

Fact Sheet: Population Projections

The total population of an area is a good predictor of water use. To help predict the amount of water that will be needed 40 years from now in a particular region, it is useful to first project how many people will be living in that region.

The Socorro-Sierra Regional Water Planning team used a computer model to project the future population in Socorro and Sierra Counties from 1990 to 2040. The model started with the 1990 U.S. Census count in each county, split out by sex and five-year age intervals. It then took into account the historical and projected trends of several factors:

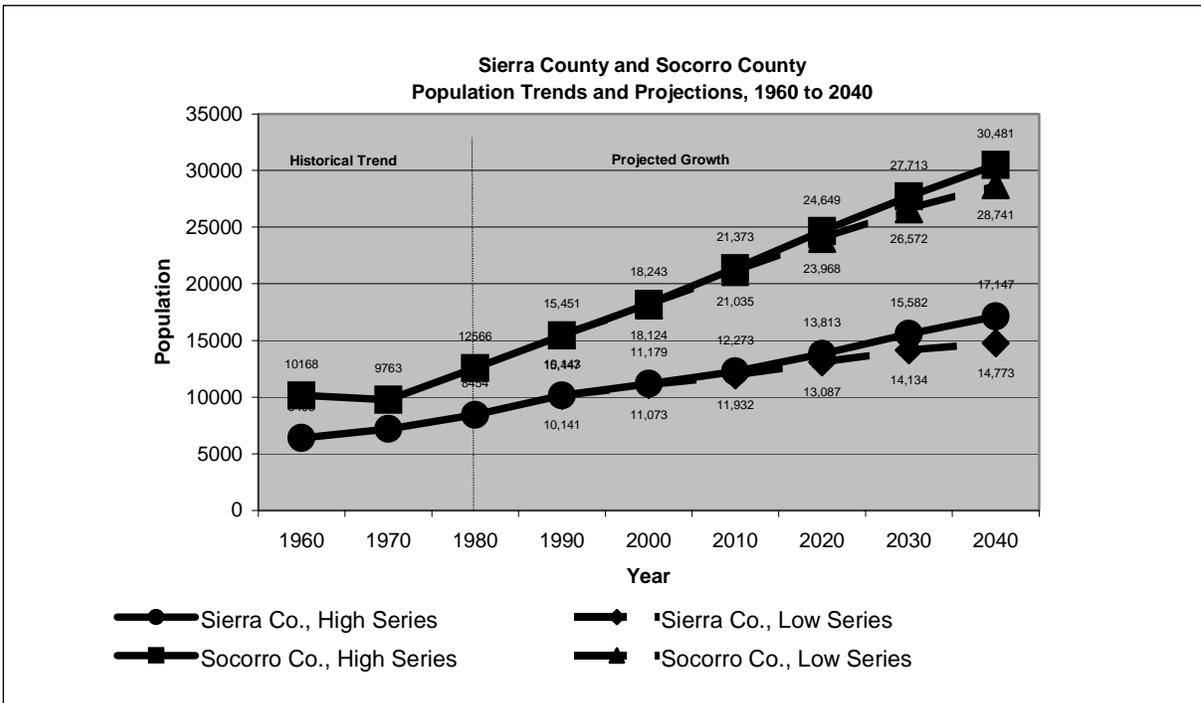
1. The fertility rate, or number of babies born per 1,000 women of child-bearing age
2. Life expectancy at birth

3. Net migration (number of persons who move to an area in a given period minus those who move out)

Fertility and mortality rates tend to change slowly over time, rendering them easier to predict. Migration rates can vary more over time, making them harder to predict into the future.

Using slightly different assumptions for each, the model produced both high and low population projections for Socorro and Sierra counties in five-year intervals from 1995 to 2040. Projections are presented in the graph below.

The Sierra County population by 2040 was projected to be 17,147 in the high series (1.03 percent average annual growth rate) and 14,733 in the low series (0.74 average annual growth rate). Historically, the population in Sierra



County grew at an average yearly rate of 1.05 percent from 1930 to 1990. It grew faster from 1960 to 1990 — 1.44 percent average annual growth rate — than throughout the rest of the period, but has been leveling off.

For Socorro County, the 2040 population was projected to be 30,481 (1.3 percent average annual growth rate) and the low series 28,741 (1.2 percent average annual growth rate). This compares with an average annual growth rate of 0.71 percent from 1930 through 1990. The rate, however, accelerated to 2.05 percent year between 1970 and 1990, and began to flatten after that.

Several interesting population trends for each county emerged from the study:

Sierra County:

- ◆ The fertility rate has increased from a low of 67.3 births per 1,000 women ages 15-44 in 1970 to a high of 80.7 births in 1997.

- ◆ Because fewer women are in the child-bearing ages than in Socorro County, Sierra County has only 0.6 births for every death. All of the population increase comes from net migration into the county, particularly from retirement-age groups.

- ◆ A high proportion of the population ages 20-24 (more than 50 per 1,000) and 25-29 (25 per 1,000), particularly males, tends to leave the county, presumably in search of economic opportunities elsewhere.

- ◆ Approximately 3,700 seasonal visitors in addition to the regular population reside in the county and should be considered in calculating water use.

Socorro County:

- ◆ The fertility rate has declined from a high of 131.8 births per 1,000 women in 1970 to a low of 70.7 births in 1997. The exceptions were the rates for women ages 20-24 and 25-29, which increased to 76.6.

- ◆ Overall there were 2.1 births for every death in the county from 1995-97. Most of Socorro's population increase between 1980 and 1990 came from natural increase (births minus deaths).

- ◆ Young people, particularly males, ages 20-24, 25-29, and 30-34 also tend to leave Socorro County, although at a much lower rate than in Sierra County. The true rate, however, may be partially masked by incoming students to New Mexico Tech.



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