CDR Contextual Data Resource for Aging Surveys

Documentation for

# US Decennial Census and American Community Survey Data

Version 3.0, released February 2024

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## Requested Acknowledgment

If you used the USC Contextual Data Resource data in a written analysis, please include the following acknowledgement:

This analysis uses data or information from the Contextual Data Resource (CDR): US Decennial Census and American Community Survey Data, 1990-2021, Version 3.0 as of February 2024, developed by Jennifer Ailshire, Jong Woo Nam, and Eun Young Choi at the USC/UCLA Center on Biodemography and Population Health, with funding from the National Institute on Aging (R21 AG045625, P30 AG017625).

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## Data Sources

US Census Bureau. US Decennial Census and American Community Survey. Prepared by Social Explorer. <u>https://www.socialexplorer.com</u>

## Version Note

Version 3.0 updates the 5-year estimates data from the American Community Surveys for 2015-19, 2016-20, and 2017-21. This version additionally includes Census and American Community Survey data at Core-Based Statistical Areas level. Please note that variable names may be different from the previous version of the data.

# Linking CDR Data with Survey Respondent Data

The Contextual Data Resource is designed to be linked with geocoded survey data. All geographic identifiers are in string format, and match US Census Bureau geographic identifiers and boundaries.

- To link state level data, merge using the STFIPS10 geographic identifier, which is the 2-digit state FIPS code.
- To link county level data, merge using the 5-digit STCTYFIPS10 geographic identifier, which is the 2-digit state + 3-digit county FIPS code.
- To link census tract level data, merge using the 11-digit LINKCEN2010 geographic identifier, which is the 2-digit state + 3-digit county + 6-digit census tract FIPS code.

## Data Overview

The Decennial Census and American Community Survey (ACS) contain demographic and socioeconomic data on the US population and housing. The Census and ACS are collected by the U.S. Census Bureau. The USC-CDR provides Census data for 1990, 2000, and 2010, and ACS 5-year data from 2005-09 to 2017-21 at the state, CBSA, county, and census tract levels of analysis. See the variable codebook for details.

## Data Summary

Dataset Name: U.S. Decennial Census and American Community Survey

Data Source: U.S. Census Bureau

Data Source URL: www.socialexplorer.com

Data Collection Method: Survey

Years Collected: The Decennial Census is collected every ten years. The American Community Survey is collected annually, and made available in 5-year increments depending on geographic level.

Geographic Level of Collection: Household; USC-CDR uses tables provided at the census tract, county, and state levels.

## Years Available

The USC-CDR includes the 1990, 2000, and 2010 Decennial Census, the 2005-09, 2006-10, 2007-11, 2008-12, 2009-13, 2010-14, 2011-15, 2012-16, 2013-17, 2014-18, 2015-19, 2016-20, and 2017-21 ACS 5-year data. The 1990 and 2000 censuses include a wide range of demographic, socioeconomic, and housing variables. A much smaller subset of variables is provided in the 2010 census, so the USC-CDR supplements the 2010 census data with ACS data. Data for smaller geographies is only available in aggregated 5-year estimates in the ACS because of a smaller sample size.

# Geography

Census and ACS 5-year data are provided at the state, county, and census tract levels. Because Census and ACS geographic units change over time, the data have been interpolated to 2010 geographic definitions so that they are consistent across the 1990, 2000, 2010, 2005-09, 2006-10, 2007-11, 2008-12, 2009-13, 2010-14, 2011-15, 2012-16, 2013-17, 2014-18, 2015-19, 2016-20, and 2017-21 datasets.

State level data elements are provided for the 50 U.S. states and District of Columbia.

- State definitions have not changed, so these data items are not interpolated.
- Geographic identifier: STFIPS10 State FIPS code (2 digits)

CBSA level data elements are anchored to the 2013 delineation to ensure consistency with the 2010 census tract boundaries.

- Information on historical delineation of CBSA is provided at <u>https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/historical-delineation-files.html</u>
- Geographic identifier: cbsa13 CBSA code (5 digits)

County level data elements are adjusted for minor changes that occurred from 1990 onwards.

- Information on changes in county definitions and boundaries is provided at <u>https://www.census.gov/programs-surveys/geography/technical-</u> <u>documentation/county-changes.html</u>
- Geographic identifier: STCTYFIPS10 County FIPS code (5 digits: 1-2 state, 3-5 county)

Census tract level data elements are interpolated to 2010 census tract boundaries using code from the Longitudinal Tract Database. For 2016-20 and 2017-21 ACS 5-year datasets, Longitudinal Tract Database has yet released a code to interpolate 2020 census boundaries to 2010 boundaries. National Historical GIS (NHGIS) provided crosswalk weights were instead used, interpolating block-group data in 2020 boundaries to 2010 census tract boundaries.

 The Longitudinal Tract Database was developed by John Logan, Zengwang Xu, and Brian Stults. More information and technical documentation is available at <u>https://s4.ad.brown.edu/projects/diversity/researcher/bridging.htm.</u>

- NHGIS crosswalk files can be found at <u>https://www.nhgis.org/geographic-crosswalks</u>
- Geographic identifier: LINKCEN2010 2010 census tract FIPS code (11 digits: 1-2 state, 3-5 county, 6-11 tract)

GIS shapefiles for Census and ACS geographies are provided by the US Census Bureau at <u>https://www.census.gov/geo/maps-data/data/tiger-line.html.</u>

## CDR Data Files

The CDR includes separate data files for each geographic level, type of data, and year so that users can select subsets of the variables provided. Each file is named by geography (state, CBSA, county, or tract10), type of data file (pct or count), and Census or ACS dataset (1990census, 2000census, 2010census, 200509acs, 200610acs, 200711acs, 200812acs, 200913acs, 201014acs, 201115acs, 201216acs, 201317acs, 201418acs, 201519acs, 201620acs, or 201721acs). For example, the file containing percentages and medians for the 2000 census at the state level is named "state\_pct\_2000census."

