

Projecting the Population of California's Regions by Nativity to 2020

A California Housing Futures Project Memo
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This memo describes newly developed projections of the nativity of the population of three California metropolitan regions (Bakersfield, Fresno and Sacramento), by whether foreign or U.S. born and by period of arrival in the U.S. to the year 2020. These projections are made through an extension and modification of the cohort-component methods of the Census Bureau and they are benchmarked to be consistent with the California Department of Finance's (DoF) projections (Baseline 1998).

(1) The population characteristics are extended to include nativity and period of arrival in the United States, so that it becomes possible to track the effects of migration and aging on cohorts of immigrants.

(2) The method is modified to specify different rates of migration, both domestic and international, are assumed for the native and foreign-born populations.

It should be noted that this modification does not affect total migration or population, since the projections are benchmarked to the DoF's. It does, however, influence the mix of immigrants and native-born in the population.

The projections for each region are benchmarked both to

1. the DoF's projection for the region, by age and race/ethnicity, and
2. the California Housing Futures Project projections of the state population by age, race/ethnicity, nativity, and period of arrival for 2005, 2010, 2015 and 2020.

The state CHF projections are themselves benchmarked to the DoF, but carry forward differences in foreign and domestic migration rates for the native and foreign-born populations as measured in the 1990 Census (Public Use Microdata Sample or PUMS data).

The 5 percent PUMS sample is not large enough reliably to measure age-race-nativity-specific differences in migration at the regional level. Therefore a different method is needed to project nativity status for the region.

This method works forward from the 1990 Census in five-year increments. For this base period we start with Census (PUMS) counts of the regional and state populations by age-race-nativity and period of arrival in the U.S., *i.e.*, 1985-90, 1980-85, and so on. This, gives a base measure of the *share* of the state's population of a given age, race, nativity and period of arrival that lived in the region as of 1990, for example foreign-born Latinos age 30 to 34 who arrived in the U.S. early 1980s or native-born blacks age 55 to 59.

These birth-race-arrival cohort *regional shares* are then applied to the total state population for the next period, in this case 1995, as if the population in age-race-nativity-arrival group each region had the same net migration rates as the statewide average for the group and therefore reflecting these differences, but ignoring *regional* differences in net migration rates. These regional differences in migration rates are then factored in by scaling the estimated population for each age-race group to the DoF estimate or projection for that group, using the same, constant adjustment factor for all nativity-

arrival groups in the age-race group. This effects a constant shift to the net migration rates of these nativity-arrival groups but preserves the nativity-arrival differences modeled at the state level.¹

These projections are then iterated forward in five-year steps to 2020, in each period first using the regional cohort shares from the previous period, applying them to the state population projection for the period and then adjusting the age-race totals for regional differences in migration rates.

The result of these projections for particular age-race-nativity-arrival groups in the future are therefore determined by three factors:

1. the 1990 regional populations in the birth-race-nativity-arrival cohorts;
2. the estimated 1990-2000 and projected 2000-2020 statewide changes in the population of the birth-race-nativity groups; and
3. the estimated 1990-2000 and projected 2000-2020 regional changes of the birth-race groups.

Regional differences in the race-nativity-arrival composition of the population as of 1990 are carried forward over time. New immigrants arriving after 1990 are distributed among the regions in the state in the same proportions as immigrants who had arrived since 1985 were distributed in the 1990 Census. The population born in each region after 1990 are projected by the DoF estimates and projections and are, by definition, native-born.

Comparison of the State and Fresno Area Projections to 2020

The new projections reveal substantial shifts in the growth and composition of California's population. Some of these shifts are well underway while others are projected to emerge in the next two decades.

1. While the state's foreign-born population is projected to continue to increase at an average rate of 134,000 per year to nearly 11 million in 2020, its rate of growth is no faster than the projected growth of the native-born population. As a result, the foreign-born share of the state's population is projected to be the same as it is estimated to be today, or about 24 percent. (Table 1, third column.) This stability contrasts sharply with the more than doubling of the foreign-born share of the state's population between 1980 and 1990.

