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PUBLIC HEALTH SERVICE

LEONARD A. SCHEELE, SURGEON GENERAL

# VITAL STATISTICS OF THE UNITED STATES

## 1950

### VOLUME I

ANALYSIS AND SUMMARY TABLES WITH SUPPLEMENTAL TABLES  
FOR ALASKA, HAWAII, PUERTO RICO, AND VIRGIN ISLANDS



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## PREFACE

This is one of three volumes presenting final, definitive vital statistics of the United States, its Territories, and certain possessions for the year 1950. Their subject matter consists of vital events that occurred in the United States during the year—marriages, divorces, births, fetal deaths, infant deaths, and deaths among the general population.

The annual report is organized as follows:

- Volume I. Analysis and Summary Tables With Supplemental Tables for  
Alaska, Hawaii, Puerto Rico, and Virgin Islands
- Volume II. Marriage, Divorce, Natality, Fetal Mortality, and Infant  
Mortality Data
- Volume III. Mortality Data

This organization of material represents a change from previous years. From 1900, when the annual collection of mortality statistics for the national death-registration area was established, through 1914, annual reports entitled "Mortality Statistics" were published in single volumes. Beginning with the first year of the national birth-registration area in 1915, the annual report was published in two volumes, "Mortality Statistics" and "Birth Statistics for the Birth Registration Area of the United States." Stillbirth statistics were added in 1922, and for the years through 1936 the two volumes were titled "Mortality Statistics" and "Birth, Stillbirth, and Infant Mortality Statistics."

Major changes in content and organization were made in the annual report for 1937. For the first time, all births and deaths reported in the United States were tabulated by place of residence, in addition to the usual tabulations by place of occurrence. In the new tabulations, births and deaths were assigned to the actual place of residence, no matter where they occurred. In view of the distinct uses of the new data by place of residence, the two types were issued in separate volumes: "Vital Statistics of the United States, Part I, Place of Occurrence" and "Vital Statistics of the United States, Part II, Place of Residence." During the period 1937 through 1949, when the report was issued in this form, the place-of-occurrence tables were gradually reduced, and the place-of-residence tables were expanded because residence data have greater value for most purposes. In the volumes for 1950, almost all natality and mortality tables are on a place-of-residence basis.

Statistics on marriages and divorces have been included in the annual reports beginning with 1946. All tabulations of marriages and divorces are by place of occurrence. Life tables for the United States have also been included beginning with 1946. Summary statistics of reported cases of certain notifiable diseases were first published in the annual report for 1949.

The year 1950 is of particular significance because of the availability of detailed population data obtained in the decennial census. Many vital rates for States, counties, and cities can be calculated for the census year or the period around it, which cannot be done at any other time. Also, for the country as a whole, population statistics are available on more characteristics and in greater detail. A special effort has been made in the annual report for 1950 to take advantage of the information from the population census. A considerable number of text and summary rate tables have been included in Volume I. In addition, the general tables in Volumes II and III provide detailed data which can be readily translated into meaningful rates by use of the published census figures. The full range of birth and death statistics tabulated for 1950 is indicated in the Guide to 1950 Tabulations in Volume I. The tabulations provide greater detail than is published in this report, particularly for individual counties and cities. All these data, as well as those for past years, can be made available upon request.

In using data from any of the three volumes, it is recommended that reference be made to the explanatory text in Volume I, which describes the sources, nature, and limitations of the statistics.

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Data not available (3 dashes) -----	---
Quantity is zero, in frequency tables (1 dash)-----	-
Quantity is zero, in rate or percent tables (1 cipher)-----	0
If rate or percent is more than 0, but less than 0.05 -----	0.0
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# Vital Statistics of the United States

## INTRODUCTION

This volume—Vital Statistics of the United States, Volume I—presents descriptive and analytical materials relating to vital statistics in this country, with particular emphasis upon the interpretation of the statistics for 1950 and the trends for preceding years. Availability of detailed population data from the 1950 decennial census made it possible and desirable to increase considerably the number of summary rate tables and also to expand the analytical discussion of the statistics.

New information has been included in the text and tabular materials. For example, chapter 1 contains discussions of the historical development of vital statistics in the United States and of the present organization of registration activities. Chapter 2 includes new information on the problem of allocation of vital events to place of usual residence. Chapter 3 presents a brief survey of the public health and demographic implications of changes in population and vital phenomena. Chapter 4 covers data on reported cases of notifiable diseases. Chapter 5 contains additional information on the characteristics of persons getting married or divorced. Chapter 6 presents an expanded analysis of age-specific birth rates, with a new section analyzing data on births by birth weight and period of gestation, and the relations between these fac-

tors and neonatal mortality; and recent information on completeness of birth registration. Chapter 7 contains data on fetal mortality by birth order, birth weight, and period of gestation. Chapter 8 includes analyses of differences and trends of age-specific and age-adjusted death rates and an expanded study of trends in mortality due to the major causes of death.

Vital statistics for Alaska, Hawaii, Puerto Rico, and the Virgin Islands are also included in this volume.

Various individuals contributed to the text analyses in this report: Hazel V. Aune and Mort Gilbert, chapter 1; Howard West, Lillian Guralnick, and Sam Shapiro, chapter 2; Robert D. Grove, chapter 3; Dr. C. C. Dauer, chapter 4; Hugh Carter and Sarah Lewit, chapter 5; Sam Shapiro, Joseph Schachter, and Jeanne Unger, chapters 6 and 7; and I. M. Moriyama, Lillian Guralnick, Evelyn Halpin, and Tavia Gordon, chapter 8.

Other individuals made significant contributions to the reports. These are the personnel of the Statistical Processing Branch who performed the basic coding, machine tabulations, preparation of analytical tables and charts, layout and typing of the final copy, and editorial review of the entire report.

## Chapter 1

# HISTORY AND ORGANIZATION OF THE VITAL STATISTICS SYSTEM\*

### HISTORICAL DEVELOPMENT

#### Introduction

More than 7,000,000 birth, death, marriage, and divorce certificates were recorded in 1950. Many organizations and many millions of citizens used these records—or certified copies of them—for a variety of personal, legal, health, and other purposes. Vital statistics derived from the records were part of the factual basis for a great segment of the private and public business transacted in the United States. They entered into the planning and operation of health programs, social welfare, education, economic enterprises (ranging from life insurance to the marketing of babies' toys), and a broad gamut of other activities essential to the well-being and prosperity of the country.

Behind the original records, the certified copies, and the vital statistics is a network of local, State, and Federal agencies. The purpose of this section is to tell how the vital records and statistics system of the United States was begun and developed, how its organization, concepts, and practices were continuously shaped by the growth and changing needs of the country. At various stages, new social institutions or advancing technology, particularly in the field of health, created new demands for records and statistics, and sometimes changed the emphasis and motivating drives of the system itself.

Most people take vital statistics for granted, assuming that any statistics they need should be freely available as part of today's culture. What distinguishes the men of today from those who lived before the American Revolution is that "we have all learned to talk in size language," as Lancelot Hogben puts it. "We live in a welter of figures: cookery recipes, railway time-tables, unemployment aggregates, fines, taxes, war debts, overtime schedules, speed limits, bowling averages, betting odds, billiard scores, calories, babies' weights, clinical temperatures, rainfall, hours of sunshine, motoring records, power indices, gas-meter readings, bank rates, freight rates, death rates . . ."<sup>1</sup>

Death rates are among the typical vital statistics that most people assume we have always had available and, without much effort, will continue to have. The real story is quite different: national statistics of deaths and births were achieved only within the present generation, after two centuries of intermittent struggle and building. Marriage and divorce

statistics are still incomplete and relatively primitive. Progress in registration and vital statistics has been part of the general advance of science and medicine, which developed by relying on measurements and other quantitative procedures. Medicine and the public health movement flourished by adopting the methods of science, by resorting increasingly to quantitative techniques. Among the most fruitful of these were the basic measurements of vital statistics. In turn, vital statistics were developed primarily because medicine and public health actively promoted and helped build the registration system that makes vital statistics possible in this country.

In recent years, as vital statistics became more precise—more comparable from place to place and from one period of time to another—they were better able to serve the general and specialized demographic needs of business, civil and military branches of government, social research and welfare, and the general public. In the broad spectrum of needs served by modern vital statistics, the band occupied by health and medicine, though still the most important segment, is only a part of the whole.

In some ways the American system is unique; the reasons for its particular course of development lie in the historic past. In colonial days, when a handful of settlements clung precariously to the eastern edge of the continent, many of our institutions borrowed heavily on the experience of our forefathers before they emigrated from England and other countries. Hence some of the roots of our present vital statistics system began in foreign soil. Some of the major roots lie in the beginnings of America itself—in the fact that Virginia, New England, Delaware, the Carolinas, Georgia, Pennsylvania, New Jersey, and other settlements were sponsored by more or less independent British companies or patrons; that when control of the Colonies passed to the Crown they were ruled by separate royal governors; and that when they won independence they turned, by the nature of their past life and conditioning, to a federal rather than a centralized government, so that the federated States were self-governing in all matters not expressly conferred on the national government by the Constitution.

To apportion the Congressional representation of each State according to its population, the States provided in the Constitution itself for a decennial census. Hence, throughout the course of its development in this country, the census has been a national function. The need for vital statistics, on the other hand, was unrecognized when the Constitution was framed, and the vital records and statistics system developed originally not as a national undertaking, but first as a local, then as a State function. This historic accident, which makes the course of American vital statistics so different from that of countries where the function is national like the census, posed enormous difficulties, and undoubtedly slowed its development by many decades. At the same time, because American vital registration grew in response to local and State needs, it has support and sources of strength that might be lacking if the system were primarily national.

In practice, for the past century, American vital statistics and the census have worked hand in hand. Until recent years, the national functions in vital statistics were in fact lodged in the Census Bureau. Between census data and vital statistics,

\*This review of the rise of American registration and vital statistics is based on a limited survey of original and secondary sources. It is ventured as a beginning, in the hope that it will at least set forth the main lines of development so as to give registration and vital statistics personnel a glimpse of their heritage, provide educational material for the schools and the general public, and encourage students with a gift for research in history to dig into the subject matter more deeply.

An effort has been made to tell as a narrative the development of registration and vital statistics down to about 1900. The more recent story is presented more briefly, as a series of high lights.

<sup>1</sup>Hogben, Lancelot. "Mathematics for the Million," p. 20, New York, 1940.



though they continuously supplement and enrich each other in practice, there are two essential differences. First, the census is based on enumeration—a periodic count of the population and its characteristics made by canvassers in house-to-house interviews; vital statistics, on the other hand, are derived from vital records, which record events that occur to individuals. The second difference is that the census is decennial; vital records are made continuously, as the events occur. This second difference was described in vivid terms by Walter F. Willcox, a former Chief Statistician in the Washington Census Office:

A census is a sort of social photograph of certain conditions of a population at a given moment which are expressible in numbers, while registration is a continuous, contemporary, movie-camera record of births, marriages, divorces, or deaths . . . . In theory the two are inseparable; a census system which does not flower into registration is almost as fruitless scientifically as capital which does not fructify in income. As the life of an animal or plant cannot be studied from a series of photographs alone showing the stages of its growth, so the life of the American people cannot be studied from a series of censuses unaided by registration.<sup>2</sup>

#### Beginnings: First use of records

The settlers were predominantly English, and for the most part followed English customs in the new country. They were accustomed to the registration of christenings, marriages, and burials, which in England dated back to 1538, when the clergy in all parishes were first required to keep a weekly record of such events. In 1632, the Grand Assembly of Virginia passed a law requiring a minister or warden from every parish to appear annually at court on the 1st of June and present a register of christenings, marriages, and burials for the year. These were the traditional events conducted by the church, but in effect they provided an account of births, marriages, and deaths.

Apparently little or no statistical use was made of such records, and there was certainly no thought of using them for health purposes. In the beginning, the records were regarded primarily as statements of fact essential to the protection of individual rights, especially those relating to the distribution of property. The emphasis on vital records as legal documents to protect both the individual and the community is clear in the pronouncement of the General Court or legislative body of the Massachusetts Bay Colony in 1639:

Whereas many judgments have been given in our Courts, whereof no records are kept of the evidence and reasons whereupon the verdict and judgment did pass, . . . it is therefore by this Court ordered and decreed that hence forward every judgment, with all the evidence, be recorded in a book, to be kept to posterity . . . that there be records kept of all wills, administrations, and inventories, as also of every marriage, birth, and death of every person within this jurisdiction.

While this law was based on the English precedent, it differed in two important respects: the responsibility was placed on government officers rather than the clergy; and it called for the recording of vital events—births, deaths, and marriages—rather than church-related ceremonies. Connecticut and Plymouth, and eventually other colonies, followed a similar pattern.

Thus, at the basis of the vital registration system was the principle that the records are legal statements of fact that help assure the rights of individuals as conferred by organic laws. Machinery was set up to collect and preserve the records, not at first for statistical reasons, but because authentic evidence was essential to the just administration of law and the protection of individual rights.

With this obligation in mind, Massachusetts (and other colonies) repeatedly strengthened the early registration laws. In 1644, it added a penalty clause for failure to report vital events, and in 1692, in the most comprehensive registration act in the period, it empowered town clerks to collect three-pence from the next of kin for each birth or death, to fine individuals for failure to report, and to charge sixpence for "a fair certificate." A century later, in 1795, it required parents to inform the town clerk of births and deaths of children, householders to give notice of those in their households, and institutions to report births and deaths occurring in them.

None of the early registration laws was particularly effective. Although a few cities and towns maintained active registration, for many years not a single State could be said to have a system covering its entire area. Permanent legal records, justified largely by their use as evidence of property rights, seemed unimportant to a footloose population undergoing rapid change. Eastern seaboard cities were swelled by immigrants, many of whom stayed only long enough to hear the call of the western frontiers.

Registration needed a new and more impelling impetus. It was to receive one in the dawning realization by a few gifted statisticians and medical men that records of births and deaths, particularly records of deaths by cause, were needed for the control of epidemics and the conservation of human life through sanitary reform.

#### From records to statistics

Bills of mortality—consisting of parish lists of interments, usually including cause of death and age of deceased—had been compiled in England for more than a century before any effort was made to analyze them. Towards the end of the 16th century, when an epidemic of plague gripped the city, bills of mortality were published in London to restore public confidence. Vital statistics in the modern sense has been said to take its origin from the publication, in 1662, of "Natural and Political Observations Mentioned in a Following Index, and Made Upon the Bills of Mortality," by John Graunt of London (1620-74). Despite the meagerness of his material, Graunt discerned that vital events often follow regular patterns, for example, that male births exceed female births, that deaths at the beginning of life are relatively high, etc. This demonstration that general truths about the population could be derived from vital records stimulated further analysis both in Britain and in the European continent. The astronomer Edmund Halley (1656-1742), applying mathematical techniques developed in other fields, constructed the first scientific life expectancy table in 1693.

Death records of some sort were apparently kept by American settlements from the earliest days. At the outset, disease ranked with starvation as a threat to the existence of many of the colonies. Malaria, dysentery, and typhoid fever usually decimated settlers on new clearings. Smallpox, which was brought by the settlers themselves, and yellow fever which came in with the Negro slaves, brought repeated devastation. The toll of the recurrent epidemics is detailed in sources such as Winthrop's Journal, various lists of the parish dead compiled by the clergy, and burial returns made to town officers by cemetery sextons.

One of the earliest uses of such records for statistical purposes was made in 1721 by the clergyman, Cotton Mather, who noted during a severe smallpox epidemic in Boston that more than one in six of the natural cases died but only one in sixty of the inoculated cases. This is a sophisticated use of

<sup>2</sup>Willcox, Walter F., "Studies in American Demography," p. 195, New York, 1940.

statistics, and it is evident that simple records of death by certain causes were available much earlier.

Parallel to the growth of early registration efforts, but mostly unconnected at first, was a sporadic rise of local health or sanitary boards, usually in response to an acute epidemic. During the 17th century and most of the 18th, there was probably no permanent organization in English America to promote public health. Outbreaks of disease were met as emergencies, but eventually the larger cities established boards of health as the forerunners of the modern local health departments. Baltimore, in 1793, and Philadelphia, in 1794 (in response to a yellow fever epidemic that killed one-eighth of its population), established the first two local boards. Massachusetts enacted the first State law authorizing the creation of local boards in 1797. From various meager indications, it appears certain that from the very early days the health officers began scanning the burial returns or weekly lists of interments and roughly compiling them in statistical reports. These vital statistics precursors were used—though the extent is difficult to determine—as a means of identifying and combating epidemics, and as a means of reporting health conditions to the community.

In Baltimore, for example, death records have been collected and compiled by the health department since 1797; annual reports, containing lists of deaths by causes, have been issued since 1817. The early reports from time to time called the community's attention to an unusually large number of deaths from a particular disease.<sup>3</sup>

### Impact of industrialism

Meanwhile, one of the great pivotal changes in human history was gathering force. It would be oversimplification to pick a single date as the beginning of industrialism and the swift growth of manufacturing centers. But by 1800, it was obvious that the social order was changing, and that the change was bringing with it a train of new problems that the social organization and technology of the time were not equipped to handle. With rapid urbanization came a dramatic increase in slums, crime, and poverty. In England, which was the first country to industrialize, thoughtful men expressed alarm at the overcrowding of cities, the filth and polluted water, and at the abject misery that seemed to be overtaking the poorer classes. Epidemics of old and new diseases struck repeatedly. The reformers of the time groped for whatever vital and health statistics they could get in order to arouse the national conscience to a sanitary awakening.