| Dataset                   | State | CBSA | County   | Census     |
|---------------------------|-------|------|----------|------------|
|                           |       |      |          | Tract      |
| Decennial Census          |       |      |          |            |
| 1990                      |       |      | ∎*       | ∎†         |
| 2000                      |       |      | ∎*       | ∎†         |
| 2010                      |       |      | ∎*       | <b>■</b> † |
| American Community Survey |       |      |          |            |
| 2005-09, 5yr              |       |      | ∎*       | ∎†         |
| 2006-10, 5yr              |       |      | ∎*       |            |
| 2007-11, 5yr              |       |      | ∎*       |            |
| 2008-12, 5yr              |       |      | ∎*       |            |
| 2009-13, 5yr              |       |      | ∎*       |            |
| 2010-14, 5yr              |       |      | ∎*       |            |
| 2011-15, 5yr              |       |      | ∎*       |            |
| 2012-16, 5yr              |       |      | ∎*       |            |
| 2013-17, 5yr              |       |      | ∎*       |            |
| 2014-18, 5yr              |       |      | ∎*       |            |
| 2015-19, 5yr              |       |      | ∎*       |            |
| 2016-20, 5yr              |       |      | ∎*       | ∎†         |
| 2017-21, 5yr              |       |      | <b>*</b> | ∎†         |

## Table 1. Type of CDR Data by Geographical Level and Year

\*Interpolated to current county boundaries (see note above). +Interpolated to 2010 Census Tract boundaries (see note above).

- **Pct** files include percentage and median variables calculated from counts. These variables can be used as-is for analysis. Percentage and median variables can be combined across multiple years of data to calculate changes over time.
- Count files include the counts of persons, households, or housing units from the original data tables used to calculate percentages and medians. These underlying counts are available so that users can construct their own variables. For example, population totals from the 2000 and 2010 datasets could be combined to calculate population change over that time period.

## USC-CDR Variables Included

The USC-CDR provides a range of commonly-used demographic, socioeconomic, and housing variables constructed from Census and ACS tables. As much as possible, variables are consistent across all datasets.

- Demographic information includes age, race and ethnicity, immigration, language use, and linguistic isolation.
- Socioeconomic characteristics include educational attainment, labor force participation, unemployment, occupation, industry, transportation mode, public assistance income, poverty for families with children, poverty for population, and household income.
- Household-related factors include living alone, living in nursing home, and female-headed households with children.
- Housing variables include housing tenure, housing vacancy, persons per room, structure type, housing year built, year moved for owners and renters, house value, house value for specified owner-occupied housing units, and gross rent.

# USC-CDR Variable Notes

- All dollar values are adjusted for inflation to 2021 US dollars using CPI-U-RS (Consumer Price Index Research Series Using Current Methods) developed by the Bureau of Labor Statistics. More information can be found at <u>https://www.bls.gov/cpi/research-series/home.htm</u>
- The original ACS tables include associated margins of error for use in statistical testing. (For more information on ACS margins of error, refer to the technical documentation under *Code Lists, Definitions, and Accuracy > Instructions for*

*Applying Statistical Testing* at <u>https://www.census.gov/programs-</u> <u>surveys/acs/technical-documentation/code-lists.html</u>.) Since many of the ACS variables provided in the CDR are calculated by adding together multiple categories from a table, and interpolated to account for changes in counties over time, it is not practical to provide the margins of error for the ACS CDR variables. For researchers who require margins of error for statistical analysis, unprocessed tabular data and the corresponding error files are available on request.

- Median household income, house value, and gross rent variables from the original Census and ACS estimates are not available in the CDR for county because the adjustments for county changes would not produce accurate interpolated medians. As an alternate measure, the CDR includes estimated medians for household income, house value, and gross rent calculated from the adjusted and aggregated count data.
- Census 1990 does not include data on house values for all owner-occupied housing units; instead it includes house values for specified owner-occupied housing units. Census 2000 includes house values for both specified and all owner-occupied housing units. All ACS datasets include house values for all but not specified owner-occupied units. For more information on the difference between the two definitions, see the Census 2000 codebook.
- In version 3, corrections have been made to the two following variables: percent males aged 65+ living alone and percent females aged 65+ living alone.
- There are a few cases (less than 1%) where census tract FIPS code could not be consistently matched across different years (i.e., county-level FIPS codes that occur between decades; missing in the available crosswalk file for interpolation), this may be why there are some tracts that are missing in some years.
- The final ACS CDR 2016-2020 and 2017-2021 datasets do not include variables for the foreign-born population or the population in poverty. This omission is due to the unavailability of block-group-level original ACS data for these specific years, which we would have used to interpolate these variables to align with the 2010 boundaries.

# Variable List

| Name  | Definition   | Туре  |  |
|---|--|---|--|
|   | Geographic Identifiers   |   |  |
| STFIPS10<br>STCTYFIPS10<br>cbsa13<br>cbsatitle13<br>metmic13<br>LINKCEN2010<br>NAME | State FIPS code (2 digits)<br>County FIPS code (5 digits: 1-2 state, 3-5 county)<br>2013 Core-Based Statistical Areas code<br>2013 Core-Based Statistical Areas title<br>Metropolitan or micropolitan statistical area flag<br>2010 Census Tract FIPS code (11 digits: 1-2 state, 3-5 county, 6-11 tract)<br>Area Name-Legal/Statistical Area Description (LSAD) | geoid<br>geoid<br>geoid<br>geoid<br>geoid<br>geoid<br>geoid |  |
|   | Total Population   |   |  |
| pop   | Total population   | count   |  |
| Source Tables:  | Census 1990: P1; Census 2000: P12; Census 2010: P1; ACS 2005-09 through ACS 2017-21: B01001  |   |  |
|   | Land Area and Population Density   |   |  |
| areal   | Land area in square miles  | count   |  |
| Source Table:   | Social Explorer A00003   |   |  |
| popden  | Population density per square mile   | percent   |  |
| Source Tables:  | Census 1990: P1; Census 2000: P12; Census 2010: P1; ACS 2005-09 through ACS 2017-21: B01001  |   |  |
| Sex   |  |   |  |
| popm<br>popf  | Male<br>Female   | count<br>count  |  |
| ppopm   | Percent male   | percent   |  |
| ppopf   | Percent female   | percent   |  |
| Source Tables:  | Census 1990: P5; Census 2000 & Census 2010: P12; ACS 2005-09 through<br>ACS 2017-21: B01001  |   |  |

