Census and American Community Survey Data Explained

The following information is collected through Census and the American Community Survey (ACS). The first four pages describe data available through both data collection tools and the rest discusses information unique to the ACS.

Gender

- Two parts to minimize the effect of errors in reporting.
- Examples
  - Rounding age up if close to having a birthday, which is most pronounced at age 0 because age in months was not collected for infants under age 1.
  - Overreporting ages (or years of birth) that end in certain digits (commonly digits “0” or “5”)
  - Underreporting ages or years of birth ending in other digits. This phenomenon is called age heaping.

Race

- Hispanic not option – It is asked as a separate question because it is considered an ethnicity not a race (see below)
- Three areas to specify more details
- Self-identification
- Option to select more than one (starting with 2000 census so counts for 1990 census and earlier not directly comparable)
- Data reported for six major categories:
  1. White
  2. Black or African American
  3. American Indian or Alaska Native
  4. Asian
5. Native Hawaiian or Other Pacific Islander
6. Other
   • Race Alone
     o People choosing one category and no other race, unless the multiple entries within same major race group (e.g., Korean and Vietnamese are part of the larger Asian Alone group)
   • Race Alone or in Any Combination
     o People choosing one and people choosing multiple races
     o Maximum number of people who reported each category either alone or with multiple races
     o Total more than the population because based on multiple responses, even within a major race group (e.g., Korean alone or in any combination includes Korean, Korean and another Asian group, and Korean with any other non-Asian groups)

Hispanic or Latino

• Self-identification
• Separate question from race
• People identifying as Hispanic or Latino may be any race
• CAUTION: Adding Hispanics to a race table that is not Hispanic exclusive results in double-count Hispanics, double check total population

Housing Units
• A house, apartment, mobile home, group of rooms, or a single room that is occupied (or if vacant is intended for occupancy) as separate living quarters
• Types: occupied or vacant
• Households = Occupied housing units
• Nontraditional living quarters like boats, RVs, and tents are considered to be housing units only if someone is living in them and usual residence or no usual residence elsewhere

Group Quarters
• Places where people (usually unrelated to each other) live or stay in a group living arrangement
• Types
  o Institutional
- Facilities housing people ineligible, unable, or unlikely to participate in labor force, occupants not free to come and go or need care (e.g., correctional facilities, nursing facilities, mental hospitals, hospice facilities, residential schools for the disabled)
- Excluded from poverty tables (e.g., for poverty among the elderly, those in skilled nursing homes not included)
  - Non-institutional
    - Facilities housing people eligible, able, or likely to participate in labor force, occupants free to come and go (e.g., college/university housing, military quarters, emergency/transitional shelters, residential treatment centers, workers’ group living quarters, religious group quarters, domestic violence shelters)

**Household and Householder**
- Household: All people occupying a housing unit
- Householder: Person, or one of the people, who owns/rents home (Person 1 on questionnaire)
- Designated Householder: If no householder, any household member 15 years old or older
- For tables with household/family data by race/ethnicity, households classified by race/ethnicity of householder

**Household Relationship**
- Each member of the household asked this question
- Spouse
  - Husband or wife and must be of the opposite sex of the householder
  - Same-sex spouses and registered domestic partners classified as “unmarried partners” and grouped with non-relatives.
- Child
  - Son or daughter by birth, a stepchild, or adopted child of the householder (regardless of age or marital status)
  - Excludes in-laws and foster children
  - Exclude persons under 18 years who maintain separate households or are spouses or unmarried partners of householders
  - Types
    - Own Children: Under 18 years who is a son or daughter by birth, a stepchild, or an adopted child of the householder
- Related Children: Under 18 years old who is related to the householder by birth, marriage, or adoption (e.g., sibling, grandchild, niece)
- Other relatives: Anyone not listed in a previous category who is related to the householder by birth, marriage, or adoption (grandchild, grandparent, parent, parent-in-law, brother/sister, brother/sister-in-law, son/daughter-in-law, nephew, aunt, cousin)
- Non Relatives: Anyone not related to the householder by birth, marriage, or adoption (e.g., roomer/boarder 15 years of age or older, housemate/roommate 15 years of age or older, unmarried partner)

**Household Type**
- Households classified by type according to sex of the householder and presence of relatives
  o Family
    ▪ Family householder: Lives with one or more individuals related to him/her by birth, marriage, or adoption.
    ▪ Family members: Householder and all people in the household related to him/her
    ▪ At least two people
    ▪ Unrelated individuals: Persons in a family household not related to the householder, part of household but not part of family
  o Non-family
    ▪ Householder living alone or with nonrelatives only
- Householder with no spouse is not equal to single parent, need to know if with “own children” in addition to household type
- Additional information regarding housing characteristics and costs are included in the ACS described in the next section.
American Community Survey Variables Explained
All previous variables are included in the Census and American Community Survey (ACS). The remaining variables are exclusive to the ACS.