On the European continent, starting first in France, the industrial revolution brought the same evils and the same reactions. Pierre Louis (1787-1872), in an epoch-making series of studies starting in 1825, introduced rational medical statistics to clinics and general physicians. Louis Villerme (1782-1863) adapted the statistical approach to public hygiene, and in 1828 showed that the condition of neighborhoods was related to disease in Paris and the French provinces. Statistical study of disease and its causes, based on the crude vital statistics of the time and any other data available, began to be used increasingly on the continent and in England as a weapon of sanitary and social reform. It was time for a new weapon, since medical and sanitation practices—such as imperfect

<sup>3</sup>But it was not until 1875, when death certificates were first required by Baltimore law, that any consistent use was made of statistical methods or that death rates by cause were regularly compiled. Similarly, records of live births were not kept until 1875, and birth registration was very defective until about 1915. The Baltimore history should be particularly illuminating to students of registration because of the thorough study made by Dr. William Travis Howard, Jr., 'Public Health Administration and the Natural History of Disease in Baltimore, Maryland, 1797-1920,' Carnegie Institution of Washington, D. C., 1924.

quarantine measures—which had seemed adequate for an earlier day, were proving powerless against catastrophic epidemics of typhus, yellow fever, and cholera. This last disease, which by the 1830's had spread from Asia through Russia to Germany to the British Isles and to Canada and the United States, was obviously related to bad sanitary conditions.

According to Shryock,

After 1831 there was a sudden increase of interest throughout Europe and America in the whole problem of public hygiene. Fear now combined with humanitarianism to demand investigations, cleanups, and general sanitary reform, as these things had never been demanded before. Whenever enthusiasm waned, further invasions of cholera, supplemented by occasional outbreaks of yellow fever, typhoid, typhus, and smallpox, terrified authorities into renewed activity. In these circumstances is to be found the genesis of the modern public-health movement.<sup>4</sup>

### Beginnings of modern registration

The general circumstances that led to action against disease led inevitably to revived interest in perfecting vital registration and vital statistics. The crude data of the time were used with telling effect to characterize public health problems, to chart the course of epidemics, and to show the influence of dirt and poverty on disease and death. But in country after country, the early sanitarians became aware of their need for more precise statistics, and some of them expressed this need directly by pressing for effective and comprehensive registration laws. Here again it was apparently the fear of cholera that paved the way for legislative action.

Panic was a large factor in securing repentance and good works when cholera threatened; as it, likewise, was in an earlier century when plague became epidemic; and in both instances the desire for complete and accurate information as to the extent of the invasion led in England to the call for accurate vital statistics. It may truly be said that the early adoption of accurate registration of births and deaths was hastened by fears of cholera, and by the intelligent realization that one must know the localisation as well as the number of the enemy to be fought.<sup>5</sup>

In England, Edwin Chadwick (1800-1890), secretary of the Poor-Law inquiry commission, had been led into the study of vital statistics, and then into the general field of public health, by his need for mortality statistics in connection with voluntary insurance schemes. Chadwick was apparently influenced by Villerme in a series of investigations that led in the early 1830's to the reform of the poor laws and of child labor conditions in the cotton mills. Chadwick also strove to establish national registration of deaths, since differences in mortality by area or social group were the kind of vital statistics he could use effectively to hammer for sanitary reform.

The English-speaking world lagged in vital registration during this period. According to Willcox, in 1833 the regions in which deaths and births were routinely registered comprised less than one-tenth of the world's population. They covered about 80 million people in France, Belgium, Austria, Prussia, Bavaria, Saxony, the Scandinavian countries with Finland—and five cities in the United States, containing only 6 percent

<sup>4</sup>Shryock, Richard Harrison, 'The Development of Modern Medicine,' p. 221. New York, 1947.

<sup>5</sup>Newsholme, Sir Arthur, 'Evolution of Preventive Medicine,' p. 113. Baltimore, 1927.

of the country's population. The five cities were Boston, New York, Philadelphia, Baltimore, and New Orleans.

The inadequacy of vital statistics in England—and the spur of a devastating cholera epidemic in 1831-32 which took nearly 42,000 lives in Great Britain and Ireland—led in 1836 to enactment of a registration law creating a central register office with responsibility for the records and statistics of births, marriages, and deaths—by cause—for all of England and Wales. According to one authority, the act was written by Chadwick who “took the details and even the phrasing” from Jeremy Bentham’s “Constitutional Code.”<sup>6</sup>

This act was an historic turning point in the development of registration and public health not only in England but in the United States and many other parts of the world. According to Shattuck in 1850 (see below), this registration law was the “most important sanitary (public health) measure ever adopted in England; and it has been the foundation of nearly all others. Without it they would have been comparatively of little value.”

From this time forward, the course of registration and vital statistics was to be recognized as basic to the development of public health organization and practice. Part of the motivation for the act was to improve vital records as legal documents “for the security of property,” but its main orientation was to collect the facts on births, deaths, and disease as a basis for striking at the appalling sanitary conditions of the time. In 1839, Dr. William Farr (1807-83), whom Raymond Pearl called “the greatest medical statistician who has ever lived,” joined the Register Office as “compiler of abstracts.” Farr compiled vital statistics to present the human cost of sickness and premature death, in a series of brilliant reports which, in Newsholme’s words, “have guided sanitary reform and incited it year by year to increased activity.” Benjamin Ward Richardson said of Farr’s reports that it is no longer true that pestilence walketh in the dark.

### State registration in America

The impact of Chadwick, Farr, and the Act of 1836 on vital statistics in the United States was immediate, specific, and far-reaching. Chadwick inspired Lemuel Shattuck of Massachusetts (1793-1859), whose influence on American registration and the public health movement is probably second to none; Farr’s statistical ingenuity in the use of vital data to point up public health problems stimulated Shattuck and others in this country; and the Act of 1836 was the prototype of the first State registration law in America, which Massachusetts adopted in 1842 and strengthened in 1844.

Shattuck was the prime mover. He used the American Statistical Association, which he largely founded in 1839, to induce both the American Academy of Arts and Sciences and the Massachusetts Medical Society to petition the legislature for an effective registration law. The act that Shattuck finally steered through the legislature in 1844 required central State filing; provided for standard forms, fees, and penalties; specified types of information including causes of death; and lodged responsibility for each kind of record in designated officials.

The National Medical Convention, which soon organized formally as the American Medical Association (AMA), channeled medical interest in registration in 1846 by creating a committee to consider methods for improving birth, marriage, and death registration. A year later the newly formed AMA addressed memorials to State legislatures on the need for registration laws.

It was probably about this time that local vital statistics, which previously had been used mostly by sanitary and social reformers, gradually came into routine use by local health officers as a practical guide. The best described example is that of John Simon (1816-1904), who was appointed first Medical Officer of Health in London in 1848, “the prototype of our

modern health officer, the first health officer in the modern sense.”<sup>7</sup> According to Round, “For John Simon, vital statistics formed the corner-stone of his work.”

Where did Simon get his information regarding the conditions prevailing at the moment and upon what information did he base his acts as medical health officer? From Simon’s book on English Sanitary Institutions we find that the death returns of the city registrars were made on Monday mornings and on Monday afternoons they were placed at his disposal, as he says, “in a way which enabled me to complete my use of them during the evening, so that on Tuesday mornings when the weekly courts of the City Commission were held, I was ready with all needful particulars as to the deaths which had befallen the city population during the previous week, and with my scheme of such local inquiries as were to be made in consequence.”

During this period, Great Britain and various countries on the Continent, thanks to small land areas and a central form of government, carried through national investigations of health conditions, and created new health and registration institutions on the basis of the results. The developing United States, with its vast and largely unexplored land area and its Federal-State rather than central form of government, could not be expected to progress as rapidly on a national scale. However, the new American Medical Association made an important contribution by examining conditions of the larger American cities. In 1848, it reported that disease was as prevalent in Boston, New York, and Philadelphia as in London, Manchester, and Glasgow, and that the death rates were even higher in the American cities. These revelations, plus the example of Massachusetts, prompted six additional States to enact registration laws by 1851, though for the most part the laws were ineffective and unenforced.

### The Shattuck report

In 1850, Shattuck presented to the legislature his epochal “Report of the Sanitary Commission of Massachusetts,” described by C.-E. A. Winslow as “one of the most remarkable documents—perhaps the most significant single document—in the history of public health.”<sup>8</sup> In fifty specific recommendations, including the creation of a State board of health whose program was to be based solidly on complete registration and vital statistics, Shattuck anticipated nearly all the public health measures (except those based on the still unborn science of bacteriology) which the next two generations were to introduce. Actually, nearly 20 years were to elapse before Shattuck’s detailed plans were to be adopted as the health department organic law of Massachusetts, and then to be widely emulated in other States. These developments will be treated below in chronological sequence.

### Shattuck and the census of 1850

Meanwhile, in 1849, the Superintendent of the United States Census, to improve the still-primitive census practice and to make a start toward collecting the first national vital statistics, invited Shattuck to Washington to help draw up plans for the Seventh Federal census. In his brilliant “Census of Boston for the Year 1845,” which Willcox has called “the pioneer

<sup>7</sup>Round, Lester A., “Consumer Demand for Vital Statistics: The Health Officer’s Point of View,” *American Journal of Public Health*, vol. 26, p. 489, May 1936.

<sup>8</sup>Shattuck, Lemuel, and others, with a Foreword by Charles-Edward Amory Winslow, “Report of the Sanitary Commission of Massachusetts, 1850,” p. VII, reprinted, Cambridge, 1948.

<sup>6</sup>*Political Science Quarterly*, vol. 38, p. 45 ff., 1923.

among modern American censuses," Shattuck had introduced the basic innovation of making the primary census unit the individual rather than the family. Instead of describing the whole family on a single line, he had given a line on the schedule to each person, which made it easy to record the name, age, birthplace, marital condition, and occupation, and to assemble the data afterward in new and more revealing types of tables. For the 1850 Federal census, Shattuck wrote five of the six schedules as well as the enumerators' instructions. According to Willcox, "The most important improvements during 150 years of Federal censuses resulted from the adoption in 1850 of Shattuck's ideas."

Against his better judgment and over his protest, Shattuck also introduced the practice of using census enumeration to determine births, marriages, and deaths. Unalterably convinced that only a registration system would provide such information, Shattuck deferred to the census officials to include the items "Born within the year," "Married within the year," and "Disease, if died within the year." It was hoped that the resulting vital statistics would be better than none, but the official report later admitted:

The tables of the census which undertake to give the total number of Births, Marriages, and Deaths, in the year preceding the first of June, 1850, can be said to have but very little value. Nothing short of a registration system in the States can give the required data satisfactorily, and it has been proved that even where such systems have been best established, difficulties continually arise which require a very long time to be removed. Experience has shown that people will not, or cannot, remember and report to the census taker the number of the facts, and the particulars of them which occur in the period of a whole year to eighteen months prior to the time of his calling.<sup>9</sup>

(Despite its obvious defects as a method for collecting national vital statistics, census enumeration of vital events was not entirely abandoned until the census of 1910, when the developing registration area was large enough to provide better national statistics. In defense of the census officials who persisted for 50 years in a discredited method, it must be said that the registration system was not ready to take over any earlier, and the choice was vital statistics by enumeration or no national data at all.)

### Registration and public health: 1850 to 1872

During the period 1850 to 1860, registration was working well in a handful of cities and in two States. In the rest of the country, particularly in rural areas, it was too sporadic to afford vital statistics in the modern sense. In an attempt to improve the situation, the American Medical Association in 1855 adopted the following resolutions:

**RESOLVED**, That the members of the medical profession throughout the Union be urgently requested to take immediate and concerted action for petitioning their several legislative bodies to establish offices for the collection of vital statistics.

**RESOLVED**, That a committee of one from each State be appointed to report upon a uniform system of registration of marriages, births, and deaths.

This action was probably spurred by the very high mortality rates which marked the decade. Since the beginning of the century, to judge from the imperfect statistics of the time, city death rates had been climbing to appalling levels. Immi-

<sup>9</sup>DeBow, J. D. B., "Statistical View of the United States . . . Being a Compendium of the Seventh Census," p. 57, Washington, D. C., 1854.

gration filled the urban tenements and overtaxed the rudimentary sanitary facilities. In Chicago, for example, typhoid deaths in 1854 were recorded at a rate of 175.1 per 100,000 population. In New York City, total deaths rose from 21.5 per 1,000 population in 1810 to 36.8 in 1857.<sup>10</sup>

Meanwhile, a number of physicians and sanitarians had been considering the idea of a national public health association. As early as 1851, Wilson Jewell of the Philadelphia Board of Health began planning such a group, and in 1857 he and others were able to organize the National Quarantine and Sanitary Convention. Annual meetings were held until 1861, when the Convention was disrupted by the Civil War. Meeting ostensibly to consider quarantine regulations, the group invariably went beyond these to promote broad plans for sanitation, and paid much attention to vital statistics and the need for improved registration.

By this time, the health field was divided into two opposing camps. In the one were the believers in "contagion," who were convinced that epidemic disease entered the country mainly through the ports, and was spread by infected animals or persons. This camp therefore advocated seaboard quarantine and isolation of the sick. In the other camp were those who looked for the causes of disease in their own (and their neighbors') backyards—in the filth, miasms, and noxious odors of the crowded cities. This was the sanitary group, which tried to fight disease with clean streets, clean water, garbage collection, sewage disposal, and so on. To locate the sore spots, for example, to find the typhoid sources to clean up, the sanitary school placed great stress on vital statistics, and used "before and after" figures as educational material to promote further reform.<sup>11</sup>

The Civil War probably delayed public health and registration by several years, but did both movements some good—"in spite of itself," as Shryock put it.<sup>12</sup> A number of physicians—notably John Shaw Billings (1838-1913), Medical Statistician of the Army of the Potomac—first became interested in public hygiene when disease proved to be a deadlier enemy than the opposing army. After the War, Billings and others were drawn increasingly into the public health movement. Typhoid fever had scourged both North and South, and many of the returning soldiers were carriers. The fantastically high infant mortality rates of the postwar period were taken as an index of bad health conditions in general.

Massachusetts led the way to health reform by enacting, after 19 years' delay, a comprehensive State health law modeled on the Shattuck report. By 1872, the District of Columbia, California, and Virginia followed with similar legislation. Thus began a period of rapid growth in State health organization, which in most instances was to include registration and vital statistics as a regular health department function.

### Founding of the APHA and the National Board of Health

In 1872, a group of physicians and sanitarians, including many who had learned the value of statistics in the wartime sanitary commissions, founded the American Public Health Association (APHA). Taking up where the earlier Sanitary Conventions had left off, the APHA worked for an aggressive

<sup>10</sup>Proceedings and Debates of the Third National Quarantine and Sanitary Convention, p. 523, New York, 1859.

<sup>11</sup>In retrospect, depending on the disease and the actual circumstances of its spread, it is clear that both camps were partly right and partly wrong. But the controversy flared up repeatedly, often with considerable ill-will, until the 1890's when the two groups were reconciled by the findings of bacteriology and medical entomology, as described below.

<sup>12</sup>Shryock, Richard H., "The Early American Public Health Movement," American Journal of Public Health, vol. 27, p. 970, October 1937.

public health program, based on sanitary reform with a strong vital statistics base as a principal component.

Following a disastrous yellow fever epidemic in the South, Congress, in 1879, created the National Board of Health, largely on the basis of plans advanced by the APHA. The leadership of the APHA and a strong group in the AMA, dissatisfied with the emphasis placed on quarantine measures by the Marine Hospital Service, had wanted a national agency that would work on a broader front—to centralize information, engage in sanitary research, and collect vital statistics.<sup>13</sup> Despite some overlapping of functions and competitive activity between the Board and the Marine Hospital Service (later the United States Public Health Service), the Board made important contributions. Not the least of these was to advance the cause of vital statistics by placing extraordinary value upon complete and uniform vital registration. In its first year it established a standing committee, under Stephen Smith (first president of APHA), and later Billings, to promote uniformity in registration. The weekly *Bulletin of the Board* undertook immediately to publish mortality summaries from cities able to supply the information from vital records.

The difficulties of publishing national vital statistics at this time are apparent in every issue of the *Bulletin*. For the year 1879, the Board received annual mortality reports, or weekly reports for the full year, from 24 cities. Fourteen separate forms were represented, "and of these no two are alike. The differences are such as to render direct comparison in some cases impossible, and difficult in all. Not only is there no uniform plan as to nomenclature, classification, or arrangement, but a most ingenious diversity exists as to the selection or omission of the several items of information usually expected in such reports."<sup>14</sup> But the rapid effect of the Board's promotional activity may be seen in the fact that, by March 1880, it was receiving weekly mortality reports from an average of 90 cities, with improvement in the quality of reporting.

In the second year of its existence, the Board called a national meeting of State and local registrars (May 1880) to consider the best methods for collecting and publishing vital statistics, and took up such questions as standard nomenclature for assigning causes of death, comparability of vital records, and problems of obtaining complete registration. As part of the preparation for this meeting, and as a regular function during its brief existence to 1883, the Board collected and published information on State and local registration laws, forms, tables, reports, and registration procedures and methodology, and from time to time it recommended standard models. As a coordinator and promoter of vital statistics, the Board (mainly through Billings) had an immediate impact on the perspectives and methods of the Census Bureau, which for more than a half-century was to carry on and extend the work in registration which the board had begun.

### Leadership by the Census Office:

#### 1880 to 1890

Billings, while still chairman of the National Board of Health's Committee on Vital Statistics, was placed in charge of the 1880 census of mortality. The first three census counts of deaths (1850, 1860, 1870) had fallen short of actual deaths by 40 percent. Under an amendment to the census law of 1880, the Superintendent of the Census could withdraw mortality schedules and accept registration records from any areas having records in satisfactory detail. At Billings' suggestion, a so-called registration area was established in 1880, and registration records were obtained from an increasing number

of States and cities in the succeeding censuses.<sup>15</sup> Billings also supplied physicians with books of blank death certificates, and requested them to fill out a form for each death they attended. The books were collected by the census takers and were used to obtain information on additional deaths or to improve the accuracy of death reports received. Using 1880 data, Billings also produced what were considered accurate life tables for 2 States and 12 cities.

