

Population Estimates in the United States

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U S C E N S U S B U R E A U

Outline

What estimates we produce and why

Basic methodology and data sources

How we produce population estimates by
race and Hispanic origin

Annual Estimates

- Population
 - National by age, sex, race, and Hispanic origin
 - State by age, sex, race, and Hispanic origin
 - County by age, sex, race, and Hispanic origin
 - Incorporated places and minor civil division totals
 - Puerto Rico Commonwealth and municipios by age and sex
- Housing units
 - State
 - County

Why Do We Produce Estimates?

Federal Mandate

The Intercensal Estimates Program is required under U.S.C. Title 13, Section 181:

“During the intervals between each census of population...the Secretary, to the extent feasible, should annually produce and publish for each State, county, and local unit of general purpose government which has a population of fifty thousand or more, current data on total population and population characteristics and, to the extent feasible, shall biennially produce and publish for other local units of general purpose government current data on total population.”

Uses of the Estimates

- Allocation of over \$300 billion in federal funds each year
- Controls for federal surveys
 - Current Population Survey
 - American Community Survey
 - Survey of Income and Program Participation
 - American Housing Survey
- Denominators for statistical rates
 - Birth and death rates (NCHS)
 - Per capita income (BEA)
- Program Planning
 - Location of public and private services

How Do We Produce Estimates?

National level:

Cohort-component method

$$P_2 = P_1 + B - D + \text{NIM (International Migration)}$$

State and county level:

Component of change method

$$P_2 = P_1 + B - D + \text{NM}$$

(controlled to the national estimates)

Subcounty level:

Distributive housing unit method

County population is distributed to subcounty parts based on updated estimates of housing

Data Sources for Base Population and Vital Statistics

- Base population
 - Latest census
- Vital statistics
 - National Center for Health Statistics (NCHS)
 - Federal-State Cooperative Program for Population Estimates (FSCPE)

Data Sources for Migration

- Domestic migration
 - Tax returns, Internal Revenue Service (IRS)
 - Social Security Administration
 - Medicare
- International migration
 - American Community Survey
 - Net movement to/from Puerto Rico
 - Foreign born net migration
 - Other sources
 - Native emigration

Data Sources for Group Quarters and Military

- Group quarters population
 - Census 2000
 - FSCPE
 - Department of Defense
- Military population
 - Department of Defense

Issues with Producing Estimates by Race and Hispanic Origin

- In 1997, new standards for collecting and presenting data on race and Hispanic origin were introduced
- In Census 2000, people could identify themselves as one or more race categories
- Inconsistencies in race categories across data sources

Race Detail in Estimates

- We produce estimates for 5 race alone categories
 - White
 - Black
 - Asian
 - American Indian and Alaskan Native
 - Native Hawaiian and Other Pacific Islander
- Two or more races
- 5 race alone or in combination categories
- A total of 31 race categories

Hispanic Origin

- We produce estimates for people of Hispanic origin who may be of any race
- Hispanic origin is self reported
- We cross our race categories by Hispanic origin (31 races by Hispanic and not Hispanic)

Base Population and Vital Statistics

- Base population
 - We modify the Census 2000 race categories
- Births
 - Data for most states are not available in current race categories
 - Race of parents provided on birth certificate not race of child so we model race of child using Census 2000 data
- Deaths
 - Inconsistencies between race a death (proxy report) and race at enumeration (self report)

Migration

- Internal migration
 - Use tax returns for estimating the rates
 - We match these returns to other Census Bureau data sources to obtain race and Hispanic origin
- Net international migration
 - Use American Community Survey for estimating a national level
 - We use the Census 2000 distribution by race and Hispanic origin for people who entered in the last 5 years to produce the race and Hispanic origin distribution for international migrants

Group Quarters and Military Data

- Group Quarters
 - Do not have current race or Hispanic origin data
 - Assume the race and Hispanic origin distribution from Census 2000
- Military
 - Have national and state data on Hispanic origin
 - We use race distribution from Census 2000
 - We distribute the state population to counties using the race and Hispanic origin distribution from Census 2000

Summary

- Demand for data disaggregated by age, sex, race and Hispanic origin and at low levels of geography (e.g., counties)
- Inconsistencies among data sources requires assumptions about race and Hispanic origin
- The demand and the complexity combined have an impact on the quality of estimates produced