Housing Tenure
- Occupied housing units grouped by ownership, called “tenure”
- Owner occupied if the owner/co-owner lives in unit
- Renter occupied if not owner occupied, whether they rented or occupied without payment
- Also classified on whether or not have mortgage

Housing Characteristics
- CAUTION: Wording change in 2008 ACS resulted in some inconsistencies with pre-2008 data
6. Is there a business (such as a store or barber shop) or a medical office on this property?
   - Yes
   - No

13. Which FUEL is used MOST for heating this house, apartment, or mobile home?
   - Gas: from underground pipes serving the neighborhood
   - Gas: bottled, tank, or LP
   - Electricity
   - Fuel oil, kerosene, etc.
   - Coal or coke
   - Wood
   - Solar energy
   - Other fuel
   - No fuel used

9. At this house, apartment, or mobile home – do you or any member of this household own or use any of the following computers?
   - EXCLUDE GPS devices, digital music players, and devices with only limited computing capabilities, for example: household appliances.
   - a. Desktop, laptop, netbook, or notebook computer
   - b. Handheld computer, smart mobile phone, or other handheld wireless computer
   - c. Some other type of computer

10. At this house, apartment, or mobile home – do you or any member of this household access the Internet?
   - Yes, with a subscription to an Internet service
   - Yes, without a subscription to an Internet service → SKIP to question 12
   - No Internet access at this house, apartment, or mobile home → SKIP to question 12

11. At this house, apartment, or mobile home – do you or any member of this household subscribe to the Internet using –
   - a. Dial-up service?
   - b. DSL service?
   - c. Cable modem service?
   - d. Fiber-optic service?
   - e. Mobile broadband plan for a computer or a cell phone?
   - f. Satellite Internet service?
   - g. Some other service?

Specify service
• Owner-Occupied Units
  o Comparable to 2000 Census but not prior
    ▪ Prior to 2000: data available for specified units that exclude mobile homes, houses with a business or medical office, houses on 10 or more acres, and housing units in multiunit buildings
    ▪ ACS: all units
• Renter-Occupied Units
  o Gross rent: eliminates differences with respect to inclusion of utilities and fuels
  o “No rent paid” units separate
    ▪ provided free by friends or relatives
    ▪ in exchange for services (e.g., resident manager, caretaker, minister, tenant farmer)
    ▪ housing units on military bases
  o “Rented” includes units in continuing care
    ▪ contract between individual(s) and health services provider guaranteeing shelter and services (e.g., meals, transportation to shopping or recreation)
• Monthly Housing Costs
  o Owner costs: sum of the following
    ▪ Mortgages
    ▪ deeds of trust
    ▪ contracts to purchase
    ▪ similar debts on property (including payments for the first mortgage, second mortgages, home equity loans, and other junior mortgages)
    ▪ real estate taxes
    ▪ fire, hazard, and flood insurance
    ▪ utilities (electricity, gas, and water and sewer)
    ▪ fuels (oil, coal, kerosene, wood, etc.)
  o Renter costs: Gross rent comparable to owner costs
• Percentage of Income Spent on Housing
  o Comparison to household income
    ▪ Selected Monthly Owner Costs as a Percentage of Household Income
    ▪ Gross Rent as a Percentage of Household Income
Educational Attainment

- Respondents classified according to highest degree/level of school completed
- Currently enrolled in school report the level of the previous grade attended or highest degree received
- Foreign or ungraded school systems reported as equivalent in American system
- Excludes honorary degrees and certificates/diplomas for training in specific trades or from vocational, technical or business schools
- Most tables for persons 25 years old and older (though at least one is for persons 18 and older)
- Additional tables available
  - School enrollment and grade level for population 3 years old and older
  - Field of degree for Bachelor’s degrees only
  - School type (such as private/public and elementary, secondary, college, graduate school)

![Image of educational attainment form]

1. What is the highest degree or level of school this person has COMPLETED? Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received.

