**1970-1980-1990- 2000 Comparability File: General Guidelines**

The 1970-80-90-00 Comparability File was created to simplify tract-level comparisons of California census data over time and view the historical census data in thematic maps. Census tract boundaries have changed since 1970, making the process of comparing tracts difficult. In order to make comparisons over time, standardized tracts were established. In this case, 1990 census tracts were used as the standard and the data from 1970, 1980, and 2000 censuses were converted to their 1990 census tract equivalents.

In 1990 there were 5,858 census tracts covering the entire area of the state so the comparability file has 5,858 tract records. In 1970 and 1980 the entire state had not yet been tracted so, in addition to the 4,167 and 5,732 respective tracts, data from enumeration districts (EDs) and census county divisions (CCDs) were also incorporated. In 2000 there were 7,049 census tracts. Census data from each of these geographies had to be converted to their 1990 census tract equivalents. The conversion was done in a number of different ways depending upon the relationship of the area’s boundaries to the 1990 census tract boundaries. The result of the conversion process allows the user to easily compare census tract data between 1970 and 2000. The data, as assigned to 1990 census tracts, will accurately depict the demographic and economic changes for this period.

To help the user of this file better understand the relationship of 1990 census tracts and the 1970, 1980 and 2000 geographies, practical examples that describe the actual spatial relationships between census geographies are presented. Users should be aware that the data for 1970, 1980 or 2000 could not be considered OFFICIAL U.S. Census Bureau data or California Department of Finance data.

There are six possible types of geographical changes between 1970 and 2000 and illustrations of each are presented as follows.

1. A census tract that existed in 1970 and did not change:

1970 1980 1990 2000

4002 4002 4002 4002

* The actual census data appears unconverted for this tract in each year. In this situation, all derived measures (median age, median household income, median housing unit value and median housing rent) remain unaltered. A typical example of this type is tract 4002 in Alameda County whose boundaries have been unchanged since 1970.

2. A census tract that existed in 1970, was subdivided in 1980, and retained the same boundaries after that:

1970 1980 1990 2000

3007 3007.01 3007.01 3007.01

3007 3007.02 3007.02 3007.02

* The actual census data appears for these tracts in 1980, 1990 and 2000. The 1970 census data were assigned to the two 1990 tracts based upon the population split of the two tracts in 1990. That is, the boundaries of the 1990 tract 3007.01 would have contained XX percent of 1970 tract 3007 population and the boundaries of the 1990 tract 3007.02 would have contained YY percent of the 1970 tract 3007 population, and so the 1970 population were assigned accordingly. The 1970 medians were assigned to both of those tracts without change. A typical example is 1970 tract 3007 in Los Angeles County later split into 3007.01 and 3007.02 in 1980, and remained unchanged after that.

3. A census tract that existed in 1970, remained unchanged in 1980, was subdivided in 1990 and stayed the same in 2000:

1970 1980 1990 2000

4045 4045 4045.01 4045.01

4045 4045 4045.02 4045.02

* The actual census data appears for these tracts in 1990 and 2000. In logic similar to the preceding example, the 1970 and 1980 data were assigned to the two 1990 tracts based on the population split of the two tracts in 1990. The 1970 and 1980 medians were assigned to both tracts without change. An example is Alameda County census tract 4045 in 1970 and 1980, which split into tracts 4045.01 and 4045.02 in 1990.

4. A census tract that remained the same up to 1990 and was subdivided in 2000:

1970 1980 1990 2000

4416 4416 4416 4416.01

4416 4416 4416 4416.02

* The actual census data appears for this tract in 1970, 1980 and 1990. The 2000 data were aggregated and assigned to the 1990 tract boundaries. In contrast to the examples above, the 2000 medians were recalculated because merging the data created a new distribution upon which the medians were based. An example is Alameda County 1970-1990 census tract 4416 that split into tracts 4416.01 and 4416.02 in 2000.

