



**Estimates of the Total Populations of Counties in Texas  
By Age, Sex, and Race/Ethnicity for July 1, 2021**

Produced by:

The Population Estimates and Projections Program  
at  
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The University of Texas at San Antonio

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## Introduction

The estimates of the total population of counties in Texas by age, sex, and race/ethnicity for July 1, 2021 are completed by personnel from the Texas Demographic Center offices in the Institute for Demographic and Socioeconomic Research at The University of Texas at San Antonio. The total population estimates which are used as the base for these estimates were reviewed in provisional form by a network of reviewers from across the State and, where appropriate, changes were made in the provisional estimates prior to the release of the final estimates of total population shown here.

The methodology used to prepare the estimates of the age, sex, and racial/ethnic composition of the estimated population in each county in Texas is described in this write-up. Due to space limitations, only a summary of the methodology is presented. Those wishing for more detailed information on the methodology should contact program personnel in the Texas Demographic Center at The University of Texas at San Antonio.

## Methodology

To derive estimates of age, sex, and race/ethnicity detail from the estimates of the total population for counties for July 1, 2021, a procedure was used to first project, from the 2020 base population, the proportion of the population expected to be in each age, sex, and racial/ethnic group in each county as of July 1, 2021. These proportions were then multiplied by the estimate of total population for the county for racial/ethnic groups controlled to the total for the county estimate of total population for July 1, 2021.

### *Selection of the Baseline Cohorts*

Previous estimates produced by the Texas Demographic Center have always used the latest decennial census data for creating the baseline for the single-year-of-age cohorts of males and females by major race/ethnic groups; however, due to the COVID-19 Pandemic and the new privacy protection measures implemented by the U.S. Census Bureau, the release of the 2020 Census data product has been significantly delayed. Following the recent release of the Detailed Demographic and Housing Characteristic files, researchers have also raised concerns about the fitness for use of the data.

While producing the current estimates, the TDC research team continued to work with other researchers in the field to identify and address issues in the 2020 Census data. The best data available that met our requirements for demographic details were the projected 2020 population from our Vintage 2018 population projections. We developed a baseline population cohort by applying the projected 2020 population age-race-sex distribution to the 2020 Census state and county total population counts for Texas.

The baseline population consists of five groups: Non-Hispanic White, Non-Hispanic Black, Hispanic (of all races), Non-Hispanic Asian, and Non-Hispanic Other population group. These groups are based on the census categories: Non-Hispanic White alone, Non-Hispanic Black or African American alone, Hispanics of all races, Non-Hispanic Asian alone, and persons in all other non-Hispanic racial groups, referred to as the Other population group. The Other population group includes all persons listing two or more races. The use of these classifications allowed the creation of five mutually exclusive groups, namely, Non-Hispanic White, Non-Hispanic Black or African American, Hispanic, Non-Hispanic Asian, and Non-Hispanic Other.

### *The development of the 2021 estimates*

To project the proportion of individuals in each age, sex, and racial/ethnic group, we projected the 2020 population of each county by age, sex, and race/ethnicity forward to July 1, 2021. County-level birth and death data were obtained from the Texas Department of State Health Services. We utilized birth data from April 2020 to July 2021 to add the newborn cohort each year, while death data were used to calculate the survived population.

Estimating migration was the most challenging aspect of the process. We assumed that the patterns in age, sex, and race/ethnicity net migration rates between 2010 and 2020 would characterize those that occurred between 2020 and 2021. Migration rates were calculated using a standard residual migration formula. We added or subtracted births and deaths by age, sex, and race/ethnicity cohort from the 2010 population to estimate the expected 2020 population. We then compared this expected population to the actual 2020 population to determine the net migration for the period 2010-2020.

We projected the expected rates of change for each age, sex, and race/ethnicity cohort for July 1, 2021, and used these proportions to estimate the total residential population for counties in Texas for the same date. We added the group quarter populations, which were removed before the computation of the residential population estimates, back into their county cohorts. We then controlled the county population estimates by age, sex, and race/ethnicity to the total estimated population for each county. The final result was an estimated population by age, sex, and race/ethnicity for each county in Texas, which summed up to the total population estimate for the state as of July 1, 2021.



## Comparisons to the U.S. Census Bureau Estimates

The estimates presented here may differ from those available from other sources due to differences in both assumptions and estimation techniques. Users should thus be careful to compare both the assumptions and methodologies underlying different estimates when comparing estimates from different sources.

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If you have any questions concerning these estimates, please contact:



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