| agedn          | Total population (denominator for age counts)   | count   |
|----------------|---|---------|
| agele17        | Aged under 18   | count   |
| age1864        | Aged 18 to 64   | count   |
| agege65        | Aged 65 and over  | count   |
| agege65m       | Males aged 65 and over  | count   |
| agege65f       | Females aged 65 and over  | count   |
|                |   |         |
| pagele17       | Percent aged under 18   | percent |
| page1864       | Percent aged 18 to 64   | percent |
| pagege65       | Percent aged 65 and over  | percent |
|                |   |         |
| Source Tables: | Census 1990: P11; Census 2000 & Census 2010: P12; ACS 2005-09 through ACS 2017-21: B01001 |         |

#### <u>Age</u>

Note: No data available in Census 1990 or 2010 for males and females aged 65 and over.

#### Race and Ethnicity

| redn   | Total population (denominator for race and ethnicity counts) | count   |
|--------|--|---------|
| renhw  | Non-Hispanic White population                                | count   |
| reblk  | Non-Hispanic Black population                                | count   |
| reapi  | Non-Hispanic Asian and Pacific Islander population           | count   |
| reoth  | Non-Hispanic other race population                           | count   |
| rehsp  | Hispanic or Latino population                                | count   |
|        |  |         |
| prenhw | Percent Non-Hispanic White                                   | percent |
| preblk | Percent Non-Hispanic Black                                   | percent |
| preapi | Percent Non-Hispanic Asian and Pacific Islander              | percent |
| preoth | Percent Non-Hispanic other race                              | percent |
| prehsp | Percent Hispanic or Latino                                   | percent |
|        |  |         |

*Source Tables:* Census 1990: P10; Census 2000: P8; Census 2010: P5; ACS 2005-09 through ACS 2017-21: B03002

#### <u>Foreign Born</u>

| fbdn<br>fb     | Total population (denominator for foreign born counts)<br>Foreign born population                   | count<br>count |
|----------------|---|----------------|
| pfb            | Percent foreign born  | percent        |
| Source Tables: | Census 1990: P36, P42; Census 2000: P21; Census 2010: none; ACS 2005-09 through ACS 2017-21: B05002 |                |

### English Language

| endn           | Population aged 5+ (denominator for English language counts)                                      | count   |
|----------------|---|---------|
| endns          | Population aged 65+ (denominator for English language counts)                                     | count   |
| enhm           | Speak only English at home  | count   |
| enhms          | Population aged 65+ speak only English at home  | count   |
| envw           | Speak other language at home; speak English very well   | count   |
| envws          | Population aged 65+ speak other language at home; speak English very well                         | count   |
| enwl           | Speak other language at home; speak English well  | count   |
| enwls          | Population aged 65+ speak other language at home; speak English well                              | count   |
| ennw           | Speak other language at home; speak English not well  | count   |
| ennws          | Population aged 65+ speak other language at home; speak English not well                          | count   |
| enno           | Speak other language at home; speak English not at all  | count   |
| ennos          | Population aged 65+ speak other language at home; speak English not at all                        | count   |
| penhm          | Percent speak only English at home  | percent |
| penhms         | Percent population aged 65+ speak only English at home  | percent |
| pen            | Percent speak English well or better  | percent |
| pens           | Percent population aged 65+ speak English well or better  | percent |
| Source Tables: | Census 1990: P28; Census 2000: P19; Census 2010: none; ACS 2005-09<br>through ACS 2017-21: B16004 |         |

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## Linguistic Isolation

| lidn<br>li     | Households (denominator for linguistic isolation counts)<br>Linguistically isolated households   | count<br>count |
|----------------|--|----------------|
| pli            | Percent linguistically isolated households   | percent        |
| Source Tables: | Census 1990: P29; Census 2000: P20; Census 2010: none; ACS 2005-09<br>through ACS 2011-15: B16002; ACS 2012-16 through ACS 2017-21: C16002 |                |

#### **Educational Attainment**

| eddn           | Population aged 25+ (denominator for education counts)   | count   |
|----------------|--|---------|
| edlt           | Without high school degree aged 25+  | count   |
| edhs           | High school graduates without college degree aged 25+  | count   |
| edba           | College graduates aged 25+   | count   |
|                |  |         |
| pedlt          | Percent without high school degree of population aged 25+  | percent |
| pedhs          | Percent high school graduates without college degree of population aged 25+  | percent |
| pedba          | Percent college graduates of population aged 25+   | percent |
|                |  |         |
| Source Tables: | Census 1990: P57; Census 2000: P37; Census 2010: none; ACS 2005-09<br>through ACS 2007-11: A12001; ACS 2008-12 through ACS 2017-21: B15003 |         |

#### Labor Force Participation

| lfdn           | Population aged 16+ (denominator for labor force counts)             | count   |
|----------------|--|---------|
| lf             | In labor force aged 16+  | count   |
|                |  |         |
| plf            | Labor force participation rate                                       | percent |
|                |  |         |
| Source Tables: |  |         |
|                | through ACS 2007-11: A17002; ACS 2008-12 through ACS 2017-21: B23025 |         |

