Texas Population Change Since 2000 for Redistricting

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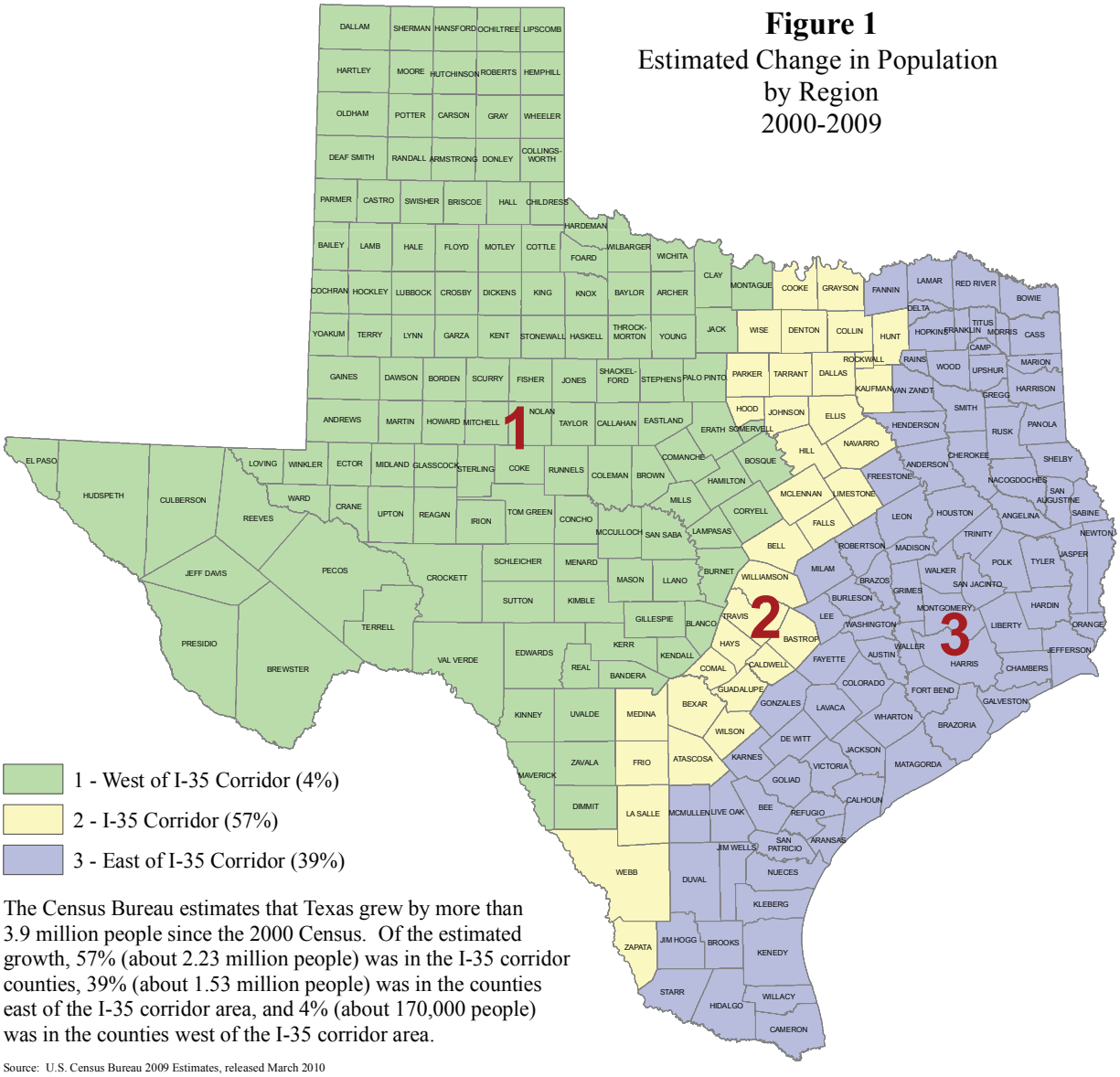
Introduction

The State of Texas has experienced rapid population growth since the 2000 Census, when the Texas population count was almost 21 million. The U.S. Census Bureau (CB) estimates that the 2009 Texas population was almost 24.8 million, an increase of 18.8 percent. In comparison, the population of the United States is estimated to have grown by 9.1 percent over the same period. In spite of the state's total increase in population, the population growth, as shown in Figure 1, has not been uniform across the state, with current estimates suggesting that 57 percent of that growth occurred in the I-35 corridor, 39 percent occurred in the eastern region of the state, and 4 percent occurred in the western region of the state.[1]

Figure 1
Estimated Change in Population
by Region
2000-2009



The Census Bureau estimates that Texas grew by more than 3.9 million people since the 2000 Census. Of the estimated growth, 57% (about 2.23 million people) was in the I-35 corridor counties, 39% (about 1.53 million people) was in the counties east of the I-35 corridor area, and 4% (about 170,000 people) was in the counties west of the I-35 corridor area.

Source: U.S. Census Bureau 2009 Estimates, released March 2010

[1] U.S. Census Bureau, 2009 County Population Estimates, released March 2010 and Census 2000.

These two trends—significant population increase and uneven distribution of that increase throughout the state—make it likely that in the 2011 redistricting process current districts will be redrawn throughout the state. Even districts that have grown at the same rate as the state's population likely will change because changes in neighboring districts will create a "ripple effect" throughout a region. Data from the 2010 Census are not expected to be available until after the beginning of the 82nd Regular Session, when redistricting plans must be redrawn, but a general understanding of population trends over the past decade and their implications for redistricting can be obtained from population estimates or projections.

This analysis provides some indication of the likely size and distribution of the population at the time of the Decennial Census in 2010 and discusses possible implications for the redistricting process. The purpose of this report is not to predict actual population counts, but to provide a general look at how the pattern of population change will differentially affect counties and regions of the state in the redistricting process. The report begins with a discussion of the effects of population change on the number of congressional districts and on the size of legislative and State Board of Education (SBOE) districts. Next, using county-level data, it examines the distribution of the population change across the state and its likely effect on the distribution of districts, including the effect on large counties that contain one or more house districts. Finally, estimated racial and ethnic population change throughout the state is discussed.

With the exception of congressional districts, for which estimates are compiled by the CB, the report examines population change at the county level rather than by political district. The smallest area for which reliable population estimates are available to us is a county, and since numerous districts contain a part of a county, it is not possible to reliably make district-level estimates. However, the report provides maps that superimpose current district boundaries on the pattern of county population change to suggest the extent to which districts might need to be realigned to accommodate the population changes.

