

Arkansas 2005-2030 County and State Population Projections: Time Series Extrapolations

Overview

The data series reported in the time series extrapolation file are annual population projections for the 2005-2030 years for the state and for its 75 counties. The projections are trend extrapolations based on the July 1 population estimates from the 1980-2004 periods. The trend projections are furnished as an alternative to the detailed race, age, and sex county population projections made available by the Institute of Economic Advancement, and to the statewide population projections provided by the Census Bureau in their Interim State Population Projections, 2005. These trend population projections will be revised as future population estimates become available.

Methodology

In general, one can either use a cohort-component method or a trend extrapolation method to project future populations. The cohort-component method is a mainstay technique for demographers because it provides detailed demographic information about the component of population change including fertility, mortality, and migration. Trend projections extrapolate historic population trends into the future. Their chief characteristic is that the historic values of the population determine the future values of the population.

There are several ways to extrapolate population trends, and after experimentation with several of these techniques, a weighted average smoothing method was selected and used to make these population projections. The projections reported here are based on a Holt's exponential smoothing method.

The Holt method like all trend extrapolation methods suffers several shortcomings. The basic assumption underlying these methods is that future population changes and dynamics are just like the past. Thus, the projections provide no information about the different components of population growth, and they have no theoretical content with regard to the explanations for population change.

Data Sources

Intercensal Estimates of Resident Population and of States and Counties. U.S. Bureau of the Census, Population Estimates and Population Distribution Branches, Washington, DC 20233, March 1992.

Population Division, Interim State Population Projections, 2005, U.S. Census Bureau.

Annual Estimates of the Population for Counties of Arkansas April , 2000 to July 1, 2004, Population Division, U.S. Census Bureau, April 14, 2005.

County Population Estimates and Demographic Components of Population Change: Annual Time Series, July 1, 1990 to July 1, 1999. Population Estimates Program, Population Division, U.S. Census Bureau, Washington, DC 20233, March 9, 2000.

Arkansas County Estimates: April 1, 2000 to July 1, 2002. Population Division, U.S. Census Bureau, April 17, 2003.

Reference

Holt. C. C. "Forecasting Seasonal and Trends by Exponentially Weighted Moving Average." Office of Naval Research, Memorandum No.52 (1957).

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