

---

# Claritas Demographic Update Methodology Summary



© 2006 by Claritas Inc. All rights reserved.

**Warning!** The enclosed material is the intellectual property of Claritas Inc. (Claritas is a subsidiary of VNU, a global information and media company.) This manual and its contents are protected under Federal Copyright Laws, Title 17 of the U.S. Code. Under this copyright law, unauthorized users may be subject to civil liability including an injunction, actual damages, infringer's profits, and statutory damages of up to \$100,000. Criminal penalties may include a fine of up to \$25,000 and/or up to one year's imprisonment. All reproduction of this document without the expressed written permission of Claritas Inc. is strictly prohibited. By reading further in this document, you are implicitly agreeing to these terms and conditions.

# Claritas Demographic Estimation Program

The Claritas Demographic Estimation Program, currently in its fourth decade, is in the hands of the industry's most experienced demographers. The Claritas Program draws upon the strengths of five of the industry's pioneering programs and is supported by extensive research and evaluation, with results often documented in professional papers.

A yearly result of the estimation program is the Claritas Annual Demographic Update, which contains **estimates** (data prepared for the current year) and **projections** (data prepared for dates five years in the future).

The update starts with the estimation and projection of base counts, and is then followed by characteristics relating to these base counts. Data for large geographic areas is prepared first, followed by progressively smaller areas, with the data being adjusted to ensure consistency from one level to the next.

The target date for estimates and projections is January 1 of the relevant year.

## Trending

To take full advantage of methodological refinements and new data resources, each set of updates begins not with the previous year's estimates, but with data from the most recent decennial census. For this reason, the difference between estimates for consecutive years is not an estimate of change from one year to the next. Change is estimated with reference to the previous census numbers.

## Variable Categories

The Claritas Demographic Update includes data items for Base Counts, Population Characteristics, Household Characteristics, Housing Characteristics, and Means and Medians. For more information about the individual data items for each category, see the Claritas 2006 Demographic Methodology.

## Geography

The Update is produced for standard census geography levels as well as non-standard but commonly used areas such as metropolitan areas, ZIP Codes, and DMAs. For more information about the geography levels for the update, see the *Claritas Demographic Update Methodology*.

In addition to the geographic levels mentioned above, data is also available for the following boundaries and areas:

- Designated Market Areas (DMAs)
- Congressional districts
- Telephone service areas  
NPA/NXXs  
Wire Centers
- Cable Television franchise areas
- Natural gas service areas
- Electric service areas
- Yellow Pages directory areas

# Data Item Summary

## Base Counts

Base counts are available for population, households, family households, group quarters population, and housing units. Base counts are available at the national, state, county, place, census tract, block group, and ZIP Code geography levels.

At the national, state, county, and place geography levels, base count information is based on information from the United States Census Bureau and, in some cases, state demographers. At the census tract and block group levels, base count information is based on sources including local estimates, trends in United States Postal Service (USPS) deliverable address counts, counts from the new Claritas Master Address List, and trends in consumer counts from the Equifax TotalSource database.

## Population Characteristics

Information about population characteristics is available for age, sex, race, Hispanic ethnicity, and age by sex by race by ethnicity.

### Population by Age/Sex

Age/sex distribution is estimated using a modified cohort survival method, which ages population based on age/sex specific survival probabilities, and estimates births over the estimation period. Group quarters and other populations that do not age in place are not aged. The method is applied first at county level using the most recent county-level data available from the Census Bureau. Tract data is produced next, and is controlled to the data at the county level; block group data is controlled to tract level.

### Population by Race/Ethnicity

Race by Hispanic ethnicity is estimated for 14 categories reflecting single classification race. County estimates are produced first, using the most recent county-level data available from the Census Bureau. Tract and block group estimates are both produced based on 1990-2000 census trends, and are controlled to the next higher level. The 1990-2000 census trends are identified through Claritas' bridging of 1990 census race data to the 2000 census race definitions. Estimates of all-inclusive race are derived from the single classification estimates through the use of Census 2000 ratios of race counts and tallies.

## Household Characteristics

Information about household characteristics is available for household income, household size, age of householder, race and ethnicity of householder, and the year the householder moved into the unit.

### Household Income

Income estimates and projections reflect the census money income definition, and are produced for current dollar values. Rates of change in median income are estimated first, then the 2000 census income distributions are advanced to reflect the estimated rate of change. Income estimates at the county level and above reflect income change estimated by the Bureau of Economic Analysis (BEA) as well as income change indicated by statistics from the Internal Revenue Service (IRS).

Income change at the tract and block group levels is estimated based on information from the Equifax Consumer Marketing Database, the TotalSource consumer household database, and projections of inter-censal trends.

Distributions of 2000 census income are advanced to the estimated and projected years through a process that estimates the movement of households from one income category to the next based on the specific area's estimated rate of income growth.

## **Household Size**

Estimates for size of household are produced by using the most recent decennial census data and advancing it to the current year based on the estimated change in household size. Iterative proportional fitting is then used to ensure consistency with previously estimated household totals and average household size.

## **Income by Age of Householder**

The income by age estimates are produced after those for population by age and households by income. The household by income estimates serve as totals for the income dimension, but persons by age estimates are converted to householders by age through the use of headship rates reflecting 2000 census householder by age data. The households by income and householders by age estimates serve as income and age row and column totals for the estimated income by age table. Cell values (specific income by age categories) are estimated through iterative proportional fitting of Census 2000 income by age data to the estimated income and age totals. This process yields income by age values that not only sum to the income and age estimates, but also preserve the statistical relationship between income and age for each area as measured by the census.

## **Housing Unit Characteristics**

Information about housing unit characteristics is available for the total count of owner-occupied units, value of owner-occupied units, and age of housing units.

## **Housing Value**

Housing value is estimated for all owner occupied housing units. As with income, the method begins with the estimation of a rate of change, which is used to advance the 2000 census distribution to current and then projection year.

At the state and national levels, target rates of change in value are based on change in value estimated by the 2004 American Community Survey, as well as change in the House Price Index from the Office of Federal Housing Enterprise Oversight (OFHEO).

OFHEO data, which is available at the metropolitan area level, is combined with change in median sales price data from the National Association of Realtors to estimate change at the county level. Tract rates of change are based on a combination of projected inter-censal trends and post-2000 change in average mortgage amounts from the Equifax Consumer Marketing database.

As with income, estimated rates of change are used to advance the 2000 census distributions to current year. The national and state rates serve only as targets (not control totals) for the county estimates, while the tract and block group estimates are controlled to the next higher level.

## **Smoothed Data**

In addition to the annual demographic estimates and projections, the Claritas Update provides a series of detailed 2000 census tables that have been ratio-adjusted, or smoothed, to relevant current-year totals. These smoothed tables are not estimates, and purport only to show the effect of applying decennial census distributions to estimated base count totals at the block group level.