

# Introduction

## POPULATION CHANGE

Michael R. Haines and Richard Sutch

The most basic historical statistic about any country is its “national population.” The national population as defined by the U.S. Census Bureau is the resident population of the country including noncitizens who are permanent residents and, during major foreign wars, the armed forces abroad. For the nineteenth century and through to 1912, it is conventional to include the population of territorial possessions that would eventually become part of the forty-eight contiguous states. The populations of Hawai’i and Alaska are traditionally included only after their admission to statehood in 1959 (see Table Ap-E in Appendix 2). The national population excludes the population of outlying areas of the United States such as Puerto Rico.

The national population is counted only once every ten years at the constitutionally mandated decennial census (see Article I, Section 2 of the U.S. Constitution). The first such census was conducted in 1790, and it has been repeated each decade since then. See series Aa2 for the enumerated populations at each census. The U.S. Bureau of the Census has made estimates of the national population for the intervening years using linear interpolation for the period 1790–1900. First, the census data were adjusted to put the population in the census year at its level on July 1. Next, a constant numerical increase in each year is calculated to exactly connect the populations at two adjacent census dates. These annual increases are used to estimate the population on July 1 for each of the intervening years. If these data were plotted on a graph, a straight line would connect each census date figure.

For the period 1900–1930, the Census Bureau made intercensal interpolations by a more eclectic and complicated interpolation procedure that exploited detailed data on the age, sex, and racial breakdown of the population at each of the four censuses conducted during that period. Since 1930, the annual interpolations have been made by the components of change method described next.

### Population Change

As a mathematical proposition, the population one year from now is equal to the population today plus the births that occur over the course of the year, minus the deaths, plus net immigration from abroad. Net immigration is calculated as the number of immigrants

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The essay by Charles Hirschman, Richard Alba, and Reynolds Farley is an abbreviated and revised version of “The Meaning and Measurement of

who arrived during the year less the number of departures. In its simplest realization, the components of change method begins with a national census count. It then derives annual estimates of the change in the population in the succeeding year by summing the three components of change: births, deaths (a negative number), and net immigration (positive or negative). Birth and death statistics are taken from vital records, and estimates of net immigration are based on administrative data collected (for the most part) by the U.S. Immigration and Naturalization Service.

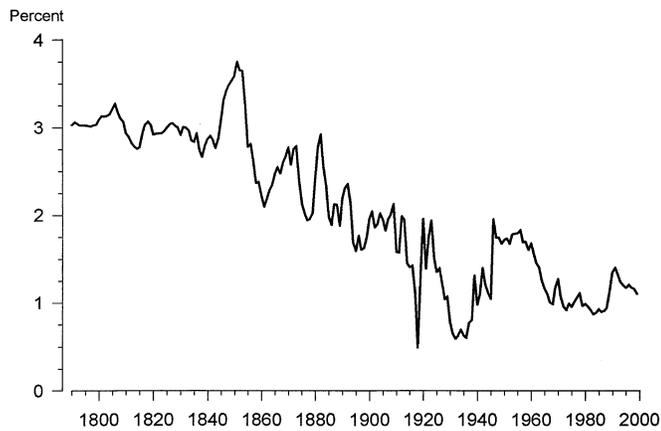
After ten successive calculations, the next census date is reached. If all of the data were perfect – without error – then the effect of cumulating the components of change would bring the count to exactly the number enumerated at the second census. Perfect counts are unlikely, of course, and the population estimated by the components of change method usually will not exactly match the population enumerated at the second census. The difference between the actual enumerated population and the estimated population is called the “error of closure.” This difference is attributable to some combination of errors in counting the components of change or incomplete or imperfect enumeration at the two censuses.

For this edition of *Historical Statistics of the United States* we have made new intercensal estimates of the national population for 1790–1900 using the components of change approach rather than the linear interpolations used in the previous editions. For the period 1900–1930, we have added the components of change and calculated an error of closure consistent with the official totals published by the Census Bureau. These are linked to the official census figures for the twentieth century. See Table Aa9–14 for the data and the description of these new estimates. Figure Pa-A plots the rate of net population change.

