

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 HRS 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).

## Suggested Citation

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## Data Sources

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

## 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 HRS Respondent Data

The Contextual Data Resource is designed to be linked with the Health and Retirement Study Cross-Wave Geographic Information (Detail) file, which is available as restricted data. See <https://hrs.isr.umich.edu/data-products/restricted-data> for more information about accessing the HRS restricted data. All geographic identifiers are in string format, and match the geographic identifiers in the HRS Cross-Wave Geographic Information (Detail) file.

- 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.

## Note on HRS Cross-Wave Geographic Information File

Respondent locations are carried forward to the next wave and they appear for waves in which the interview may not have occurred. xIWTYPE in the Tracker file indicates whether someone was actually interviewed in that wave, in which case, the location would have been confirmed.

If users want to limit analyses to waves in which the R was interviewed, keep waves of observations where xIWTYPE = 1. In summary, a location appearing on a given line does not indicate that an interview took place in that wave; it is simply the location that was on record at the time.

## 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 HRS-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](http://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; HRS-CDR uses tables provided at the census tract, county, and state levels.

## Years Available

The HRS-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 HRS-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 <https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/historical-delineation-files.html>
- 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 <https://www.census.gov/programs-surveys/geography/technical-documentation/county-changes.html>
- 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 <https://s4.ad.brown.edu/projects/diversity/researcher/bridging.htm>.

- NHGIS crosswalk files can be found at <https://www.nhgis.org/geographic-crosswalks>
- 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 <https://www.census.gov/geo/maps-data/data/tiger-line.html>.

### 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.”

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

Dataset	State	CBSA	County	Census Tract
<b>Decennial Census</b>				
1990	■	■	■*	■†
2000	■	■	■*	■†
2010	■	■	■*	■†
<b>American Community Survey</b>				
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	■	■	■*	■†

\*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.

## HRS-CDR Variables Included

The HRS-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.

## HRS-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 <https://www.bls.gov/cpi/research-series/home.htm>
- 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 <https://www.census.gov/programs-surveys/acs/technical-documentation/code-lists.html>.) 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	Type
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**Geographic Identifiers**

STFIPS10	State FIPS code (2 digits)	geoid
STCTYFIPS10	County FIPS code (5 digits: 1-2 state, 3-5 county)	geoid
cbsa13	2013 Core-Based Statistical Areas code	geoid
cbsatitle13	2013 Core-Based Statistical Areas title	geoid
metmic13	Metropolitan or micropolitan statistical area flag	geoid
LINKCEN2010	2010 Census Tract FIPS code (11 digits: 1-2 state, 3-5 county, 6-11 tract)	geoid
NAME	Area Name-Legal/Statistical Area Description (LSAD)	geoid

**Total Population**

pop	Total population	count
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*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
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*Source Table:* Social Explorer A00003

popden	Population density per square mile	percent
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*Source Tables:* Census 1990: P1; Census 2000: P12; Census 2010: P1; ACS 2005-09 through ACS 2017-21: B01001

**Sex**

popm	Male	count
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popf	Female	count
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ppopm	Percent male	percent
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ppopf	Percent female	percent
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*Source Tables:* Census 1990: P5; Census 2000 & Census 2010: P12; ACS 2005-09 through ACS 2017-21: B01001

**Age**

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

*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

**Foreign Born**

fbdn	Total population (denominator for foreign born counts)	count
fb	Foreign born population	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 through ACS 2017-21: B16004

**Linguistic Isolation**

lidn	Households (denominator for linguistic isolation counts)	count
li	Linguistically isolated households	count
pli	Percent linguistically isolated households	percent

*Source Tables:* Census 1990: P29; Census 2000: P20; Census 2010: none; ACS 2005-09 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 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:* Census 1990: P70; Census 2000: P43; Census 2010: none; ACS 2005-09 through ACS 2007-11: A17002; ACS 2008-12 through ACS 2017-21: B23025

**Unemployment**

lfcv	In civilian labor force, aged 16+	count
unem	Unemployed in civilian labor force, aged 16+	count
punem	Unemployment rate	percent

*Source Tables:* Census 1990: P70; Census 2000: P43; Census 2010: none; ACS 2005-09 through ACS 2007-11: A17002; ACS 2008-12 through ACS 2017-21: B23025

**Occupation**

ocdn	Employed civilian population aged 16+	count
ocmp	Employed in management, professional, and related occupations	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 through ACS 2017-21: C24010

**Industry**

indn	Employed civilian population aged 16+	count
inma	Employed in manufacturing industry	count
pinma	Percent employed in manufacturing industry	percent

*Source Tables:* Census 1990: P77; Census 2000: P49; Census 2010: none; ACS 2005-09 through ACS 2017-21: C24030

**Public Assistance Income**

hpasdn	Households (denominator for public assistance counts)	count
hpas	Households with public assistance income	count
phpas	Percent households with public assistance income	percent

*Source Tables:* Census 1990: P95; Census 2000: P64; Census 2010: none; ACS 2005-09 through ACS 2017-21: B19057

**Female-Headed Households with Children**

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 through ACS 2017-21: B11003

**Poverty for Families with Children**

fvdn	Families (denominator for children in poverty counts)	count
fwc	Families with children and income below poverty level	count
pfwvc	Percent families with children and in poverty	percent

*Source Tables:* Census 1990: P123; Census 2000: P90; Census 2010: none; ACS 2005-09 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

