

Abstract of Methods for the Colorado State, County, Municipal and Special District Population Estimates

Colorado Department of Local Affairs
State Demography Office

October 2009

State and County Population Estimates Method

The Colorado State Demography Office (SDO) applies a basic Components of Change Method to create annual (July 1) State and County Population Estimates.

For example:

July 1 2007 Population
+ July 1 2007 to June 30 2008 Births
– July 1 2007 to June 30 2008 Deaths
+ July 1 2007 to June 30 2008 Net Migration and Change in Group Quarters
July 1 2008 Population

Birth and Death data are provided by the Colorado Department of Public Health and Environment. Net Migration data are from the U.S. Census Bureau (IRS, Medicare and Immigration Statistics). Changes in Group Quarters facilities (such as dormitories and barracks) are provided by local governments and other agencies through an annual survey that the SDO conducts.

Municipal and Unincorporated Area Population Estimates Method

The SDO applies a Housing Unit Method along with the County Population Estimates to create annual Municipality and Unincorporated Area Population Estimates.

For example:

Step 1: Split the Municipality into its parts that overlap different Counties

Step 2: $\text{HouseholdPopulation08}_c = \text{Population08}_c - \text{GroupQuartersPopulation08}_c$

Step 3: $\text{InitialEstimate08}_m = \text{TotalHousingUnits08}_m \times \text{OccupancyRate07}_m \times \text{PersonsPerHousehold07}_m$

Step 4: $\text{Proportion08}_m = \text{InitialEstimate08}_m / \text{Sum}(\text{InitialEstimate08}_m)$

Step 5: $\text{FinalEstimate08}_m = (\text{Proportion08}_m \times \text{HouseholdPopulation08}_c) + \text{GroupQuartersPopulation08}_m$

Where “c” represents a County and “m” represents a Municipality or the Unincorporated Area in that County

Housing Unit data are provided by local governments whenever possible and the U.S. Census Bureau if there is no direct local source. Group Quarters facilities (such as dormitories and barracks) are provided by local governments and other agencies through an annual survey that the SDO conducts.

Special District Population Estimates Method 1

When reliable Housing Unit data is available, the SDO applies a Housing Unit Method along with the Municipality and Unincorporated Area Population Estimates to create annual Special District Population Estimates.

For example:

Step 1: Split the Special District into its parts that overlap different Municipalities and/or Unincorporated Areas

Step 2: $\text{HouseholdPopulation08}_m = \text{Population08}_m - \text{GroupQuartersPopulation08}_m$

Step 3: $\text{InitialEstimate08}_d = \text{TotalHousingUnits08}_d \times \text{OccupancyRate07}_d \times \text{PersonsPerHousehold07}_d$

Step 4: $\text{Proportion08}_d = \text{InitialEstimate08}_d / \text{Sum}(\text{InitialEstimate08}_d)$

Step 5: $\text{FinalEstimate08}_d = (\text{Proportion08}_d \times \text{HouseholdPopulation08}_m) + \text{GroupQuartersPopulation08}_d$

Where “m” represents a Municipality or Unincorporated Area, and “d” represents a Special District in that Municipality or Unincorporated Area

Housing Unit data are provided by local governments whenever possible and the U.S. Census Bureau if there is no direct local source. Group Quarters facilities (such as dormitories and barracks) are provided by local governments and other agencies through an annual survey that the SDO conducts.

Special District Population Estimates Method 2

In the absence of reliable Housing Unit and/or Group Quarters data (as is the case for most Special Districts), simple proportional adjustments to each of the Municipalities and/or Unincorporated Areas that the Special District overlaps are made to update the Special District Population and Household Estimates.

For example:

Step 1: Split the Special District into its parts that overlap different Municipalities and/or Unincorporated Areas

Step 2: $\text{TotalPopulation08}_d = \text{TotalPopulation07}_d / \text{TotalPopulation07}_m \times \text{TotalPopulation08}_m$

Where “m” represents a Municipality or Unincorporated Area, and “d” represents a Special District in that Municipality or Unincorporated Area

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