## <u>Unemployment</u>

| lfcv<br>unem             | In civilian labor force, aged 16+<br>Unemployed in civilian labor force, aged 16+  | count<br>count |  |
|--------------------------|--|----------------|--|
| punem                    | Unemployment rate  | percent        |  |
| Source Tables:           | Census 1990: P70; Census 2000: P43; Census 2010: none; ACS 2005-09<br>through ACS 2007-11: A17002; ACS 2008-12 through ACS 2017-21: B23025 |                |  |
|                          | Occupation   |                |  |
| ocdn<br>ocmp             | Employed civilian population aged 16+<br>Employed in management, professional, and related occupations                                     | count<br>count |  |
| pocmp                    | Percent employed in management, professional, and related occupations  | percent        |  |
| Source Tables:           | Census 1990: P78; Census 2000: P50; Census 2010: none; ACS 2005-09<br>through ACS 2017-21: C24010  |                |  |
|                          | Industry   |                |  |
| indn<br>inma             | Employed civilian population aged 16+<br>Employed in manufacturing industry  | count<br>count |  |
| pinma                    | Percent employed in manufacturing industry   | percent        |  |
| Source Tables:           | Census 1990: P77; Census 2000: P49; Census 2010: none; ACS 2005-09<br>through ACS 2017-21: C24030  |                |  |
| Public Assistance Income |  |                |  |
| hpasdn<br>hpas           | Households (denominator for public assistance counts)<br>Households with public assistance income  | count<br>count |  |
| phpas                    | Percent households with public assistance income   | percent        |  |
| Source Tables:           | Census 1990: P95; Census 2000: P64; Census 2010: none; ACS 2005-09<br>through ACS 2017-21: B19057  |                |  |

|                | remarc meaded mouseholds with emilien  |         |
|----------------|--|---------|
| fhhcdn         | Families (denominator for female-headed households with children counts)                           | count   |
| fhhc           | Families with female householder and own children under 18 years                                   | count   |
| pfhhc          | Percent female-headed households with children   | percent |
| Source Tables: | Census 1990: P19; Census 2000: P15; Census 2010: none; ACS 2005-09<br>through ACS 2017-21: B11003  |         |
|                | Poverty for Families with Children   |         |
| fvdn           | Families (denominator for children in poverty counts)  | count   |
| fvwc           | Families with children and income below poverty level  | count   |
|                |  |         |
| pfvwc          | Percent families with children and in poverty  | percent |
| Source Tables: | Census 1990: P123; Census 2000: P90; Census 2010: none; ACS 2005-09<br>through ACS 2017-21: B17010 |         |
|                | Poverty for Population   |         |
| pvdn           | Population for whom poverty status is determined   | count   |
| pv             | Population for whom poverty status is determined: Income below poverty level                       | count   |
| pvdns          | Population aged 65+ for whom poverty status is determined  | count   |
| pvs            | Pop aged 65+ for whom poverty status is determined: Income below poverty level                     | count   |
| ppv            | Percent population in poverty  | percent |
| ppvs           | Percent population aged 65+ in poverty   | percent |
|                |  | -       |

### Female-Headed Households with Children

Source Tables: Census 1990: P117; Census 2000: P87; Census 2010: none; ACS 2005-09 through ACS 2017-21: B17001

| h1dn           | Total population (denominator for living alone counts)   | count    |
|----------------|--|----------|
| h1             | Living alone   | count    |
| h1dns          | Population aged 65+ (denominator for living alone counts)  | count    |
| h1s            | Population aged 65+ living alone   | count    |
| h1sm           | Males aged 65+ living alone  | count    |
| h1sf           | Females aged 65+ living alone  | count    |
|                |  |          |
| ph1            | Percent living alone   | percent  |
| ph1s           | Percent of population aged 65+ living alone  | percent  |
| ph1sm          | Percent of males aged 65+ living alone   | percent  |
| ph1sf          | Percent of females aged 65+ living alone   | percent  |
| Source Tables: | Census 1990: P17, P18; Census 2000: P9, P11; Census 2010: P18, P25; ACS 2005-09 through ACS 2007-11: B09016, B09017; ACS 2008-12 through ACS 2017-21: B09019, B09020 |          |
| Not            | e: No data available in Census 1990 or 2010 for males and females aged 65 and ove  | r living |
| alone.         |  |          |

## Living Alone

#### Living in Nursing Homes

| Persons in group quarters: Institutionalized persons: Nursing homes  | count  |
|--|--|
| Population in group quarters: aged 65+: Institutionalized: Nursing   | count  |
| homes  |  |
| Percent living in nursing homes                                      | percent  |
| Percent of population aged 65+ living in nursing homes               | percent  |
| Concus 1990, D28 none for non good 65+. Concus 2000, D37 D38. Concus |  |
|  |  |
|  | Population in group quarters: aged 65+: Institutionalized: Nursing<br>homes<br>Percent living in nursing homes |

## Transportation Mode

| trdn           | Workers aged 16+ (denominator for commute mode counts)  | count   |
|----------------|---|---------|
| trdr           | Workers aged 16+: Car, truck, or van: Drove alone   | count   |
| trpt           | Workers aged 16+: Public transportation   | count   |
| trwb           | Workers aged 16+: Bicycle & walked  | count   |
| trpb           | Workers aged 16+: Public transportation, bicycle & walked   | count   |
|                |   |         |
| ptrdr          | Percent drove alone to work   | percent |
| ptrpt          | Percent took public transportation to work  | percent |
| ptrwb          | Percent walked or bicycled to work  | percent |
| ptrpb          | Percent took public transportation, walked, or bicycled to work                                   | percent |
|                |   |         |
| Source Tables: | Census 1990: P49; Census 2000: P30; Census 2010: none; ACS 2005-09<br>through ACS 2017-21: B08301 |         |
|                | 0   |         |

#### Housing Tenure

| hhr            | Occupied housing units (denominator for tenure counts)                                     | count   |
|----------------|--|---------|
| own            | Owner-occupied housing units   | count   |
| rnt            | Renter-occupied housing units  | count   |
| pown           | Percent owner-occupied housing units   | percent |
| Source Tables: | Census 1990: H8; Census 2000 & Census 2010: H4; ACS 2005-09 through<br>ACS 2017-21: B25003 |         |