Data Sources

Currently, two sources of county-level data are available that could be used to analyze population change for the purpose of this report: estimates of the July 1, 2009, population produced by the CB and projections of the likely 2010 population based on data provided by the Texas State Data Center (SDC). The CB provides state-level projections for 2010 but does not provide county-level data. Since estimates and projections employ different assumptions and are used for different purposes, the numbers produced by an estimate will be somewhat different from the numbers resulting from a projection. One number is not more "real" or "accurate" than the other, but one set of assumptions can be more useful and appropriate for certain contexts and purposes.

For the purposes of this report, the discussion will be based on the CB's 2009 county population estimates. Because projections are produced less frequently than estimates, the 2009 estimates are likely to be a more reliable indication of the actual 2010 population count than 2010 projections made earlier in the decade. There is no set of numbers that would be sufficiently reliable to form the basis of a redistricting plan at this early date.

Two additional sources of data are used in this report: county-level race/ethnicity data as of July 1, 2008, released by the CB in May 2009; and estimates of the 2008 populations of each of the current congressional districts, published by the CB in its fall 2009 American Community Survey (ACS) data release. ACS data is not available for state legislative districts. To clarify when numbers other than March 2009 estimates are being used, the maps use a different color scheme.

Effect of Overall Population Change on the Number and Size of Districts

Congressional Districts

Based on the CB estimates, population growth in Texas since the 2000 Census compared to the growth nationwide could result in a gain of three or four additional congressional seats, increasing Texas' total number of seats from 32 to either 35 or 36. Two political consultants that produced apportionment calculations for the recent CB state and national estimates both calculated that if the apportionment of the U.S. House of Representatives seats was based on those estimates, Texas would gain three additional congressional districts. When these organizations projected these estimates forward nine months to census day, April 1, 2010, POLIDATA showed that Texas could gain an additional fourth seat, and Election Data Services, in five of its six trend models, also predicted that Texas could gain an additional fourth seat. POLIDATA said that "the apportionment formula is very sensitive to small shifts in persons" and that Texas could receive the fourth seat with about 40,000 persons to spare. Election Data Services said that a "review of the last 5 seats / next 5 seats calculations demonstrates the extreme closeness and volatility inherent in the 2010 population projections."[2]

In the CB's 2008 population estimates of each of the current congressional districts, as shown in Figure 2, 20 of the 32 districts are estimated to have population growth near or above the state's rate of growth. These are the areas that likely will incorporate the new congressional districts that may be apportioned to the state.

State Senate and House of Representatives and State Board of Education Districts

Because the number of senate, house, and SBOE districts is fixed by state law, the number of these districts will remain the same while the ideal population of each type of district will increase. The U.S. Supreme Court concluded in *White v. Regester,* 412 U.S. 755, that state legislative districts could deviate from the ideal district population within an overall range of as much as 10 percent. Generally, deviations within this range do not require a justification by the state. This ruling does not require that each district be within ±5 percent of the ideal size, but rather that the difference between the smallest and largest district be no greater than 10 percent. For example, a range between -4 percent and +6 percent could be allowed.

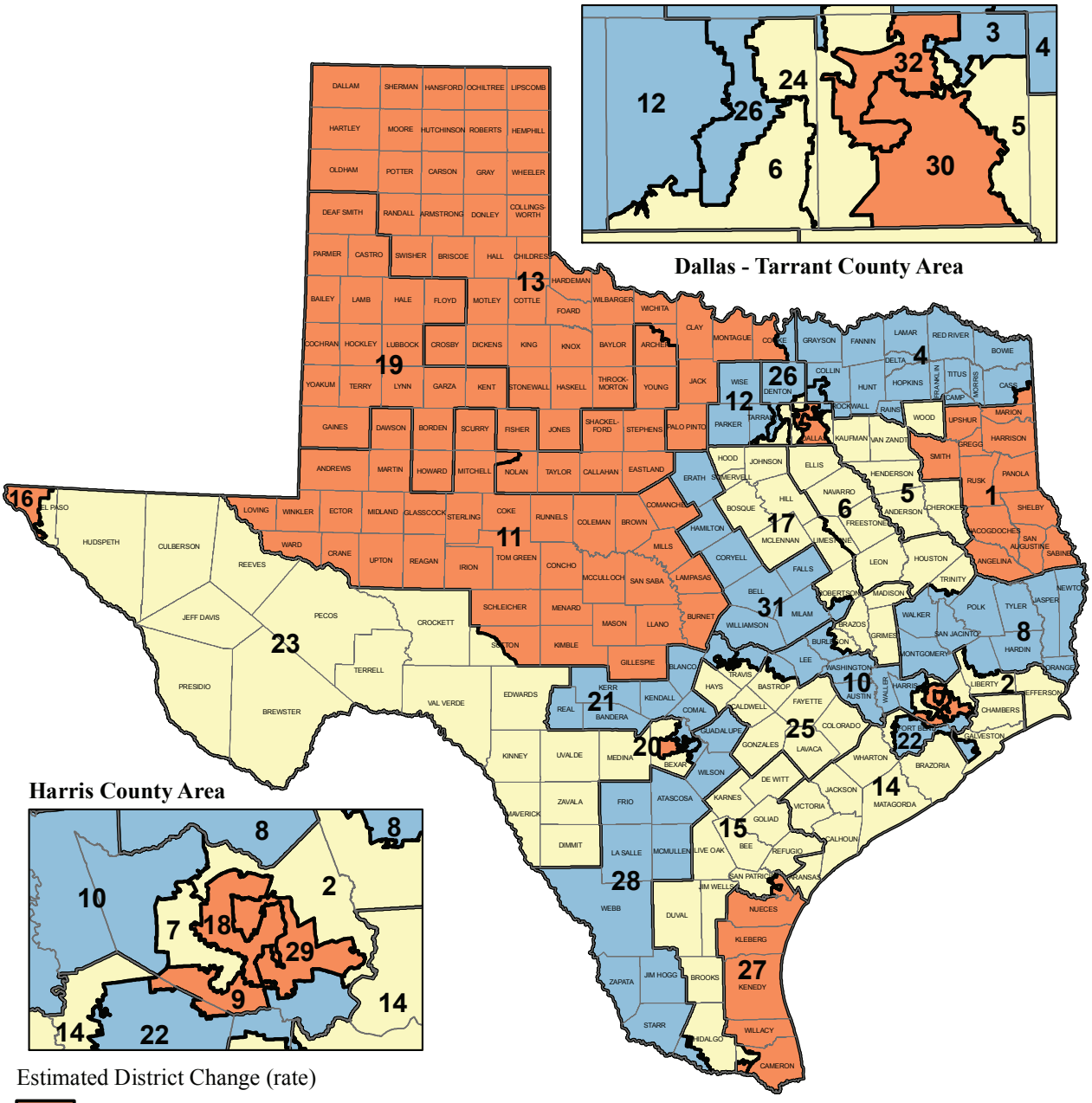
For purposes of this analysis, we will use ±5 percent to illustrate how population may need to be added to or removed from districts to achieve an allowable population size. A comparison of the 2001 ideal district sizes and maximum and minimum deviations with ideal district sizes and allowable deviations based on 2009 estimates is presented in Table 1.

