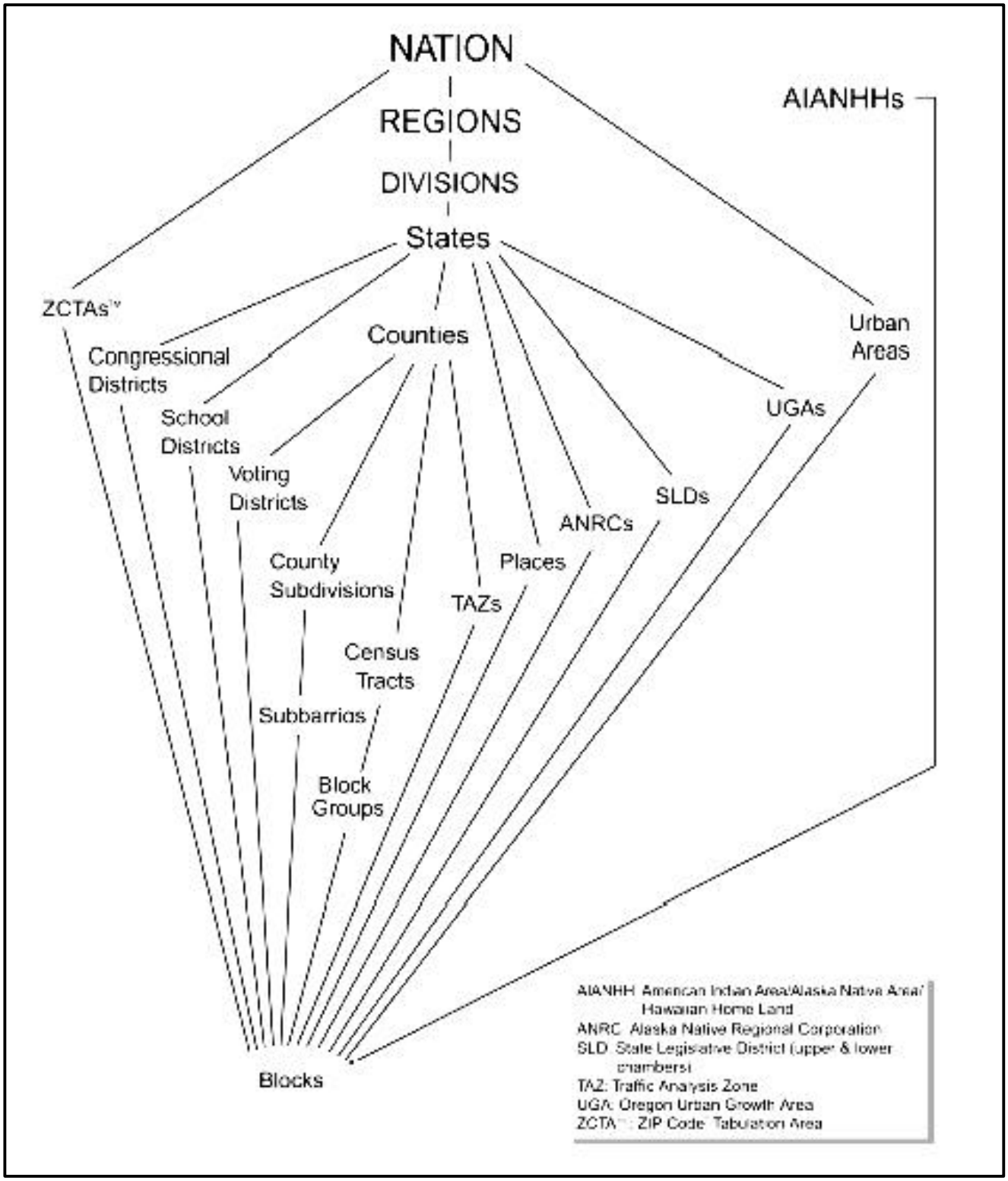
Geographic entities, such as metropolitan areas, counties, minor civil divisions, and places, often contain both urban and rural territory, population, and housing units.

This urban and rural classification applies to the 50 states, the District of Columbia, Puerto Rico, American Samoa, Guam, the Northern Mariana Islands, and the Virgin Islands of the United States.