#### Housing Vacancy

| vac            | Vacant housing units  | count   |
|----------------|---|---------|
| vacr           | Vacant for rent   | count   |
| vaco           | Vacant for sale only  | count   |
|                |   |         |
| pvac           | Percent vacant housing units  | percent |
| pvacr          | Percent vacant for rent   | percent |
| pvaco          | Percent vacant for sale   | percent |
|                |   |         |
| Source Tables: | Census 1990: H6; Census 2000 & Census 2010: H5; ACS 2005-09 through |         |
|                | ACS 2017-21: B25004   |         |

## Single Family Homes

| sfdn<br>sf     | Housing Units (denominator for single-family homes counts)<br>Housing Units: 1, Detached          | count<br>count |
|----------------|---|----------------|
| psf            | Percent single-family homes   | percent        |
| Source Tables: | Census 1990: H20; Census 2000: H30; Census 2010: none; ACS 2005-09<br>through ACS 2017-21: B25024 |                |
|                | Persons Per Room  |                |
| prdn           | Households (denominator for persons per room counts)  | count          |
| prgt1          | Households with more than one person per room   | count          |
|                |   |                |
| pprgt1         | Percent households with more than one person per room   | percent        |
| Source Tables: | Census 1990: H21; Census 2000: H20; Census 2010: none; ACS 2005-09<br>through ACS 2015-21: B25014 |                |
|                | Housing Year Built  |                |
| hbdn           | Housing units (denominator for housing year built counts)   | count          |
| hbbf60         | Housing units built before 1960 (Census 1990)   | count          |
| hb6079         | Housing units built 1960 to 1979 (Census 1990)  | count          |
| hb80la         | Housing units built 1980 or later (Census 1990)   | count          |
|                |   |                |
| phbbf60        | Percent housing units built before 1960 (Census 1990)   | percent        |
| phb6079        | Percent housing units built 1960 to 1979 (Census 1990)  | percent        |
| phb80la        | Percent housing units built 1980 or later (Census 1990)   | percent        |
|                |   |                |

Source Tables: Census 1990: H25

### Housing Year Built (continued)

| hbbf70<br>hb7089<br>hb90la | Housing units built before 1970 (Census 2000)<br>Housing units built 1970 to 1989 (Census 2000)<br>Housing units built 1990 or later (Census 2000) | count<br>count<br>count |
|----------------------------|--|-------------------------|
| 10,010                     | Tousing units built 1990 of later (Ceribus 2000)   | count                   |
| phbbf70                    | Percent housing units built before 1970 (Census 2000)  | percent                 |
| phb7089                    | Percent housing units built 1970 to 1989 (Census 2000)   | percent                 |
| phb90la                    | Percent housing units built 1990 or later (Census 2000)  | percent                 |
| Source Tables:             | Census 2000: H34   |                         |
| hbbf80                     | Housing units built before 1980 (ACS 2005-09 through ACS 2010-14)  | count                   |
| hb8099                     | Housing units built 1980 to 1999 (ACS 2005-09 through ACS 2010-14)   | count                   |
| hb00la0509                 | Housing units built 2000 or later (ACS 2005-09 through ACS 2010-14)  | count                   |
| phbbf80                    | Percent housing units built before 1980 (ACS 2005-09 through ACS 2010-<br>14)  | percent                 |
| phb8099                    | Percent housing units built 1980 to 1999 (ACS 2005-09 through ACS 2010-14)   | percent                 |
| phb00la                    | Percent housing units built 2000 or later (ACS 2005-09 through ACS 2010-14)  | percent                 |
| Source Tables:             | ACS 2005-09 through ACS 2010-14: B25034  |                         |
| hbbf90                     | Housing units built before 1990 (ACS 2011-15 through ACS 2014-18)  | count                   |
| hb9009                     | Housing units built 1990 to 2009 (ACS 2011-15 through ACS 2014-18)   |                         |
| hb10la                     | Housing units built 2010 or later (ACS 2011-15 through ACS 2014-18)  | count                   |
| phbbf90                    | Percent housing units built before 1990 (ACS 2011-15 through ACS 2014-<br>18)  | percent                 |
| phb9009                    | Percent housing units built 1990 to 2009 (ACS 2011-15 through ACS 2014-18)   | percent                 |
| phb10la                    | Percent housing units built 2010 or later (ACS 2011-15 through ACS 2014-18)  | percent                 |
| C                          | ACC 2011 15 University ACC 2017 21, P25024   |                         |

Source Tables: ACS 2011-15 through ACS 2017-21: B25034

| Year Moved for Owners and Renters |  |
|-----------------------------------|--|
|-----------------------------------|--|

