

standing of immigrants and their children. No use is made of previous data on mother tongue. No use is made of the data on educational attainment collected in 1940 and 1950. No use is made of census data on marital status or of data from other sources on intermarriage.

Despite these statements, the reviewer hastens to emphasize his belief in the value of this book. The author does provide excellent data on a variety of characteristics other than occupation. His measure of "relative concentration" by state of residence and by occupation is worthy of wider use. Those interested in trends in the occupational characteristics of the foreign born will be particularly indebted to Dr. Hutchinson for this work.

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HEALTH AND DEMOGRAPHY¹

HEALTH AND DEMOGRAPHY is a report which was originally presented at a seminar held by the Bureau of State Services of the Public Health Service on some of the population trends and developments which may have an impact on present and future health programs. A running commentary faces all of the forty-four charts which are organized in five major groups: (1) Dynamics of population trends in the United States, (2) Population trends for major geographic areas and states, (3) Population characteristics: age and marital status, (4) Population characteristics: economic, and (5) Indicators of health and disease.

Demography is the study of "the past, present and probable future of the population—in terms of total number, fertility and mortality trends, age and sex composition, occupation, mobility, and other measurable characteristics." Public health and demography are interdependent. Every population change affects public health just as public health programs affect the age-composition of the population.

¹ Dunn, Halpert L.: HEALTH AND DEMOGRAPHY. Public Health Service, United States Department of Health, Education, and Welfare, October, 1956, 94 pp.

The first section concerns the dynamics of population trends in the United States. Population change results from births, deaths, and net migration. Population in the United States has increased continuously since the first Census in 1790. The births have consistently exceeded deaths, life expectancy has increased steadily, and although immigration has become relatively unimportant in recent years it still exceeds emigration. Over 90 per cent of the population growth in the last two decades has resulted from natural increase, i.e., the excess of births over deaths. However, a study of trends in the birth rates for first, second, third and later children show sharp declines in all birth orders during the 1920's and early 1930's.

Age-adjusted death rates are shown for the four major groups by color and sex. Except for the peak in 1918, the death rates have steadily decreased, 50 per cent or more in each group. Death rates are consistently higher for nonwhites than for whites and for males than for females. Annual death rates are shown for each of eight age groups. The age groups under 45 show steeper declines in mortality than those at older ages. The average duration of life has increased over twenty years (from 43 to 64 years) since 1900. The white-nonwhite differences in average length of life have decreased while the male-female differences in average length of life have increased.

The second section of the report concerns population trends for major geographic areas and states. The world population of 545 million in the year 1650 doubled in size by 1850 and quadrupled by 1950. It is currently increasing by about 1 per cent yearly. North America has shown the most striking gain in size: from 1 million in 1650 to 150 million in 1950. While the rate of immigration has decreased, internal migration has caused great shifts in population distribution. A glance at the population growth by regions shows that the population in the West has increased more rapidly than in other sections of the country. Further breakdowns are shown by states, counties, and urban-rural status. Rapid urbanization is very evident. The effects of internal migration by states include redistribution not only of the total population but also of specific age groups. Persons in the 18-44 age group predominate in the migrating population. Changes in the Negro population are

evidenced between 1940 and 1950. There has been a general exodus of Negroes from the South, particularly the South Central States. The Negroes comprised 10.0 per cent of the total United States population in 1950.

The third section pertains to the population characteristics: age and marital status. Between 1900 and 1940 the percentage of people over age 40 increased and the relative number of children and youth decreased. In 1950, the nonwhite population and the rural population both had larger percentages of younger persons than did the white and urban populations. The proportion of persons 65 years of age and over has risen steadily, from 3.4 per cent in 1880 to 8.1 per cent in 1950 and is especially high in the New England and the West North Central States. It is interesting to note that the ratio of males to females in the aged group has decreased sharply since 1930. At ages 70 and over, more women are widowed than are married while the reverse is true for men. The increased expectation of life and the decline of the birth rate have been followed by an increase in the proportion of aged persons. The proportion dying at age 65 or over has increased from 13.8 per cent in 1880 to 56.5 per cent in 1955.

The economic population statistics are discussed in Section iv. In the 1940's, the male labor force increased as the male population of 14 and over increased, but the female labor force increased more than twice as much as the adult female population. The greatest increase for both sexes occurred in the Western States. By major occupation group, it is evident that the workers entered offices and factories and left the farms and private housework. Industrialization has been most rapid in the Western half of the United States although in 1950 the North-eastern quadrant was still the most highly industrialized part of the country.

The concluding section concerns indicators of health and disease: changing patterns in the causes of death, age-specific death and illness rates, infant mortality, and life expectancy. The leading cause of death changes from accidents below the age 25 to heart disease for the adult ages. Disabling illness is largely acute in the younger ages and chronic in the older ages. The mental and neurological diseases continue as the leading

cause of disability until old age when the chronic diseases take their toll. Trends of death rates show the decline as a cause of death of acute infectious diseases as tuberculosis, nephritis, syphilis, and rheumatic fever and the rise of noninfectious diseases as heart, diabetes, cancer, and stomach ulcer. Life expectancy during 1949–1951 was higher for the females than for the males (72.0 and 66.3, respectively).

Dr. Dunn concludes that with the growing conquest of communicable disease by eliminating the pathogen as in water sanitation, by eliminating the vector as in insect control, and by immunizing the potential host, we may next turn our attention to the kinds of diseases or lack of good health that are bound up with the social economic world in which people live and work. Many changes mentioned in the previous charts (urbanization, industrialization, aging population) are conducive to personal maladjustment and resulting illness. We need more research on the social environment and on health in the “normal” or fully fit individual.

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