



## Understanding Population Projections

Population projections identify the expected future size of the population (and selected subgroups). Projections are used to plan needed services, apply for grants, and justify public and private investments. Because projections attempt to describe the population in the future, they contain two elements that are important to understand before the data can be applied in a meaningful and appropriate way.

First, all projections contain varying degrees of **uncertainty**, depending on:

- 1) The span of years projected. Projections for the year 2040, for example, are much more uncertain than projections for 2020.
- 2) The size of the geography for which they are developed. Projections for localities are, in general, more uncertain than projections at the state level.

Unanticipated factors that can impact the accuracy of projections (such as cultural, economic, natural/environmental, or political events) are difficult to foresee and to quantify. One can safely conclude, however, that there is less uncertainty about how much can really change between now and 2020 – and much more about what can occur between now and 2040.

Second, the way projections are developed reflects **assumptions** about the future. These assumptions may be based on past demographic trends, on current local planning and policy, or on deliberate future visioning. Demographers, economists, planners, and policy makers may make different – even conflicting – assumptions that are logical and credible; and those assumptions lead to projections methods that yield significantly different results.

For the purposes established under our contract with the Commonwealth, the Cooper Center's projections team established the following principles for producing projections for Virginia's 133 localities:

1. The projections method must be applied uniformly to all localities in Virginia; and the necessary input data must be universally available and of high quality.
2. The projections method must be guided by rigorous demographic and statistical standards, and carefully tested against census data. The results of this testing must find that the method produces reasonable, consistent projections at both the locality and state levels.

In multiple empirical studies of county-level projections in the states and the nation, typical errors were 12 percent for 10-year projections and 36 percent for 30-year projections. The method we developed produced an error of 4 percent for 10-year projections and 18 percent for 30-year projections.

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