| mvdno<br>mvdnr | Owners (denominator for year moved counts)<br>Renters (denominator for year moved counts) | count<br>count |
|----------------|---|----------------|
|                |   |                |
| mv850          | Owners moved 1985 or later (Census 1990)  | count          |
| mv85r          | Renters moved 1985 or later (Census 1990)   | count          |
| mv890          | Owners moved 1989 or later (Census 1990)  | count          |
| mv89r          | Renters moved 1989 or later (Census 1990)   | count          |
| pmv850         | Percent of owners moved 1985 or later (Census 1990)                                       | percent        |
| pmv85r         | Percent of renters moved 1985 or later (Census 1990)                                      | percent        |
| pmv890         | Percent of owners moved 1989 or later (Census 1990)                                       | percent        |
| pmv89r         | Percent of renters moved 1989 or later (Census 1990)                                      | percent        |
| Source Tables: | Census 1990: H29  |                |
| mv950          | Owners moved 1995 or later (Census 2000)  | count          |
| mv95r          | Renters moved 1995 or later (Census 2000)   | count          |
| mv990          | Owners moved 1999 or later (Census 2000)  | count          |
| mv99r          | Renters moved 1999 or later (Census 2000)   | count          |
| pmv950         | Percent of owners moved 1995 or later (Census 2000)                                       | percent        |
| pmv95r         | Percent of renters moved 1995 or later (Census 2000)                                      | percent        |
| pmv990         | Percent of owners moved 1999 or later (Census 2000)                                       | percent        |
| pmv99r         | Percent of renters moved 1999 or later (Census 2000)                                      | percent        |
| Source Tables: | Census 2000: H38  |                |
| mv00o          | Owners moved 2000 or later (ACS 2005-09 through ACS 2007-11)                              | count          |
| mv00r          | Renters moved 2000 or later (ACS 2005-09 through ACS 2007-11)                             | count          |
| mv050          | Owners moved 2005 or later (ACS 2005-09 through ACS 2007-11)                              | count          |
| mv05r          | Renters moved 2005 or later (ACS 2005-09 through ACS 2007-11)                             | count          |
| pmv00o         | Percent of owners moved 2000 or later (ACS 2005-09 through ACS 2007-<br>11)               | percent        |
| pmv00r         | Percent of renters moved 2000 or later (ACS 2005-09 through ACS 2007-<br>11)              | percent        |
| pmv05o         | Percent of owners moved 2005 or later (ACS 2005-09 through ACS 2007-<br>11)               | percent        |
| pmv05r         | Percent of renters moved 2005 or later (ACS 2005-09 through ACS 2007-<br>11)              | percent        |
|                |   |                |

Source Tables: ACS 2005-09 through ACS 2007-11: B25038

#### Year Moved for Owners and Renters (continued)

| mv00o<br>mv00r<br>mv10o<br>mv10r | Owners moved 2000 or later (ACS 2008-12 through ACS 2010-14)<br>Renters moved 2000 or later (ACS 2008-12 through ACS 2010-14)<br>Owners moved 2010 or later (ACS 2008-12 through ACS 2010-14)<br>Renters moved 2010 or later (ACS 2008-12 through ACS 2010-14) | count<br>count<br>count<br>count |
|----------------------------------|--|----------------------------------|
| pmv00o                           | Percent of owners moved 2000 or later (ACS 2008-12 through ACS 2010-   | percent                          |
| pmv00r                           | 14)<br>Percent of renters moved 2000 or later (ACS 2008-12 through ACS 2010-<br>14)  | percent                          |
| pmv10o                           | Percent of owners moved 2010 or later (ACS 2008-12 through ACS 2010-<br>14)  | percent                          |
| pmv10r                           | Percent of renters moved 2010 or later (ACS 2008-12 through ACS 2010-<br>14)   | percent                          |
| Source Tables:                   | ACS 2008-12 through ACS 2010-14: B25038  |                                  |
| mv100                            | Owners moved 2010 or later (ACS 2011-15 through ACS 2013-17)   | count                            |
| mv10r                            | Renters moved 2010 or later (ACS 2011-15 through ACS 2013-17)  | count                            |
| mv150                            | Owners moved 2015 or later (ACS 2011-15 through ACS 2013-17)   | count                            |
| mv15r                            | Renters moved 2015 or later (ACS 2011-15 through ACS 2013-17)  | count                            |
| pmv10o                           | Percent of owners moved 2010 or later (ACS 2011-15 through ACS 2013-<br>17)  | percent                          |
| pmv10r                           | Percent of renters moved 2010 or later (ACS 2011-15 through ACS 2013-<br>17)   | percent                          |
| pmv150                           | Percent of owners moved 2015 or later (ACS 2011-15 through ACS 2013-<br>17)  | percent                          |
| pmv15r                           | Percent of renters moved 2015 or later (ACS 2011-15 through ACS 2013-<br>17)   | percent                          |
| Source Tables:                   | ACS 2011-15 through ACS 2013-17: B25038  |                                  |
| mv10o                            | Owners moved 2010 or later (ACS 2014-18 and ACS 2015-19)   | count                            |
| mv10r                            | Renters moved 2010 or later (ACS 2014-18 and ACS 2015-19)  | count                            |
| mv17o                            | Owners moved 2017 or later (ACS 2014-18 and ACS 2015-19)   | count                            |
| mv17r                            | Renters moved 2017 or later (ACS 2014-18 and ACS 2015-19)  | count                            |
| pmv10o                           | Percent of owners moved 2010 or later (ACS 2014-18 and ACS 2015-19)  | percent                          |
| pmv10r                           | Percent of renters moved 2010 or later (ACS 2014-18 and ACS 2015-19)   | percent                          |
| pmv17o                           | Percent of owners moved 2017 or later (ACS 2014-18 and ACS 2015-19)  | percent                          |
| pmv17r                           | Percent of renters moved 2017 or later (ACS 2014-18 and ACS 2015-19)   | percent                          |

Source Tables: ACS 2014-18 and ACS 2015-19: B25038

#### Year Moved for Owners and Renters (continued)

| mv100            | Owners moved 2010 or later (ACS 2016-20 and ACS 2017-21)  | count              |
|------------------|---|--------------------|
| mv10r            | Renters moved 2010 or later (ACS 2016-20 and ACS 2017-21)   | count              |
| mv190            | Owners moved 2019 or later (ACS 2016-20 and ACS 2017-21)  | count              |
| mv19r            | Renters moved 2019 or later (ACS 2016-20 and ACS 2017-21)   | count              |
|                  |   |                    |
| pmv10o           | Percent of owners moved 2010 or later (ACS 2016-20 and ACS 2017-21)   | percent            |
|                  |   |                    |
| pmv10r           | Percent of renters moved 2010 or later (ACS 2016-20 and ACS 2017-21)  | percent            |
| pmv10r<br>pmv19o | Percent of renters moved 2010 or later (ACS 2016-20 and ACS 2017-21)<br>Percent of owners moved 2019 or later (ACS 2016-20 and ACS 2017-21) | percent<br>percent |
| 1                |   | 1                  |

