

Vintage 2008 Estimates: Release Notes

These Vintage 2008 population estimates reflect three major improvements in the estimates methodology. In summary, improvements include changes in 1) the estimation of net international migration, 2) the incorporation of accepted challenges and special censuses into the national population estimates, and 3) the imputation of the race and Hispanic origin for births.

1. Estimation of Net International Migration

We estimate the net international migration component in four separate subcomponents: the net international migration of the foreign born, the net migration between Puerto Rico and the United States, the net international migration of the native population, and the net international migration of the military population. For Vintage 2008 processing, we updated our method for producing the first two subcomponents. The method changes were first introduced in Vintage 2007 in which we averaged our Vintage 2006 estimates with estimates produced using the new methods. The method changes for these components are described below.

In Vintage 2006, our estimate of net international migration of the foreign born was based on the change in the number of foreign born in two consecutive years of American Community Survey (ACS) data, with an adjustment for deaths to the foreign-born population. In Vintage 2008 we used a new method, which allows us to estimate in-migrants and out-migrants separately. We use the ACS data for the foreign-born population who reported living abroad in the prior year to estimate the foreign-born immigration and used a residual method and Census 2000 and ACS data to estimate the foreign-born emigration. In Vintage 2007, we used an average of the estimates derived from these two methods to estimate net international migration of the foreign born.

For the net migration between Puerto Rico and the United States, the Vintage 2006 estimate maintained a constant level of net migration based on observed migration during the 1990s. In Vintage 2008, we have updated our method to incorporate data from the ACS and Puerto Rico Community Survey (PRCS). For years when the PRCS was available (2005 and later), we defined ACS respondents who lived in Puerto Rico in the prior year as in-migrants and PRCS respondents who lived in the United States in the prior year as out-migrants. For the beginning of the series, we used a combination of prior research and information from the ACS and PRCS to complete the time series of estimates of net migration between Puerto Rico and the United States. In Vintage 2007, we used an average of the estimates derived from these two methods to estimate net migration between Puerto Rico and the United States.

2. Incorporation of Accepted Challenges and Special Censuses into the National Population Estimates

In Vintage 2007, we assumed that the national population estimates were unaffected by the results of accepted challenges to the population estimates.¹ We distributed the difference in population resulting from these challenges and special censuses across all counties without a challenge or special census, affecting every such county by the same proportion.

In Vintage 2008, we maintained the same procedure for past challenges and special censuses (for July 1, 2001 to July 1, 2006), but used a new method to incorporate challenges and special censuses for July 1, 2007. We allowed the national estimate to increase to reflect the challenge and special census results instead of distributing the population change across all counties not having challenges or special censuses.

Updated July 1, 2007 estimates for seven cities that challenged their Vintage 2007 estimates were received too late for the U.S. Census Bureau to fully review, approve, and incorporate the results into the Vintage 2008 estimates. These areas are Germantown, TN, Miami, FL, Toledo, OH, Winston-Salem, NC, Madeira, OH, Moscow, ID, and Kansas City, MO. The revised estimates are shown on the Accepted Challenges to Vintage 2007 Population Estimates page, but are not incorporated into the Vintage 2008 estimates for the seven cities.²

3. Imputation of Race and Hispanic Origin for Births

To produce population estimates, we need to know how many births took place since Census 2000 and the sex, race, and Hispanic origin of each newborn child. The race categories must be consistent with the 1997 Office of Management and Budget (OMB) race classification in which respondents are allowed to mark multiple race groups. The data collected by the National Center for Health Statistics (NCHS) from birth certificates only asks for the race and Hispanic origin of the parents, not the child. Therefore, we must impute the newborn child's race and Hispanic origin based on the race and Hispanic origin of the parents. Our basic tool for imputing this information is the relationship between the race and Hispanic origin of parents and children under age 1 as enumerated in Census 2000.

Imputations are also required to overcome a second complicating factor: race reporting options on most birth certificates are limited to the 1977 OMB categories of White; Black; American Indian, Eskimo, or Aleut; and Asian or Pacific Islander. These categories are not directly comparable to the race categories used in Census 2000.

In the Vintage 2007 population estimates, we utilized the Census 2000 distribution of the relationship between single-race mothers and single-race fathers (to best represent the 1977 OMB race categories) and their children under age 1 to impute the race and Hispanic origin in the 1997 OMB categories of Census 2000.

In the Vintage 2008 population estimates, we first converted the race of the mothers and fathers on each birth certificate to the 1997 OMB race categories by Hispanic origin using NCHS bridging factors. Then, we imputed the child's race and Hispanic origin using the Census 2000 distribution of the relationship between all mothers and fathers (including multiple race individuals) and their children under age 1. Last, we benchmarked the race and Hispanic origin distribution of the births to the Census 2000 distribution of children under age 1.

¹ For more information on the challenge program, see <http://www.census.gov/popest/archives/challenges.html>.

² The Accepted Challenges to Vintage 2007 Population Estimates page is located at http://www.census.gov/popest/archives/2000s/vintage_2007/07s_challenges.html.