## USER UPDATES

User updates supply data users with additional or corrected information that becomes available after the technical documentation or files are prepared. They are issued as Count Question Resolution Notes, Data Notes, Geography Notes, and Technical Documentation Notes in a numbered series and are available in portable document format (PDF) on the Census Bureau Web site at http://www.census.gov.

**Standard Hierarchy of Census Geographic Entities**



# DERIVED MEASURES

Census data products include various derived measures, such as medians, means, and percentages, as well as certain rates and ratios. Derived measures that round to less than 0.1 are shown as zero.

## AGGREGATE

An aggregate is the sum of the values for each of the elements in the universe. For example, aggregate household income is the sum of the incomes of all households in a given geographic area. Means are derived by dividing the aggregate by the appropriate universe.

## AVERAGE

See ‘‘Mean.’’

## INTERPOLATION

Interpolation is frequently used to calculate medians or quartiles and to approximate standard errors from tables based on interval data. Different kinds of interpolation may be used to estimate the value of a function between two known values, depending on the form of the distribution. The most common distributional assumption is that the data are linear, resulting in linear interpolation. However, this assumption may not be valid for income data, particularly when the data are based on wide intervals. For these cases, a Pareto distribution is assumed and the median is estimated by interpolating between the logarithms of the upper and lower income limits of the median category. The Census Bureau estimates median income using the Pareto distribution within intervals when the intervals are wider than $2,500.

## MEAN

This measure represents an arithmetic average of a set of values. It is derived by dividing the sum (or aggregate) of a group of numerical items by the total number of items in that group. For example, mean household earnings is obtained by dividing the aggregate of all earnings reported by individuals with earnings living in households by the total number of households with earnings.

## ROUNDING FOR SELECTED AGGREGATES

To protect the confidentiality of responses, the aggregates shown in matrices for the list of subjects below are rounded. This means that the aggregates for these subjects, except for travel time to work, are rounded to the nearest hundred dollars. Unless special rounding rules apply (see below); $150 rounds up to $200; $149 rounds down to $100. Note that each cell in a matrix is rounded individually. This means that an aggregate value shown for the United States may not necessarily be the sum total of the aggregate values in the matrices for the states. This also means that the cells in the aggregate matrices may not add to the total and/or subtotal lines.

## SPECIAL ROUNDING RULES FOR AGGREGATES

• If the dollar value is between –$100 and +$100, then the dollar value is rounded to $0.
• If the dollar value is less than –$100, then the dollar value is rounded to the nearest –$100.

### Aggregates Subject to Rounding

Earnings in 1999 (Households)
Earnings in 1999 (Individuals)
Income in 1999 (Household/Family/Nonfamily Household)
Income in 1999 (Individuals)
Travel Time To Work*

- Aggregate travel time to work is zero if the aggregate is zero, is rounded to 4 minutes if the aggregate is 1 to 7 minutes, and is rounded to the nearest multiple of 5 minutes for all other values (if the aggregate is not already evenly divisible by 5).

## MEDIAN

This measure represents the middle value (if n is odd) or the average of the two middle values (if n is even) in an ordered list of n data values. The median divides the total frequency distribution into two equal parts: one-half of the cases falling below the median and one-half above the median. Each median is calculated using a standard distribution (see below). (For more information, see ‘‘Interpolation.’’)

For data products displayed in American FactFinder, medians that fall in the upper-most category of an open-ended distribution will be shown with a plus symbol (+) appended (e.g., ‘‘$2,000+’’ for contract rent), and medians that fall in the lowest category of an open-ended distribution will be shown with a minus symbol (-) appended (e.g., ‘‘$100- for contract rent’’). For data products on CD-ROM and DVD, and data files that are downloaded by users (i.e., FTP files), plus and minus signs will not be appended. Contract rent, for example will be shown as $2001 if the median falls in the upper-most category ($2,000 or more) and $99 if the median falls in the lowest category (Less than $100). (The ‘‘Standard Distributions’’ section below shows the open-ended intervals for medians.)

## STANDARD DISTRIBUTIONS

In order to provide consistency in the values within and among data products, standard distributions from which medians and quartiles are calculated are used for Census 2000. This is a new approach for Census 2000; in previous censuses medians were not necessarily based on a single, standard distribution. The Census 2000 standard distributions are listed below.