Before the 1890 census, the Office wrote to all States and cities having 5,000 population or more to obtain an index of probable registration completeness. Experience with the 1880 census had demonstrated that laws governing death registration, degree of enforcement of such laws, and the manner of obtaining and recording data were so varied that the processing of these records by the Census Office was difficult and subject to considerable error.

In an effort to obtain better and more uniform data, the Census Office recommended a form of death certificate to be used in the 1890 census. In that census, prompted by the thought that death and disease are not subject to political boundaries, Billings made the first attempt to produce statistics by geographic and climatic areas.

The Census Bureau, adapting machine techniques used in the textile industry, used the Hollerith mechanical tabulator for the first time on a large scale operation in the 1890 census. Rapid counting and combining of characteristics could now be done with a high degree of accuracy.

### The revolution in preventive medicine

During the 1880's, medical science was transformed by a series of discoveries which were to change the course and direction of the public health movement, and multiply its effectiveness against epidemic disease. Koch isolated the comma bacillus of cholera, and Gaffky the organism of typhoid fever (1884). Theobald Smith and F. L. Kilborne opened the way to the control of the arthropod-borne diseases, such as malaria and yellow fever, by tracing Texas fever in cattle to infected ticks (1889). In this period, German and French bacteriologists found the cause of diphtheria, and the causes of other diseases were soon added. These discoveries in disease etiology were accompanied by a series of triumphs in immunology, led by the genius of Pasteur.

The sanitary reformers and the quarantiners found in the new sciences a common meeting ground, and together put public health on a more rational basis. With exact knowledge came discriminating use of traditional and new means of disease control. By the 1890's, the best health departments were beginning to achieve dramatic results in preventive medicine. To supplement sanitation and quarantine, they began setting up laboratories to diagnose disease and later to provide typhoid vaccine and diphtheria toxin-antitoxin. Private medicine found in the new discoveries more effective ways of curing the sick.

In all these developments, vital statistics were sharpened to keep pace, to point more precisely to problem areas, and to demonstrate the value of the new techniques in disease control. It was about this time, for example, that comparative infant mortality rates proved the life-saving value of pasteurization of milk, and induced the American dairy industry to move toward modern sanitary methods.

### Advances in disease classification

The march of bacteriology and other medical sciences helped also to revolutionize diagnosis, and indirectly to transform vital statistics (particularly, mortality by cause) into a more accurate and useful health adjunct. From the time of Hippocrates (440-357 B. C.), physicians had with varying success tried to diagnose and classify disease by observing

<sup>13</sup> Leigh, Robert D., *Federal Health Administration in the United States*, p. 468, New York, 1927.

<sup>14</sup> National Board of Health *Bulletin*, vol. 1, No. 36, March 6, 1880.

<sup>15</sup> See separate section on birth- and death-registration areas in this chapter.

its natural history and symptoms. This approach was carried forward by the brilliant English clinician Thomas Sydenham (1624-89), whose objective descriptions influenced medical practice and vital statistics until they were at last overtaken by the precision-methods of the laboratory. Meanwhile, vital statistics struggled along with the prevailing nosology or systematic classification of disease—which was not very systematic until much later. By the second half of the 19th century, physicians were moving away from vague diagnoses like “fever” and had identified a large number of common diseases. The practice of making autopsies and the advance of surgery after the discovery of effective anesthetics in the 1840’s led to better diagnosis and classification of disease.

After 1850, steady progress was made in developing an international classification of causes of death and a standard nomenclature. As recommended by the AMA, the Census Office in the 1850 and 1860 censuses employed a classification developed by Farr. In the 1870 census, on the advice of the Surgeon General of the U. S. Army, the classification and nomenclature of the Royal College of Physicians of London in 1869 were adopted.

Efforts were continued by the International Statistical Congress, from the 1850’s on, to produce an acceptable classification of causes of death. The United States was a member of this body; Billings, for example, met with the Congress in 1880. Within a few years, as noted above, bacteriology upset the traditional means of identifying many of the common diseases, and was beginning to break down various categorical diseases into two or more distinct entities. Thus, the advent of bacteriology set off a parallel revolution in nosology, and in the resulting vital statistics. In 1898, the APHA formally adopted a modern classification which Jacques Bertillon of France had prepared for the International Statistical Institute. The APHA recommended that this list be revised periodically to keep abreast of medical science. Since then, the list has been revised decennially, on an international basis.

### Census leadership after 1900

When the census count of mortality was made in 1900, it seemed likely that a permanent Census Office was to be established, and plans were made accordingly. Prior to the census, intensive correspondence was carried on with each State and with cities of 5,000 population or more. The Census Office collected data and material on law, procedure, estimated rates, probable number of deaths not registered, etc., and released a circular to acquaint registration personnel with the findings. It also recommended a death certificate and requested each area to adopt it by January 1, 1900. Twelve States adopted the form in full; six States and the District of Columbia adopted it in part; and seventy-one major cities in other States adopted the form in full or made revisions. The census of 1900 included figures obtained from well-established registration areas which had adopted model laws and where it was believed that 90 percent completeness of registration had been attained.

Marriage and divorce were also matters of public concern. In 1887, Congress passed an act directing the Commissioner of Labor to collect statistics on marriages and divorces for the years 1867 through 1886.<sup>16</sup> In 1905, President Theodore Roosevelt sent a special message to Congress in which he recommended that “the Director of the Census be authorized by appropriate legislation to collect and publish statistics pertaining to that subject (marriage and divorce) covering the period from 1886 to the present time.”<sup>17</sup>

<sup>16</sup>Wright, Carroll D., ‘Marriage and Divorce in the United States, 1867 to 1886,’ Department of Labor, Washington, D. C., 1889.

<sup>17</sup>U. S. Bureau of the Census. ‘Marriages and Divorces, 1867-1906,’ p. 4, U. S. Government Printing Office, Washington, D. C., 1909.

Since 1880, the Census Office had consistently advocated national uniformity in State supervision, in basic procedures, and in the forms used for registration of deaths. In the same period, interest in statistics generally became widespread, and there appeared a public disposition to consider statistical reporting a governmental responsibility. The Census Office, which had previously been disbanded between censuses, was made a permanent, full-time agency of the Federal Government in 1902, and was given its present name, the Bureau of the Census.

The organic act provided statutory authority for registration areas for births as well as deaths. From this time forward, the Bureau completely abandoned the 50-year effort to obtain mortality information by census counts, and relied solely upon registration records. As its principal task, the Bureau undertook to develop an annual system of collection of vital statistics data, capable of producing comparable statistics on a national basis. The over-all objective was to develop and maintain a uniform system of registration with respect to such matters as law, forms, procedures, statistical methodology, etc.

It was recognized that these objectives would require the cooperation of outside organizations and the public at large. Organizations that formed working arrangements with the Bureau included the American Medical Association, American Public Health Association, Conference of Commissioners on Uniform State Laws, American Statistical Association, American Bar Association, and the National Tuberculosis Association.

Among the more important steps initiated by the Bureau were: formulation of principles and wording of a model law; drafting of standard forms; preparation of instructions for local registrars, physicians, and others; preparation of a system of mortality classification satisfactory for statistical purposes; formulation of rules of statistical practice; and establishment of working relationships with external groups within and outside the country. As a working concept, the Bureau announced that it would become a central office for mortality statistics, act as a clearing house to harmonize the results of individual efforts in the various State and city offices, and look forward to the possibility of forming a national association of registrars.

In 1907, the American Public Health Association established a Vital Statistics Section to develop closer working relations among registration officials; to promote more effective systems of vital statistics; to aid the adoption of uniform registration methods and publication of statistical data; etc. For many years the APHA had been active in promoting uniform State registration and model laws. At the annual meeting in 1895, various members of the association proposed that it either draft a model law or set forth principles. At its annual meeting in 1900, the APHA adopted principles of a model law for the registration of births and deaths. Strong support for model State laws came from Congress, which on February 11, 1903, adopted a joint resolution requesting State authorities to cooperate with the Census Bureau in securing a uniform system of birth and death registration. By 1907, a model bill, which in 1905 had been adopted by Pennsylvania in draft form, was submitted to the States with the endorsement of a broad list of organizations. The principles of this and subsequent model laws have since been adopted in every State of the Union, either by direct enactment or by regulations.

The Federal Children’s Bureau, created in 1912, worked actively with the Census Bureau in many of the State campaigns. Credit should also be given to the able leadership of William Alexander King, chief vital statistician of the Census Bureau, 1900-1906, and Cressy L. Wilbur, who held the position from 1906 to 1914. Through their efforts, uniform State legislation advanced rapidly, and permitted an increasing number of States to qualify for admission to the death-registration area.

About 1913, the Census Bureau began appointing agents

in the State health agencies, and authorizing them to use the mailing privileges of Federal officials, to promote registration, and to correct the certificates of birth and death which are the sources of the national statistics.

In 1914, the Bureau published the first table separating nonresident from resident deaths; the data had been lumped together up to that time. Although complete reallocation of deaths by place of residence was not yet possible, the first table was an important step in this direction.

In 1915, the national birth-registration area was formed. Before then, the collection and publication of data were limited to death records because they were more complete, of greater public interest than birth records, and because it was believed that the concentration of census efforts in one field of registration would yield better results than if its efforts were spread thin.<sup>18</sup>

After the United States entered the First World War, the need to provide health authorities with current information on epidemics became apparent. Largely as a war measure, the Census Bureau obtained weekly telegraphic reports on the number of deaths and infant deaths occurring in cities of more than 100,000 population. Beginning October 1917, this information, together with comparative death rates and the proportion of infant deaths to total deaths, was published in a Weekly Health Index, which was later expanded to include separate tabulations of influenza deaths during the pandemic of 1918-19.

The wartime influx of workers into industrial centers, and the growing tendency for serious illnesses of out-of-town residents to be treated in urban hospitals aggravated existing distortions in the crude death rates of many cities and towns. During 1918, the Bureau therefore sought to obtain complete data on the "usual place of abode" of nonresidents who died within the death-registration area. On the basis of this information, the Bureau published the first tables in which nonresident deaths were reallocated to place of residence. Deaths of nonresidents living outside the registration area were shown separately.

Concerned with the slow growth of the registration areas, the Bureau in 1924 established a committee to bring all States into the registration areas by 1930. The advice and assistance of many varied interests helped advance this program. As a further stimulus, in 1924 the Census Notification of Birth Registration was developed, to be mailed to parents from State vital statistics offices when they received certificates of birth. This offered parents an opportunity to verify or correct information contained in the birth record and helped to promote registration generally.

The following excerpt from a report of the National Resources Committee perhaps best summarized this period:

The long, hard, often discouraging campaign which was fought to bring States, one by one, into the fold constitutes one of the proudest chapters in the history of the Bureau of the Census . . . . In some States, the boards of health had to be educated to the need, before the citizens of that State could approach the legislature. In others, the legislatures were apathetic, in spite of strong pressures. After the required legislation was passed, there remained the problem of bringing a State up to the minimum quota. Each State had to educate its physicians and undertakers as to their duties, as well as an army of local registrars. The Bureau aided the State registrars in preparing promotional publicity and facilitated the exchange of ideas as to the most effective ways of presenting public health data to the general public.<sup>19</sup>

<sup>18</sup>Shapiro, Sam, "Development of Birth Registration and Birth Statistics in the United States," *Population Studies*, vol. IV, No. 1, June 1950.

<sup>19</sup>National Resources Planning Board, "Research—A National Resource, Part I," p. 210, Washington, D. C., 1938.

## Division of Vital Statistics: The road to reorganization

The social and economic forces that had been generated in the war and postwar periods worked fundamental changes in the patterns of American life. In December 1929, President Hoover appointed a group of social scientists to make a national survey of social trends—to see what had happened to private economic organization, government functions, public welfare, education, family patterns, the role of women in industry and the home, rural and metropolitan patterns, sports and other recreation, labor organization, and a wide variety of the other interrelated institutions that make up American life as a whole and dictate the form of its social problems. The underlying social data, including vital statistics, came in for close scrutiny, particularly by Stuart A. Rice and his associates who produced several penetrating studies of the current status and developmental needs of social statistics.<sup>20</sup> Both assets and deficiencies were freely discussed, and important suggestions were made for improving Federal vital statistics.

Much the same concern that had led to these studies was reflected in the actions of professional organizations. The Social Science Research Council and the American Statistical Association, which were both interested in improving Federal statistics, combined their respective committees on social statistics in a joint committee, with Professor Robert E. Chaddock as chairman and Dr. Rice as secretary. Though concerned mainly with social welfare data, this committee had related interests in population and vital statistics.

Despite growing demands for improved and more comprehensive statistics to cope with the depression, sweeping reductions were made in government statistical services early in 1933, following the Economy Act of 1932. These cuts were vigorously protested, particularly when the swift expansion of government functions in the economic crisis created urgent administrative needs for statistics as a factual basis of decisions and programs. In this situation, the need for a thorough reappraisal of government statistical services soon became widely recognized.

In the spring of 1933, the Secretaries of Agriculture, Commerce, Labor, and Interior invited the Social Science Research Council and the American Statistical Association "to furnish immediate assistance and advice in the reorganization and improvement of the statistical and informational services of the Federal Government." In response, the two organizations established a joint Committee on Government Statistics and Information Services (COGSIS), which began work in June 1933 with financial support from the Rockefeller Foundation. Among many other activities, the COGSIS made a preliminary survey of the vital statistics of the Bureau of the Census and the Public Health Service, which was completed in May 1934.<sup>21</sup> This survey, which was begun during the summer of 1933 while Dr. Rice was acting chairman of the committee and which continued in the fall when he joined the Census Bureau as assistant director, marked the beginnings of a drastic reorganization of the work of the Division of Vital Statistics.

For approximately a third of a century, the fundamental task of the Bureau of the Census in the field of vital statistics had been to extend the registration area for births and deaths. With the completion of the birth area by the admission of Texas

<sup>20</sup>See, especially, Rice, Stuart A., and collaborators, "Next Steps in the Development of Social Statistics;" and DePorte, Joseph V., "Guides to Vital Statistics in the United States," Volumes I and III in a Report to the President's Research Committee on Social Trends on Social Statistics in the United States, Ann Arbor, 1933.

<sup>21</sup>See the final report of COGSIS, "Government Statistics," Bulletin No. 26, Social Science Research Council, April 1937.

in 1933, this primary responsibility was accomplished. The period 1933 to 1935 was a time of appraisal and preparation for new types of work for which the Bureau had become responsible. These fell into two main categories: (1) Improvement of all reports for the completed registration areas; and (2) research in the new fields of vital statistics which had been opened.

For these tasks, the Division needed considerable strengthening, both in number of personnel and professional training. After the 1930 census, the Bureau as a whole had made little progress in recruiting or holding professional personnel. In the Division of Vital Statistics only the chief statistician was at the professionally classified level. While studies of means to strengthen the Division were under way, an opportunity developed in the summer of 1934, with Federal Emergency Relief Administration Funds, to conduct a campaign in some 20 States to promote birth registration. The COGSIS staff members helped organize this program, which improved registration in nearly all the States and furnished incidental data for checking on weak registration areas. The Committee also helped the Bureau to develop the reporting of births and deaths by place of residence of mother or decedent, beginning January 1, 1935. This greatly improved the data, which had previously been published mainly on the basis of place of occurrence of the birth or death, and which had become distorted by the growing use of city hospitals by rural residents.

At the request of the Census Director, the COGSIS subsequently made a more intensive survey of the Division and developed, among others, the following recommendations:

1. The Division should be strengthened by creating office and field positions for several people with professional degrees.
2. A permanent expert field staff should work systematically to speed up and improve reliability of reporting in the States.
3. The feasibility of rewarding States for especially meritorious cooperation, perhaps by creating a new registration area, should be investigated.
4. A monthly reporting system using provisional figures on births should be established.
5. Systematic plans should be made for publication of special monographic studies.
6. Revisions should be made in annual published volumes providing for more analytical and interpretive text material, standardization of rates for age, tabulation by broad socio-economic groups and certain selected occupational groups, more extensive tabulations by age groups, and omission of considerable costly and relatively unimportant material, such as births by country of birth of mothers.

In 1935, under the new leadership of Halbert L. Dunn, a physician and biometrician, the Division was drastically reorganized, and its professional staff greatly augmented. In the same year, the Secretary of Commerce appointed an Advisory Committee for the Division of Vital Statistics, which at its first meeting recommended that development of the Division should be continued along the following broad lines:<sup>22</sup>

1. Extension of field work in order to secure and maintain completeness and to improve completeness and accuracy of the data noted upon the original certificates, and to promote cooperation between Federal, State, and nonofficial agencies dealing with and interested in vital statistics.
2. Coordination of State and Federal statistical office activities with the object of eliminating overlapping effort insofar as possible.

<sup>22</sup>Dunn, Halbert L., "Development of Vital Statistics in the Bureau of the Census," *American Journal of Public Health*, vol. 25, No. 12, p. 1322, December 1935.

3. Development of means by which the total data in the birth and death certificate might be made available for special public health and scientific needs.
4. Stimulation of research within the Division by appropriate cooperation of the Division with outside scientific and public health agencies, and by building up within the Division a personnel whose principal duties would be the analysis and solution of important vital statistical problems.

