

## Combining ACS Public Use Microdata Areas (PUMAs) from Census 2000 and 2010 Definitions – From the February 2015 CSDC Network News

Public Use Microdata Areas (PUMAs) are statistical geographic areas defined in conjunction with each decennial census for the dissemination of selected raw census records that are referred to as Public Use Microdata Sample (PUMS) data. PUMAs have a minimum population of 100,000 persons and do not cross state boundaries.

The 2012 American Community Survey (ACS) was the first ACS data series to incorporate the Public Use Microdata Areas (PUMAs) delineated from the 2010 Census. All pre-2012 ACS datasets utilized PUMAs based on the 2000 Census. To compare 2000 and 2010 PUMAs, data users can utilize an “equivalency” file that provides a correspondence between the two sets of PUMAs. The “equivalency” file can be created using the Missouri Census Data Center’s (MCDC) MABLE/Geocorr12: Geographic Correspondence Engine (<http://mcdc.missouri.edu/websas/geocorr12.html>). The Engine allows users to create a crosswalk comparing entities between 2000 and 2010, and provides an allocation factor based on either population or housing units to be used when converting individual PUMAs (not every 2000 PUMA to 2010 PUMA is a one-to-one correspondence). MCDC also offers a 2000 to 2010 PUMA equivalency file through their Uexplore/Dexter Web Software (<http://mcdc.missouri.edu/applications/uexplore.shtml>). A California subset of this file is available on [link to file on our webpage].

For multi-year ACS Public Use Microdata Sample (PUMS) files that include pre-2012 and 2012 or after, two separate sets of PUMA variables are provided. “PUMA00” represents 2000 PUMAs for survey years prior to 2012 and “PUMA10” corresponds to 2010 PUMAs for survey years 2012 and later. Multi-year ACS PUMS files that contain both vintages of PUMA variables include:

3-year ACS PUMS: 2010-2012 through 2011-2013

5-year ACS PUMS: 2008-2012 through 2011-2015

User of these multi-year ACS PUMS files will need both vintages of the PUMA variables to correctly tabulate estimates for individual PUMAs or other geographies based on groupings of PUMAs. For users aggregating PUMA data to obtain county/county group-level estimates, the chart on the right provides a list of county/county groups by 2000 Census and 2010 Census PUMAs. In order to combine PUMA vintages for Humboldt County, for example, the user would do the following (depending on the software package):

If puma00 = 00200 or puma10 = 02300 then county = ‘Humboldt’

Note that to ensure consistency across the two vintages, the counties Del Norte, Lassen, Modoc, Siskiyou, Plumas, Nevada, and Sierra should be included in one county group. This is necessary because in 2000 Plumas County was combined with Nevada and Sierra Counties into one PUMA (00700); however, in 2010, Plumas County was moved to the PUMA (01500) containing Del Norte, Lassen, Modoc, and Siskiyou Counties. All other California county groupings are consistent across both 2000 and 2010 Census PUMAs.

<b>County/County Group Name</b>	<b>2000 Vintage PUMAs</b>	<b>2010 Vintage PUMAs</b>	<b>County/County Group Name</b>	<b>2000 Vintage PUMAs</b>	<b>2010 Vintage PUMAs</b>
Alameda	02401-02410	00101-00110	Orange	06801-07607	05901-05918
Alpine, Amador, Calaveras, Inyo, Mariposa, Mono & Tuolumne	01800	00300	Placer	01601-01602	06101-06103
Butte	00600	00701-00702	Riverside	07700-08005	06501-06515
Colusa, Glenn, Tehama & Trinity	00500	01100	Sacramento	01401-01506	06701-06712
Contra Costa	02101-02108	01301-01309	San Bernardino	04000-04407	07101-07115
Del Norte, Lassen, Modoc & Siskiyou	00100		San Diego	08101-08116	07301-07322
Del Norte, Lassen, Modoc, Plumas & Siskiyou		01500	San Francisco	02201-02207	07501-07507
El Dorado	01700	01700	San Joaquin	01901-02002	07701-07704
Fresno	03301-03402	01901-01907	San Luis Obispo	03701-03702	07901-07902
Humboldt	00200	02300	San Mateo	02301-02306	08101-08106
Imperial	08200	02500	Santa Barbara	06701-06702	08301-08303
Kern	03800-03903	02901-02905	Santa Clara	02701-02714	08501-08514
Kings	03600	03100	Santa Cruz	02801-02802	08701-08702
Lake & Mendocino	00400	03300	Shasta	00300	08900
Los Angeles	04500-06126	03701-03769	Solano	01301-01303	09501-09503
Madera	03200	03900	Sonoma	01101-01103	09701-09703
Marin	01201-01202	04101-04102	Stanislaus	02500-02602	09901-09904
Merced	03100	04701-04702	Sutter & Yuba	00800	10100
Monterey & San Benito	02900-03002	05301-05303	Tulare	03501-03503	10701-10703
Napa	01000	05500	Ventura	06200-06602	11101-11106
Nevada, Plumas & Sierra	00700		Yolo	00900	11300
Nevada & Sierra		05700			