Standard Distribution for **Median Age.**
[116 data cells]
Under 1 year
1 year
2 years
3 years
4 years
5 years
.
.
.
112 years
113 years
114 years
115 years and over

Standard Distribution for **Median Earnings in 1999 and Median Income in 1999 (Individuals):**
[35 data cells]
$1 to $2,499 or loss
$2,500 to $4,999
$5,000 to $7,499
$7,500 to $9,999
$10,000 to $12,499
$12,500 to $14,999
$15,000 to $17,499
$17,500 to $19,999
$20,000 to $22,499
$22,500 to $24,999
$25,000 to $27,499
$27,500 to $29,999
$30,000 to $32,499
$32,500 to $34,999
$35,000 to $37,499
$37,500 to $39,999
$40,000 to $42,499
$42,500 to $44,999
$45,000 to $47,499
$47,500 to $49,999
$50,000 to $52,499
$52,500 to $54,999
$55,000 to $57,499
$57,500 to $59,999
$60,000 to $62,499
$62,500 to $64,999
$65,000 to $67,499
$67,500 to $69,999
$70,000 to $72,499
$72,500 to $74,999
$75,000 to $79,999
$80,000 to $84,999
$85,000 to $89,999
$90,000 to $99,999
$100,000 or more

Standard Distribution for **Median Income in 1999 (Household/Family/Nonfamily Household):**
[39 data cells]
Less than $2,500
$2,500 to $4,999
$5,000 to $7,499
$7,500 to $9,999
$10,000 to $12,499
$12,500 to $14,999
$15,000 to $17,499
$17,500 to $19,999
$20,000 to $22,499
$22,500 to $24,999
$25,000 to $27,499
$27,500 to $29,999
$30,000 to $32,499
$32,500 to $34,999
$35,000 to $37,499
$37,500 to $39,999
$40,000 to $42,499
$42,500 to $44,999
$45,000 to $47,499
$47,500 to $49,999
$50,000 to $52,499
$52,500 to $54,999
$55,000 to $57,499
$57,500 to $59,999
$60,000 to $62,499
$62,500 to $64,999
$65,000 to $67,499
$67,500 to $69,999
$70,000 to $72,499
$72,500 to $74,999
$75,000 to $79,999
$80,000 to $84,999
$85,000 to $89,999
$90,000 to $99,999
$100,000 to $124,999
$125,000 to $149,999
$150,000 to $174,999
$175,000 to $199,999
$200,000 or more

Standard Distribution for **Median Usual Hours Worked Per Week in 1999:**
[9 data cells]
Usually worked 50 to 99 hours per week
Usually worked 45 to 49 hours per week
Usually worked 41 to 44 hours per week
Usually worked 40 hours per week
Usually worked 35 to 39 hours per week
Usually worked 30 to 34 hours per week
Usually worked 25 to 29 hours per week
Usually worked 15 to 24 hours per week
Usually worked 1 to 14 hours per week

## PERCENTAGE

This measure is calculated by taking the number of items in a group possessing a characteristic of interest and dividing by the total number of items in that group, and then multiplying by 100.

## QUARTILE

This measure divides a distribution into four equal parts. The first quartile (or lower quartile) is the value that defines the upper limit of the lowest one-quarter of the cases. The second quartile is the median. The third quartile (or upper quartile) is defined as the upper limit of the lowest three quarters of cases in the distribution. Quartiles are presented for certain financial characteristics, such as housing value and contract rent. The distribution used to compute quartiles is the same as that used to compute medians for that variable.

## RATE

This is a measure of occurrences in a given period of time divided by the possible number of occurrences during that period. For example, the homeowner vacancy rate is calculated by dividing the number of vacant units ‘‘for sale only’’ by the sum of owner-occupied units and vacant units that are ‘‘for sale only,’’ and then multiplying by 100. Rates are sometimes presented as percentages.

## RATIO

This is a measure of the relative size of one number to a second number expressed as the quotient of the first number divided by the second. For example, the sex ratio is calculated by dividing the total number of males by the total number of females, and then multiplying by 100.