

**Estimates of the Total Population of Counties in Texas
by Age, Sex and Race/Ethnicity for July 1, 2008**

produced by:

Dr. Nazrul Hoque
and
Population Estimates and Projections Program
Texas State Data Center
Office of the State Demographer
Institute for Demographic and Socioeconomic Research
The University of Texas at San Antonio

February 2010

The attached are estimates of the total population of counties in Texas by age, sex and race/ethnicity for July 1, 2008 completed by personnel from the Texas State Data 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 writeup. Due to space limitations only a summary of the methodology is presented. Those wishing more detailed information on the methodology should contact program personnel in the Texas State Data Center at The University of Texas at San Antonio.

Methodology

To derive estimates of age, sex and race/ethnic detail from the estimates of the total population for counties for July 1, 2008, a procedure was used to first project, from the 2000 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, 2008. 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, 2008.

The projection of the proportion of persons who were in each age, sex and racial/ethnic group was obtained by projecting the 2000 population of each county by age, sex and race/ethnicity forward to July 1, 2008. The baseline populations for both the projections and estimates consist of four groups. These are an Anglo, Black, Hispanic, and an Other population group. In general these consist of Non-Hispanic Whites who are referred to as Anglos, Non-Hispanic Blacks or African Americans, Hispanics of all races, and persons in all other non-Hispanic racial groups referred to as the Other population group. However, because the 2000 Census allowed respondents to indicate more than one racial identity decisions had to be made about the classification of persons in 126 race categories (63 racial combinations each for Hispanic and Non-Hispanic ethnic groups). This required an extensive evaluation of several classification alternatives which are described in general terms below.

In general, the results of the 2000 Census showed a relatively small percent of persons in Texas (about 2.5 percent) indicated they were members of 2 or more racial heritages suggesting that most persons (97.5 percent) identified with a single racial group. Similarly, an examination of Hispanic populations indicated that they showed racial identification patterns similar to those in 1990 (i.e. nearly all identified themselves as either White or in the Other racial group).

Given these patterns, Hispanics from all racial groups were placed in the single group of Hispanics of all races. Thus persons in 63 of the 126 categories were classified as Hispanic. Within the 63 non-Hispanic categories, more than 97.5 percent identified themselves as in one of the single racial/ethnic group of: Non-Hispanic White; Non-Hispanic Black; Non-Hispanic

Asian; Non-Hispanic American Indian or Alaskan Native; Non-Hispanic Native Hawaiian or other Pacific Islander, or Non-Hispanic Other. Persons in these groups were classified as in previous population estimates and projections with Non-Hispanic Whites being placed in the Anglo category, Non-Hispanic Blacks in the Black group, and all other persons placed in the Other population group. This allowed for classification of 6 of the 63 Non-Hispanic groups. Forty-two non-Hispanic categories consisted of persons indicating identification with 3 or more racial groups. Given that persons in these 42 groups accounted for less than one-tenth of one percent of the Texas population and that there is no agreed upon procedure for allocating these persons to single racial groups, they were allocated to the Other population category. The above procedures provided for the classification of persons in the 63 racial groupings in the Hispanic category and for persons in 48 of the 63 non-Hispanic racial groupings.

The remaining 15 non-Hispanic categories involved two-race combinations. Persons in the six two-group categories of the combination of base groups allocated to the Other population category (i.e. that is persons in the American Indian or Alaskan Native and Asian; American Indian or Alaskan Native and Native Hawaiian or Pacific Islander; American Indian or Alaskan Native and Other; Asian and Native Hawaiian or Pacific Islander; Asian and Other; and Native Hawaiian or Pacific Islander and Other groups) were allocated to the Other population category. Based on examinations of several alternatives and an assessment of other literature on racial/ethnic identification, all two race combinations involving Blacks (including persons who identified themselves as Black and White) were placed in the Black category and the remaining four two-race combinations involving Whites were placed in the White category.