The statewide trends are mirrored in the projections for Fresno. However, the foreign-born share of Fresno's population is estimated to be lower (20 percent. See Table 1.) than in the state as whole (24 percent). This shortfall is due to a lower share of earlier (pre-1970)

¹ For example, if the estimated number of Latinos age 35-39 in a region is two percent below the DoF estimate/projection, then the number of native born Latinos age 35-39, foreign-born Latinos age 35-39 who arrived 1990-95, foreign-born Latinos age 35-39 who arrived 1985-90, foreign-born Latinos age 35-39 who arrived 1980-85, and all other Latinos age 35-39 are raised by two percent, but if one of these groups is growing more rapidly in the state than the others due to differences in net migration, this difference is maintained in the region.

immigrants in Fresno rather than of new immigrants, who accounted for 10 percent of the area's population in 1990, just 1 percent below the statewide level. Immigration from abroad is projected to continue about 10 percent below the rate observed in the 1980-1990 decade.

2. The number of long-term immigrants in California, those who arrived in the U.S. more than 20 years ago, is projected to more than quadruple between 1990 and 2020, rising from 22 percent of the total foreign-born population to 54 percent. By contrast, during the period of projection, the number of newly arrived immigrants, who arrived in the previous 10 years, is projected to be stable to declining.² (See Table 1.)

In Fresno, long-term immigrants were 20 percent of the total foreign-born population in 1990 and they are projected to be 52 percent in 2020.

3. At the same time as the cumulative increase in long-term immigrants are sustaining the growth of California's foreign-born population, the children of immigrants are projected to make large contributions to increases in the native-born population. From 1990 to 2020, native-born Latinos and Asian-Americans are projected to nearly double their share of the state population, Latinos from 14 to 27 percent and Asians from 3 to 6 percent. (See Table 3.)

In Fresno the trend for native-born Latinos is quite different. It starts at a much higher level than the state level in 1990, 25 percent, which is almost as high as the state projection for 2020, but it rises at a considerably slower rate, to a projected level of 33 percent in 2020. Since Latino immigration rates are similar in Fresno and the state, this difference is attributable to differences in fertility and domestic migration. The projected growth of native-born Asian-Americans in Fresno closely parallels the growth in the state. (See Table 4.)

One notable feature of the projections is the decline over time in the number of surviving immigrants who arrived in a particular period. For example, the population of 3.32 million foreign-born residents who were enumerated in 1990 is projected to fall by more than a third, to 2.14 million in 2020. As can be seen in Table 1, almost half of the decrease occurs in the decade 1990-2000. Most of this decrease is attributable to a high rate of emigration during this part of the migration cycle when the other negative forces, domestic migration and mortality, are weaker. Similar trends can be traced in the projection for Fresno.

² The projections assume that an immigrant's year of immigration, as reported or estimated by the Immigration and Naturalization Service, is the same as the year of arrival in the United States reported to the Census. Systematic deviations from this assumption would affect the comparisons of Census counts of 10-year recent arrivals, such as for 1990, and the projections for 2000 and later years. The number of new arrivals in the 1990 Census may have been inflated as the result of legalizations under the Immigration Reform and Control Act (IRCA).

Table 1 : State of California, Population by Nativity and Period of Arrival in the United States, 1980-2020 (projected)											
			Born	Foreign Born by Period of Arrival							
	Total	Native Born		Before 1960	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019	
1980	23,725,000	21,447,000	2,278,000	231,000	481,000	1,565,000					
1990	29,942,000	23,413,000	6,529,000	678,000	754,000	1,775,000	3,322,000				
2000	34,653,000	26,351,000	8,302,000	478,000	636,000	1,542,000	2,784,000	2,863,000			
2010	39,958,000	30,145,000	9,813,000	302,000	505,000	1,329,000	2,474,000	2,466,000	2,736,000		
2020	45,449,000	34,465,000	10,984,000	169,000	367,000	1,097,000	2,137,000	2,174,000	2,333,000	2,707,000	
	Percent										
1980	100%	90%	10%	1%	2%	7%	–	–	–	–	
1990	100%	78%	22%	2%	3%	6%	11%	–	–	–	
2000	100%	76%	24%	1%	2%	4%	8%	8%	–	–	
2010	100%	75%	25%	1%	1%	3%	6%	6%	7%	–	
2020	100%	76%	24%	0%	1%	2%	5%	5%	5%	6%	