---

[2] POLIDATA Political Data Analysis, Press Release, Mid-Recession Migration: Apportionment in 2010, Population Trends for the 2000s; the 2009 Estimates, December 23, 2009, Clark Bensen; Election Data Services, New Population Estimates Show Additional Changes for 2009 Congressional Apportionment, With Many States Sitting Close to the Edge for 2010, December 23, 2009, Kimball Brace.

Figure 2

Estimated 2000-2008 Population Change
by Texas Congressional District



The number of congressional districts in Texas is expected to increase from 32 to either 35 or 36. The Census Bureau estimates the state's population grew by 16.7 percent between the 2000 Census and July 1, 2008.

Source: PLAN 01440C; U.S. Census Bureau, 2008 American Community Survey, 1-Year Data, released September 2009

Table 1. Ideal Size and Range of Deviation of Senate, House, and SBOE Districts

		Current District Size (Actual 2000 Population = 20,851,820)			District Size (Estimated 2009 Population = 24,782,302)		
District type	Number	Minimum	Ideal	Maximum	Minimum	Ideal	Maximum
Senate	31	639,525 (-4.92)	672,639	704,875 (4.79)	759,458	799,429	839,401
House	150	132,316 (-4.82)	139,012	145,847 (4.92)	156,955	165,215	173,476
SBOE	15	1,383,533 (-0.47)	1,390,121	1,395,489 (0.39)	1,569,546	1,652,153	1,734,761

Source: U.S. Census Bureau, 2009 Population Estimates released March 2010

Patterns of Population Change and Their Effect on Districts

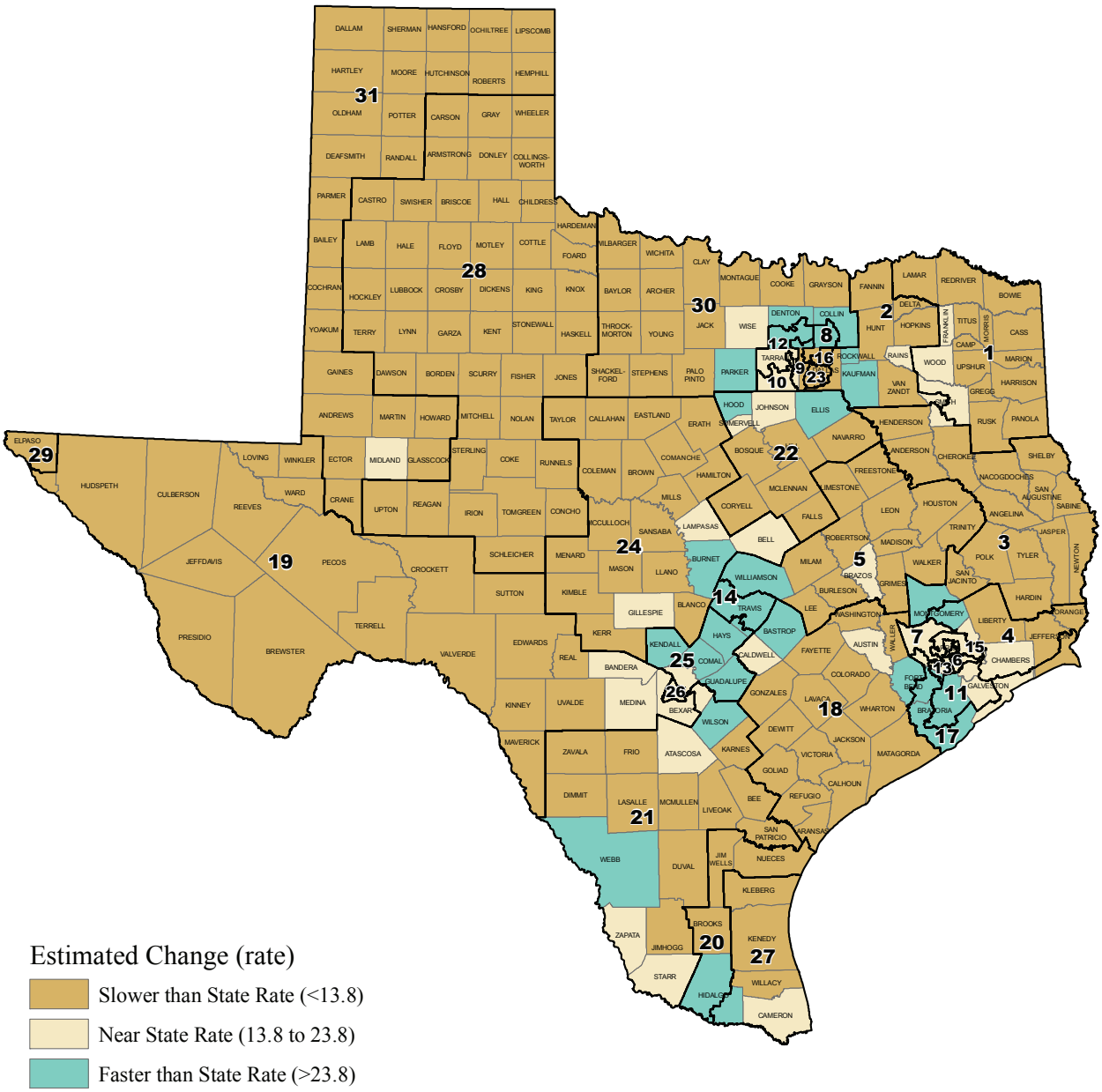
Total Population Change by County and Geographical Location

For this discussion, a county with a growth rate between 13.8 and 23.8 percent is classified as having grown at near (within ± 5 percent) the rate for the state as a whole (18.8 percent). A county with a growth rate greater than 23.8 percent is classified as having grown faster than the state rate. A county with a growth rate less than 13.8 percent is classified as having grown slower than the state rate. The CB estimates suggest that only 25 counties have grown at a rate near the growth rate of the state as a whole; 21 counties along the I-35 corridor, in the Houston area, and in South Texas have grown at a rate that is faster than the state rate; and 208 counties in the Panhandle area, West Texas, parts of East Texas, and the Coastal Bend area have grown at a rate that is slower than the state rate.