The use of these classifications allowed for the creation of 4 mutually exclusive groups (i.e., Anglo, Black, Hispanic, and Other) that are quite comparable to those used in 1990. However it must be recognized that complete comparability between pre-2000 Census and 2000 Census data is not possible.

The potential projection of two other subgroups was examined but a decision made not to include separate projections for these groups in current projections and estimates. These were an Asian and a multi-race group. They were not included because of the small number of persons in these groups in many counties and, in the case of multiple race groups, a lack of historical data for rate computations. The creation of projections and estimates for these groups for the State and selected counties will be reconsidered in the future.

It was also necessary to adjust the base population for "special populations". Special populations are populations who reside in an area, usually in institutional settings, who do not generally experience the same demographic processes over time as the indigenous population in the area. Rather, they tend to come into and leave an area at fixed intervals. Examples of such populations are college populations, prison populations, and other persons in institutional settings. Because their movement into and out of an area is a function of events (e.g., enrollment, graduation, incarceration) which are not determined by local socioeconomic conditions, special populations must be removed from the base populations of projection areas before birth, death and migration rates are applied to the base population. If special populations of substantial size are not removed, they will create distortions in age and other characteristics of

the population that will remain in the population through the cohort aging process and create inaccuracies in the projections. Special populations are, therefore, generally removed from the cohort base, the base cohorts projected forward and a separate projection of the special population for the projection date is added to the projected base cohorts to obtain the projection of the total population.

The July 1, 2008 projections were obtained by using standard cohort component techniques with single years of age, sex and racial/ethnic cohorts and assumptions related to 1999-2001 rates of mortality, fertility and 1990-2000 net migration for each cohort. Age, sex and race/ethnicity specific fertility rates were computed using births by age, sex and race/ethnicity and place of residence of the mother. The numerators for such rates are the average number of births for 1999 through 2001 for mothers in each age, sex and race/ethnicity group and the denominators are the population counts by age, sex and race/ethnicity. Birth data to compute the rates were obtained from the Texas Department of State Health Services and data on women by age (10-49 years) and race/ethnicity were obtained from the 2000 Census of Population.

To obtain baseline mortality measures, survival rates by single years of age, for both sexes and for each of the racial/ethnic groups were needed. Survival rates for Anglos, Blacks, Hispanics, and the Other racial/ethnic category were computed using death data from the Texas Department of State Health Services.

Migration is the most difficult component process to project and for which to obtain baseline rates. For the Texas State Population Estimates and Projections Program's projections, rates were derived using a standard residual migration formula. Thus, births and deaths by age, sex and race/ethnicity cohort were added or subtracted (as appropriate) to the 1990 population to produce an expected 2000 population. This expected population was compared to the actual Census count to estimate net migration for 1990-2000. For the purposes of these 2008 age, sex, race/ethnicity estimates for counties in Texas, the 1.0 scenario, otherwise called the 1990-2000 scenario was utilized. This projection scenario assumes that the trends in the age, sex and race/ethnicity net migration rates of the 1990s will characterize those occurring in the future of Texas.

Utilizing the expected rates of change projected for each age, sex, and race/ethnicity cohort for July 1, 2008, these proportions were then applied to the total residential population for counties estimated for the same date. Special populations, which were removed prior to the computation of residential population estimates were then added back into their county cohorts. County population estimates by age, sex, and race/ethnicity are then controlled to the total population estimated for each county. The result is an estimated population by age, sex and race/ethnicity for each county in Texas which sums to the total population estimate for the state for July 1, 2008.

Comparisons to Other Estimates

The estimates presented here may differ from those available from other sources due to difference 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.

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

Dr. Nazrul Hoque
Texas State Data Center
Institute for Demographic and Socioeconomic Research
The University of Texas at San Antonio
501 West Durango Blvd.
San Antonio, Texas 78207-4415
(210) 458-6543