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

**Living Alone**

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

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

**Living in Nursing Homes**

nh	Persons in group quarters: Institutionalized persons: Nursing homes	count
nhs	Population in group quarters: aged 65+: Institutionalized: Nursing homes	count
pnh	Percent living in nursing homes	percent
pnhs	Percent of population aged 65+ living in nursing homes	percent

*Source Tables:* Census 1990: P28, none for pop aged 65+; Census 2000: P37, P38; Census 2010: P42, P43; ACS 2005-09 through ACS 2017-21: none

**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 through ACS 2017-21: B08301

**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 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	Housing Units (denominator for single-family homes counts)	count
sf	Housing Units: 1, Detached	count
psf	Percent single-family homes	percent

*Source Tables:* Census 1990: H20; Census 2000: H30; Census 2010: none; ACS 2005-09 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 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	Housing units built before 1970 (Census 2000)	count
hb7089	Housing units built 1970 to 1989 (Census 2000)	count
hb90la	Housing units built 1990 or later (Census 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 2010-14)	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)	count
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 2014-18)	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

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

**Year Moved for Owners and Renters**

mvdno	Owners (denominator for year moved counts)	count
mvdnr	Renters (denominator for year moved counts)	count
mv85o	Owners moved 1985 or later (Census 1990)	count
mv85r	Renters moved 1985 or later (Census 1990)	count
mv89o	Owners moved 1989 or later (Census 1990)	count
mv89r	Renters moved 1989 or later (Census 1990)	count
pmv85o	Percent of owners moved 1985 or later (Census 1990)	percent
pmv85r	Percent of renters moved 1985 or later (Census 1990)	percent
pmv89o	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*

mv95o	Owners moved 1995 or later (Census 2000)	count
mv95r	Renters moved 1995 or later (Census 2000)	count
mv99o	Owners moved 1999 or later (Census 2000)	count
mv99r	Renters moved 1999 or later (Census 2000)	count
pmv95o	Percent of owners moved 1995 or later (Census 2000)	percent
pmv95r	Percent of renters moved 1995 or later (Census 2000)	percent
pmv99o	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
mv05o	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 2007-11)	percent
pmv00r	Percent of renters moved 2000 or later (ACS 2005-09 through ACS 2007-11)	percent
pmv05o	Percent of owners moved 2005 or later (ACS 2005-09 through ACS 2007-11)	percent
pmv05r	Percent of renters moved 2005 or later (ACS 2005-09 through ACS 2007-11)	percent

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

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

mv00o	Owners moved 2000 or later (ACS 2008-12 through ACS 2010-14)	count
mv00r	Renters moved 2000 or later (ACS 2008-12 through ACS 2010-14)	count
mv10o	Owners moved 2010 or later (ACS 2008-12 through ACS 2010-14)	count
mv10r	Renters moved 2010 or later (ACS 2008-12 through ACS 2010-14)	count
pmv00o	Percent of owners moved 2000 or later (ACS 2008-12 through ACS 2010-14)	percent
pmv00r	Percent of renters moved 2000 or later (ACS 2008-12 through ACS 2010-14)	percent
pmv10o	Percent of owners moved 2010 or later (ACS 2008-12 through ACS 2010-14)	percent
pmv10r	Percent of renters moved 2010 or later (ACS 2008-12 through ACS 2010-14)	percent

*Source Tables:* ACS 2008-12 through ACS 2010-14: B25038

mv10o	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
mv15o	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 2013-17)	percent
pmv10r	Percent of renters moved 2010 or later (ACS 2011-15 through ACS 2013-17)	percent
pmv15o	Percent of owners moved 2015 or later (ACS 2011-15 through ACS 2013-17)	percent
pmv15r	Percent of renters moved 2015 or later (ACS 2011-15 through ACS 2013-17)	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)**

mv10o	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
mv19o	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
pmv19o	Percent of owners moved 2019 or later (ACS 2016-20 and ACS 2017-21)	percent
pmv19r	Percent of renters moved 2019 or later (ACS 2016-20 and ACS 2017-21)	percent

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

**House Value**

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 Specified Owner-Occupied 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 (estimated from counts)	median

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.

**Gross Rent**

rnt_all	Specified renter-occupied housing units	count
rnt_cashrent	Specified renter-occupied housing units: With cash rent	count
rnt__000_099	Gross rent: Less than \$100	count
rnt__100_149	Gross rent: \$100 to \$149	count
rnt__150_199	Gross rent: \$150 to \$199	count
rnt__200_249	Gross rent: \$200 to \$249	count
rnt__250_299	Gross rent: \$250 to \$299	count
rnt__300_349	Gross rent: \$300 to \$349	count
rnt__350_399	Gross rent: \$350 to \$399	count
rnt__400_449	Gross rent: \$400 to \$449	count
rnt__450_499	Gross rent: \$450 to \$499	count
rnt__500_549	Gross rent: \$500 to \$549	count
rnt__550_599	Gross rent: \$550 to \$599	count
rnt__600_649	Gross rent: \$600 to \$649	count
rnt__650_699	Gross rent: \$650 to \$699	count
rnt__700_749	Gross rent: \$700 to \$749	count
rnt__750_799	Gross rent: \$750 to \$799	count
rnt__800_899	Gross rent: \$800 to \$899	count
rnt__900_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_nocshrent	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 counts)	median

*Source Tables:* Census 1990: H43, H43A; Census 2000: H62, H63; Census 2010: none; ACS 2005-09 through ACS 2017-21: B25063, B25064

*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.*