The uneven distribution of population change will require changes in current district configurations. When the current senate, house, and SBOE district boundaries are overlaid on maps of the estimated changes in county populations, the effects of the differential county growth on the districts can be seen (see Figures 3, 4, and 5). Those districts in counties that have grown more rapidly than the 18.8 percent state rate likely will have to reduce their populations to an allowable size. Those districts in counties that have grown more slowly than the state rate likely will have to add enough population to reach an allowable size. Those districts that have grown at close to the state rate may still change in configuration because of the ripple effect of changes in neighboring districts.

Figure 3

Estimated Change in County Population Relative to the State Rate
2000-2009
with Senate Districts

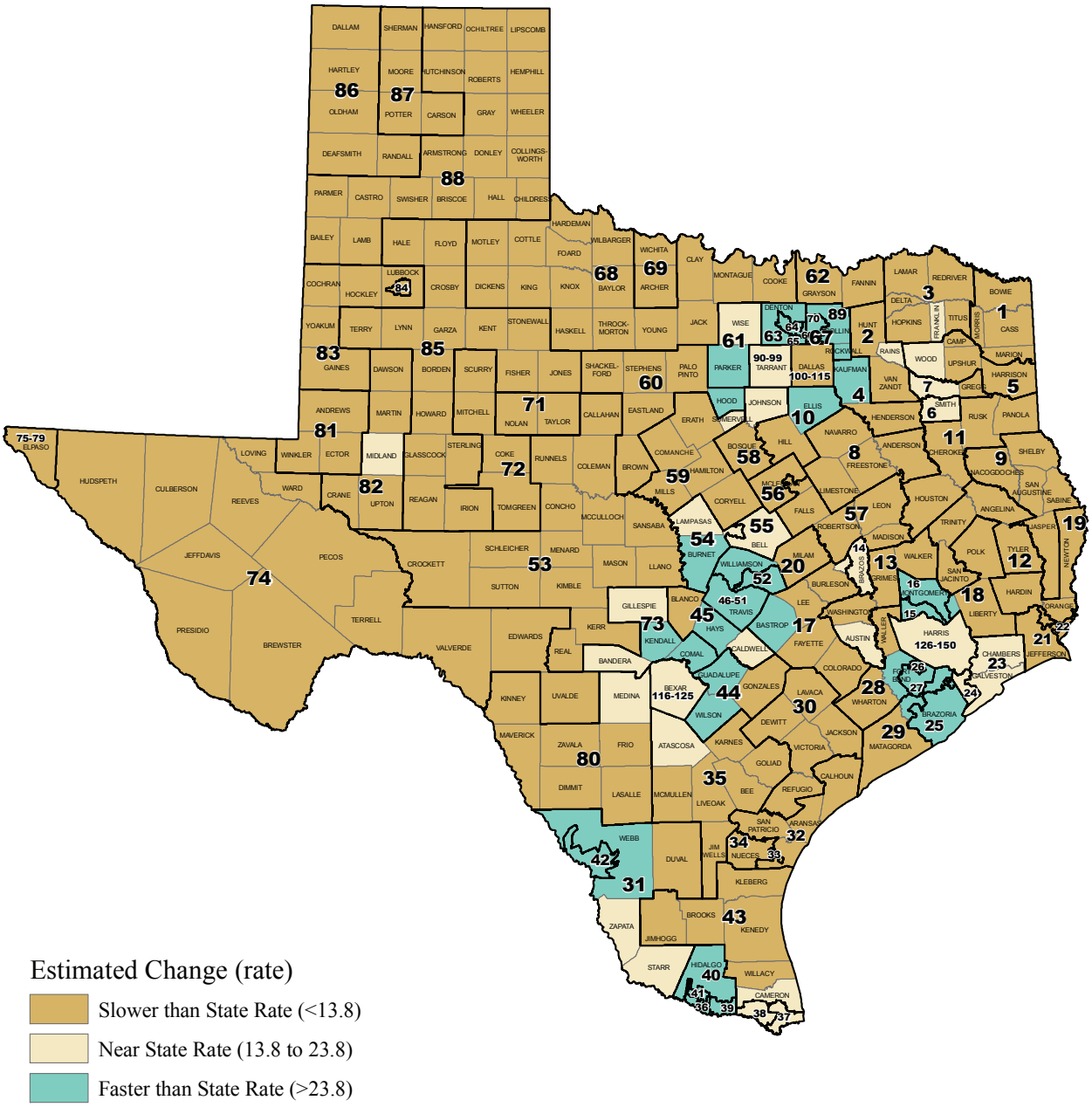


The Census Bureau estimates the state's population grew by 18.8 percent between the 2000 Census and July 1, 2009.

Source: PLAN 01188S; U.S. Census Bureau
2009 Estimates, released March 2010

Figure 4

Estimated Change in County Population Relative to the State Rate
2000-2009
with House Districts