### Changing needs for vital records and statistics

By the early 1930's, responsibility for vital records had been largely transferred from civil offices to health departments. As more and more departments employed full-time officers with public health training, they were able to make more intensive use of the records for statistical analysis. In addition to using statistics to locate and deal with disease outbreaks, defective water and sewage facilities, and related sanitation problems, many health departments routinely used them as the basis for maternal, infant, and child care programs, immunization against childhood diseases, and a variety of other personal health services. During the 1930's, the emphasis in public health work shifted even farther away from the sanitation diseases, which by then were under control in most areas. Greater attention was paid to communicable diseases in which case-finding was the key to control. The Public Health Service developed a national tuberculosis control program to supplement voluntary and State activities, and greatly expanded national control of venereal diseases through technical and financial aid to the States. In both programs, vital statistics were widely used to map out areas and population groups in which case-finding efforts would be most fruitful. The need for this kind of statistics had, in fact, been part of the impetus for the reorganization of the Vital Statistics Division.

While these health needs for statistics continued, the records suddenly became important to large numbers of individuals, who for the first time in their lives had to prove vital facts about themselves.<sup>23</sup> Beginning about 1935, Federal and State Governments enacted a variety of welfare legislation, such as old age and other social security. As a result of new directions in labor management relations, the movement toward industrial pension plans became widespread. The common factor in both the public and private plans was the use of the birth certificate as a legal document to evidence the fact of age.

A few years later, the outbreak of World War II produced an additional shift in emphasis. Congress wrote into law provisions against the employment of aliens in certain defense projects, so that for the first time the birth certificate was widely demanded as evidence of citizenship. Early in 1940, State offices were hard pressed to fill requests for birth certificates of persons seeking employment in defense industries. Since many of these births had never been registered, the problem of filing delayed birth certificates became acute. It was estimated that nearly 55,000,000 native persons who were living in 1940 had no birth record on file. Some States did not have express provision in law or regulation governing delayed certificates. The rules and standards in operation in other States varied and were complex, since uniform standards for filing had not been formulated.

The Division of Vital Statistics was called upon by State registrars to aid in the development of acceptable standards. Successive meetings of Federal agencies and State representa-

<sup>23</sup>An earlier instance of the use of birth certificates for legal purposes—perhaps the first since colonial days—occurred after World War I when birth certificates began to be used extensively in the enforcement of regulatory laws dealing with child labor and compulsory education.



tives resulted in a set of recommendations which were incorporated in a Manual of Uniform Procedures for the Delayed Registration of Births, issued by the Bureau of the Census on July 16, 1941. Procedures for delayed registration were adopted immediately by a large number of States, but the goal of uniform principles was not fully achieved.

When the United States entered the War, the conversion to all-out war production and the drive to employment in war plants started in earnest. In addition, separate legislation increased the need for certificates, for example, the emergency maternal and infant care program for dependents of service men. Almost immediately, State registrar offices were swamped by the wholesale demand for birth certificates, often by persons born before the establishment of records systems. Many State and local offices abandoned statistical functions to prepare certified copies and to devise means of providing delayed birth certificates for persons whose births had not been registered.

To meet these needs the States reacted with various types of emergency legislation, deviating widely from the model laws which had been providing a fair degree of national uniformity. Needs for certificates were met in diverse ways, and standards acceptable in one State proved either too lenient or too strict in another. Federal agencies requiring such certificates were bewildered by the variety of standards, and pressures began to mount for a return to greater uniformity. The difficulties encountered by State vital statistics offices and by applicants for certified copies led to a series of proposals, numerous bills in Congress, and a general feeling that something drastic would have to be done.

#### Budget Bureau's recommendations: 1943

In July 1942, the President of the United States urged Congress not to enact any hasty legislation. In the same letter, he acknowledged "great confusion in vital records growing out of the activities of government and industry, particularly in connection with the security and health laws." In view of the need for study, the Budget Bureau at his request made its own survey, and examined the recommendations of an official Commission on Vital Records headed by Dr. Lowell J. Reed, and a report adopted by the Association of State and Territorial Health Officers.<sup>24</sup>

The report of the health officers, which foreshadowed the Budget Bureau's recommendations, had warned against solutions offering purely financial relief to the States, solutions that might undermine the work of existing registration agencies, and solutions that would dilute the standards and thus weaken the value of vital records. Instead it proposed the creation of a cooperative vital records system, comprising the existing State and independent city vital statistics offices and a national office to "represent and serve the system from a Federal standpoint, and, by making available financial and technical aid, would work to improve, develop, and integrate the individual units of the system." It called for a program of continuous allotment of money to the present State, city, and Territorial offices to be spent for correcting defects in the registration system and for expansion as required.

The objective of the national office would be "to correct the deficiencies now existing on a national, State, and local basis, in the coordination and standardization of vital records agencies, methods, and requirements." In addition, the plan provided for the transfer of Census Bureau functions in vital statistics to a bureau or division of the United States Public Health Service. The report noted that "assurances have been given by officers of the United States Public Health Service that, if the functions of the Division of Vital Statistics are transferred to the United States Public Health Service, the

Vital Records Office will have the responsibility and authority to work out in cooperation with the other bureaus and divisions of the United States Public Health Service, and State and other Federal officers, whatever future programs may be mutually desirable and beneficial."

On the basis of these studies, the Budget Bureau recommended against legislation to authorize Federal agencies to issue documents as substitutes for birth certificates. On the positive side, it recommended:

That a national vital records office should be established as a separate organizational unit in the United States Public Health Service, the head of the office to report directly to the Surgeon General.

This office should work with and through the existing State and local vital statistics agencies with a view to developing a record system which, while nationwide in scope, will preserve the wholesome responsibility of the State and local governments. The proposed office should not only assume the functions of the present Division of Vital Statistics of the Bureau of the Census but should also be authorized to take appropriate steps (within the framework of normal Federal-State relationships) to promote higher standards of performance within and better coordination among the State and local vital records agencies.

The recommendations of the Budget Bureau, the Commission, and the Association of State and Territorial Health Officers were in essential agreement on the need for a cooperative vital records system with the coordinating responsibility placed in a single national agency. Thus, the report was a major turning point in the position of the Federal Government in vital records and statistics. While the Census Bureau had been responsible for publishing vital statistics, and had worked with vague authority to coordinate practices in the independent State offices, no Federal agency had ever been explicitly charged with responsibility for the vital records system.

At that time the Budget Bureau estimated that the Federal Government was spending 2 million dollars a year, and the State and local agencies 6.5 million, for vital records and vital statistics. In addition, the public was paying a total of perhaps 12 million in fees to government agencies and others for services in obtaining documentary evidence. Despite these substantial expenditures, the Budget Bureau found that American vital records were "surprisingly inadequate." Visits to several State vital records offices showed that the wartime volume of demands for certification was not being met promptly and adequately, and that in diverting personnel to the certification problem the States were neglecting the long-run task of seeing that all current births and deaths were promptly and accurately registered. "It cannot be assumed," the Bureau declared, "that needs for adequate vital records will disappear after the war emergency is ended; on the contrary, the course of social evolution points to continually increasing needs for official records of the existence, identity, and status of individuals, and for statistics based on such records."

#### Wartime cooperative arrangements

Pending Executive or Congressional action on the Budget Bureau's recommendations, the Division of Vital Statistics continued to work toward a coordinated system, but under special handicaps imposed by wartime restrictions. Starting in 1934, the Division had brought the State registrars together in work conferences, to exchange viewpoints and unify registration practices by cooperative agreements. Successive conferences had been held in 1938, 1940, 1941, and 1942, when travel restrictions made large meetings impossible. As an interim device, the American Association of Registration Executives in 1944 urged the Division to establish a representative Council, to deal with the many wartime problems. This

<sup>24</sup>Measures Relating to Vital Records and Vital Statistics, House Document No. 242, Washington, D. C., 1943.

new organization, created the same year, consisted of seven regional representatives elected by the registration executives, the President and Secretary of the Registrars' Association, and two Federal officials. From time to time, the regional representatives called regional meetings. Despite the limitations of these stopgap mechanisms, they were invaluable in linking State and national registration and vital statistics interests.

### Transfer to the Public Health Service: 1946

The Budget Bureau's recommendations of 1943 were adopted in July 1946, when the President's Reorganization Plan No. 2 gave the Federal Security Administrator<sup>25</sup> authority for Federal functions in vital statistics. To administer these functions, and to provide a single locus of authority for vital records at the Federal level, the National Office of Vital Statistics (NOVS) was established in the Public Health Service.

The National Office of Vital Statistics continued to work closely with the Council, which had proved so useful that it was continued even after the annual work conference was resumed in 1947. Through this annual conference and the Council, and in close cooperation with the Registrars' Association and the Statistics Section of APHA, vital records and statistics problems of an interstate and national character were handled with a fair degree of adequacy. But from a public health viewpoint, there were still serious shortcomings. Of paramount importance was the early development of a public health working conference and committee mechanism to unite the skills and experience of all those producing public health statistics. This meant getting registration executives, vital statisticians, and public health statisticians, from all of the registration areas, into a conference-type organization that would function on a

<sup>25</sup>Transferred to the Secretary of the Department of Health, Education, and Welfare, April 1953.

permanent basis.

This last essential was finally achieved on May 17, 1949, when the Public Health Conference on Records and Statistics was formally launched. It was conceived as a permanent organization, with working committees assigned to specific problems, and an Executive Committee (Council) to conduct its affairs in the interim between national meetings. The Conference was essentially the culmination and fulfillment of organization and work-methods that had been under development for some time in the Council and the annual meeting of State registrars. But its scope was considerably broadened beyond those of its two predecessors. Of special importance was the broadening of its base to include the whole field of public health statistics in addition to that of vital records and vital statistics.<sup>26</sup>

A measure of the remarkable progress made by the registration system was provided by the second nationwide test of birth registration completeness, which was made in conjunction with the 1950 census. This test indicated that 97.9 percent of the infants born in the early part of that year had birth certificates on file in vital statistics offices. In 24 States and the District of Columbia, birth registration completeness was 99.0 percent or more and in only 7 States was it lower than 95.0 percent. In the first nationwide test, made in 1940, only 92.5 percent of the births had been registered. Thus, the proportion of infants without birth certificates was reduced almost three-quarters in the 10-year period. A detailed discussion of the birth registration tests appears in chapter 6.

<sup>26</sup>The philosophy and working methods of the Public Health Conference, and the impact of this coordinating mechanism on health records and statistics, are described in "The Public Health Conference on Records and Statistics," by Hazel V. Aune, *Canadian Journal of Public Health*, December 1951; and in "Records at Work," published by the Public Health Conference, March 1952.

## GROWTH OF THE BIRTH- AND DEATH-REGISTRATION AREAS

The first birth and death statistics published by the Federal Government concerned events in 1850 and were for the entire United States. These statistics were based on information collected during the decennial census of that year. Similar decennial collections were made by census enumerators at each census up to and including the census of 1900, but because of the time interval between the occurrence of a birth or a death and the census enumeration, these reports were inaccurate and incomplete.

In 1880, the Bureau of the Census established a national "registration area" for deaths. This original area consisted of only two States—Massachusetts and New Jersey—the District of Columbia, and several large cities having efficient systems for the registration of deaths, but by 1900 eight other States had been admitted. For the years 1880, 1890, and 1900, mortality data were received from the States and cities included in this expanding area, but birth and death figures for the entire country were still compiled from the reports of census enumerators.

The annual collection of mortality statistics for the registration area began with the calendar year 1900. In 1902, the Bureau of the Census, which had previously functioned only in census years, was made a permanent agency by an act of Congress. This act authorized the Director of the Bureau of the Census to obtain, annually, copies of records filed in the vital statistics offices of those States and cities having adequate death-registration systems. At that time not all States had enacted laws requiring the registration of deaths, and in many States the existing laws were poorly enforced. The important dates in the historical development of birth and

death registration in various States and the year in which each State was admitted to the national registration areas, are given in table 1.01.

The death-registration area for 1900 consisted of 10 States, the District of Columbia, and a number of cities located in nonregistration States. The registration area in 1900 included 40.5 percent of the population of the continental United States. The original registration area was predominantly urban and characterized by a high proportion of white persons. If those reporting cities located in nonregistration States are excluded, the population coverage of the death-registration States is much lower, representing 26.2 percent of the total population of the United States.

Inasmuch as it is more difficult to obtain accurate and complete registration of births as compared with deaths, the national birth-registration area was not established until 1915, and no birth statistics were published by the Bureau of the Census from 1900 to 1914. The original birth-registration area of 1915 consisted of 10 States and the District of Columbia. The growth of this area is indicated in table 1.02.

Table 1.02 also presents for each year through 1933 the estimated midyear population of the continental United States and the estimated midyear population of those States included in the registration system. Beginning with 1933, the birth- and death-registration areas have included all 48 States and the District of Columbia. The year in which each State was admitted to the birth-registration area is shown in table 1.03, and to the death-registration area in table 1.04.

Prior to 1940, most of the national mortality tabulations published by the Bureau of the Census were based on data

Table 1.01. IMPORTANT DATES IN THE HISTORY OF BIRTH AND DEATH REGISTRATION: UNITED STATES

AREA	RECORDS ON FILE FOR ENTIRE AREA		ADMITTED TO REGISTRATION AREA	
	Deaths	Births	Deaths	Births
Alabama-----	1908	1908	1925	1927
Arizona-----	1909	1909	1926	1926
Arkansas-----	1914	1914	1927	1927
California-----	1905	1905	1906	1919
Colorado-----	1907	1907	1906	1928
Connecticut-----	1897	1897	1890	1915
Delaware-----	1881	1881	1890	1921
District of Columbia-----	1855	1871	1880	1915
Florida-----	1899	1899	1919	1924
Georgia-----	1919	1919	1922	1928
Idaho-----	1911	1911	1922	1926
Illinois-----	1916	1916	1918	1922
Indiana-----	1900	1907	1900	1917
Iowa-----	1890	1890	1923	1924
Kansas-----	1911	1911	1914	1917
Kentucky-----	1911	1911	1911	1917
Louisiana-----	1914	1914	1918	1927
Maine-----	1892	1892	1900	1915
Maryland-----	1898	1898	1906	1916
Massachusetts-----	1841	1841	1880	1915
Michigan-----	1867	1867	1900	1915
Minnesota-----	1900	1900	1910	1915
Mississippi-----	1912	1912	1919	1921
Missouri-----	1910	1910	1911	1927
Montana-----	1907	1907	1910	1922
Nebraska-----	1905	1905	1920	1920
Nevada-----	1911	1911	1929	1929
New Hampshire-----	1850	1850	1890	1915
New Jersey-----	1848	1848	1880	1921
New Mexico-----	1919	1919	1929	1929
New York-----	1880	1880	1890	1915
North Carolina-----	1913	1913	1910	1917
North Dakota-----	1908	1908	1924	1924
Ohio-----	1909	1909	1917	1917
Oklahoma-----	1908	1908	1928	1928
Oregon-----	1903	1903	1918	1919
Pennsylvania-----	1906	1906	1906	1915
Rhode Island-----	1882	1882	1890	1915
South Carolina-----	1915	1915	1916	1919
South Dakota-----	1905	1905	1906	1932
Tennessee-----	1914	1914	1917	1927
Texas-----	1903	1903	1933	1933
Utah-----	1905	1905	1910	1917
Vermont-----	1857	1857	1890	1915
Virginia-----	1912	1912	1913	1917
Washington-----	1907	1907	1908	1917
West Virginia-----	1917	1917	1925	1925
Wisconsin-----	1907	1907	1908	1917
Wyoming-----	1909	1909	1922	1922
Alaska-----	1913	1913	1950	1950
Hawaii-----	1896	1896	1917	1922
Puerto Rico-----	1931	1931	1932	1943
Virgin Islands-----	1919	1919	1924	1924

NOTE.—See tables 1.03 and 1.04 for footnote references to several States.

collected from the registration areas, but beginning with 1940 all published material given in statistical series for the United States prior to the completion of the death-registration area in 1933 omits data for registration cities located in nonregistration States, and includes only findings for the registration States. This change decreases the mortality statistics cov-

Table 1.02. GROWTH OF THE BIRTH- AND DEATH-REGISTRATION AREAS: UNITED STATES

(Beginning with 1933 and each succeeding year, areas include entire continental United States)

YEAR	Estimated midyear population of continental United States	BIRTH-REGISTRATION STATES		DEATH-REGISTRATION STATES	
		Estimated midyear population	Percent of total	Estimated midyear population	Percent of total
1933-----	125,578,763	125,578,763	100.0	125,578,763	100.0
1932-----	124,840,471	118,905,899	95.2	118,905,899	95.2
1931-----	124,059,648	117,455,229	94.7	118,148,967	95.3
1930-----	123,076,741	116,544,946	94.7	117,238,278	95.3
1929-----	121,769,939	115,317,450	94.7	115,317,450	94.7
1928-----	120,501,115	113,636,160	94.3	113,636,160	94.3
1927-----	119,058,062	104,320,830	87.6	107,084,532	90.0
1926-----	117,399,225	90,400,590	77.0	103,822,683	88.4
1925-----	115,831,963	88,294,564	76.2	102,031,555	88.1
1924-----	114,113,463	87,000,295	76.2	99,318,098	87.0
1923-----	111,949,945	81,072,123	72.4	96,788,197	86.5
1922-----	110,054,778	79,560,746	72.3	92,702,901	84.2
1921-----	108,541,489	70,807,090	65.2	87,814,447	80.9
1920-----	106,466,420	63,597,307	59.7	86,079,263	80.9
1919-----	104,512,110	61,212,076	58.6	83,157,982	79.6
1918-----	103,202,801	55,153,782	53.4	79,008,412	76.6
1917-----	103,265,913	55,197,952	53.5	70,234,775	68.0
1916-----	101,965,984	32,944,013	32.3	66,971,177	65.7
1915-----	100,549,013	31,096,697	30.9	61,894,847	61.6
1914-----	99,117,567	---	---	60,965,509	61.5
1913-----	97,226,814	---	---	58,156,740	59.8
1912-----	95,331,300	---	---	54,847,700	57.5
1911-----	93,867,814	---	---	53,929,644	57.5
1910-----	92,406,536	---	---	47,470,437	51.4
1909-----	90,491,525	---	---	44,223,513	48.9
1908-----	88,708,976	---	---	38,634,759	43.6
1907-----	87,000,271	---	---	34,552,837	39.7
1906-----	85,436,556	---	---	33,782,288	39.5
1905-----	83,819,666	---	---	21,767,980	26.0
1904-----	82,164,974	---	---	21,532,076	26.0
1903-----	80,632,152	---	---	20,945,222	26.0
1902-----	79,180,196	---	---	20,582,907	26.0
1901-----	77,585,128	---	---	20,237,453	26.1
1900-----	76,094,134	---	---	19,965,446	26.2
1890-----	<sup>2</sup> 62,947,714	---	---	19,659,440	31.2
1880-----	<sup>1</sup> 50,155,783	---	---	8,538,366	17.0

<sup>1</sup>Population enumerated in the Federal census of May 31.

erage of the United States by the exclusion of cities in non-registration States, but it has its advantages in that more reliable population estimates are available for the registration States than for the registration areas. No change in coverage has been made for natality statistics since the birth-registration area at no time included cities in nonregistration States.

