



Claritas Update Demographics Methodology Summary



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

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.

Hurricane Methods

Although Claritas was producing and releasing special sets of hurricane impact estimates throughout 2007, the 2007 update is the first standard product to include estimates of the impact of Hurricane Katrina.

County Level Population and Households

At the county level, estimates of post-Katrina population started with pre-hurricane estimates, then subtracted displaced persons, and added evacuees settling in the county. Displaced population was estimated using a Claritas block overlay of FEMA flood/damage maps that identified census blocks in areas of flooding or severe damage, and thus the number of persons likely displaced by these conditions. These estimates were also supplemented with Red Cross data on destroyed housing.

The displaced population was distributed to counties of destination based on the distribution of FEMA claims for assistance, converted from ZIP Codes to counties of origin. It is important to note that some counties had both displaced population and inbound evacuees, for a net change in population.

For dates well after the hurricane, the objective was to estimate the extent of population recovery in the direct impact counties, and distribute the correspondingly smaller displaced population to destination counties using the FEMA claims data. Estimates of recovery relied heavily on population estimates from local sources, such as the Louisiana Department of Health and Hospitals, the Louisiana Public Health Institute, and a special set of post-Katrina county population estimates from the Census Bureau.

Household estimates reflecting hurricane impact were derived from the population estimates, but required care since evacuations did not always involve whole households, and evacuees did not always establish new households in their counties of destination.

Census Tract and Block Group Estimates

Estimates at the tract and block group levels were based on post-hurricane changes in the count of deliverable residential addresses in the impacted areas. For many months following the hurricane, the USPS address counts did not reflect the impact on population, but by the fall of 2006, the impact was reflected in many areas, and enabled the production of the first small area impact estimates.

Demographic Characteristics

The impact of population and household characteristics is a greater challenge, and data on these impacts is still scarce. However, much of the impact traces to the characteristics of the persons, households, and housing units in the most heavily impacted neighborhoods. To reflect this, estimates of characteristics in selected counties were produced only at the block group, or neighborhood, level—without adjustments to Census-based county control estimates that would have reflected only pre-Katrina data. Estimates of characteristics from the ACS and the Louisiana Public Health Institute provided some guidance for these estimates, but, while valuable, this data is itself preliminary and is not suitable for use as control totals.

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 (i.e., NPA/NXXs and Wire Centers)
- Cable television franchise areas
- Natural gas service areas
- Electric service areas
- Yellow Pages directory areas

Variable Categories

Claritas Update Demographics includes the categories and their respective data items listed below.

Base Counts	Population Households (occupied housing units) Family households (households with two or more related persons) Group quarters population (e.g., dormitories, military barracks, prisons) Housing units (house, apartment, or group of rooms intended as separate living quarters)
Population Characteristics	Population by age Population by sex Population by race Population by Hispanic ethnicity Population by age by sex by race by Hispanic ethnicity
Household characteristics	Households by income Households by size (number of persons) Age of householder Income by age of householder Households by Effective Buying Income Householders by race and Hispanic ethnicity Households by income by race of householder Households by income by ethnicity of householder Households by year householder moved into unit
Housing Characteristics	Total owner-occupied units Owner-occupied units by value Housing units by year structure built
Means and Medians	Mean and median household income Mean and median family household income Mean and median Effective Buying Income Per capita income Median age of population Median age of householders Median home value

Data Item Summary

Base Counts

Base counts are the basic totals for population, households, family households, group quarters population, and housing units. At the national, state, county, and place geography levels, base count updates are based on estimates 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 Claritas Master Address List, and trends in consumer counts from the Equifax TotalSource™ database.

Population Characteristics

The characteristics for which population is estimated are 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

Characteristics for which households are estimated are 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), and in large counties, income estimates from the Census Bureau's new American Community Survey (ACS).

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

The distribution of households by size starts with the 2000 census distributions, and is then advanced to current year based on estimated change in persons per household (average household size). Iterative proportional fitting (IPF) 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

Characteristics for which housing units are estimated are 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 2005 American Community Survey, as well as change in the House Price Index from the Office of Federal Housing Enterprise Oversight (OFHEO).

At county level, the OFHEO data is combined with change in median sales price data from the National Association of Realtors to estimate change. An additional data source also contributed to the estimates in counties with large populations, due to the annual data from the ACS being available for the first time. 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 tables purport only to show the effect of applying decennial census distributions to estimated base count totals at the block group level. The list of smoothed data items is as follows:

- Persons by detailed single classification race
- Hispanic or Latino population by specific origin
- Persons by ancestry
- Households by household size, household type, and presence of own children
- Households by presence of persons under 18 years and household type
- Households by household type and household size
- Group quarters population by group quarters type
- Persons 5+ by language spoken at home
- Persons 15+ by sex and marital status
- Working population 16+ by means of transportation to work
- Working population 16+ by travel time to work
- Population 25+ by educational attainment
- Hispanic or Latino population 25+ by educational attainment
- Persons 16+ by sex and employment status
- Employed civilian population 16+ by industry
- Employed civilian population 16+ by occupation
- Employed civilian population 16+ by class of worker
- Aggregate household income by type of income
- Families by poverty status, family type, and presence of related children under age 18
- Housing units by units in structure
- Occupied housing units by tenure and vehicles available