**FIPS to MSA Cross Walk Documentation  
Created 7/2/19 by Ran Li**

**Updated 4/20/2022 by Isabel De Ramos**

* **Introduction:**
  + Metropolitan Statistical Area (MSA) refers to a region that consists of a city and its suburbs, plus any surrounding communities are close linked because of social and/or economic factors. They are defined by the Office of management and budget (OMB). There are two types of MSA, Micropolitan Statistical Areas and Metropolitan statistical areas. Core-based statistical area (CBSA) is a generic definition of micro and MSA, the different being core population size.
  + Delineation refers to a MSA’s composition, or a list of county components at a point in time. These delineations are published by the OMB
* **Data source**:
  + Link: <https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/delineation-files.html>
  + Description: <https://www.census.gov/programs-surveys/metro-micro/about/delineation-files.html>
* **Code:** ‘fips\_msa\_xwalk\_code.rmd’
* **Final Product:**
  + *“fips\_msa\_xwalk.csv”:* Simple FIPS to MSA Crosswalk using the March 2020 delineation file as reference
  + “*fips\_msa\_complex\_xwalk.csv*”: Complex FIPS to MSA Crosswalk containing all delineations
* **Protocol:** 
  + Complex Crosswalk: We want to make sure that none of the counties were dropped when compiling the five delineations. We made a ‘master vector’ of all possible FIPS in the five delineation files. CBSA information for each delineation file was linked to this ‘master vector’ of counties. The resulting data set contains 1873 unique counties which are linked to five delineations. 1716 of these counties are consistent, meaning for all five versions of FIPS\_CBSA delineation file they are assigned to the same CBSA. The remaining 157 counties are inconsistent meaning that either they were added to or removed from a CBSA over the span of the CBSA recoding. This complex cross walk is not longitudinally consistent. Adjustments for county/FIPS changes during 1990-2020 have not been made.
  + Simple Crosswalk: This cross walk is simple because it has counties to MSA links based only a single OMB delineation (September 2018 version). We select from our complex crosswalk FIPS and cbsa0320 columns. When then make sure that this crosswalk is longitudinally consistent, in other words for counties which are assigned to a MSA in 2020 we will adjust the cross walk taking into account for county name/FIPS changes to ensure that older versions of these linked counties are also linked to their respective MSA. The scope of our data is approximately 1990-2020. A review of all county/FIPS changes occurring during this time range is detailed in the file 'Documentation/county\_changes\_1990to2017.xlsx'. There are two changes which affect our cross walk:
    - 51515 merged with 51019 in 2013. Population estimates (Census Bureau) and Mortality data have for 2011 and beyond have combined the statistics of 51515 and 51019. 51019 is linked to MSA 31340 but 51515 is not. If we want to make the MSA aggregation consistent between 1990 and 2018 then we must link 51515 to MSA 31340.
    - 12025 (Dade county) was renamed to 12086 (Miami-Dade County) in 1997. 12086 is linked to MSA 31100 For the same reason as above. To make our aggregation consistent for 1990-2018 we need to link 12025 to MSA 31100.