Because of the growth of the areas for which data have been collected and tabulated, a national series of geographically comparable data prior to 1933 can be obtained only by estimation. Annual estimates of births have been prepared by P. K. Whelpton for the period 1915 to 1934. (See table 6.02 in chapter 6.) These estimates include an adjustment for States not in the birth-registration area prior to 1933 and for underregistration. In conjunction with annual estimates prepared by the National Office of Vital Statistics for the period 1935 through 1949, they constitute a series of data consistent with respect to geographic coverage and registration completeness. Corresponding estimates for deaths are not yet available. However, rates for the expanding groups of death-registration States are approximations to complete

Table 1.03. YEAR IN WHICH EACH STATE WAS ADMITTED TO THE BIRTH-REGISTRATION AREA

YEAR	State	YEAR	State
1915-----	Connecticut	1921-----	Delaware
	Maine		Mississippi
	Massachusetts		New Jersey
	Michigan	1922-----	Illinois
	Minnesota		Montana
	New Hampshire		Wyoming
	New York	1924-----	Florida
	Pennsylvania		Iowa
	Rhode Island <sup>1</sup>		North Dakota
	Vermont	1925-----	West Virginia
	District of Columbia <sup>2</sup>	1926-----	Arizona
1916-----	Maryland		Idaho
1917-----	Indiana	1927-----	Alabama
	Kansas		Arkansas
	Kentucky		Louisiana
	North Carolina		Missouri
	Ohio		Tennessee
	Utah	1928-----	Colorado
	Virginia		Georgia
	Washington		Oklahoma
	Wisconsin	1929-----	Nevada
1919-----	California		New Mexico
	Oregon	1932-----	South Dakota
	South Carolina <sup>3</sup>	1933-----	Texas
1920-----	Nebraska		

<sup>1</sup>Dropped from the birth-registration area in 1919; readmitted in 1921.  
<sup>2</sup>Included in States.

<sup>3</sup>Dropped from the birth-registration area in 1925; readmitted in 1928.

national rates, and general comparisons over a long period of years are made. More exact trends for parts of the United States can be secured through the use of some constant area, such as the original registration States, or the registration States of 1920. The crude marriage and divorce rates; birth rates; fetal death ratios; and death, infant mortality, and maternal mortality rates for the registration States, geo-

Table 1.04. YEAR IN WHICH EACH STATE WAS ADMITTED TO THE DEATH-REGISTRATION AREA

YEAR	State	YEAR	State
1880-----	Massachusetts	1911-----	Missouri
	New Jersey	1913-----	Virginia
	District of Columbia <sup>1</sup>	1914-----	Kansas
1890-----	Connecticut	1916-----	South Carolina
	Delaware <sup>2</sup>	1917-----	Tennessee
	New Hampshire	1918-----	Illinois
	New York		Louisiana
	Rhode Island		Oregon
	Vermont	1919-----	Florida
1900-----	Maine		Mississippi
	Michigan	1920-----	Nebraska
	Indiana	1922-----	Georgia <sup>5</sup>
1906-----	California		Idaho
	Colorado		Wyoming
	Maryland	1923-----	Iowa
	Pennsylvania	1924-----	North Dakota
	South Dakota <sup>3</sup>	1925-----	Alabama
1908-----	Washington		West Virginia
	Wisconsin	1926-----	Arizona
1909-----	Ohio	1927-----	Arkansas
1910-----	Minnesota	1928-----	Oklahoma
	Montana	1929-----	Nevada
	North Carolina <sup>4</sup>		New Mexico
	Utah	1933-----	Texas
1911-----	Kentucky		

<sup>1</sup>Included in States.

<sup>2</sup>Dropped from the registration area in 1900; readmitted in 1919.

<sup>3</sup>Dropped from the registration area in 1910; readmitted in 1930.

<sup>4</sup>Included only municipalities with populations of 1,000 or more in 1900 (about 16 percent of the total population); the remainder of the State was added to the area in 1916.

<sup>5</sup>Dropped from the registration area in 1925; readmitted in 1928.

graphic divisions, and individual States for a series of years are given in chapters 5, 6, 7, and 8. Rates or ratios by place of occurrence and place of residence are given in separate tables.

## MARRIAGES, DIVORCES, AND NOTIFIABLE DISEASES

### Marriages and Divorces

The earliest Federal statistics on marriages and divorces in the United States were collected in a field survey by the Commissioner of Labor, covering the 20-year period 1867 to 1886. A survey covering the next 20 years, and single-year collections for 1916 and for each year from 1922 to 1932 were made by the Bureau of the Census. In all these studies, marriage statistics were confined to numbers of occurrences, by county, with considerable incompleteness for the first 20 years. Divorce data were considered practically complete, and included detailed statistics on such items as legal grounds ("causes"), duration of marriage prior to divorce, etc.

In 1940, the Bureau of the Census, through its Vital Statistics Division, undertook a new program of marriage and divorce statistics, following the pattern used for birth and death statistics. Transcripts of marriage and divorce records were collected, chiefly from those States which could provide them through their State offices of vital statistics. For the first time, the Federal program provided some detailed statistics on marriages, more than mere numbers of occurrences. However, the data were for fewer than 30 States. Some detailed statistics on divorces were obtained for 6 to 12 States. Marriage data for 1939 and 1940 were published, as well as divorce data for 1939. This program was discontinued, owing to war conditions. Meanwhile, numbers or estimated numbers

of occurrences by State were obtained and published for the years 1937 to 1940.

Beginning in 1944, the Bureau of the Census, at first through its Population Division and later through its Vital Statistics Division, resumed efforts to provide numbers of occurrences. This program has been continued by the former Vital Statistics Division, designated the National Office of Vital Statistics since its transfer to the Public Health Service in 1946.<sup>27</sup> In addition, a program of detailed statistics of marriages and divorces, based on State tabulations, was inaugurated by the National Office of Vital Statistics in 1949. Data for 1950 are presented in tables 1 through 12 in Volume II, as well as in several text tables in chapter 5.

Table 1.05 summarizes some of the preceding discussion, and shows the sources of the national marriage and divorce totals from 1867 to 1950.

Table 1.06 shows for each State the year in which central filing of marriage and divorce records was started.

<sup>27</sup>For specific references to published reports of earlier surveys, see "Historical note on earlier studies" and footnotes in "Marriage and Divorce Statistics: United States, 1946," National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 27, No. 10, pp. 171, 172, 1947.

Table 1.05. SOURCES OF MARRIAGE AND DIVORCE TOTALS: UNITED STATES, 1867-1950

YEAR	Sources of marriage totals	Sources of divorce totals <sup>1</sup>
1867-86-----	Estimates published in 1947 by National Office of Vital Statistics, from incomplete data of survey by Commissioner of Labor, published in 1889.	Figures collected (with detailed data) by Commissioner of Labor, published in 1889.
1887-1906----	Estimates published in 1947 by National Office of Vital Statistics, from data of nearly complete survey by Bureau of the Census, published in 1908-1909.	Figures collected (with detailed data) by Bureau of the Census, published in 1908-1909.
1907-15-----	Estimates published in 1928 by Bureau of the Census, from records of selected States.	(Same as marriage.)
1916-----	Figures collected by Bureau of the Census, published in 1919.	Figures collected (with detailed data) by Bureau of the Census, published in 1919.
1917-21-----	Estimates published in 1928 by Bureau of the Census, from records of selected States.	(Same as marriage.)
1922-32-----	Figures collected each year and published in annual reports by Bureau of the Census.	Figures collected (with detailed data) each year and published in annual reports by Bureau of the Census.
1933-36-----	Estimates by S. A. Stouffer and L. M. Spencer (American Journal of Sociology, January 1939).	(Same as marriage.)
1937-40-----	Estimates published in 1942 by Bureau of the Census, from nearly complete survey.	(Same as marriage.)
1941-43-----	Estimates published in 1946 by National Office of Vital Statistics, from records of selected States.	(Same as marriage.)
1944-50-----	Figures include estimates and marriage licenses; published annually by National Office of Vital Statistics, from surveys of States and of selected counties.	Estimates published annually by National Office of Vital Statistics, from records of selected States.

<sup>1</sup>Includes reported annulments.

**Notifiable Diseases**

The collection of data on notifiable diseases by the Public Health Service had its beginning nearly 75 years ago when, by

Table 1.06. YEAR IN WHICH THE CENTRAL FILING OF MARRIAGE AND DIVORCE RECORDS BEGAN

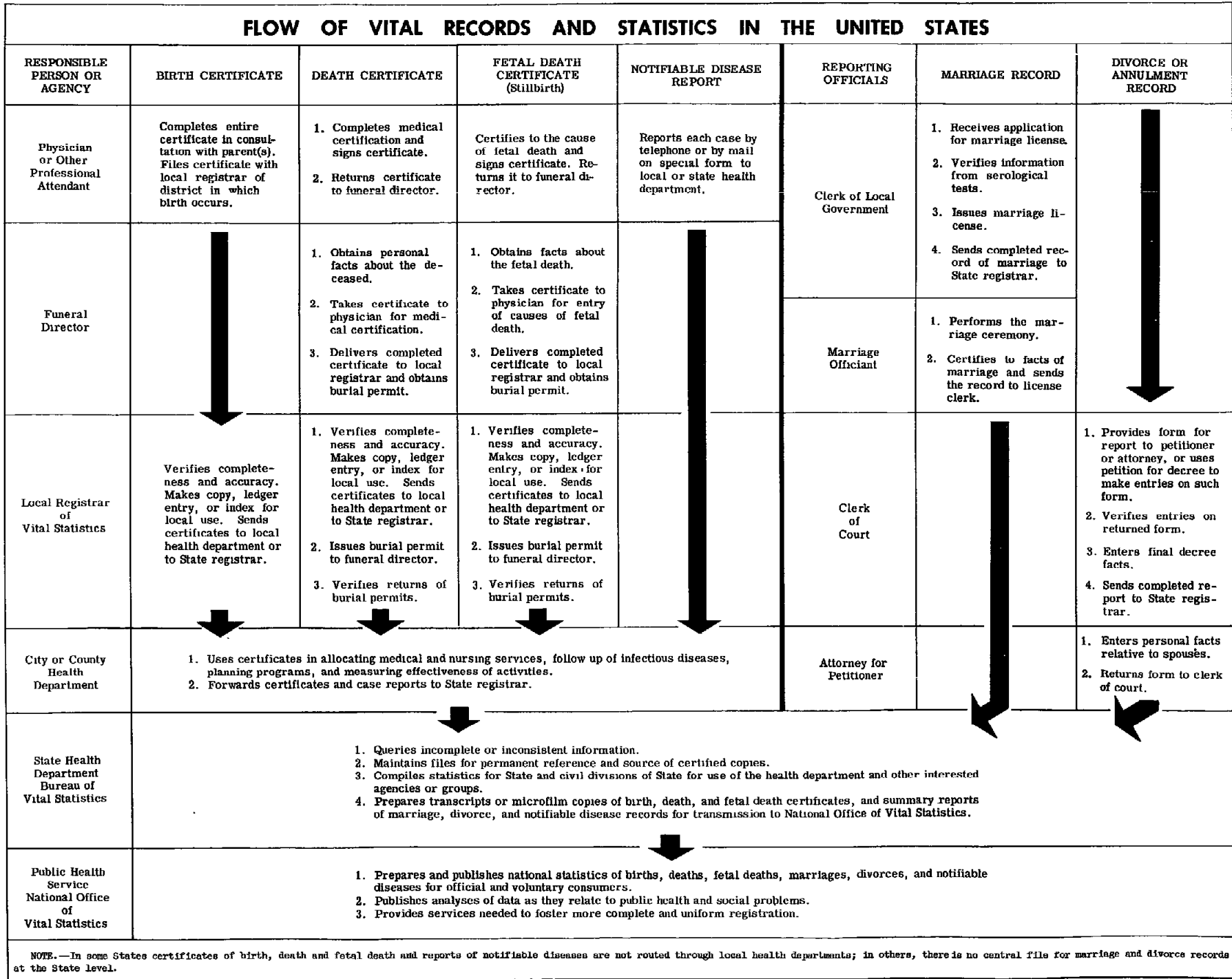
AREA	Marriage	Divorce	AREA	Marriage	Divorce
Alabama-----	1908	1908	New Hampshire-----	1858	1881
Arizona-----	-	-	New Jersey-----	1848	1795
Arkansas-----	1917	1923	New Mexico-----	-	-
California-----	1905	-	New York-----	1880	-
Colorado-----	-	-	North Carolina-----	-	-
Connecticut-----	1897	1947	North Dakota-----	1925	1949
Delaware-----	1913	1935	Ohio-----	1949	1949
Dist. of Columbia--	1811	1802	Oklahoma-----	-	-
Florida-----	1927	1927	Oregon-----	1907	1925
Georgia-----	-	-	Pennsylvania-----	1906	1943
Idaho-----	1947	1947	Rhode Island-----	1852	-
Illinois-----	-	-	South Carolina-----	1950	-
Indiana-----	-	-	South Dakota-----	1905	1905
Iowa-----	1880	1914	Tennessee-----	1945	1945
Kansas-----	1913	-	Texas-----	-	-
Kentucky-----	-	-	Utah-----	1919	-
Louisiana <sup>1</sup> -----	1937	1942	Vermont-----	1857	1896
Maine-----	1892	1892	Virginia-----	1853	1918
Maryland-----	1914	1914	Washington-----	-	-
Massachusetts-----	1841	-	West Virginia-----	1921	-
Michigan-----	1867	1897	Wisconsin-----	1907	1907
Minnesota-----	-	-	Wyoming-----	1941	1941
Mississippi-----	1926	1926	Alaska-----	1913	1949
Missouri-----	1948	1948	Hawaii-----	1896	-
Montana-----	1943	1943	Puerto Rico-----	1931	1931
Nebraska-----	1909	1909	Virgin Islands-----	-	-
Nevada-----	-	-			

<sup>1</sup>Not all parishes report.

an act of Congress in 1878, such collection was authorized for use in connection with quarantine measures against such pestilential diseases as cholera, smallpox, plague, and yellow fever. One year later, a specific appropriation was made for the collection and publication of reports of notifiable diseases, principally from foreign ports. In 1893, an act provided for the collection of information each week from State and municipal authorities throughout the United States. In order to secure uniformity in the registration of morbidity statistics, Congress enacted a law in 1902, which directed the Surgeon General of the Public Health Service to provide forms for the collection, compilation, and publication of such data.

Reports on notifiable diseases were received from a very few States and cities prior to 1900, but gradually more and more States submitted monthly and annual summaries. It was not until after 1925 that all States reported regularly.

Until 1942, the collection, compilation, and publication of morbidity statistics was under the direction of the Division of Sanitary Reports and Statistics of the Public Health Service. These functions were transferred to the Division of Public Health Methods in 1942, and to the National Office of Vital Statistics in 1949.



NOTE.—In some States certificates of birth, death and fetal death and reports of notifiable diseases are not routed through local health departments; in others, there is no central file for marriage and divorce records at the State level.

## THE VITAL RECORDS AND STATISTICS SYSTEM

Records and statistics of vital events in the United States flow from a coordinated system of separate local, State, and Federal agencies, as shown in the accompanying chart. Legal responsibilities for the registration and preservation of vital records are laid upon private citizens and upon officials at all levels of government. Responsibility for statistical services also is laid by law upon agencies of government at all three levels.

Nevertheless, the strength of the system lies in the recognition by all its participants of their common interests, and the ready cooperation that flows from this understanding. Without it, the system would not have attained its present degree of effectiveness. The success of the record programs and the values of the statistics depend upon the precision and consistency with which the many operations are performed. While the law provides essential authorization for the system, only clear comprehension and the will to strive for the common ends can give it success.

The remainder of this chapter describes briefly the organization and functions of the vital records and statistics system.

### Registration and Reporting Activities

Vital records and reports originate with private citizens—members of the families affected by the events, their physicians, funeral directors, clergymen, and others. The responsibilities of these individuals are defined in State laws, and penalties for noncompliance are also provided by statute. The public's understanding of the values of vital records is best evidenced by the fact that State and local officials who administer the State laws very seldom find it necessary to hale offenders into the courts. The system draws millions of reports from the population each year, while the enforcement cases are reckoned only in the dozens.

The following paragraphs describe the usual assignments of responsibility for furnishing facts on birth, death, fetal death, marriage, and divorce registrations.