Source Tables: ACS 2016-20 and ACS 2017-21: B25038

#### <u>House Value</u>

| val_all        | Owner-occupied housing units            | count |
|----------------|---|-------|
| val_000k009k   | House value: Less than \$10,000         | count |
| val_010k014k   | House value: \$10,000 to \$14,999       | count |
| val_015k019k   | House value: \$15,000 to \$19,999       | count |
| val_020k024k   | House value: \$20,000 to \$24,999       | count |
| val_025k029k   | House value: \$25,000 to \$29,999       | count |
| val_030k034k   | House value: \$30,000 to \$34,999       | count |
| val_035k039k   | House value: \$35,000 to \$39,999       | count |
| val_040k049k   | House value: \$40,000 to \$49,999       | count |
| val_050k059k   | House value: \$50,000 to \$59,999       | count |
| val_060k069k   | House value: \$60,000 to \$69,999       | count |
| val_070k079k   | House value: \$70,000 to \$79,999       | count |
| val_080k089k   | House value: \$80,000 to \$89,999       | count |
| val_090k099k   | House value: \$90,000 to \$99,999       | count |
| val_100k124k   | House value: \$100,000 to \$124,999     | count |
| val_125k149k   | House value: \$125,000 to \$149,999     | count |
| val_150k174k   | House value: \$150,000 to \$174,999     | count |
| val_175k199k   | House value: \$175,000 to \$199,999     | count |
| val_200k249k   | House value: \$200,000 to \$249,999     | count |
| val_250k299k   | House value: \$250,000 to \$299,999     | count |
| val_300k399k   | House value: \$300,000 to \$399,999     | count |
| val_400k499k   | House value: \$400,000 to \$499,999     | count |
| val_500k749k   | House value: \$500,000 to \$749,999     | count |
| val_750k999k   | House value: \$750,000 to \$999,999     | count |
| val_1000k1499k | House value: \$1,000,000 to \$1,499,999 | count |
| val_1500k1999k | House value: \$1,500,000 to \$1,999,999 | count |
| val _2milmore  | House value: \$2,000,000 or more        | count |
|                |   |       |

| mhval          | Median house value, inflation-adjusted 2021 dollars  | median |
|----------------|--|--------|
| emhval         | Median house value, inflation-adjusted 2021 dollars (estimated from counts)                                  | median |
| Source Tables: | Census 1990: none; Census 2000: H84, H85; Census 2010: none; ACS 2005-09 through ACS 2017-21: B25075, B25077 |        |

Note: Census 1990 does not include data on house values for all owner-occupied housing units; instead it includes house values for specified owner-occupied housing units. Census 2000 includes house values for both specified and all owner-occupied housing units. ACS 5-year estimates include house values for all but not specified owner-occupied units. For more information on the difference between the two definitions, see the Census 2000 codebook. From ACS 2005-09 through ACS 2010-14, the highest category for house value was "\$1,000,000 or more." Beginning with ACS 2011-15, additional higher categories were introduced.

Note: The original median house value variable is not available for counties and MSAs because of the interpolation of changing county boundaries over time, as well as the aggregation of multiple counties to form MSAs. To provide a measure of median house value in those geographies, we added an estimate of the median calculated from the count data by finding the position of the median owner-occupied house within the dollar value brackets.

| House Value for S | pecified Owner-Occu | pied Housing Units |
|-------------------|---------------------|--------------------|
|                   |                     |                    |

| vsp _all       | Owner-occupied housing units  | count  |
|----------------|---|--------|
| vsp_000k009k   | Specified house value: Less than \$10,000                             | count  |
| vsp_010k014k   | Specified house value: \$10,000 to \$14,999                           | count  |
| vsp_015k019k   | Specified house value: \$15,000 to \$19,999                           | count  |
| vsp_020k024k   | Specified house value: \$20,000 to \$24,999                           | count  |
| vsp_025k029k   | Specified house value: \$25,000 to \$29,999                           | count  |
| vsp_030k034k   | Specified house value: \$30,000 to \$34,999                           | count  |
| vsp_035k039k   | Specified house value: \$35,000 to \$39,999                           | count  |
| vsp_040k049k   | Specified house value: \$40,000 to \$49,999                           | count  |
| vsp_050k059k   | Specified house value: \$50,000 to \$59,999                           | count  |
| vsp_060k069k   | Specified house value: \$60,000 to \$69,999                           | count  |
| vsp_070k079k   | Specified house value: \$70,000 to \$79,999                           | count  |
| vsp_080k089k   | Specified house value: \$80,000 to \$89,999                           | count  |
| vsp_090k099k   | Specified house value: \$90,000 to \$99,999                           | count  |
| vsp_100k124k   | Specified house value: \$100,000 to \$124,999                         | count  |
| vsp _125k149k  | Specified house value: \$125,000 to \$149,999                         | count  |
| vsp _150k174k  | Specified house value: \$150,000 to \$174,999                         | count  |
| vsp _175k199k  | Specified house value: \$175,000 to \$199,999                         | count  |
| vsp_200k249k   | Specified house value: \$200,000 to \$249,999                         | count  |
| vsp _250k299k  | Specified house value: \$250,000 to \$299,999                         | count  |
| vsp_300k399k   | Specified house value: \$300,000 to \$399,999                         | count  |
| vsp _400k499k  | Specified house value: \$400,000 to \$499,999                         | count  |
| vsp_500k749k   | Specified house value: \$500,000 to \$749,999                         | count  |
| vsp _750k999k  | Specified house value: \$750,000 to \$999,999                         | count  |
| vsp_1milmore   | Specified house value: \$1,000,000 or more                            | count  |
| mhvsp          | Median house value, specified units, inflation-adjusted 2021 dollars  | median |
| emhvsp         | Median house value, specified units, inflation-adj 2021 dollars       | median |
|                | (estimated from counts)   |        |
| Source Tables: | Census 1990: H23B, H61; Census 2000: H74, H76; Census 2010: none; ACS |        |
|                | 2005-09 through ACS 2017-21: none                                     |        |

Note: Census 1990 does not include data on house values for all owner-occupied housing units; instead it includes house values for specified owner-occupied housing units. Census 2000 includes house values for both specified and all owner-occupied housing units. ACS 5-year estimates include house values for all but not specified owner-occupied units. For more information on the difference between the two definitions, see the Census 2000 codebook.

