

Methods for Estimating Intercensal (2010 to 2019) Residential Population by Census Tract

Introduction to Intercensal Estimates, 2010 to 2019

Intercensal estimates of residential population by age (0, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 74-79, 80-84, 85-89, 90-94, 95-99, and 100 and over), bridged race (White Non-Hispanic, Black Non-Hispanic, American Indian and Alaska Native Non-Hispanic, Asian and Pacific Islander Non-Hispanic, and Hispanic of any race) and gender were made for all U.S. census tracts (based on 2010 geographies) for the years 2010 (July 1) to 2019.

Intercensal Estimates, 2010 to 2019, Data Sources and Methods

The residential population estimates for all U.S. census tracts for the years 2010 to 2019 were made by assuming that the proportion of population by age, race, and gender for each tract in a particular county would change linearly from the 2010 and 2019 Census proportions. If a tract had 10% of the county male White Non-Hispanic population age 20-24 in 2010 and 12% in 2020 then for each year 2011 to 2019 the proportion would be a linear interpolation of the 2010 and 2020 proportions. The county total residential population by age, race and gender control estimates for the years 2010 to 2019 were from the NCI SEER Population Estimates database, Vintage 2024, adjusted data.

Census tract data for April 1 2010 are from Census 2010 PCT12H-O tables. The 2010 PCT12 data were summed to the 22 age cohorts and from the single year of age data. Asian Alone Non-Hispanic (PCT12L) and Native Hawaiian and Other Pacific Islander Alone Non-Hispanic (PCT12M) were summed to create Asian and Pacific Islander Alone Non-Hispanic. Other Non-Hispanic (PCT12N) and Two or More Races Non-Hispanic (PCT12O) population by age and gender were distributed proportionally to the four race groups based on the county proportion of Some Other Race Non-Hispanic and Two or More Races Non-Hispanic by race, gender and age for 2010.

The census tract definitions for all years, 2010 to 2019 are the 2010 Census census tract definitions. The 73,057 census tracts in the United States based on 2010 census tract definitions. The 2020 Census data (in 2010 census tracts) were estimated from Census 2020 PCT12H-O tables using the same method to estimate 2010 census tract data. The 84,414 2020 census tracts for 2020 data were adjusted to 73,057 2010 census tracts using a 2020 to 2010 scalar census tract relationship factor from IPUMS.

The proportions of each race, gender, age cohort for 2010 and 2019 were made by dividing each census tract by the sum of all tracts in a particular county. These proportions were interpolated for 2011 to 2019 (as described above) and multiplied by county July 1 population for 2010 to 2020 to obtain census tract population by age, gender, and race for all years, 2010 to 2020.