### Registration of births

By law, the registration of births is the direct responsibility of the professional attendant at birth, generally a physician or midwife. In their absence, the parents of the child are responsible for the report. Each birth must be reported promptly—the reporting requirements vary from State to State, ranging from 24 hours after the birth to as much as 10 days. Certificates must be filed with the local registrar of the district in which the birth occurs.

### Registration of deaths

By law, the registration of deaths is the direct responsibility of the funeral director, or person acting as such. The funeral director obtains the data required other than the cause of death. The person who supplies the information to the funeral director is usually required to sign the certificate as informant to attest to the truth of the facts entered. The physician in attendance at the death is required to indicate the cause of death. If no physician was in attendance, the coroner, or person acting as such, is required to enter the cause of death. Where death is from other than natural causes, the coroner may be required to examine the body and report the cause of death, even though a physician was in attendance.

In most States, a burial-transit permit must be obtained from the local registrar of the district in which the death occurred, before the body may be removed from the district, buried, or otherwise disposed of.

### Registration of fetal deaths (stillbirths)

By law, the registration of fetal deaths (infants born dead) is the direct responsibility of the funeral director, or person acting as such. The funeral director obtains the personal data required other than the cause of fetal death. The person who supplies the data to the funeral director is usually required to sign the certificate as informant to attest to the truth of the facts entered. Where a funeral director is not engaged, the physician is urged, in behalf of improved fetal death registration, to report the event to the local registrar. The physician in attendance at the death is required to certify the cause of fetal death. If no physician was in attendance, the coroner, or person acting as such, may be required to enter the cause of fetal death. The coroner may be required to examine the body and make the report where fetal death was caused by other than natural cause.

A burial-transit permit must usually be obtained from the local registrar of the district where the fetal death occurred, before the body may be removed from the district, cremated, or otherwise disposed of.

### Registration of marriages and divorces

In most States, marriage licenses are issued by town or county clerks who obtain the personal particulars from the applicants and verify information from the serological tests. After the marriage is performed, the officiant (cleric or lay person) certifies to the facts of the marriage, and sends the record to the official who issued the license. In approximately three-fourths of the States, there is now also some provision for the local licensing official to send the original, a copy, or an abstract of the completed marriage record to the State registrar of vital statistics. In most States, original divorce and annulment records are filed with the clerk or other official of the court where the decree is granted. Personal particulars are obtained by the clerks from attorneys or petitioners. In approximately half of the States, there is now also some provision for filing a certificate or transcript abstracted from the record with the State registrar.

### Vital Statistics Organization

#### In local areas

Each State is divided into local registration districts for the purpose of collecting vital records. In most cases, the extent of these districts is determined by law. Originally, registration districts were very small, frequently consisting of each city, village, town, township, or road district. With increasing urbanization and improved transportation and communication facilities, districts have been consolidated in some States so that now the entire county comprises the local registration district, while in others each city, incorporated town, or other primary political unit (such as township or civil district) still constitutes the local registration district. The number of registration districts was reduced from close to 30,000 in 1940 to less than 18,000 in 1950, and this trend still is in evidence.

A local registrar is appointed for each district and, where necessary, he is assisted by a deputy local registrar. Local registrars may be appointed or may acquire the duties of registrar in conjunction with legal appointment to civil positions. In some States, the health officer of the county or large city is designated as the local registrar, and the registration of births, deaths, and fetal deaths becomes a regular function of the health department.

The local and county registrars are responsible for the complete, accurate, and timely collection of vital records.

The Nation and the States rely on them for the success of the system which can be no more reliable than are the basic data collected. These registrars are the officials who develop and maintain working relationships with the physicians, midwives, funeral directors, coroners, and other persons required by law to prepare and file vital records.

The duties of the local registrar generally include receiving and collecting records of all births, deaths, and fetal deaths in his district; inspecting these certificates for completeness and accuracy; querying, correcting, and completing the inconsistent or missing items; dating, signing, and numbering each record; issuing burial-transit permits; maintaining a local copy, register, or index of the records; reporting infirmary of the registration law to county or State officials; promoting registration reporting; and transmitting on a regular schedule, to the local health unit or to the State division of vital statistics, all original certificates received, except where duplicate copies are transmitted and the original records are retained in permanent files by the local offices. In some States, the local registrar issues requested certified copies, for which a fee is usually charged.

In some States, the office of the local registrar sends notifications of birth registration to new parents, to be retained if accurate or to be returned requesting correction if inaccurate; the office may also be responsible for carrying out the preliminary review and abstracting of delayed certificates of birth. In other States, both the notification and delayed registration programs are handled entirely by the State office.

For performance of the prescribed duties, the local registrar usually is paid a fee by the county or State for each certificate filed.

The more recent development of transmitting the certificates first to the county health unit and then on to the State office makes possible their use in current planning, development, and appraisal of the local health program in the many States where this procedure is in practice. For example, death certificates may be examined to determine the causes of death and conditions relating thereto. They may be compared with case records to test the completeness of communicable disease reporting. The birth certificates, and certificates for infant and maternal deaths, indicate the need for and initiate various phases of the local infant and maternal hygiene program. Prompt and accurate information regarding births and deaths becomes in this way a daily tool in the work of an efficient local health organization.

Local registrars of vital statistics generally collect marriage records only where, as in New England the town clerks, or as in Illinois the county clerks, are responsible for all nonjudicial records. Divorces and annulments, of course, are recorded in the courts that hear the suits.

### In the States

The primary duties of the State vital records and statistics office are the development and maintenance of State and local procedures for the collection of vital records, the enforcement of the law requiring that the events be registered, and the production of State vital statistics.

Vital records are permanently filed in vital statistics divisions of the State governments. In New England, with the exception of Rhode Island, original records are maintained in the local offices; but in these States duplicate copies are maintained in State offices. In addition, a few large cities have been constituted by State law as independent registration areas which maintain files of their own original records.

Certificates from all parts of the State are received by the State office from the local registrars or county health officers each month, on or before a date specified by law. As a part of the process of receiving, completing, and filing them, the certificates are counted and verified against the number reported to have been sent. They are next examined for completeness, accuracy, and timeliness, and are credited

to the account of the appropriate local registrar. Monthly, quarterly, semiannually, or annually, depending upon State practices, vouchers are prepared and transmitted either to the State treasury or to the county commissioners or supervisors who are obligated by law to pay the local registrar. Special query forms or letters are sent to the local registrar or attendant asking for additional or clarifying information, if a certificate is deficient.

In nearly all States, some type of notification of birth form is sent to new parents by either the State or local registrar offices. About half of the State offices issue birth notification forms furnished by the National Office of Vital Statistics. Others have developed their own State forms, and in a number of areas the local office provides its own notification forms. Regardless of the form used or the office issuing it, the practice has been found to be useful both in improving the accuracy of the information contained on the certificate and in improving the completeness of birth registration. Experience has demonstrated that many parents read the notification carefully, and if names are misspelled, or if the date or the place of birth or other information is incorrect, the parents correct the notification form and return it for correction of the certificate.

Correction of vital records is one of the more intricate tasks undertaken by State offices. Two distinct points of view regarding the alteration and correction of original certificates are reflected in differences in the State procedures governing corrections. According to one view, the principal value of the certificate lies in the fact that it is the original and that it has remained unchanged throughout many years. According to the other view, held by the majority, a certificate should be accurate; and if through no fault of the individual concerned there are errors in it, it should be amended upon the presentation of adequate evidence. In those States where the former point of view dominates, the registrar is forbidden, by statute or regulation, to make any alteration on the face of the certificate but he is authorized to file and certify affidavits and other documents attesting to the inaccuracy of the facts appearing on the face of the certificate. In States where the primary emphasis is on accuracy, the registrar may correct the face of the original certificate upon presentation of adequate documentary proof.

In all States, special consideration is given to adoption, legitimation, and foundling cases. The recent tendency among the States has been to make legislative provision for new birth certificates in these instances. The law specifies that the original certificate in adoption cases shall be sealed with the certified court order of adoption, while a new birth certificate is prepared showing the adopting persons as the parents.

Central vital statistics offices issue certified copies of birth and death certificates to qualified persons on request. In recent years, many States have developed forms by which official agencies may obtain confidential verification of birth facts. Many States also use the birth registration card or other type of short form certification of birth facts which does not disclose information concerning birth out of wedlock, adoption, or medical data irrelevant to most certification purposes. A fee is usually charged for certifications and birth cards and the vital statistics offices usually maintain fee accounting systems, although most States require that the revenues be paid into the State treasury. The number of certified copies issued by State offices, although very large, is by no means a measure of the total volume of documents sought and obtained by individuals and agencies as evidence of the facts concerning births and deaths. Many county and municipal officers also issue copies of vital records which were filed with them prior to the establishment of central registration or passed through their hands before reaching State offices.

The task of registering births which were not properly registered within the time prescribed by law, has always been a part of the work of the State vital statistics office. (The



development of uniform procedures and standards for filing delayed registrations of birth is referred to in the historical portion of the text in this chapter.) Applicants are required to submit documentary evidence sufficient to warrant the acceptance for filing of a delayed certificate. As indicated elsewhere, some of the local registrars are authorized to conduct preliminary review activities for delayed registration of births, for submittal to the State office. The State registrar is responsible for reviewing and determining whether the evidence presented to the State or local offices is acceptable. In addition, in a number of States delayed registrations may be filed through the local courts, Nebraska being the only State in which the courts are required by law to adhere to prescribed minimum standards of documentary evidence in accepting delayed registrations.

It is essential that certificates be located easily and quickly, hence the value of an indexing system is apparent. In past years, typical State indexes consisted of handwritten or typed entries of the necessary identifying items for each certificate in ledgers or card files. The present trend is to mechanical preparation of indexes, although the States without tabulating equipment or those with a relatively small volume still maintain card indexes. Regardless of the type, the indexes are either alphabetic or phonetic and, in some States, both systems are used. In the permanent files, the certificates usually are arranged by county and month of event, by surname, and in chronological order. In most States they are bound, usually in books of 500, either in sewed bindings or in some form of post or staple binder.

State offices furnish forms and supplies to local offices as prescribed by law, sponsor training meetings, and provide instruction and advice for local registration officials.

Table 1.06 indicates the year in which the various State offices first provided for centralized registration of marriages and divorces. Where such centralized files are maintained, the State registrar receives the original, a copy, or a partial transcript of the marriage record for marriages performed and some type of transcript for each divorce granted. Offices having central files of marriage and divorce records usually maintain indexes for both types of records and tabulate and publish statistics in some degree of detail.

The procedures employed in processing statistics vary in the different States, as do the resultant statistical services rendered. However, all States prepare monthly, quarterly, annually, or biennially, reports based on data drawn from the various types of certificates filed. Thus, the information on the certificates is used directly in planning, evaluating, and administering health activities.

The State vital statistics offices send copies (transcripts, microfilm, or punched tabulating cards) of each birth, death, and fetal death certificate to the National Office of Vital Statistics of the U. S. Public Health Service.

## In the United States

The Department of Health, Education, and Welfare is the Federal agency responsible for publishing national vital statistics, and for giving expression to the national interest in vital records. The Department has entrusted the management of its program to the Public Health Service, because that constituent agency has direct relations with the health agencies that administer vital records and vital statistics operations in the States. The National Office of Vital Statistics is the arm of the Public Health Service that conducts the Federal vital statistics program.

Publications of the National Office provide national statistics of births, deaths, fetal deaths, marriages, divorces, and notifiable diseases. All of these are derived from the routine registrations and reports collected by State and local governments. The data reach the Federal agency through cooperative arrangements with the States. The most detailed of the national reports are those relating to deaths, while the simplest are the statistics of notifiable diseases, which consist mainly of counts of reported cases. At present, the NOVS obtains and publishes annual figures or estimates on numbers of marriages and divorces occurring, together with current monthly figures on numbers of marriage licenses for the United States and divorces for a group of States. In addition, beginning with data for 1948, some tables of detailed marriage and divorce statistics are published, not for the entire United States, but only for those States in which the State vital statistics office is able to furnish such tables. The number of States able to supply these statistics and the amount of obtainable information have increased gradually from year to year.

The National Office provides services needed to foster more complete and uniform registration throughout the Nation. Among these services are: assistance in coordinating vital statistics activities of the various State, city, and county health offices; promotion of more complete registration; the conduct of educational campaigns and tests for completeness of registration; assistance to State officials in developing standard forms, recommended legislation, standard definitions, and statistical tables; assistance to State agencies of a clearing-house nature; and development and promotion of methods for the collection and use of statistical data.

The National Office of Vital Statistics is the focal point of the vital records and statistics system. It provides the nerve center through which conflicting demands upon the system are compromised by interstate action of the responsible technicians. It provides a channel for clarification and resolution of problems in Federal-State relations. It also is the country's representative in the advancement of international comparability in vital statistics, and the source to which international agencies turn for United States data.

## Chapter 2

### CLASSIFICATION AND INTERPRETATION OF VITAL STATISTICS

#### SOURCES OF DATA

##### Birth, death, and fetal death statistics

All live birth, death, and fetal death tabulations made by the National Office of Vital Statistics are based on information from transcripts or microfilm copies of the original certificates. Copies are received from registration offices of all States, certain cities, the District of Columbia, and of most of the outlying Territories and possessions of the United States. They cover only events occurring within these areas. Deaths of, and births to, American nationals that occur in other parts of the world are not included. The form and content of the original certificates are determined by each registration office and, therefore, vary in certain details. However, they conform very closely in most essential respects to the recommended standard certificates.

##### Marriage and divorce statistics

Marriage statistics for the United States are based on reports from State registration offices, local officials, the District of Columbia, and most of the outlying Territories and possessions. For States or areas for which numbers of marriages are not available, numbers of marriage licenses are used as the nearest approximations to marriages. Marriage statistics on personal characteristics are based on tabulations received from the registration offices of those States which maintain central registers of marriages.

Divorce statistics for the United States are based on reports from those State registration offices which maintain central registers of divorces, from other sources in a few additional States, from the District of Columbia, and from most of the outlying Territories and possessions. The number of reports received in the National Office of Vital Statistics varies from year to year. National totals are estimated.<sup>1</sup> Whenever reported, annulments are included in State figures.<sup>2</sup>

##### Notifiable disease statistics

Tabulations of notifiable diseases are limited to the number of cases of certain infectious diseases which are reported to the Public Health Service by the State departments of health.

##### Standard Certificates of Live Birth, Death, and Fetal Death (Stillbirth)

Standard Certificates of Live Birth, Death, and Fetal Death (Stillbirth) issued by the National Office of Vital Statistics, serve as the principal means for gaining uniformity in the minimum content of the documents used to collect informa-

tion on these events. They are modified in each State to the extent made necessary by the particular needs of the State or by special provisions of the State vital statistics law. However, the certificates of most States conform closely, in content and arrangement, to the standard certificates.

The first issues of the Standard Certificates of Birth and Death appeared shortly before the formation of the registration areas. Since then, they have been revised periodically by the national vital statistics agency, in consultation with State health officers and registrars; Federal agencies concerned with vital statistics; national, State and county medical societies; and others working in the fields of public health, social welfare, demography, and insurance. This revision procedure has assured careful evaluation of each item in terms of its current and future usefulness for registration, identification, legal, medical, and research purposes. New items have been added when necessary, and old items have been modified to ensure better reporting or in some cases dropped when there appeared little or no possibility of their being used.

The most recent revision of the standard certificates was completed in June 1948 after extensive surveys of opinion among interested groups, concerning suggested changes. Standard certificates recommended to the States for adoption starting with 1949 are shown below. The format of all three certificates was changed to a block-type design to provide more adequate space for making entries on the certificates than did the previous design and to make the certificates readily adaptable to typewriter usage—a factor of increased importance in view of the marked rise in the proportions of births and deaths occurring in institutions. Other important modifications follow:

1. On the Standard Certificate of Live Birth (figure 2.A)
  - a. Establishment of a "medical and health section" as an integral part of the certificate. The section is for items which are of a medical, public health, or statistical nature and would not usually be reproduced as part of a certified copy of the birth certificate. This is intended to prevent unnecessary embarrassment to the child or his parents when such facts as illegitimacy or malformations appear on the birth records.<sup>3</sup> The medical section is used by many States to accommodate various items including: complications of pregnancy and labor, operations for delivery, congenital malformations, birth injuries, and the use of a prophylactic drug in the baby's eyes. Prior to 1949, many States had already adopted these items and placed them in a similar section.
  - b. Addition of an item on birth weight and specification of length of pregnancy in weeks. These will form the basis for studies on prematurely born infants and mortality among the newborn.

<sup>1</sup>For further explanation of methods of estimating national and State figures, and sources of data, see "Summary of Marriage and Divorce Statistics: United States, 1950," National Office of Vital Statistics, *Vital Statistics—Special Reports*, vol. 37, No. 3, pp. 54, 55, 1952.

<sup>2</sup>For discussion of annulments, see "Underreporting of annulments" and table D, *ibid.*, pp. 54, 55.

<sup>3</sup>See "The Confidential Nature of Birth Records, 1949," Federal Security Agency, Washington, D. C., for a comprehensive policy statement on safeguards recommended for the birth records of children born out of wedlock, children of unknown parentage, and legitimated and adopted children.



