# Texas Demographic Center

# Estimates of the Total Populations of Counties and Places in Texas for July 1, 2022 and January 1, 2023

Produced by:

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

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# Introduction

The estimates of the total population for counties and places in Texas for July 1, 2022 and January 1, 2023 are completed by personnel from the Texas Demographic Center at The University of Texas at San Antonio. In this brief report, the methodology used to prepare the estimates is described. Because of space limitations, only a summary of the methodology is presented. Those wishing to obtain a more complete description of the estimation procedures and of the historical and sensitivity analyses used to select the methods employed in these estimates should contact program personnel in the Texas Demographic Center at The University of Texas at San Antonio.

# Methodology for County Estimates

Population estimates for counties are completed using three methods: ratio-correlation, component-method II, and housing-unit method. These methods and the types of data used for each are discussed below.

Ratio-correlation procedures utilize multiple regression techniques with the ratio of variable values for adjacent time periods rather than simply using the variable values themselves as independent and dependent variables. After an extensive evaluation of the relative accuracy of alternative procedures (including difference-rate, ratio-correlation, and rate-correlation methods) and an analysis of alternative variables, a simple ratio-correlation model was employed to complete the final estimates. This model used the variables of births, deaths, elementary school enrollment, vehicle registration, and voter registration.

The component-method II procedure employed utilizes data on births, deaths, and elementary school enrollment to estimate population. In this method, migration of the school-age population is assumed to be indicative of migration in the total population (with adjustments being made for the historical differences between the school-age migration rate and the total population's rate of migration). Data on public school enrollment from the Texas Education Agency and data from the Texas Demographic Center's survey of private schools in Texas are used to estimate change in the school-age population. Data on institutional populations were obtained from applicable institutions, while data on other special populations, such as the elderly population, utilize Medicare enrollment acquired from the Centers for Medicare and Medicaid Services in the U.S. Department of Health and Human Services.

The standard housing-unit method is used, which incorporates the change in the number of housing units in the housing stock of an area from the base date (in this case, the 2020 Census), to the estimate date (in this case, July 1, 2022). New housing additions and demolitions are taken from the U.S. Census Bureau survey of building permits and demolitions and the Texas Demographic Center's survey of counties and cities issuing permits for residential buildings and demolitions. Both the U.S. Census Bureau's building permit survey and the Texas Demographic Center's survey can only collect data from permit issuing county and city jurisdictions (methods for dealing with non-permit issuing places are discussed later). Assumptions about vacancy rates and average household size are then

used in conjunction with data on the number of housing units in an estimate area. This includes housing units in the area at the base date and the net number of units added to, or subtracted from, the base housing stock for the time period between the base date and the estimate date. Separate estimates are completed by type of structure with the types used being single-family structures, 2 to 4 unit structures, structures with 5 or more units, and manufactured U.S. Department of Housing and Urban Development (HUD) inspected/mobile homes.

For purposes of the 2022 estimates, vacancy rates and average household sizes for each of the housing structure types from the U.S. Census Bureau's American Community Survey (ACS) 5-Year Summary File (2017-2021) were used. For 2022, the estimates of the number of new manufactured HUD inspected/mobile homes added to an area's housing stock were obtained from the Texas Demographic Center's survey of building permits and demolitions. The sum of manufactured HUD inspected/mobile homes from the survey was subtracted from the U.S. Census Bureau's estimate of the total number of manufactured HUD inspected/mobile homes shipped to Texas. The difference was allocated to jurisdictions on the basis of the change in units in jurisdictions for other housing types from 2010 through 2020, to estimate the distribution for July 1, 2022.

Prior to the release of these estimates, county estimates are evaluated for consistency and reasonableness by the Texas Demographic Center. While generally the housing-unit population estimate is used as the population estimate for July 1, 2022, when estimates appeared to be inconsistent with other indicators of population and population change, an estimate produced using another method (i.e., component-method II, ratio-correlation method, or an average of methods) could be selected as the estimate for July 1, 2022. The total of all county estimates is then controlled to the July 1, 2022 estimate for the State obtained from the U.S. Census Bureau.

The January 1, 2023 estimates are obtained by adding births to and subtracting deaths from July 1, 2022 through December 31, 2022 to the July 1, 2022 estimates and assuming that July 1, 2021 to July 1, 2022 rates of migration continue from July 1, 2022 to January 1, 2023. The State and county estimates are obtained using the same method with the sum of the county estimates controlled to the State estimate.

## Methodology for Place Estimates

For places, population estimates were made using the housing unit method.

The housing unit estimates for places were completed using the same general procedures delineated above (for counties) except that it was necessary to use procedures to allocate new housing units and demolitions to places that were not reporting jurisdictions. This was done by taking the difference between the county totals for new building permits and demolitions and the sum of values for places for which data were reported for a county and proportionally allocating the difference to the non-reporting places. For the 2022 estimates, the allocation was done on the basis of the non-reporting places' proportions of county housing stocks as reported in the 2020 Census.