Table 2 : Fresno Metropolitan Area, Population by Nativity and Period of Arrival in the United States, 1980-2020 (projected)											
			All Foreign Born	Foreign Born by Period of Arrival							
	Total	Native Born		Before 1960	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019	
1980	516,000	481,000	35,000	8,000	7,000	20,000					
1990	674,000	552,000	122,000	14,000	10,000	32,000	66,000				
2000	811,000	650,000	161,000	10,000	9,000	28,000	56,000	58,000			
2010	953,000	753,000	200,000	6,000	7,000	25,000	51,000	52,000	59,000		
2020	1,114,000	878,000	236,000	4,000	5,000	22,000	45,000	47,000	54,000	60,000	
	Percent										
1980	100%	93%	7%	2%	1%	4%	–	–	–	–	
1990	100%	82%	18%	2%	1%	5%	10%	–	–	–	
2000	100%	80%	20%	1%	1%	3%	7%	7%	–	–	
2010	100%	79%	21%	1%	1%	3%	5%	5%	6%	–	
2020	100%	79%	21%	0%	0%	2%	4%	4%	5%	5%	

Table 3 : State of California, Population by Nativity and Race/Ethnicity, 1980-2020 (projected)									
	Total	Native Born				Foreign-Born			
		Non-Hispanic White + American Indian	Latino	Asian, Pacific Islander	Black	Non-Hispanic White + American Indian	Latino	Asian, Pacific Islander	Black
1980	23,725,000	15,635,000	3,267,000	761,000	1,784,000	438,000	1,309,000	509,000	21,000
1990	29,942,000	16,096,000	4,334,000	958,000	2,025,000	1,221,000	3,440,000	1,788,000	80,000
2000	34,653,000	16,225,000	6,436,000	1,463,000	2,227,000	1,403,000	4,252,000	2,537,000	111,000
2010	39,958,000	16,677,000	8,943,000	2,117,000	2,408,000	1,462,000	5,021,000	3,197,000	132,000
2020	45,449,000	16,903,000	12,095,000	2,805,000	2,661,000	1,486,000	5,683,000	3,670,000	145,000
	Percent								
1980	100%	66%	14%	3%	8%	2%	6%	2%	0%
1990	100%	54%	14%	3%	7%	4%	11%	6%	0%
2000	100%	47%	19%	4%	6%	4%	12%	7%	0%
2010	100%	42%	22%	5%	6%	4%	13%	8%	0%
2020	100%	37%	27%	6%	6%	3%	13%	8%	0%

Table 4 : Fresno Metropolitan Area, Population by Nativity and Race/Ethnicity, 1980-2020 (projected)									
	Total	Native Born				Foreign-Born			
		Non-Hispanic White + American Indian	Latino	Asian, Pacific Islander	Black	Non-Hispanic White + American Indian	Latino	Asian, Pacific Islander	Black
1980	516,000	319,000	126,000	11,000	25,000	5,000	25,000	4,000	-
1990	674,000	334,000	166,000	21,000	31,000	13,000	74,000	34,000	1,000
2000	811,000	353,000	225,000	33,000	38,000	15,000	93,000	52,000	1,000
2010	953,000	370,000	289,000	47,000	46,000	18,000	114,000	67,000	2,000
2020	1,114,000	384,000	372,000	67,000	55,000	19,000	135,000	81,000	2,000
	Percent								
1980	100%	62%	24%	2%	5%	1%	5%	1%	0%
1990	100%	50%	25%	3%	5%	2%	11%	5%	0%
2000	100%	44%	28%	4%	5%	2%	11%	6%	0%
2010	100%	39%	30%	5%	5%	2%	12%	7%	0%
2020	100%	34%	33%	6%	5%	2%	12%	7%	0%
Source 1980 (4/1): U.S. Census, 5% Public Use Microdata.									
1990 (7/1): estimate based on U.S. Census, 5% Public Use Microdata.									
2000, 2010 and 2020 (7/1): projections by John Pitkin (Analysis and Forecasting, Inc.) for the California Housing Futures Project									