ANALYSIS

FIGURE 2. B

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE Public Health Service		(1949 Revision of Standard Certificate) <b>CERTIFICATE OF DEATH</b>	
BIRTH NO. _____		STATE OF _____	
STATE FILE NO. _____			
1. PLACE OF DEATH a. COUNTY _____ b. CITY (If outside corporate limits, write RURAL and give town or township) _____ c. LENGTH OF STAY (in this place) _____ d. FULL NAME OF HOSPITAL OR INSTITUTION (If not in hospital or institution, give street address or location) _____		2. USUAL RESIDENCE (Where deceased lived. If institution: residence before admission). a. STATE _____ b. COUNTY _____ c. CITY (If outside corporate limits, write RURAL and give township) _____ d. STREET ADDRESS (If rural, give location) _____	
3. NAME OF DECEASED (Type or Print) a. (First) _____ b. (Middle) _____ c. (Last) _____		4. DATE OF DEATH (Month) (Day) (Year) _____	
5. SEX _____	6. COLOR OR RACE _____	7. MARRIED, NEVER MARRIED, WIDOWED, DIVORCED (Specify) _____	8. DATE OF BIRTH _____
9. AGE (In years last birthday) _____ IF UNDER 1 YEAR: Months _____ Days _____ IF UNDER 14 HRS.: Hours _____ Min. _____			
10a. USUAL OCCUPATION (Give kind of work done during most of working life, even if retired) _____		10b. KIND OF BUSINESS OR INDUSTRY _____	11. BIRTHPLACE (State or foreign country) _____
12. CITIZEN OF WHAT COUNTRY? _____			
13. FATHER'S NAME _____		14. MOTHER'S MAIDEN NAME _____	
15. WAS DECEASED EVER IN U.S. ARMED FORCES? (Yes, no, or unknown) _____ (If yes, give war or dates of service) _____		16. SOCIAL SECURITY NO. _____	17. INFORMANT _____
18. CAUSE OF DEATH Enter only one cause per line for (a), (b), and (c)  <i>*This does not mean the mode of dying, such as heart failure, asphyxia, etc. It means the disease, injury, or complication which caused death.</i>		<b>MEDICAL CERTIFICATION</b>	
I. DISEASE OR CONDITION DIRECTLY LEADING TO DEATH* (a) _____ ANTECEDENT CAUSES _____ Morbid conditions, if any, giving rise to the above cause (a) stating the underlying cause last. DUE TO (b) _____ DUE TO (c) _____		INTERVAL BETWEEN ONSET AND DEATH _____	
II. OTHER SIGNIFICANT CONDITIONS Conditions contributing to the death but not related to the disease or condition causing death. _____			
19a. DATE OF OPERATION _____	19b. MAJOR FINDINGS OF OPERATION _____		20. AUTOPSY? YES <input type="checkbox"/> NO <input type="checkbox"/>
21a. ACCIDENT SUICIDE HOMICIDE (Specify) _____	21b. PLACE OF INJURY (e.g., in or about home, farm, factory, street, office bldg., etc.) _____	21c. (CITY, TOWN, OR TOWNSHIP) _____ (COUNTY) _____ (STATE) _____	
21d. TIME OF INJURY (Month) (Day) (Year) (Hour) m. _____	21e. INJURY OCCURRED WHILE AT WORK <input type="checkbox"/> NOT WHILE AT WORK <input type="checkbox"/>	21f. HOW DID INJURY OCCUR? _____	
22. I hereby certify that I attended the deceased from _____, 19____, to _____, 19____, that I last saw the deceased alive on _____, 19____, and that death occurred at _____ m., from the causes and on the date stated above.			
23a. SIGNATURE _____ (Degree or title)		23b. ADDRESS _____	23c. DATE SIGNED _____
24a. BURIAL, CREMATION, REMOVAL (Specify) _____	24b. DATE _____	24c. NAME OF CEMETERY OR CREMATORY _____	24d. LOCATION (City, town, or county) _____ (State) _____
DATE REC'D BY LOCAL REG. _____	REGISTRAR'S SIGNATURE _____	25. FUNERAL DIRECTOR _____ ADDRESS _____	

FIGURE 2.C

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE Public Health Service		(1949 Revision of Standard Certificate) <b>CERTIFICATE OF STILLBIRTH<sup>1</sup></b>	
STATE OF _____		STATE FILE NO. _____	
1. PLACE OF STILLBIRTH a. COUNTY _____		2. USUAL RESIDENCE OF MOTHER (Where does mother live?) a. STATE _____ b. COUNTY _____	
b. CITY (If outside corporate limits, write RURAL and give township) OR TOWN _____		c. CITY (If outside corporate limits, write RURAL and give township) OR TOWN _____	
c. FULL NAME OF HOSPITAL OR INSTITUTION (If not in hospital or institution, give street address or location) _____		d. STREET ADDRESS (If rural, give location) _____	
3. CHILD'S NAME (Type or Print) _____			
4. SEX _____	5a. THIS BIRTH SINGLE <input type="checkbox"/> TWIN <input type="checkbox"/> TRIPLET <input type="checkbox"/>	5b. IF TWIN OR TRIPLET (This child born) 1ST <input type="checkbox"/> 2ND <input type="checkbox"/> 3RD <input type="checkbox"/>	6. DATE OF STILLBIRTH (Month) (Day) (Year) _____
7. FATHER'S NAME a. (First) _____ b. (Middle) _____ c. (Last) _____			8. COLOR OR RACE _____
9. AGE (At time of this birth) YEARS _____	10. BIRTHPLACE (State or foreign country) _____	11a. USUAL OCCUPATION _____	11b. KIND OF BUSINESS OR INDUSTRY _____
12. MOTHER'S MAIDEN NAME a. (First) _____ b. (Middle) _____ c. (Last) _____			13. COLOR OR RACE _____
14. AGE (At time of this birth) YEARS _____	15. BIRTHPLACE (State or foreign country) _____	16. CHILDREN PREVIOUSLY BORN TO THIS MOTHER (Do NOT include this child) a. How many children are now living? _____ b. How many children were born alive but are now dead? _____ c. How many OTHER children were stillborn (born dead after 20 weeks pregnancy)? _____	
17. INFORMANT _____			
18a. LENGTH OF PREGNANCY WEEKS _____	18b. WEIGHT AT BIRTH LBS. _____ OZS. _____	19. LEGITIMATE YES <input type="checkbox"/> NO <input type="checkbox"/>	
CAUSE OF STILLBIRTH State only morbid conditions causing fetal death (do NOT use such terms as Stillbirth, Prematurity, Asphyxia, etc.)		20a. FETAL CAUSES _____ 20b. MATERNAL CAUSES _____	
21. STATE ANY COMPLICATIONS OF PREGNANCY AND LABOR _____		22. STATE ALL OPERATIONS FOR DELIVERY _____	
I hereby certify that I attended the birth of this child who was born dead on the date stated above at _____ m.	23a. ATTENDANT'S SIGNATURE _____ (Specify if M. D., midwife, or other)		23b. DATE SIGNED _____
	23c. ATTENDANT'S ADDRESS _____	IF NOT attended by physician 24. SIGNATURE OF AUTHORIZED OFFICIAL _____ TITLE _____	
25a. BURIAL, CREMATION, REMOVAL (Specify) _____	25b. DATE _____	25c. NAME OF CEMETERY OR CREMATORY _____	25d. LOCATION (City, town, or county) _____ (State) _____
DATE REC'D BY LOCAL REG. _____	REGISTRAR'S SIGNATURE _____	25. FUNERAL DIRECTOR _____	ADDRESS _____

<sup>1</sup>The title of this certificate is being shown as it appeared on the 1949 revision of the standard certificate. More recently, however, there has been a change in terminology from "stillbirth" to "fetal death" in conformity with the recommendations of the Third World Health Assembly (May 1950). Future changes in the standard certificate will reflect the new terminology.

c. Deletion of items on occupation and industry of mother since useful information on this subject would require more items than can be accommodated on the certificate.

d. Deletion of inquiries concerning "mother's stay before delivery, etc.," since this information is of little importance for establishing mother's residence. Time spent away from "usual place of residence" just prior to a birth is most often of very short duration.

e. Adjustments in several items to clarify them; for example—(1) change in explanatory notes to items on "place of birth" and "usual residence of mother" to help minimize errors in response that arise by confusing the rural area surrounding an urban center with the city or town itself; (2) addition of an instruction to the item "children previously born" to emphasize that only previous births are to be reported.

## 2. On the Standard Certificate of Death (figure 2.B)

a. Revision of the medical certification to accord with the form recommended by the World Health Organization for use with the Sixth Revision of the International Lists of Diseases and Causes of Death. Basically the form is the same as that on the standard certificate adopted in 1939. The wording has been modified to reduce ambiguity. "Immediate cause of death" has been changed to "Disease or condition directly leading to death;" and "Duration" to "Interval between onset and death." Instructions for completing the medical certification are contained in the same space. The date of operation has been added to provide needed information in assigning the cause of death. A question on whether or not there was an autopsy has been substituted for "Major findings of autopsy." This item may be used in studies that compare the cause of death reported on the certificate and autopsy findings.

b. Rewording of the items describing external causes of death. These have been designed to elicit more precise information needed in accident prevention programs.

c. Adjustments in items describing "place of death" and

"place of residence." The wording, instructions, and change in position of the items used in determining the place of occurrence of a death, and the place of residence of the deceased have been designed to eliminate difficulties experienced with the 1939 certificate.

d. Deletions and changes in items describing the deceased. Information concerning the spouse of the deceased has been eliminated since it has proved of little value. Birthplace of father and mother have been omitted because the interest in this item has diminished with the declining proportion of foreign-born in the population. The wording of the items on occupation, industry, age, marital status, and service in the armed forces has been changed to produce more satisfactory responses.

Most of the registration areas put the new death certificate forms into effect in 1949. In several States (Illinois, Michigan, and Rhode Island), it was not possible to distribute the new forms until 1950. The use of the old form has been found to affect the assignment of causes of death, since the rules for classifying cause of death according to the Sixth Revision of the International Lists are described directly in terms of the new medical certification form. For these States, the numbers of deaths assigned to the various causes for 1950 are not exactly comparable with those for 1949, the causes of death with low comparability ratios being affected most.<sup>4</sup>

## 3. On the Standard Certificate of Fetal Death (Stillbirth) (figure 2.C)

a. Changes in items which correspond to information collected on the birth certificate. The first 19 items require the same information and have been designed to correspond exactly to the birth certificate.

b. Simplification of medical items. The space for causes of death and complications of labor have been rearranged, and condensed to prevent needless repetition of information.

<sup>4</sup>See table 2.02.

## CLASSIFICATION OF DATA

The principal value of vital statistics data depends upon the computation of rates in which the vital events of a class are related to the population of a similarly defined class. Vital statistics and population statistics must, therefore, be classified according to similarly defined systems and tabulated in comparable groups. Even when the variables common to both, such as geographic area, age, race, sex, have been similarly classified and tabulated, differences between the enumeration method of obtaining population data and the registration method of obtaining vital statistics data may result in significant discrepancies which identical methods of classification and tabulation cannot eliminate.

The classification of certain important items are discussed in this section.<sup>5</sup>

<sup>5</sup>The complete rules followed in the classification of geographic and personal items for births and deaths are set forth in a printed manual, "Vital Statistics Instruction Manual, Part 1, Coding and Punching Geographic and Personal Particulars of Births, Deaths, and Stillbirths occurring in 1950," Washington, D. C. 1950.

### Geographic classification

The geographic code<sup>6</sup> used in the tabulation of live birth, death, and fetal death data published in this report gives a separate identifying number to each city having, in 1950, a population of 10,000 or more, and to certain towns, townships, and districts which under special rules are classified as urban. The places classified as urban under special rules are of two types. One type is limited to the States of New Hampshire, Massachusetts, and Rhode Island. It is made up of towns (townships) in which there is a village or thickly settled area having more than 2,500 inhabitants and comprising, either by itself or when combined with other villages within the same town, more than 50 percent of the total population of the town. In this report, only those towns of this type having 10,000 inhabitants or more are shown. A second type is made up of

<sup>6</sup>National Office of Vital Statistics. "Vital Statistics Instruction Manual, Part IV, Geographic Code," geographic classification used in coding and tabulating vital statistics data, April 1952.

townships and other political subdivisions (not incorporated as municipalities, nor containing areas so incorporated) with a total population of 10,000 or more and a population density of 1,000 or more per square mile. The geographic code also gives a separate number to each county. Although villages and cities having populations of less than 10,000 are not individually identified, urban places of 2,500 to 10,000 as a group and the remainder of the county (places under 2,500 and rural area) are tabulated separately. The classification of urban places used in tabulations for 1950 was based on their populations enumerated in the 1950 census, as of April 1.

### Urban and rural areas

The classification "urban" as used in this volume includes all incorporated places of 2,500 inhabitants or more, and the 139 places classified as urban under special rules as described above. The remaining area of the country is classified as "rural."

It is important to note that, while these definitions of urban and rural correspond to those followed in the 1940 population census, they do not conform to those adopted for the 1950 census.<sup>7</sup> Under the 1950 census rules, unincorporated urbanized areas contiguous to all cities of 50,000 population or more and all other unincorporated urban places of 2,500 population or more in 1950 are also classified as urban. Thus, in general, the urban population has been increased and the rural population decreased by changes in definition.

Under the new urban definition, 96,467,686 persons, or 64.0 percent of the population of the United States as enumerated in the 1950 census, were classified as urban. The remaining 54,229,675 persons constituted the rural population. The urban population according to the old definition, which has been used in this report, was 88,939,999, and the rural population was 61,757,362. (Actually, the urban figure exceeds the number for "old urban" published by the Bureau of the Census by 12,535 because of differences between final counts for each place released by the Bureau and the figures used earlier by the National Office of Vital Statistics in determining its urban and rural codes.) The change in definition resulted in an increase of 8.5 percent in the (old) urban population and a decrease of 12.2 percent in the rural population.

The new definition adopted for use in the 1950 census is undoubtedly a more satisfactory description of the urban population than the old since it brings all densely settled areas into the urban class. However, it has not yet been found practical to classify vital statistics data for the urbanized areas or for unincorporated places, from the addresses given on vital records. The classification of births and deaths has therefore been continued on the basis of the 1940 definitions.

The annual birth and death data prior to 1930 were tabulated in two groups: (1) urban places of 10,000 inhabitants or more and (2) urban places with fewer than 10,000 inhabitants and rural areas. These population-size groupings do not correspond with those defined as urban and rural in the 1910, 1920, 1930, and 1940 population censuses. Therefore, in order to give annual data that could be more closely related to the

population data, it was necessary to further divide the data into two groups: (1) urban places with populations between 2,500 and 10,000 and (2) rural areas. By combining the urban places of 2,500 to 10,000 with urban places of 10,000 or more, figures could be obtained for urban places that were comparable with those of the 1930 and 1940 population censuses. Also, by combining data for urban places having populations between 2,500 and 10,000 with the rural figures, data comparable with those for places under 10,000 and rural areas as given in the vital statistics reports prior to 1930 could likewise be obtained.

Most of the natality and mortality tables published for the years 1930 to 1941 show at least three population-size groupings: urban places with populations of 10,000 or more; urban places with populations between 2,500 and 10,000, and rural areas; but some tables show the simple classifications urban and rural. In those instances where the dichotomous classification is shown, rural included all areas except urban places of 10,000 inhabitants or more. In the present volume, the terms "urban" and "rural" refer to incorporated places having 2,500 inhabitants or more, and rural areas, respectively.

### Metropolitan and nonmetropolitan areas

The growth of the urban fringe during the last decade has increased the need for an area classification that can discriminate adequately between the population living in, and served by the facilities of, large urban centers, and the population of more isolated areas. Each State has been divided into metropolitan and nonmetropolitan counties, the division being based on the "standard metropolitan area" definition established by the Federal Committee on Standard Metropolitan Areas.<sup>8</sup>

Except in New England, a standard metropolitan area is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more. In addition to the county, or counties, containing such a city, or cities, contiguous counties are included in a standard metropolitan area if according to certain criteria they are essentially metropolitan in character and socially and economically integrated with the central city. In New England, the standard metropolitan areas have been defined in units of towns. Since vital statistics are not tabulated for individual towns in this Office, it is not feasible to present vital statistics data for New England on this basis. Instead, the metropolitan State economic area was used to distinguish the metropolitan counties. For these areas, counties with more than half their population in a standard metropolitan area are classified as metropolitan.<sup>9</sup>

The counties classified as metropolitan are shown in table 2.01. When the present urban-rural classification is divided according to the areas in metropolitan and nonmetropolitan counties, it is found that three-fourths of the total urban population is in the metropolitan counties and about three-fourths of the rural population is in the nonmetropolitan counties. By definition, the urban population of the nonmetropolitan counties lives in cities of less than 50,000 population. The population in the urbanized fringe outside the large metropolitan counties falls into the rural part of the metropolitan county.

<sup>7</sup>For a more complete discussion of the urban and rural definitions, see "United States Census of Population: 1950, Volume II, Characteristics of the Population," Part 1, United States Summary, pp. 9-12, U. S. Bureau of the Census, U. S. Government Printing Office, Washington, D. C., 1953.

<sup>8</sup>*Ibid.*, pp. 27-31.

<sup>9</sup>The State economic areas were defined on the basis of the enumerated population in 1940. According to the 1950 population, an additional county, Berkshire, Mass., now falls within the definition and it has been added to the metropolitan counties.