The January 1, 2023 place estimates are prepared using the same extrapolative procedures as described above for the State and county. Place estimates for each county for January 1, 2023 are controlled to the county estimate for January 1, 2023.

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

The estimates presented here differ from those from other sources, such as those periodically produced by the U.S. Census Bureau, for several reasons. These estimates have been produced using techniques that are different than those used by the Census Bureau. The Census Bureau uses the individual-level administrative records data method to estimate county populations, which are not available to analysts outside the Census Bureau. We utilize public data and survey data we collect and the three methods we laid out in the previous sections. In addition, the estimates reported in the following pages utilize more recent data than those used by the U.S. Census Bureau. The Census Bureau's county estimates utilize 2020 birth and death data, whereas 2022 values were employed in the Texas Demographic Center estimates reported here. Finally, the Census Bureau estimates include legal boundary updates reported before January 1, 2022 but do not include more recent information for places, whereas information on annexation and boundary changes through the 2022 calendar year were included in the estimates completed by the Texas program. Because of these differences, the population estimates presented here and those from the U.S. Census Bureau are not directly comparable.

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

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Texas Demographic Center Population Estimates Program July 1, 2022, and January 1, 2023 Estimates of the Total
Population of Councils of Governments and 2020-2022 and 2020-2023 Population Change for All Councils of Governments in Texas

| Council of Governments | 2020 Census Count | July 1, 2022 Population Estimate | January 1, 2023 Population Estimate | Numerical Change 2020-22 | Numerical Change 2020-23 | Percent Change 2020-22 | Percent Change 2020-23 |
|---|---|---|---|---|---|---|---|
| Alamo Area | 2,671,161 | 2,759,884 | 2,777,930 | 88,723 | 106,769 | 3.3 | 4.0 |
| Ark-Tex | 278,618 | 279,149 | 280,054 | 531 | 1,436 | 0.2 | 0.5 |
| Brazos Valley | 362,495 | 373,121 | 376,598 | 10,626 | 14,103 | 2.9 | 3.9 |
| Capital Area | 2,407,031 | 2,551,493 | 2,580,380 | 144,462 | 173,349 | 6.0 | 7.2 |
| Central Texas | 518,529 | 535,895 | 541,116 | 17,366 | 22,587 | 3.3 | 4.4 |
| Coastal Bend | 582,074 | 579,453 | 579,319 | -2,621 | -2,755 | -0.5 | -0.5 |
| Concho Valley | 159,613 | 158,442 | 157,983 | -1,171 | -1,630 | -0.7 | -1.0 |
| Deep East Texas | 338,090 | 342,247 | 343,832 | 4,157 | 5,742 | 1.2 | 1.7 |
| East Texas | 871,375 | 893,668 | 900,659 | 22,293 | 29,284 | 2.6 | 3.4 |
| Golden Crescent | 193,239 | 192,916 | 192,895 | -323 | -344 | -0.2 | -0.2 |
| Heart of Texas | 373,237 | 379,211 | 382,403 | 5,974 | 9,166 | 1.6 | 2.5 |
| Houston-Galveston | 7,297,022 | 7,530,526 | 7,593,764 | 233,504 | 296,742 | 3.2 | 4.1 |
| Lower Rio Grande Valley | 1,311,962 | 1,332,107 | 1,338,383 | 20,145 | 26,421 | 1.5 | 2.0 |
| Middle Rio Grande | 162,295 | 161,879 | 162,166 | -416 | -129 | -0.3 | -0.1 |
| Nortex | 216,808 | 218,190 | 218,403 | 1,382 | 1,595 | 0.6 | 0.7 |
| North Central Texas | 7,831,768 | 8,161,534 | 8,264,317 | 329,766 | 432,549 | 4.2 | 5.5 |
| Panhandle | 434,358 | 433,996 | 435,103 | -362 | 745 | -0.1 | 0.2 |
| Permian Basin | 487,845 | 491,557 | 496,296 | 3,712 | 8,451 | 0.8 | 1.7 |
| Rio Grande | 888,720 | 893,317 | 892,617 | 4,597 | 3,897 | 0.5 | 0.4 |
| South East Texas | 430,545 | 427,968 | 428,147 | -2,577 | -2,398 | -0.6 | -0.6 |
| South Plains | 431,764 | 438,253 | 439,657 | 6,489 | 7,893 | 1.5 | 1.8 |
| South Texas | 351,761 | 355,327 | 356,733 | 3,566 | 4,972 | 1.0 | 1.4 |
| Texoma | 212,873 | 222,876 | 225,563 | 10,003 | 12,690 | 4.7 | 6.0 |
| West Central Texas | 332,322 | 335,870 | 337,277 | 3,548 | 4,955 | 1.1 | 1.5 |
| | | | | | | | |
| State of Texas | 29,145,505 | 30,048,879 | 30,301,595 | 903,374 | 1,156,090 | 3.1 | 4.0 |

Source: Texas Demographic Center, Population Estimates and Projections Program