5. A census tract that existed in 1970 was subdivided in 1980, remained the same in 1990, and subdivided further in 2000:

1970 1980 1990 2000

4419 4419.01 4419.01 4419.01

4419 4419.02 4419.02 4419.21

4419 4419.02 4419.02 4419.22

4419 4419.02 4419.02 4419.23

* The actual census data appears for these tracts in 1980 and 1990. The 1970 census data were assigned to the two 1990 census tracts based on the proportionate population share of the two 1990 census tracts. The 1970 and 1980 medians were assigned to the 1990 tracts without change. The 2000 data - including the median - for tract 4419.01 remain unchanged. The 2000 data for tracts 4419.21, 4419.22, and 4419.23 were aggregated and assigned to the 1990 tract 4419.02 and medians were recalculated for the new distributions. An example on this type of change is Alameda County tract 4419 in 1970 that split into tracts 4419.01 and 4419.02 in 1980 and 1990, and again into tracts 4419.01, 4419.21, 4419.22 and 4419.23 in 2000.

6. A census tract that existed in 1970 and 1980 was split in 1990, and merged in 2000:

1970 1980 1990 2000

4019 4019 4019 4019

4019 4019 4019.99 4019

* In this situation the actual census data appears in 1990. The 1970, 1980 and 2000 census data were assigned to the two 1990 tracts based on the relative population share of the tracts. The derived measures remained unchanged. Tracts 4019 and 4019.99 of Alameda County in 1990 typify this change, merging into tract 4019 in 2000.

In addition to these examples, sometimes actual adjustments (other than subdivision) were made to a census tract boundary in 1980 and 1990. In these situations the boundary adjustments have been ignored. The assumption is that these changes are insignificant in respect to thematic mapping purposes and do not distract from interpreting change between 1970 and 2000 in a particular geographic area. Users must be cautioned that the data represented by the tract boundaries in this file accurately describe the 1990 census tract areas BUT may not be completely accurate in describing the 1970, 1980 or 2000 census tract areas.

California was entirely tracted in 1990. Prior 1990, enumeration districts (EDs) and census county divisions (CCDs) were also used for data collection and tabulation. In areas where census tracts did not exist, EDs or CCDs were matched to 1990 tracts according to the following steps:

Step one. Determine all CCDs that match directly with 1990 tracts. For the remaining areas go to step two.

Step two. Determine EDs (one or more) that match directly with 1990 tracts. For the remaining areas go to step three.

Step three. Determine EDs (one or more) that closely match with 1990 tracts. For the remaining areas go to step four.

Step four. Using CCDs as a geographical control, match 1970/1980 enumeration districts to 1990 census tracts based upon median family income and the percent non-white population.

Conversions of census 2000 data to 1990 tract were performed using the tract-to-tract relationship file provided by the Census Bureau. Further information is available at http://www.census.gov/geo/www/relate/rel\_tract.html

The dollar values presented in the file represent only geographic conversion and not value conversion. That is, dollar values are presented in nominal terms and not adjusted for inflation. In order to make comparisons across time, values should be converted to constant dollars using the California consumer price index or some similar measure.

**Appendix: The 1970-1980-1990- 2000 Census Tract Package**

The data file includes the following variables for the years 1970, 1980, 1990, and 2000:

Total, White non-Hispanic, Black non-Hispanic, Other non-Hispanic, and Hispanic population

Age categories 0-4, 5-17, 18-64, 65+, and Median Age

Marital Status categories Single, Married, and Other

Educational Attainment categories Less than High School, High School, and College

Occupation categories White Collar and Blue Collar

Residence in 1965 (1970), 1975 (1980), 1985 (1990), 1995 (2000)

Housing Unit categories Total, Single Family, and Other

Median Household Income for 1980, 1990 and 2000

Median Family Income for 1970

Median Housing Unit Value

Median Housing Unit Rent

Land Area

Geographical Centroid