- NO SCHOOLING COMPLETED
  - No schooling completed
- NURSERY OR PRESCHOOL THROUGH GRADE 12
  - Nursery school
  - Kindergarten
  - Grade 1 through 11 – Specify grade 1 – 11
  - 12th grade – NO DIPLOMA
- HIGH SCHOOL GRADUATE
  - Regular high school diploma
  - GED or alternative credential
- COLLEGE OR SOME COLLEGE
  - Some college credit, but less than 1 year of college credit
  - 1 or more years of college credit, no degree
  - Associate’s degree (for example: AA, AS)
  - Bachelor’s degree (for example: BA, BS)
- AFTER BACHELOR’S DEGREE
  - Master’s degree (for example: MA, MS, MEng, MEd, MSW, MBA)
  - Professional degree beyond a bachelor’s degree (for example: MD, DDS, DVM, LLB, JD)
  - Doctorate degree (for example: PhD, EdD)
**Veterans Status**

- Anyone 18 years or age or older who has served (even for a short time), but not currently, on active duty in the U.S. military
- National Guard or Reserves included only if ever called or ordered to active duty, not counting initial training or yearly summer camps
- Tables available include age, sex, period of service, race/ethnicity, employment status, poverty status, educational attainment, and income

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- VA Service Connected Disability Rating Status (new in 2008)
Disability Status

- Data from 2008 forward not comparable with pre-2008 data, including 2000 census
- Self-identification through answers from these six types of difficulty
  - Children under 5 years old, based on hearing and vision difficulty
  - Children between the ages of 5 and 14, based on hearing, vision, cognitive, ambulatory, and self-care difficulties
  - People aged 15 years and older, based on difficulty with any one of the six difficulty types
Language

- Language other than English
  - Includes always speak a language other than English at home
  - Excludes language spoken only at school or if speaking limited to a few expressions or slang
- Specific language
  - Language spoken most often
  - Language learned first
- Interpreter or translated questionnaire instructions provided when cannot speak/read English
- To determine individuals potentially needing translation assistance, examine language and the ability to speak English to accurately

Income

- Total income for persons 15 years old and over based on sum of the following:
  - Wage or salary: wages, salary, Armed Forces pay, commissions, tips, piece-rate payments, and cash bonuses
  - Net self-employment income
  - Investment income: interest, dividends, net rental or royalty income or income from estates and trusts
  - Social Security or retirement income
  - Supplemental Security Income (SSI)
  - Public assistance
  - Pensions
  - Other income: unemployment compensation, worker’s compensation, Department of Veterans Affairs (VA) payments, alimony and child support, etc.
- Cash income only
- Excludes noncash benefits such as Food Stamps
- CAUTION: ACS and decennial Census may not be comparable
  - Different reference period
Decennial Census: previous calendar year (e.g., for 2000 Census, during 1999)
ACS: Income over the "past 12 months"
  • For January 2010 respondents, the 12-month period is January-December 2009
  • For December 2010, the 12-month period is December 2009-November 2010.
  o ACS data are adjusted for inflation using monthly Consumer Price Indices (CPI) factors

Type
  o Household Income: 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
  o Family income: incomes of all members 15 years old and over related to the householder
    ▪ Many households consist of only one person so average household income is usually less than average family income
  o Personal income: Sum of total income categories for each person 15 years old and over
  o Earnings: Sum of wage or salary income and net income from self-employment (before deductions) for people 16 years old and over
  o Median Income: Income distribution divided into two equal parts: one-half below the median income and one-half above
    ▪ Total number of households and families includes those with no income
  o Mean Income: Aggregate income divided by the population base (i.e., arithmetic average)
    ▪ Strongly influenced by extreme values in the distribution
    ▪ Susceptible to the effects of sampling variability, misreporting, and processing errors
    ▪ Therefore, use the median (which is not affected by extreme values) when the population base is small
  o Gini index of income inequality: Measures how much a distribution varies from a proportionate distribution
    ▪ Ranges from zero (perfect equality - all households have an equal share of income) to one (perfect inequality – one household has all the income)

Poverty
  • Poverty status determined based dollar Value Thresholds varying by family size and composition: www.census.gov/hhes/www/poverty/data/threshld/index.html
  • No adjustments by geography
  • Families: If total family income in past 12 months less than appropriate threshold, then everyone “below the poverty level”
  • Unrelated individuals: If personal income less than the appropriate threshold for one person, then that individual (over 15 years old and in either a family or nonfamily household) is “in poverty”.
  • IMPORTANT NOTE: Excludes institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old
    o To calculate poverty rate:
      ▪ Use “persons for who poverty is determined” as denominator NOT the total population
      ▪ Use numerator and denominator from the same table
  • Poverty Ratios
    o Thresholds universal for the entire nation regardless of cost of living
    o “Ratio of income to poverty level” used for areas with higher living expenses
    o Example
      ▪ For 200% of poverty, the threshold multiplied by 2
    o Some ACS tables show ratio of income to poverty levels in ranges, not cumulative
Labor Force

