

An Overview of Population Estimates



The U.S. Bureau of the Census produces annual population estimates for states and counties. New state estimates are released on December 31 of the same year, which means the estimates for July 1, 1997 were released last December 31. County estimates that are consistent with the previously released state estimates are usually released in the spring of the following year. Along with each new release, the Bureau also revises estimates of previous years. In March 1998, it released new 1997 county estimates, as well as revisions for 1991-1996.

Joan Rainey

Research Director, Indiana Business Research Center, Kelley School of Business, Indiana University

State and County Estimation Methodology

State estimates are derived by summing county estimates to the state level. The Census Bureau develops county estimates with a component change procedure called the Tax Return method. To build the model, the Bureau estimates each component of population change separately. For people residing in households, the components of change are births, deaths, and net migration, including net immigration from abroad. For the non-household population, change is represented by net change in the population in group quarters facilities.

Indiana births and deaths are estimated using data provided by the National Center for Health Statistics and the Indiana State Department of Health. The migration component is estimated for the under-65 population using federal income tax return data; for those 65 and over, it uses Medicare coverage data. Group quarters population data are collected annually by the Indiana Business Research Center, including the number of people residing in college and university housing, correctional facilities, mental health facilities, and juvenile facilities. These data are used to estimate the change in non-household population in each county.

In an effort to meet users' demands for current data, the Census Bureau's production schedule was accelerated in the mid-1990s so that county estimates for July 1 of each year would be available the following spring. Because data are usually not available for the current estimate year, the Bureau often estimates these components using simplifying assumptions, including the assumption that there has been no change in the data between the previous year and the current year—or, if more recent data are available at the state level, that the distribution of data by county did not change from the prior year. A year later, the initial component estimates are replaced by revised estimates based on the actual data for the components of population change.

The annual revision process can result in confusion. If users would add only the newly released estimates for the most recent year to an existing database

or spreadsheet, the changes and percent changes from the previous year they calculated would be different from those obtained by using the revised figures for the previous year.

County Estimate Revisions, 1996

In March 1998, the Census Bureau released revisions of 1996 county population estimates that had been originally released in the spring of 1997. Highlights of these revisions include:

- Estimated population for the state as of July 1, 1996 was cut from 5,840,528 to 5,828,090 for a decrease of 12,438 people—a 0.21% reduction.
- Eleven counties saw upward revisions for a total of 255 more people. Eighty-one counties saw downward revisions for a total of 12,693 fewer people.
- The largest numeric differences were in Marion County (down 2,671 people) and Lake County (down 924 people). The largest numeric increase was in Dearborn County (up 62 people).
- The largest percentage differences were in Franklin and Brown counties, each down by about 1%.
- For 67 counties, the revisions were between -0.3% and 0.3%. For 16 counties, the revisions were between -0.4% and -0.3%. For nine counties, the revisions were between -1% and -0.4%.

Sub-County Estimates

The Census Bureau also produces estimates for all cities, towns, and townships in the nation, although the frequency and timing of these releases vary. The most recent sub-county population estimates for 1991-1996 were released in November 1997.

The Bureau calculated sub-county estimates using the Distributive Housing Method. Starting with the number of housing units in each geographic area from the 1990 census, and using building permit and demolition data for 1990-1996, an estimate of the number of housing units for July 1, 1996 for each geographic area was calculated. Then applying the persons per household rates from the 1990 census, estimates of the household population were calculated. Estimates of 1996 group quarters population were added to the household estimates to yield total population estimates for each area. The Census Bureau has announced that it expects to re-release the 1996 sub-county estimates during the summer of 1998.

Demographic Estimates

The Census Bureau also periodically releases population estimates with demographic detail for states and counties. We currently have estimates by age, gender, race, and origin for July 1, 1996.

