

Appendix to: Sharygin, Ethan. 2019. *Modeling methodology for the 2016 baseline California population projections*. Sacramento: California Department of Finance. March 2019.

Data and documentation available at: <http://www.dof.ca.gov/Forecasting/Demographics/Projections/>

Appendix

A1. Key projection results

The key demographic rates are modeled at the county level, specified by age and sex. They are applied to the entire resident population of the county each year (special populations, such as military, are handled differently and not subject to the same mortality or migration hazards, to preserve a stable population size). Figure A1.1 shows the sum of annual county components (births, deaths, and net migrants).

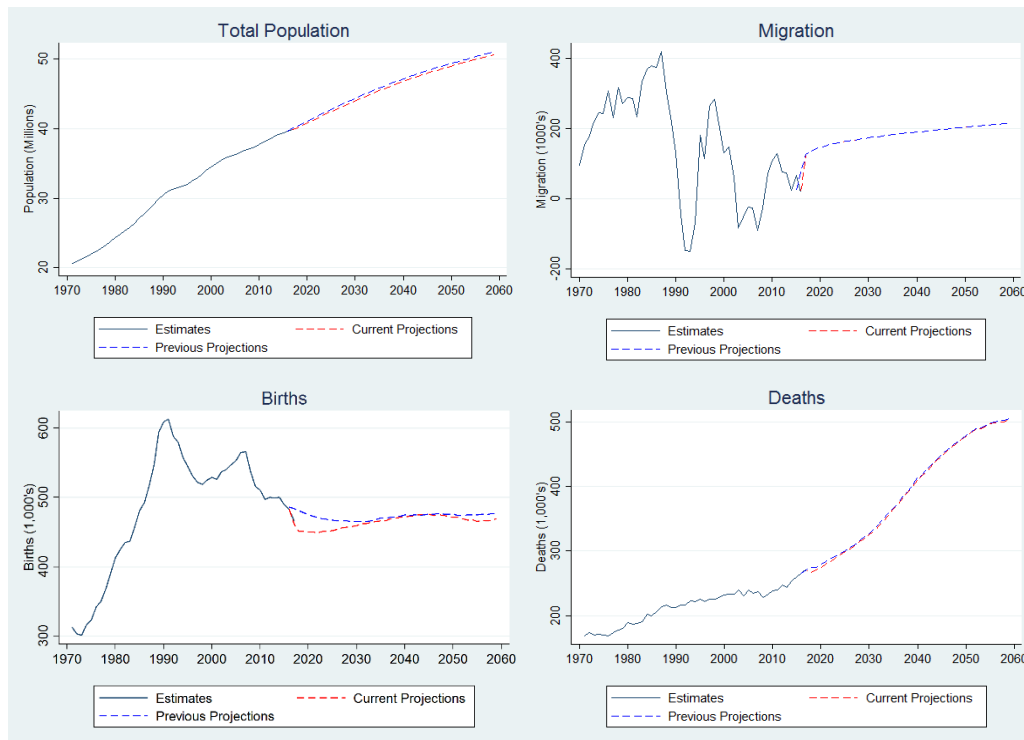


Figure A1.1 Summary indicators from population projection: California, 2010-2060.

A solid blue line shows historical (intercensal) and current estimates (postcensal) updated to the January 1, 2019 release. The light blue dashed line indicates the trajectory projected in the prior DOF 2016 projection series. The dashed red line indicates the projected trajectory from the current projections.

Comparison with previous projections:

The total population projections for this update is similar to the previous series with an expected population in 2060 350,000 lower than originally forecast. Based on the latest estimates, the current birth projections are projected to be lower than the previous series through 2030, where both projections level off. These projection series reflects falling fertility, reflected in declines in total births to approximately 460,000 by 2030 and after that stabilizing around 475,000 births per year as the total fertility rate stabilizes around 1.6 children per woman. Changes in the migration and deaths projections are minimal and only slightly lower than the previous projections to reflect the most current estimates.

Current death projections continue to reflect a lower mortality rate, as well as persistent baseline county-level differences in mortality (Figure A1.2). This lower mortality rate translates into higher life expectancy and an aging population. Thus, the number of people in higher ages will increase as a share of the total population. This effect is reflected in the age pyramid that compares the age-structure of the population of California across time (Figure A1.3).