- Includes employment, industry, occupation, earnings
- Based on persons 16 years old and older
- Reference week:
  - ACS: the calendar week preceding survey completion date
  - 2000 census: “last week”
- Employment status determined in the following sequence:
  - People who worked at any time during the reference week (employed)
  - People on temporary layoff who were available for work (unemployed)
  - People who did not work during the reference week but who had jobs or businesses from which they were temporarily absent (excluding layoff) (employed)
  - People who did not work during the reference week, but who were looking for work during the last four weeks and were available for work during the reference week (unemployed)
  - People not in the labor force.
- Employed: civilians 16 years old and over who either:
  - at work as paid employee, in own business/profession, on own farm, as unpaid workers on a family farm or in a family business for 15 hours or more
  - temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons
- Unemployed: civilians 16 years old and over if all of the following:
  - neither “at work” nor “with a job but not at work” during the reference week
  - actively looking for work during the last 4 weeks or waiting to be called back to a job from which they had been laid off
  - available to work except for temporary illness
- Not in Labor Force: all people 16 years old and over that are students, homemakers, retired workers, seasonal workers interviewed in an off season, and discouraged workers

Unemployment Rate

- Number of unemployed people divided by civilian labor force
- Example, use number in blue below, not the number in red
## Occupation

- Experienced labor force
  - For employed: job during the previous week
  - For multiple jobs: job where worked greatest number of hours
  - For unemployed: last job
- Codes
  - 2000 Census: SOC 2000
    - Changes between 2000 and 2010 SOC concentrated in information technology, healthcare, printing, and human resources
Industry
- Same basis as experienced labor force
- Codes 2007 North American Industry Classification System (NAICS)

Class of Worker
- Categories
  - private wage and salary workers (for profit and non-profit)
  - government workers (federal, state, and local)
  - self-employed
  - unpaid family workers.
- Public Administration: limited to regular government functions such as legislative, judicial, administrative, and regulatory activities
- Other government organizations (e.g., public schools, public hospitals, protection services, bus lines) classified according to the activity in which they are engaged
Comparability to Employment Development Department (EDD) Data

- Different reference week
  - ACS: last week
  - EDD: week including the 12th of the month
- Different location
  - ACS: by place of residence
  - EDD: by place of work collected directly from employers
  - Important in a county/city with a high volume of workers traveling into area to work but live outside area (e.g., San Francisco)
- Different process
  - EDD first classifies by class of worker, industry data for private workers only (i.e., all government workers in government)

Place of Work

- Business travel sometimes results workers making unlikely work trips (e.g., live in San Diego and work in Washington, D.C.)
- Residence-based or workplace-based geography available
  - Use residence-based when want number and characteristics of workers living in a specific area
  - Use workplace-based when want number and characteristics of workers working in a specific area
- Place-of-work information for workers cannot always be specified below the place level
  - Workplace-based tables presented only for selected geographic areas (notice table titles and universes)
Journey to Work

- Most based on workers 16 years and older not working at home
- Sometimes “work at home” separate category
- Topics
  - Means of transportation to work
  - Private vehicle occupancy
  - Workers per vehicle
  - Time leaving home for work
  - Travel time to work
  - Aggregate travel time to work (in minutes) to calculate average commute times
  - Time arriving home from work
Health Insurance Coverage

- Added to the ACS in 2008
- Included: plans and programs that provide comprehensive health coverage
- Excluded: other types of insurance (e.g., dental, vision, life, and disability insurance)
- Private health insurance: plan provided through employer/union, plan purchased by individual from private company, TRICARE, or other military health care
- Public coverage: everything else
- Types of health insurance not mutually exclusive, people may be covered by more than one at the same time.

Other ACS Questions

- Source: [http://www.census.gov/acs/www/about_the_survey/questions_and_why_we_ask/](http://www.census.gov/acs/www/about_the_survey/questions_and_why_we_ask/)
- Social (Population)
  - Ancestry or Ethnic Origin
  - Fertility
  - Grandparents as Caregivers
  - Marital Status and History
  - Place of Birth, Citizenship, and Year of Entry
  - School Enrollment
  - Residence 1 Year Ago
  - Undergraduate Field of Degree
- Economic (Population and Housing)
  - Food Stamps/Supplemental Nutrition Assistance Program (SNAP)
  - Vehicles Available
  - Work Status Last Year
- Financial (Housing)
  - Acreage, Agricultural Sales, and Business on Property
  - Home Value
- Physical (Housing)
  - Housing Heating Fuel
  - Kitchen and Plumbing Facilities