The unusually high values of the rate of population change for the 1840s were caused primarily by the influx of immigrants from Ireland escaping the devastation of the Irish potato famine. The unusually low value for 1918 is attributed to the high mortality during the influenza epidemic. The low values during the Great Depression of the 1930s are attributed by scholars to the reduction in fertility brought on by hardship and the net out-migration from the United States. The high levels of population change exhibited for the late 1940s and the 1950s reflect the postwar “baby boom.”

All of the ingredients for making estimates of the population are to be found in Part A. The chapter on population characteristics (Chapter Aa) presents statistics on the size and composition of the population with detailed information by age, sex, race, marital status, nativity, and place of residence. The chapter on vital statistics (Chapter Ab) contains statistics on fertility and mortality, the two

Race in the U.S. Census: Glimpses into the Future,” *Demography* 37 (August 2000): 381–93. The authors gratefully acknowledge Susan Carter’s advice and assistance in revising the article for publication in this volume.



**FIGURE Pa-A Rate of net population change: 1790–1999**

**Source**

Series Aa10 as a percentage of series Aa9.

components of the natural increase of a population, and Chapter Ad, on international migration, presents data on immigration and emigration, the other two sources of national population change. Chapter Ac, on internal migration, presents information on movements of the population within the United States, which can be a significant element in the population growth (or decline) of a state or region of the country.

Completing Part A are three chapters that examine the characteristics of the population from different perspectives. Chapter Ae examines marriage, family composition, and living arrangements. Chapter Af presents data for population cohorts organized by year of birth. Finally, Chapter Ag presents the available data on American Indians, a unique segment of the American population.

## Characteristics of the Population

The Millennial Edition of *Historical Statistics* is organized around functional categories rather than by the characteristics of the population. That fact, however, should not distract the user from the importance of the changing composition of the population. Although some would consider the population counts presented here rather dry information of interest only to demographers, in reality these counts are the starting place for examining almost any subject from an historical perspective. Particularly notable in this regard are the social and economic issues that revolve around race, ethnicity, and gender. Because of the importance of these issues, many of the tables in *Historical Statistics* report figures separately for men and women and for separate races, variously defined. We have no separate chapters on gender or race.<sup>1</sup> Nonetheless, these distinctions are so important that they require some discussion at the outset.

Table Pa-B provides a chronology of important events relating to race, ethnicity, and gender. The second essay in this introduction to Part A charts changes over time in the definition of race and ethnicity from the first federal census of 1790 to the present. The third essay describes the evolution of race and ethnic distinctions in American life as influenced by the institution of slavery, the

changing magnitude and character of immigration from abroad, internal migration, economic development, and other factors.

Gender is the other preeminent social category in American life. Because sex – the biological correlate of gender – is a key component of personal identification, gender identification is requested in almost all official records, including census counts, birth and death registers, school enrollment, and more. Many governmental agencies publish the data they collect in a format that is disaggregated by sex. The rich availability of these sex distinctions in the quantitative historical record makes it possible to illuminate the many differences in the experience of men and women both today and in times past. These gender differences are pronounced, and they cut across most aspects of life. Gender distinctions appear in virtually every chapter of *Historical Statistics*. The changing salience of gender in America is also the subject of a large scholarly literature. Important works of synthesis include Smuts (1959); Baxandall, Gordon, and Reverby (1976); Brownlee and Brownlee (1976); Cott (1977, 1987); Degler (1980); Kessler-Harris (1982); Woloch (1984); Jones (1985); Bergman (1986); Goldin (1990); Sklar and Dublin (1991); and Folbre (1994).

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## RACE AND ETHNICITY: DEFINITIONS AND MEASUREMENT

Charles Hirschman with Richard Alba and Reynolds Farley

For 200 years, race has been a standard item in the decennial censuses of the United States. These official statistics on the population by race are displayed in Table Aa145–184. For much of this period, there was no popular debate and apparently no major problem in the

<sup>1</sup> Chapter Aa on population characteristics has a separate section on the Hispanic population and Chapter Ag is on American Indians. Hispanic origin or identification is not considered to be a race.