Note: The original median house value variable is not available for counties and MSAs in Census 1990 and Census 2000 because of the interpolation of changing county boundaries over time, as well as the aggregation of multiple counties to form MSAs. To provide a measure of median house value in those geographies, we added an estimate of the median calculated from the count data by finding the position of the median owner-occupied house within the dollar value brackets.

| rnt _all           | Specified renter-occupied housing units                               | count  |
|--------------------|---|--------|
| rnt _cashrent      | Specified renter-occupied housing units: With cash rent               | count  |
| rnt000_099         | Gross rent: Less than \$100   | count  |
| rnt100_149         | Gross rent: \$100 to \$149  | count  |
| rnt150_199         | Gross rent: \$150 to \$199  | count  |
| rnt200_249         | Gross rent: \$200 to \$249  | count  |
| rnt250_299         | Gross rent: \$250 to \$299  | count  |
| rnt300_349         | Gross rent: \$300 to \$349  | count  |
| rnt350_399         | Gross rent: \$350 to \$399  | count  |
| rnt400_449         | Gross rent: \$400 to \$449  | count  |
| rnt450_499         | Gross rent: \$450 to \$499  | count  |
| rnt500_549         | Gross rent: \$500 to \$549  | count  |
| rnt550_599         | Gross rent: \$550 to \$599  | count  |
| rnt600_649         | Gross rent: \$600 to \$649  | count  |
| rnt650_699         | Gross rent: \$650 to \$699  | count  |
| rnt700_749         | Gross rent: \$700 to \$749  | count  |
| rnt750_799         | Gross rent: \$750 to \$799  | count  |
| rnt <u>800</u> 899 | Gross rent: \$800 to \$899  | count  |
| rnt900_999         | Gross rent: \$900 to \$999  | count  |
| rnt_10001249       | Gross rent: \$1,000 to \$1,249  | count  |
| rnt_12501499       | Gross rent: \$1,250 to \$1,499  | count  |
| rnt_15001999       | Gross rent: \$1,500 to \$1,999  | count  |
| rnt_20002499       | Gross rent: \$2,000 to \$2,499  | count  |
| rnt_25002999       | Gross rent: \$2,500 to \$2,999  | count  |
| rnt_30003499       | Gross rent: \$3,000 to \$3,499  | count  |
| rnt_3500more       | Gross rent: \$3,500 or more   | count  |
| rnt _nocshrnt      | Specified renter-occupied housing units: No cash rent                 | count  |
|                    |   |        |
| mrent              | Median gross rent, inflation-adjusted 2021 dollars                    | median |
| emrent             | Median gross rent, inflation-adjusted 2021 dollars (estimated from    | median |
|                    | counts)   |        |
| Source Tables:     | Census 1990: H43, H43A; Census 2000: H62, H63; Census 2010: none; ACS |        |
| Source Tubles:     | 2005-09 through ACS 2017-21: B25063, B25064                           |        |
|                    | 2000 05 milling 1100 2017 21. D20000, D20001                          |        |

#### Gross Rent

Note: From ACS 2005-09 through ACS 2010-14, the highest category for gross rent value was "\$2,000 or more." Beginning with ACS 2011-15, additional higher categories were introduced.

Note: The original median gross rent variable is not available for counties and MSAs in Census 1990 and Census 2000 because of the interpolation of changing county boundaries over time, as well as the aggregation of multiple counties to form MSAs. To provide a measure of median gross rent in those geographies, we added another estimate of the median calculated from the count data by finding the position of the median renter-occupied housing unit with cash rent within the dollar value brackets.

#### Household Income

| h_inc          | Households (denominator for household income counts)  | count  |
|----------------|---|--------|
| h_000k009k     | Households: Less than \$10,000  | count  |
| h_010k014k     | Households: \$10,000 to \$14,999  | count  |
| h_015k019k     | Households: \$15,000 to \$19,999  | count  |
| h_020k024k     | Households: \$20,000 to \$24,999  | count  |
| h_025k029k     | Households: \$25,000 to \$29,999  | count  |
| h_030k034k     | Households: \$30,000 to \$34,999  | count  |
| h_035k039k     | Households: \$35,000 to \$39,999  | count  |
| h_040k044k     | Households: \$40,000 to \$44,999  | count  |
| h_045k049k     | Households: \$45,000 to \$49,999  | count  |
| h_050k059k     | Households: \$50,000 to \$59,999  | count  |
| h_060k074k     | Households: \$60,000 to \$74,999  | count  |
| h_075k099k     | Households: \$75,000 to \$99,999  | count  |
| h_100k124k     | Households: \$100,000 to \$124,999  | count  |
| h_125k149k     | Households: \$125,000 to \$149,999  | count  |
| h_150k199k     | Households: \$150,000 to \$199,999  | count  |
| h_200kmore     | Households: \$200,000 or more   | count  |
| mhinc          | Median household income, inflation-adjusted 2021 dollars  | median |
| emhinc         | Median household income, inflation-adjusted 2021 dollars (estimated from counts)                                  | median |
| Source Tables: | Census 1990: P80, P80A; Census 2000: P52, P53; Census 2010: none; ACS 2005-09 through ACS 2017-21: B19001, B19013 |        |

Note: The original median household income variable is not available for counties and MSAs in Census 1990 and Census 2000 because of the interpolation of changing county boundaries over time, as well as the aggregation of multiple counties to form MSAs. To provide a measure of median household income in those geographies, we added another estimate of the median calculated from the count data by finding the position of the median household within the dollar value brackets.