

Estimates of the Total Populations of Counties and Places in Texas for July 1, 2021 and January 1, 2022

Produced by:

Population Estimates and Projections Program at 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, 2021 and January 1, 2022 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, componentmethod 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, 2021). 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 2021 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 (2016-2020) were used. For 2021, 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, 2021.

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, 2021, 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, 2021. The total of all county estimates is then controlled to the July 1, 2021 estimate for the State obtained from the U.S. Census Bureau.

The January 1, 2022 estimates are obtained by adding births to and subtracting deaths from July 1, 2021 through December 31, 2021 to the July 1, 2021 estimates and assuming that July 1, 2020 to July 1, 2021 rates of migration continue from July 1, 2021 to January 1, 2022. 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 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 2021 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, 2022 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, 2022 are controlled to the county estimate for January 1, 2022.

Comparisons to 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 2021 values were employed in the Texas Demographic Center estimates reported here. Finally, the Census Bureau estimates include legal boundary updates reported before January 1, 2021 but do not include more recent information for places, whereas information on annexation and boundary changes through the 2021 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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Metropolitan Statistical	2020 Census	July 1, 2021 Population	January 1, 2022 Population	Numerical Change	Numerical Change	Percent Change	Percent Change
Area*	Count	Estimate	Estimate	2020-21	2020-22	2020-21	2020-22
Abilene	176,579	176,898	177,129	319	550	0.2	0.3
Amarillo	268,691	269,008	269,307	317	616	0.1	0.2
Austin-Round Rock-Georgetown	2,283,371	2,365,231	2,407,162	81,860	123,791	3.6	5.4
Beaumont-Port Arthur	397,565	394,492	393,062	-3,073	-4,503	-0.8	-1.1
Brownsville-Harlingen	421,017	421,175	421,254	158	237	0.0	0.1
College Station-Bryan	268,248	271,463	272,931	3,215	4,683	1.2	1.7
Corpus Christi	421,933	420,606	419,754	-1,327	-2,179	-0.3	-0.5
Dallas-Fort Worth-Arlington	7,637,387	7,757,183	7,815,569	119,796	178,182	1.6	2.3
El Paso	868,859	874,670	877,567	5,811	8,708	0.7	1.0
Houston-The Woodlands-Sugar Land	7,122,240	7,228,985	7,281,702	106,745	159,462	1.5	2.2
Killeen-Temple	475,367	482,410	485,750	7,043	10,383	1.5	2.2
Laredo	267,114	268,609	269,377	1,495	2,263	0.6	0.8
Longview	286,184	286,062	285,379	-122	-805	0.0	-0.3
Lubbock	321,368	326,486	329,014	5,118	7,646	1.6	2.4
McAllen-Edinburg-Mission	870,781	879,597	884,299	8,816	13,518	1.0	1.6
Midland	175,220	174,118	173,523	-1,102	-1,697	-0.6	-1.0
Odessa	165,171	161,096	159,230	-4,075	-5,941	-2.5	-3.6
San Angelo	122,888	123,286	123,421	398	533	0.3	0.4
San Antonio-New Braunfels	2,558,143	2,608,529	2,633,204	50,386	75,061	2.0	2.9
Sherman-Denison	135,543	139,187	141,115	3,644	5,572	2.7	4.1
Texarkana	92,893	91,575	91,083	-1,318	-1,810	-1.4	-1.9
Tyler	233,479	236,112	237,813	2,633	4,334	1.1	1.9
Victoria	98,331	98,138	98,079	-193	-252	-0.2	-0.3
Waco	277,547	277,837	277,930	290	383	0.1	0.1
Wichita Falls	148,128	148,831	149,093	703	965	0.5	0.7
State of Texas	29,145,505	29,543,632	29,741,214	398,127	595,709	1.4	2.0

Texas Demographic Center Population Estimates Program July 1, 2021, and January 1, 2022 Estimates of the Total Population of Metropolitan Statistical Areas and 2020-2021 and 2020-2022 Population Change for All Metropolitan Statistical Areas in Texas

Source: Texas Demographic Center, Population Estimates and Projections Program

* Metropolitan Statistical Areas (MSAs) utilize the 2020 definition specified by the Office of Management and Budget.