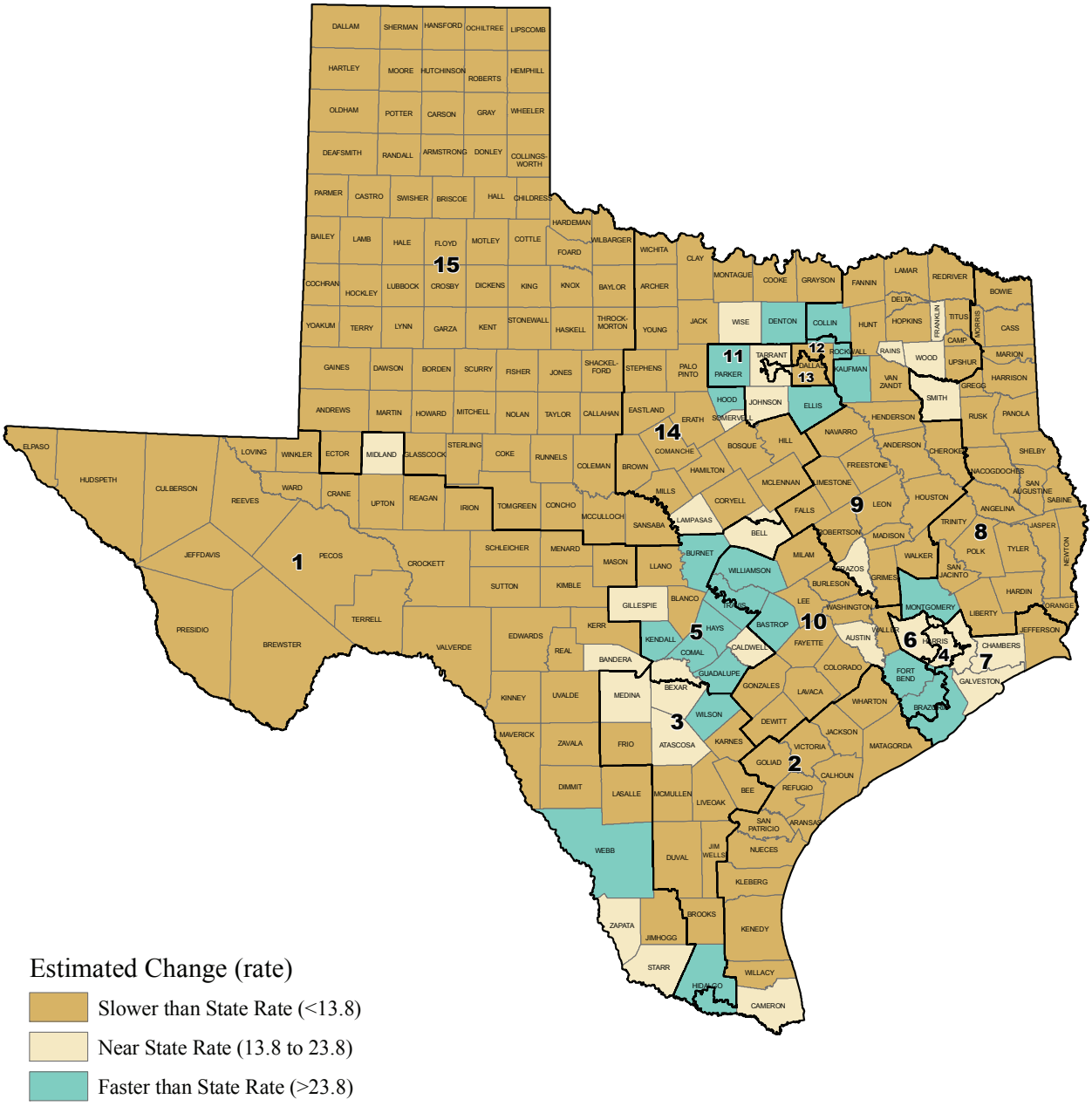


The Census Bureau estimates the state's population grew by 18.8 percent between the 2000 Census and July 1, 2009.

Source: PLAN 01369H; U.S. Census Bureau
2009 Estimates, released March 2010

Figure 5

Estimated Change in County Population Relative to the State Rate
2000-2009
with State Board of Education Districts



The Census Bureau estimates the state's population grew by 18.8 percent between the 2000 Census and July 1, 2009.

Source: PLAN 01018E; U.S. Census Bureau
2009 Estimates, released March 2010

For state house districts, the I-35 corridor is a significant feature of electoral geography in Texas. As shown in the first map in Figure 6, many of the counties traversed by the highway have large populations, which have in the past served as a de facto population barrier for drawing house districts because it becomes difficult to draw east-west house districts that could both cross the corridor and satisfy constitutional requirements. Overlaying the boundaries of this corridor on the maps of population size and population change (Figure 6) shows that this corridor will continue to act as a barrier.

Section 26, Article III, Texas Constitution, requires that house districts be apportioned among counties according to the federal census population and the following rules: (1) a county with sufficient population to be exactly one district must be formed into a single district; (2) a county with a population smaller than the population needed for a whole district must be kept whole and combined with other contiguous counties to form a district; (3) a county that can hold a multiple of whole districts must be divided into that number of districts, with no district extending into another county; and (4) each county with a population sufficient for one or more whole districts plus a fraction of another district must be divided into that many whole districts, with the excess population added to other adjacent counties to form an additional district. In practice, it is sometimes impossible to draw a statewide plan that completely satisfies these rules while maintaining districts with equal populations. The Texas courts have allowed a house plan to violate these rules to the extent necessary to draw a plan that complies with the one-person, one-vote requirement.

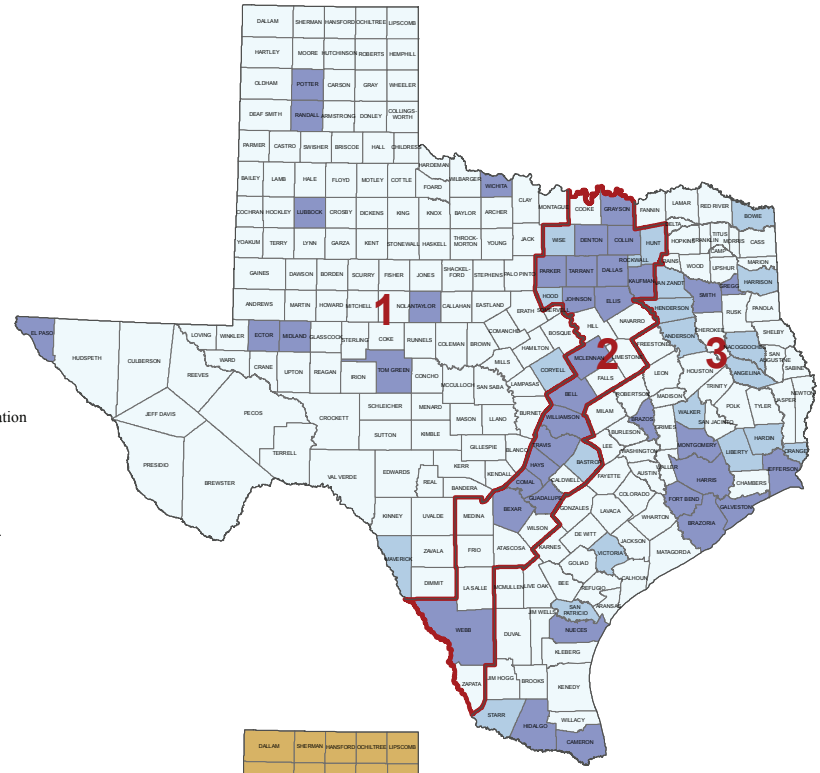
Even a small difference in county population totals between the estimates used here and the actual census count may affect the number of house districts in urban counties. To demonstrate the effect that such a small difference in county population could make, this report compares the CB 2009 population estimate with an SDC 2010 projection.