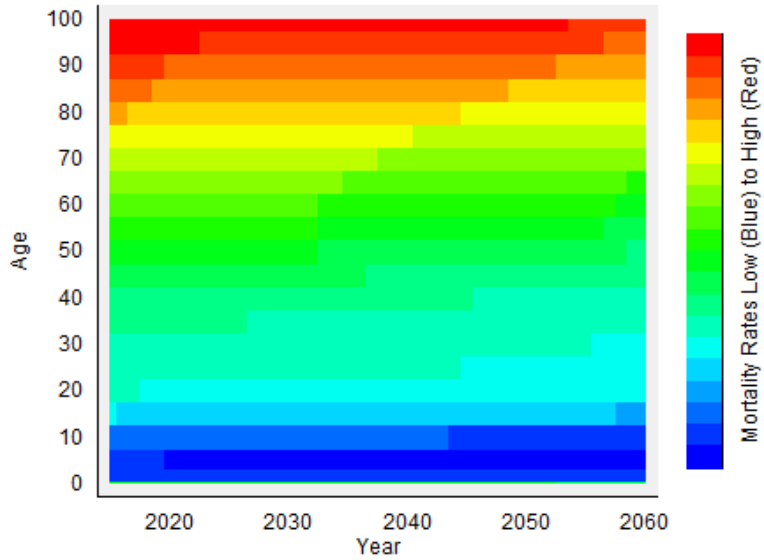


Figure A1.2 Mortality Rates by Age: California, 2010-2050.



State of California

Figure A1.3 Summary and comparison of age structure from population projections: California, 2010-2050.

The age pyramid figure above displays single years of age along the vertical axis. The horizontal axis of each graph is the population of males (shown on the negative, or left horizontal axis) and females (shown on the positive, or right horizontal axis). The color striations indicate race or ethnicity, from a grouping using six categories: White; Black; American Indian or Alaska Native; Asian, Native Hawaiian or Pacific Islander; Multi-racial (meaning any combination of the preceding groups), or Hispanic (of any race). The state’s overall level of racial/ethnic diversity is comparable between the two projections.

The new projections’ pyramids are less “pyramid” and more kite-shaped, with a heavier top and narrower bottom. This shape is typical of states that are undergoing a so-called “second demographic transition” into later marriage, lower fertility, and higher longevity, which result in a larger share of the population at older ages. The ridge visible around age 20 in later panels is due to the high population of college students in California relative to young children and teenagers, based on the assumption of stable enrollment despite long run fertility declines.

The drop in fertility rates, alongside later marriages leads to a larger share of the births occurring to women in higher age groups. By 2050 births from women over 35 years of age will account for 35 percent of all births, a share similar to the 30-35 age group. These same age groups accounted for 5 and 30 percent of births in 1990 respectively. In contrast, the share of births from women in the 15-24 age group drops from 19 percent in 2019 to 9 percent in 2050 (Figure A1.4.)

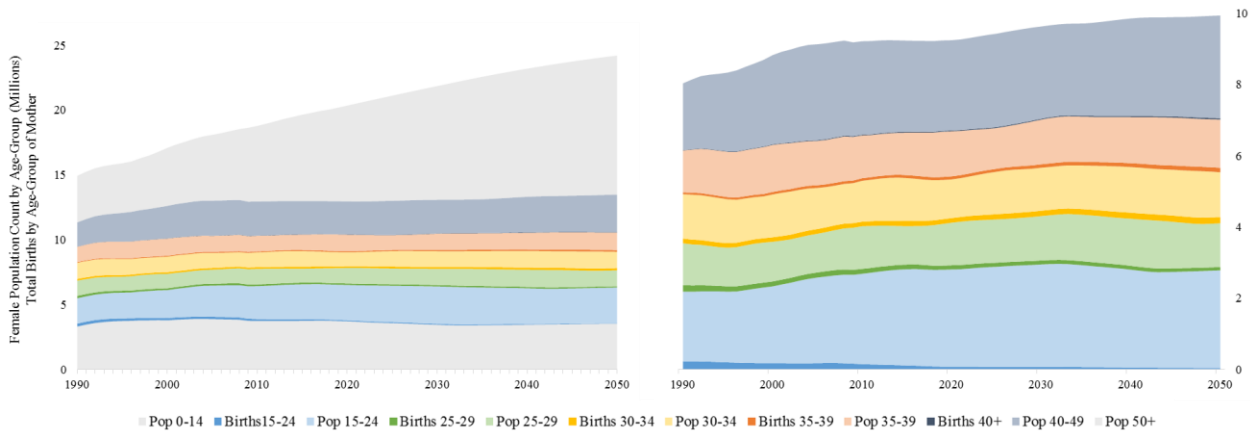


Figure A1.4 Births as a share of total women by age-group: California, 2010-2050.