

Population Projection Methodology

The population projections have been computed for the state and the constituent counties using the Cohort-Survival method. The Cohort-Survival method uses three components--birth, death and net-migration--which are projected separately as detailed below. While the projected number of births and deaths determines the natural increase of a population, net migration accounts for the additional population changes.

Projected Number of Births:

To project the number of births, one needs to first project the age- and race-specific fertility rates. Three steps are involved in deriving fertility projections: (Note concerning specific 2000 census race definitions is located at the end of the methodology).

1. The Illinois age- and race-specific fertility rates were computed for the base year (2000). Data on the number of births in Illinois for 2000 by race (1990 category) and mother's age were obtained from the Illinois Department of Public Health. The number of births was divided by the number of child-bearing women in the appropriate age and race categories for 2000 to calculate the age- and race- (1990 race category) specific fertility rates for the base year. The CDC abridged population file was used to convert the 2000 race classification into the 1990 tabulations.
2. These historical rates were then divided by the corresponding US data rates to define the historical fertility ratio between Illinois and the nation as a whole.
3. These Illinois/US ratios were multiplied by the US projected fertility rates to derive the Illinois projected age- and race- specific fertility rates. Note that the US fertility rate projections were computed for race categories that are consistent with the 2000 race tabulations.

The projected fertility rates were then multiplied times the number of females in child-bearing age cohorts to obtain numbers of births.

Projected Number of Deaths

The number of deaths was computed in a manner similar to the number of births. It is assumed that changes in the age-, sex-, and race-specific mortality rates in Illinois are likely to follow the national trends. The projected mortality rates are then applied to the appropriate age, sex and race population categories to derive the projected number of deaths for each respective characteristic.

Calculation of the Closed Population

The natural population increase through births and deaths, when added to the base population, yields an estimate for the "closed population" for the next five years. The closed population is composed of the original population age five years and above, plus expected births and minus deaths.

Net Migration

To the closed population was added the net migration. Net migration is viewed as the balance between labor force supply and labor force demand. In other words, it is simply the difference between labor supply and labor demand.

Labor Force Supply

Labor force supply is defined as the number of employed and unemployed persons. Two steps are involved in projecting labor force supply:

1. The propensity for different population groups to be in the labor force was first projected. Labor force participation rates were projected in a manner similar to the fertility and mortality rates. It was assumed that changes in the labor force participation rates in Illinois likely follow the national trend.
2. The projected labor force participation rates were applied to the working age population to estimate the actual labor force supply or the size of the labor force.

Labor Force Demand

Labor force demand was projected based on projected total employment, dual job holdings, unemployment and net commuting patterns.

1. Woods and Pool's employment projections were directly utilized as the employment levels for the projection years.
2. The civilian job holders for 2000 (the total labor force for the base year less the number of the armed forces and the unemployed) was divided by the number of jobs to derive the ratio of people employed to employment. Such a ratio was used to account for dual job holdings and net commuting.
3. The ratio of the civilian job holders to the number of jobs was multiplied by the employment projection. This yielded an estimate of future civilian labor force demand, to which unemployment and armed forces projections were added to compute the total labor force demand for the projection year.

Labor Supply vs. Demand—Amount of Net Migration

1. The difference between labor force demand and labor force supply determines the amount of net migration among the labor force.
2. The amount of net-migration among the labor force, as a proportion of the total population, was applied to the closed population to yield total net migration.
3. The most current survey migration data were utilized to achieve the age-, sex- and race-specific breakdowns of the total net migration. The age-, sex-, and race-specific net migration figures were added to or subtracted from the closed population to obtain the open population.

County projections are done in a similar manner, although state projections are used as the control totals.

If necessary, the most recent migration data for some demographic groups in counties with group quarter populations has been adjusted to better reflect the mobility of these populations and allow the projected population to be more in concert with the corresponding population group at the state level.

The above procedures were repeated for each five-year period to obtain a series of projections.

Note on 2000 Census Race Definitions:

The race categories used in these projections are the same as those used by the U.S. Census Bureau for the 2000 Census of Population, which conform to the October 30, 1997, Federal Register Notice entitled, "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity" issued by the Office of Management and Budget (OMB).

Please note that Census 2000's race data is not directly comparable to that collected in previous censuses. As the concept of race used here is separate from the concept of Hispanic origin, percentages for various race categories add to 100 percent but should not be combined with the percent Hispanic. Tallies that present race categories for Hispanics and nonHispanics separately are also available.

The establishment of the categories used in 2000 relies in good measure on the extent to which individuals identify themselves with particular races. These categories are sociopolitical, including both racial and national-origin groups, and should not be interpreted as being scientific or anthropological in nature.

As defined at http://quickfacts.census.gov/qfd/meta/long_68174.htm, these racial groups are as follows:

White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa. It includes people who indicate their race as "White" or report entries such as Irish, German, Italian, Lebanese, Near Easterner, Arab, or Polish.

Black or African American. A person having origins in any of the Black racial groups of Africa. It includes people who indicate their race as "Black, African Am., or Negro," or provide written entries such as African American, Afro American, Kenyan, Nigerian, or Haitian.

American Indian and Alaska Native. A person having origins in any of the original peoples of North and South America (including Central America) and who maintain tribal affiliation or community attachment.

Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. It includes "Asian Indian," "Chinese," "Filipino," "Korean," "Japanese," "Vietnamese," and "Other Asian."

Native Hawaiian and Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. It includes people who indicate their race as "Native Hawaiian," "Guamanian or Chamorro," "Samoan," and "Other Pacific Islander."

Some other race. Includes all other responses not included in the "White", "Black or African American", "American Indian and Alaska Native", "Asian" and "Native Hawaiian and Other Pacific Islander" race categories described above. Respondents providing write-in entries such as multiracial, mixed, interracial, Wesort, or a Hispanic/Latino group (for example, Mexican, Puerto Rican, or Cuban) in the "Some other race" category are included here.

Two or more races. People may have chosen to provide two or more races either by checking two or more race response check boxes, by providing multiple write-in responses, or by some combination of check boxes and write-in responses.

Source: U.S. Census Bureau, 2000 Census of Population, Public Law 94-171 Redistricting Data File. Updated every 10 years. <http://factfinder.census.gov>.

Web site: http://quickfacts.census.gov/qfd/meta/long_68174.htm