Although the total state populations for the CB 2009 estimate (24,782,302) and the SDC 2010 projection (24,330,612) are close, and the ideal house district populations for both sets of numbers are also close (165,215 according to the CB 2009 estimate versus 162,204 according to the SDC 2010 projection), the two sets provide different accounts of population growth by county. This is illustrated in Table 2, which compares the current, estimated, and projected number of districts in large counties. Note in particular the differences for Collin, Dallas, Denton, El Paso, Fort Bend, Johnson, Nueces, and Tarrant Counties.

The 2009 CB estimate suggests a potential increase in the number of house districts in Collin, Denton, Fort Bend, Hidalgo, Johnson, Tarrant, and Williamson Counties, whereas the 2010 SDC projection suggests a potential increase in the number of house districts in Collin, Denton, Hidalgo, and Williamson Counties. The 2009 CB estimate suggests a potential decrease in the number of house districts in Dallas, El Paso, and Nueces Counties, whereas the 2010 SDC projection suggests no potential decrease in the number of house districts in any county, with the possible exception of Harris County. Under both the estimate and projection, the number of house districts in Harris County could remain unchanged or could decrease by one. The actual number of districts each large county will receive cannot be determined until the 2010 Census count has been processed.

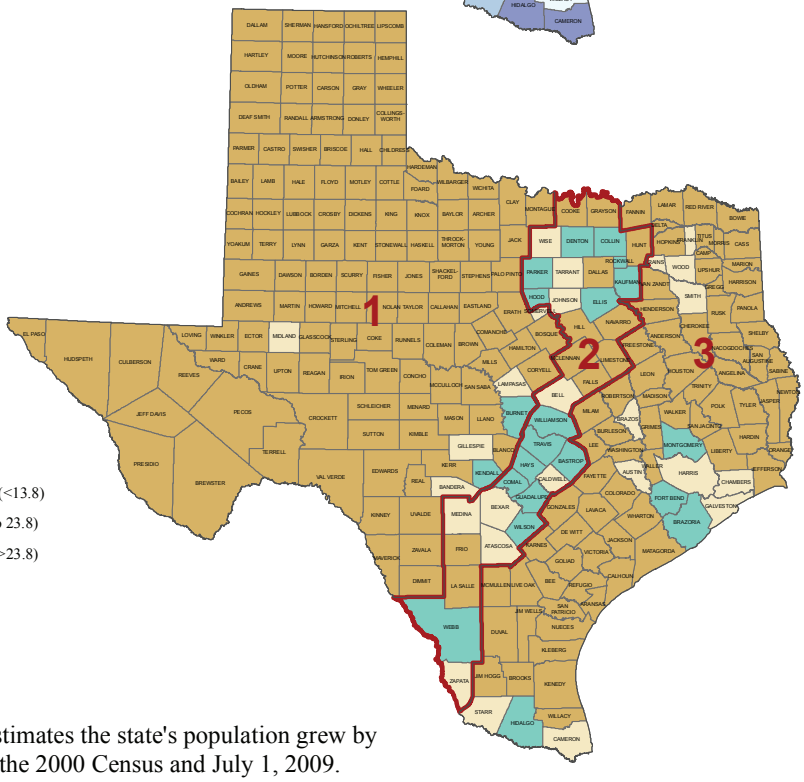
Figure 6

Estimated County Population and Change in County Population
2000-2009
with the I-35 Corridor Area



Estimated 2009 County Population

- 0 - 50,000
- 50,001 - 100,000
- Greater than 100,000
- 1 West of I-35 Corridor
- 2 I-35 Corridor
- 3 East of I-35 Corridor



Estimated Change (rate)

- Slower than State Rate (<13.8)
- Near State Rate (13.8 to 23.8)
- Faster than State Rate (>23.8)
- 1 West of I-35 Corridor
- 2 I-35 Corridor
- 3 East of I-35 Corridor

The Census Bureau estimates the state's population grew by 18.8 percent between the 2000 Census and July 1, 2009.

Source: U.S. Census Bureau 2009 Estimates, released March 2010

Table 2. Differences in Number of House Districts in Large Counties Based on 2009 Census Population Estimates and 2010 State Data Center Population Projections

Census 2000 Count			Census 2009 Estimate			State Data Center 2010 Projection		
County	Population	Current Districts	Population	Percent Change	Estimated Districts	Population	Percent Change	Projected Districts
Ideal District	139,012		165,215			162,204		
Bell	237,974	1+	285,787	20.1%	1+	281,866	18.4%	1+
Bexar	1,392,931	10	1,651,448	18.6%	10	1,561,702	12.1%	10
Brazoria	241,767	1+	309,208	27.9%	1+	287,681	19.0%	1+
Brazos	152,415	1+	179,992	18.1%	1+	171,830	12.7%	1+
Cameron	335,227	2+	396,371	18.2%	2+	415,304	23.9%	2+
Collin	491,675	3+	791,631	61.0%	5	669,140	36.1%	4
Dallas	2,218,899	16	2,451,730	10.5%	15	2,563,695	15.5%	16
Denton	432,976	3	658,616	52.1%	4	607,137	40.2%	3+
El Paso	679,622	5	751,296	10.5%	4+	804,087	18.3%	5
Fort Bend	354,452	2+	556,870	57.1%	3+	452,242	27.6%	2+
Galveston	250,158	1+	286,814	14.7%	1+	269,189	7.6%	1+
Harris	3,400,578	25	4,070,989	19.7%	24-25	3,947,727	16.1%	24-25
Hidalgo	569,463	4	741,152	30.1%	4+	750,714	31.8%	4+
Jefferson	252,051	1+	243,237	-3.5%	1+	263,236	4.4%	1+
Johnson	126,811	<1	156,997	23.8%	1	152,115	20.0%	<1
Lubbock	242,628	1+	270,550	11.5%	1+	263,504	8.6%	1+
McLennan	213,517	1+	233,378	9.3%	1+	231,538	8.4%	1+
Montgomery	293,768	2+	447,718	52.4%	2+	380,953	29.7%	2+
Nueces	313,645	2+	323,046	3.0%	2	354,063	12.9%	2+
Smith	174,706	1+	204,665	17.1%	1+	188,519	7.9%	1+
Tarrant	1,446,219	10	1,789,900	23.8%	11	1,662,201	14.9%	10
Travis	812,280	6	1,026,158	26.3%	6	966,129	18.9%	6
Webb	193,117	1+	241,438	25.0%	1+	263,727	36.6%	1+
Williamson	249,967	1+	410,686	64.3%	2+	344,667	37.9%	2+

