

# Idaho Department of Labor

## Ten-Year Population Forecast

The Idaho Department of Labor produces a 10-year population forecast to provide a robust projection for analysts to work from. Rather than simply forecasting total statewide population, Idaho Labor's projections are designed to provide a high degree of detail, both geographic and demographic.

To this end, the forecast includes an individual population projection for each of Idaho's counties. Within each county, the forecast includes projections for five-year age blocks (20- to 24-year-olds, 25- to 29-year-olds, etc.) These age blocks are the base unit for the forecast. Initial population estimates are provided by the U.S. Census Bureau and are progressed forward through a variety of steps, which cumulatively produce the projections. These steps include:

- 1. Estimation of Deaths:** populations are adjusted each year based on estimated deaths. Death rates vary by age, and are provided by the Idaho Department of Health and Welfare.
- 2. Estimation of Births:** annual births are projected for each county based on the female population. Like death rates, birth rates vary between age groups and are provided by the Idaho Department of Health and Welfare.
- 3. Aging:** The size of each age group is adjusted each year by estimating a portion of each age group that will age into the next group in a given year. After a five-year projection period, each age group will have fully aged forward.
- 4. Migration:** net-migration is estimated for each county and age group based on a time series of migration estimates.

These four components of population change are made more accurate by basing projections on individual age groups. Building projections from this level of detail accounts properly for diverse demographic profiles across Idaho's counties and improves projection accuracy by accounting for different birth and death rates between age groups.

Labor force participation rates vary widely between age groups so another benefit of building a forecast on county age blocks is gaining a more accurate estimate of available labor.

County level projections based on age demographics are the most detailed level of analysis the Department of Labor views because the smaller the population is, the greater the margin of error. While demographic cross sections of race and ethnicity can be interesting and valuable to analysts, these estimates are considered too granular to provide accurate projections.

- Sam Wolkenhauer, regional labor economist