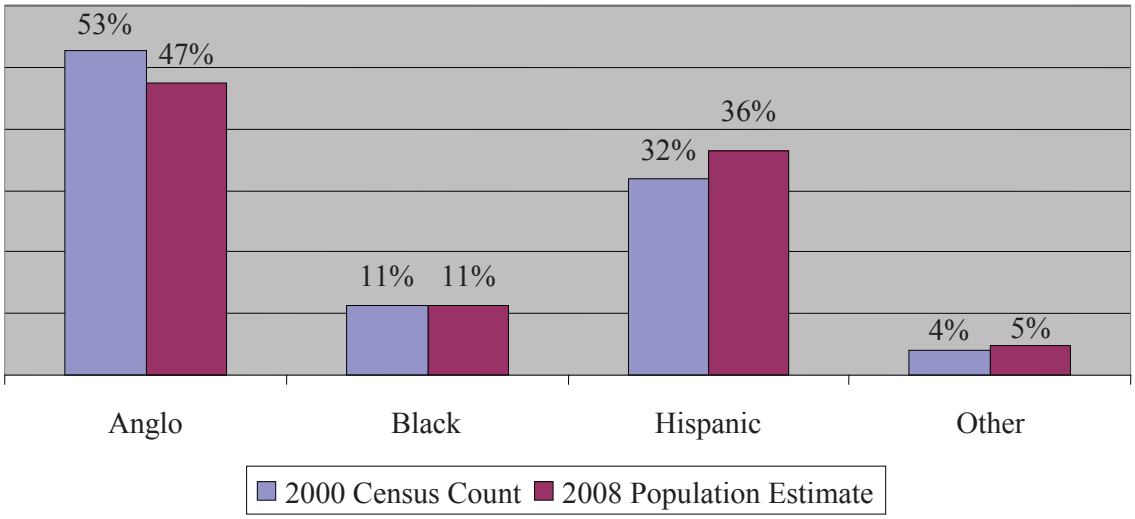
Source: U.S. Census Bureau, Census 2000; 2009 Census Population Estimates released March 2010; Texas State Data Center, Population Projections (0.5 scenario) released February 2009

Population Change by Race/Ethnicity

A consideration of race and ethnicity data is required for the creation of districts that satisfy the requirements of Sections 2 and 5 of the Voting Rights Act. Over the past decade, the most significant change in the ethnic composition of the state population is the increasing proportion of Hispanics and the decreasing proportion of Anglos. As shown in Figure 7, the 2008 population is estimated to be 36 percent Hispanic and 47 percent Anglo, whereas the population in 2000 was 32 percent Hispanic and 53 percent Anglo. The changes in the Black and Other proportions of the population are small by comparison. (For the purposes of this report, "Anglo" is defined as a census response that indicated White only; "Black" is defined as a response indicating Black only; "Hispanic" is defined as a response that included "Hispanic origin" only, regardless of race; and "Other" includes all other non-Hispanic population responses, which are not White or Black only.)

Figure 7

Race/Ethnic Composition of the Texas Population, 2000 and 2008



Source: U.S. Census Bureau Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2000 to July 1, 2008, released May 2009

Another noteworthy pattern is a shift in the racial or ethnic composition of the populations in major metropolitan areas. As shown in Table 3, all of the larger counties had an increase in the percent of Hispanic and of Other populations and a decrease in the percent of Anglo population. With respect to the proportion of Black population, those counties were evenly divided between those having an increase and those having a decrease. County rates of change for each of the race/ethnicity groups are presented in Figure 8. To what extent the changes in the racial and ethnic composition of the state's population will result in changes in the number of minority districts will depend on the location and concentration of minority populations.

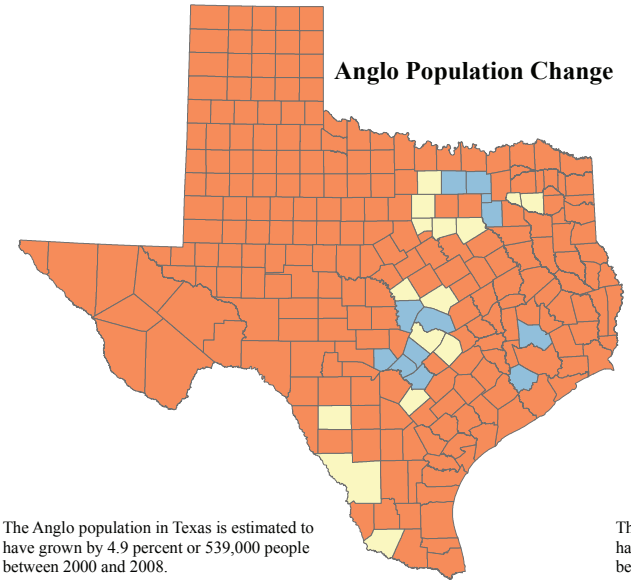
Table 3. Proportion of County Population by Race/Ethnicity
2000 Census and 2008 Census Estimates

	Anglo		Black		Hispanic		Other	
County	**2000**	**2008**	**2000**	**2008**	**2000**	**2008**	**2000**	**2008**
Bell	57.6%	53.6%	20.1%	19.8%	16.7%	19.7%	5.7%	6.9%
Bexar	35.9%	31.8%	6.9%	6.7%	54.3%	57.9%	2.8%	3.6%
Brazoria	65.6%	56.7%	8.4%	10.7%	22.8%	26.4%	3.2%	6.1%
Brazos	66.4%	62.8%	10.6%	10.4%	17.9%	21.0%	5.1%	5.7%
Cameron	14.7%	12.4%	0.3%	0.4%	84.3%	86.3%	0.7%	0.9%
Collin	76.4%	66.3%	4.8%	7.6%	10.3%	14.3%	8.6%	11.8%
Dallas	44.6%	35.2%	20.2%	20.0%	29.9%	38.9%	5.3%	5.9%
Denton	76.3%	67.5%	5.8%	7.8%	12.2%	17.1%	5.8%	7.7%
El Paso	17.2%	13.7%	2.8%	2.4%	78.2%	81.8%	1.8%	2.1%
Fort Bend	46.6%	39.7%	19.8%	20.3%	21.1%	23.9%	12.5%	16.2%
Galveston	63.4%	60.3%	15.3%	14.0%	18.0%	21.5%	3.3%	4.3%
Harris	42.5%	36.0%	18.3%	17.9%	32.9%	39.3%	6.3%	6.7%
Hidalgo	10.5%	8.8%	0.3%	0.5%	88.3%	89.6%	0.8%	1.1%
Jefferson	52.0%	47.5%	33.6%	34.0%	10.5%	14.4%	3.9%	4.0%
Johnson	83.3%	77.2%	2.4%	3.5%	12.1%	16.6%	2.1%	2.7%
Lubbock	62.7%	59.7%	7.5%	7.0%	27.5%	30.6%	2.3%	2.6%
McLennan	64.8%	60.9%	15.1%	14.4%	17.9%	21.8%	2.2%	2.9%
Montgomery	81.6%	73.7%	3.5%	4.6%	12.6%	18.3%	2.3%	3.4%
Nueces	38.0%	34.2%	4.1%	3.7%	55.8%	59.5%	2.1%	2.5%
Smith	68.0%	64.4%	19.0%	17.7%	11.2%	15.6%	1.8%	2.3%
Tarrant	62.2%	54.2%	12.7%	13.6%	19.7%	26.0%	5.3%	6.2%
Travis	56.8%	51.8%	9.1%	8.1%	28.2%	32.9%	5.9%	7.2%
Webb	5.0%	4.6%	0.2%	0.2%	94.3%	94.6%	0.6%	0.6%
Williamson	73.8%	66.8%	5.0%	6.1%	17.2%	21.2%	4.0%	5.9%

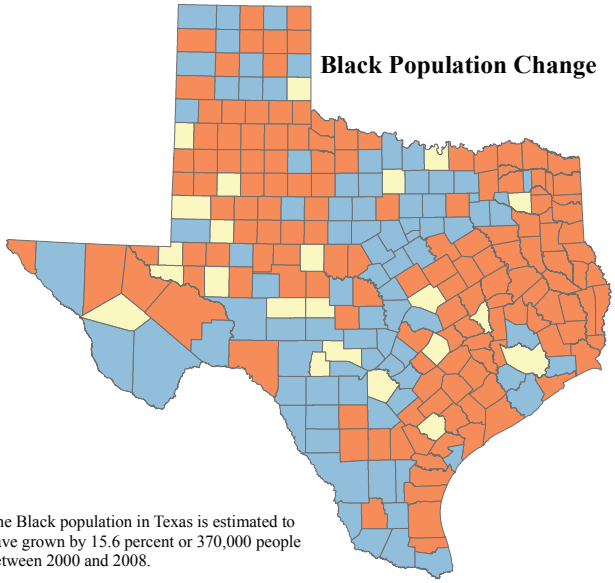
Source: U.S. Census Bureau Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2000 to July 1, 2008, released May 2009
Note: "Anglo" is defined as a census response that indicated White only; "Black" is defined as a response indicating Black only; "Hispanic" is defined as a response that included "Hispanic origin" only, regardless of race; and "Other" includes all other non-Hispanic population responses, which are not White or Black only.

Figure 8

Estimated Change in Race/Ethnic Population by County
2000-2008



The Anglo population in Texas is estimated to have grown by 4.9 percent or 539,000 people between 2000 and 2008.



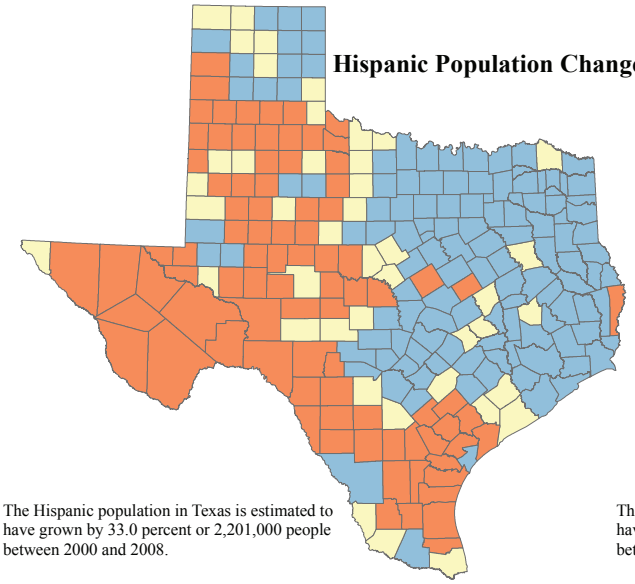
The Black population in Texas is estimated to have grown by 15.6 percent or 370,000 people between 2000 and 2008.

Slower than State Rate (<11.7)

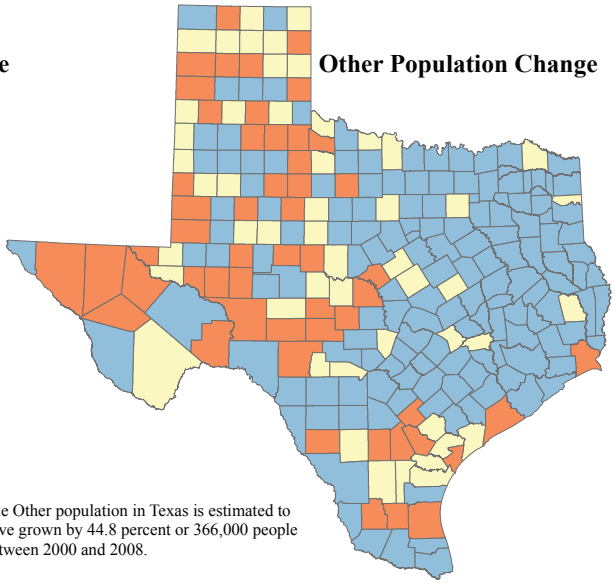
Near State Rate (11.7 to 21.7)

Faster than State Rate (>21.7)

The Census Bureau estimates the state's population grew by 16.7 percent between the 2000 Census and July 1, 2008.



The Hispanic population in Texas is estimated to have grown by 33.0 percent or 2,201,000 people between 2000 and 2008.



The Other population in Texas is estimated to have grown by 44.8 percent or 366,000 people between 2000 and 2008.

Source: U.S. Census Bureau Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2000 to July 1, 2008, released May 2009