## ANALYSIS

Table 2.01. METROPOLITAN COUNTIES IN EACH STATE: 1950

(Includes all counties and independent cities in standard metropolitan areas, or, in New England, in metropolitan State economic areas)

STATE	Metropolitan counties	STATE	Metropolitan counties	STATE	Metropolitan counties	STATE	Metropolitan counties
Alabama-----	Etowah Jefferson Mobile Montgomery Russell	Iowa-----	Black Hawk Linn Polk Pottawattamie Scott Woodbury	New Jersey—Con.	Essex Gloucester Hudson Mercer Middlesex Morris Passaic Salem Somerset Union Warren	Pennsylvania—Con.	Philadelphia Somerset Washington Westmoreland York
Arizona-----	Maricopa	Kansas-----	Johnson Sedgwick Shawnee Wyandotte	New Mexico-----	Bernalillo	Rhode Island----	Bristol Kent Providence
Arkansas-----	Pulaski	Kentucky-----	Boyd Campbell Fayette Jefferson Kenton	New York-----	Albany Broome Eric Herkimer Monroe Nassau New York City <sup>1</sup> Niagara Oneida Onondaga Rensselaer Rockland Schenectady Suffolk Westchester	South Carolina--	Aiken Charleston Greenville Richland
California-----	Alameda Contra Costa Fresno Los Angeles Marin Orange Sacramento San Bernardino San Diego San Francisco San Joaquin San Mateo Santa Clara Solano	Louisiana-----	Caddo East Baton Rouge Jefferson Orleans St. Bernard	North Carolina--	Buncombe Durham Forsyth Guilford Mecklenburg Wake	South Dakota----	Minnehaha
Colorado-----	Adams Arapahoe Denver Jefferson Pueblo	Maine-----	Cumberland	Ohio-----	Allen Belmont Butler Clark Cuyahoga Franklin Greene Hamilton Jefferson Lake Lawrence Lorain Lucas Mahoning Montgomery Stark Summit Trumbull	Tennessee-----	Anderson Blount Davidson Hamilton Knox Shelby
Connecticut----	Fairfield Hartford New Haven	Maryland-----	Anne Arundel Baltimore Baltimore (city) Montgomery Prince Georges	North Dakota---	-	Texas-----	Bexar Dallas El Paso Galveston Harris Jefferson Lubbock McLennan Nueces Potter Randall Tarrant Tom Green Travis Webb Wichita
Delaware-----	New Castle	Massachusetts--	Berkshire Bristol Essex Hampden Hampshire Middlesex Norfolk Plymouth Suffolk Worcester	Oklahoma-----	Oklahoma Tulsa	Utah-----	Salt Lake Weber
Dist. of Col.---	Washington	Michigan-----	Bay Genesee Ingham Jackson Kalamazoo Kent Macomb Oakland Saginaw Wayne	Oregon-----	Clackamas Multnomah Washington	Vermont-----	-
Florida-----	Dade Duval Hillsborough Orange Pinellas	Minnesota-----	Anoka Dakota Hennepin Ramsey St. Louis	Pennsylvania---	Allegheny Beaver Berks Blair Bucks Cambria Chester Cumberland Dauphin Delaware Erie Lackawanna Lancaster Lehigh Luzerne Mercer Montgomery Northampton	Virginia-----	Arlington Chesterfield Fairfax Henrico Norfolk Princess Anne Roanoke  Independent Cities Alexandria Falls Church Norfolk Portsmouth Richmond Roanoke South Norfolk
Georgia-----	Bibb Chatham Chattahoochee Cobb De Kalb Fulton Houston Muscogee Richmond Walker	Mississippi-----	Hinds	Washington-----	Clark King Pierce Spokane	West Virginia---	Brooks Cabell Fayette Hancock Kanawha Marshall Ohio Wayne
Idaho-----	-	Missouri-----	Buchanan Clay Greene Jackson St. Charles St. Louis St. Louis (city)	Wisconsin-----	Brown Dane Douglas Kenosha Milwaukee Racine	Wyoming-----	-
Illinois-----	Cook Du Page Kane Lake Macon Madison Peoria Rock Island St. Clair Sangamon Tazewell Will Winnebago	Montana-----	-				
Indiana-----	Allen Clark Delaware Floyd Lake Marion St. Joseph Vanderburgh Vigo	Nebraska-----	Douglas Lancaster Sarpy				
		Nevada-----	-				
		New Hampshire---	Hillsborough				
		New Jersey-----	Atlantic Bergen Burlington Camden				

<sup>1</sup>Comprising Bronx, Kings, New York, Queens, and Richmond Counties, treated as a unit.



## Race

Births and deaths are classified in detail by white, Negro, Indian, Chinese, Japanese, and a residual group of numerically minor races. The classification white includes Mexican and Puerto Rican. In the Negro group is included a mixture of Negro with any other race. Other mixed parentage is classified according to the race of the nonwhite parent and mixtures of nonwhite races to the race of the father.

In most tables an extended classification is not justified and the racial divisions are "White," "Negro," and "Other." In tables where the main purpose is to isolate the major group, the classifications are simply "White" and "Nonwhite."

Marriages are classified by race by the individual States. In this report, they are shown for the "White" and "Nonwhite" groups only.

## Age

The age reported on vital records is the age at last birthday. It has been found that a characteristic error in reported ages is an excess of ages ending in the digit 0 or 5. To minimize the effect of this error, age is usually tabulated in 5- or 10-year groups.

## Nativity

Early mortality reports published by the Bureau of the Census contained extensive tables showing nativity of the parents as well as nativity of the decedent, but the publication of these tables was discontinued in 1933. Mortality data showing nativity of decedent were again published in the annual reports for 1939 to 1941, when comparable population figures were available. These tables were discontinued in 1942. Population data are again available from the 1950 census, and deaths according to nativity of decedent are published for this year.

In the reports on birth statistics prior to 1937, more emphasis was placed upon country of birth of parents. Detailed tables showing specific country of birth of mother and of father, as well as more abridged classifications, have been published for each year through 1936. These data have been of historical importance in tracing the changing composition of the population of the United States. In recent years, however, the number of births to foreign-born parents has become a relatively small proportion of the total. Accordingly, since 1937, birth tables showing nativity of parents have been eliminated or abridged.

## Cause of death

Beginning with 1949, the data in the mortality reports published by the National Office of Vital Statistics are tabulated according to the numbers and titles of the International Statistical Classification of Diseases, Injuries, and Causes of Death (the Sixth Revision of the International Lists). The International Lists, in use in this country since 1900, have been revised decennially in order that the terminology by which deaths are classified may be consistent with advances in medical science and changes in diagnostic practice. The classification used since 1949 is the Sixth Revision of the International Lists of Diseases and Causes of Death, adopted by the World Health Assembly in July 1948.<sup>10</sup>

The "Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death" includes special lists of causes recommended for mortality tabulations. These

are: the Detailed List, consisting of all three-digit categories; List A, the Intermediate List of 150 Causes for Tabulation of Morbidity and Mortality; and List B, the Abbreviated List of 50 Causes for Tabulation of Mortality. Each of these lists has been adapted to serve the needs for mortality data in the United States. The extensions of the lists, however, have been designed so that the original groups can be obtained by a simple addition of titles.

Complete titles and official list numbers are given in tables 51 and 53 in Volume III, and in table 8.43 (chapter 8). Table 51 shows each three-digit category to which a death was assigned in the United States in 1950, and selected four-digit categories. The extension of List A, which will be used in mortality reports prepared by the National Office, is shown in table 53; and the expansion of List B in table 8.43. In other tables using the same lists, it was necessary because of space limitations to abbreviate some cause-of-death titles.

Joint causes of death.—A large proportion of the death certificates filed annually in the United States report two or more diseases or conditions as causes of death. These multiple conditions or diseases are known as joint causes of death. General statistical practice requires that cases involving more than one cause of death be charged to a single cause, and it is necessary to employ a selection process to determine the one cause to be assigned. The method of selection used has an important effect upon the resulting statistics.

In 1948, the World Health Assembly adopted, along with the Sixth Revision of the International Lists, a form of medical certification and rules for classification of the underlying cause of death to be used internationally. The form of medical certification is shown in the standard certificate of death (fig. 2.B). It is designed to elicit information which will facilitate the selection of the underlying cause of death when two or more causes are jointly recorded. If the certification is completed properly, the underlying cause of death indicated by the physician is the cause used in tabulation. This procedure, used in the United States for the first time in 1949, differs sharply from that used in previous years. Formerly, definite priority relationships were set up for combinations of causes reported on the death certificate. The single cause to be tabulated was always chosen according to these fixed rules. The new procedure for selecting and classifying cause of death has disrupted the continuity of cause-of-death statistics for many categories. These changes are discussed in the section on Interpretation of Cause-of-Death Statistics.

While no major changes in classification are made between International List revisions, problems in cause-of-death coding frequently arise in the interim period. The World Health Center for Classification of Diseases was established in January 1950, to ensure uniform interpretations of these cases.

The National Office of Vital Statistics prepares annually for its cause-of-death coding clerks an Instruction Manual<sup>11</sup> which contains decisions and interpretations that will apply in that year. Most of the changes serve to clarify existing rules; a few of them may affect the number of deaths assigned to particular causes.

Since the year 1949 represented the first experience in this country with the new coding procedures introduced with the Sixth Revision, it was found by 1950 that a clearer statement of rules was required. The Instruction Manual used for classifying the 1950 deaths included a rephrasing of the rules and the addition of aids in the interpretation and application of the rules. Any modification of the rules will affect the assignment of deaths to various causes to some degree.

<sup>10</sup>For a history and description of the Sixth Revision, see "Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death," Volume I, World Health Organization, Geneva, Switzerland, 1948.

<sup>11</sup>National Office of Vital Statistics, "Vital Statistics Instruction Manual, Part II, Cause-of-Death Coding," issued annually. The 1951 and 1950 editions were used to classify deaths for 1950 and 1949, respectively.

It is expected that small changes due to coding procedures arose between 1949 and 1950, but it is not possible to identify these changes with specific cause-of-death categories.

### Control of errors in classification

Until recent years the assignment of codes for the items to be classified and tabulated from copies of the birth, death, and fetal death certificates, as well as the preparation of punched cards, was verified completely. Review of these verifying procedures in 1947 and of the amount of error which was eliminated by them clearly showed that relatively little was gained for the effort involved. Therefore, beginning with the data for 1947, varying portions of the coding and punching have been verified on a sample basis.

For 1950 birth data, the coding and punching were performed simultaneously and the major portion of the work verified according to a partial sequential sample. This procedure was used in verifying the work of employees whose performance (as indicated by complete verification) was such as to produce consistently less than 4 percent error randomly distributed among all the items combined. For any one item, less than 1 percent error would be expected under these procedures. The sample procedure coupled with certain mechanical checks of the punched cards was designed to achieve a maximum average error level of 2.5 percent for the operation. The procedure involved the verification of the coding and punching of every 10th card throughout each lot of 2,000 cards. If the 4 percent level of error (8 cards containing one or more incorrectly coded or punched columns) was reached, each succeeding card in the lot was verified. In such lots no review was made of that portion preceding the 8th error card. The work of employees (trainees) whose perform-

ance was such as to produce more than 4 percent error was verified completely. Errors determined in either procedure were reviewed to detect and control bias.

Coding of all items except the underlying cause of death was verified in the same manner and according to the same tolerance levels as described above for births. Death data were coded in two separate operations (one entirely devoted to the classification of the underlying cause of death), and then key punched. The procedure for verifying the determination and coding of the underlying cause of death was designed to achieve an average error level of 1 percent. This involved the complete verification (in order to achieve optimum training of personnel in the new International List procedures) of the first 750,000 deaths classified and the same partial sequential sample procedure as for births for the remainder of the deaths which occurred during 1950. The acceptance error level for the latter group of deaths was 2 percent. The preparation of punched cards for all deaths was verified according to the same sampling scheme with an acceptance level of 1 percent. As with the punched cards for births, certain mechanical checks, designed to assure compatibility of the items, further reduced the error introduced in the coding and punching operations.

The coding and simultaneous punching of the fetal deaths, because of their relatively small number and because of the relatively greater number of plural births among them, which involve matching with either a birth or another fetal death, were completely verified.

Tabulating, computing, table preparation, and all other operations subsequent to the preparation of punched cards were verified according to procedures designed to eliminate all processing errors.

## INTERPRETATION OF DATA

While vital statistics data are useful for a variety of administrative and scientific purposes, they cannot be correctly interpreted unless various qualifying factors are taken into account. The factors to be considered depend upon the specific purposes for which the data are to be used. It is not feasible to discuss all of the pertinent factors in the use of vital statistics tabulations, but some of the more important should be mentioned.

Most of the factors limiting the use of the data arise from imperfections in the original records or from the impracticability of tabulating these data in very detailed categories. These defects should not be ignored, but their existence does not vitiate the value of the data for most general purposes. Analysis of small differences or exact evaluation of vital statistics requires careful study of many related elements. However, the major trends and differences will not usually be changed materially by finer analysis.

### Small frequencies

The numbers of births or deaths reported for a community, or the numbers of illnesses, marriages, or divorces, represent complete counts of such events. As such, they are not subject to error, except those of the registration process. However, when the figures are used for analytical purposes, such as the comparison of rates over a time period, or for different areas, the number of events that actually occurred may be considered as one of a large series of possible results that could have arisen under the same circumstances. The probable range of values may be estimated from the actual figures according to certain statistical assumptions.

In general, distributions of vital events may be assumed to follow the binomial distribution. Estimates of standard

error and tests of significance under this assumption are described in most standard statistics texts. When the number of events is large, the standard error, expressed as a percent of the number or rate, is usually small.

When the number of events is small (perhaps less than 100) and the probability of such an event is small, considerable caution must be observed in interpreting the conditions described by the figures. Events of rare nature may be assumed to follow a Poisson probability distribution. For this distribution, a simple approximation may be used to estimate the error, as follows:

If  $N$  is the number of births, deaths, or other vital event, and  $R$  is the corresponding rate, the chances are 19 in 20 that

1. The "true" number of events lies between

$$N - 2\sqrt{N} \text{ and } N + 2\sqrt{N}$$

2. The "true" rates lies between

$$R - 2\frac{R}{\sqrt{N}} \text{ and } R + 2\frac{R}{\sqrt{N}}$$

If the rate  $R$  corresponding to  $N$  events is compared with the rate  $S$  corresponding to  $M$  events, the difference between the 2 rates may be regarded as statistically significant, if it exceeds

$$2\sqrt{\frac{R^2}{N} + \frac{S^2}{M}}$$

For example, suppose that the observed death rate for Community A was 10.0 per 1,000 population and that this rate was based on 20 recorded deaths. Given prevailing conditions, the chances are 19 in 20 that the "true" or underlying death

rate for that Community lies between 5.5 and 14.5 per 1,000 population. Let it be further supposed that the death rate for Community A of 10.0 per 1,000 population were being compared with a rate of 20.0 per 1,000 population for Community B which is based on 10 recorded deaths. While the difference between the rates for the two communities is 10.0, this difference is less than twice the standard error of the difference

$$2\sqrt{\frac{(10.0)^2}{20} + \frac{(20.0)^2}{10}}$$

of the two rates which is computed to be 13.4. From this, it is concluded that the difference between the rates for the two communities is not statistically significant.

### Completeness of registration

Although every State has adopted a law requiring the registration of births, deaths, and fetal deaths, these laws are not uniformly observed. In most areas, practically all births and deaths are registered. In a few areas, however, there is enough underregistration to affect the use of the statistics for certain purposes.

Nationwide tests of completeness of birth registration were made in both 1940 and 1950. For the United States as a whole, these tests indicated that birth registration was, respectively, 92.5 and 97.9 percent complete. A detailed discussion of the results of these tests is given in chapter 6.

Precise information on completeness of death registration is not available. One condition for admission to the national registration areas was a demonstrated registration completeness of at least 90 percent. On the basis of this criterion, all of the States were admitted to both the birth- and death-registration areas by 1933. It is believed that death registration is more complete than birth registration, although the difference now may be rather small.

Reporting requirements for fetal deaths vary throughout the country, but registration is probably significantly incomplete in all areas. Definite information is not available for most parts of the country.

Central registration of marriages and divorces is not required in all States, and no comprehensive study of the completeness of marriage and divorce registration in the United States has ever been made.

Completeness of reporting of the notifiable diseases varies greatly by disease and by area. In general, reporting is significantly incomplete, but exact information on this subject is not available.

### Population bases for vital rates

Since vital rates are ratios of the number of births, deaths, marriages, and divorces to population figures, accurate rates depend partially upon accurate population figures. The vital rates shown in this report were computed on the basis of population statistics published or made available by the Bureau of the Census. Rates for the years 1940 and 1950 are in all cases based on the populations enumerated in the censuses of those years which were taken as of April 1. Rates for the years 1941 to 1949 and for all years prior to 1940 are based on the latest midyear (July 1) estimates of population made by the Bureau of the Census.

Large-scale population changes during the war and immediate postwar years necessitated adoption of special rules regarding the population bases used in computing vital statistics rates. The transfer overseas of several million men and the large-scale shifts of population within the continental United States precluded the computation of rates which are strictly comparable with rates for prewar years. In order to minimize these difficulties and to present rates that are most useful for comparative purposes, different population bases were

selected for the various rates shown for the years 1941 through 1946.<sup>12</sup>

Crude birth rates for these years for the United States as a whole are based on the total population of the country, including the armed forces overseas. Birth rates for each State are based on the civilian population present in the State. While not completely satisfactory, these rates seem to be most nearly comparable with national and State birth rates for preceding years.

Crude death rates for the United States for the years 1941 through 1946, and succeeding years, are based on the total population present in the country, excluding the armed forces overseas. Death rates for each State are based on the population, including military personnel, present in the State. These rates seem to be most nearly comparable with rates for prewar years, although they, too, involve certain limitations.

Crude marriage rates for the United States for 1941 through 1946, and succeeding years, are based on the total population present in the country, excluding the armed forces overseas primarily because no figures are available on marriages contracted overseas by members of this group. Crude rates for each State are based on the population present in the State, including military personnel stationed in the area, since the armed forces undoubtedly contributed to the total number of marriages in the States where they were stationed.

Crude divorce rates for the United States for the years 1941 through 1946 are based on the total population of the country, including the armed forces overseas, since it was considered likely that divorces involving members of the armed forces overseas were, for the most part, granted in this country. Crude divorce rates by State for 1941 to 1946 are based on the civilian population present in the area. The armed forces were excluded from the population base in computing the State rates because it did not appear likely that military personnel could have satisfied legal residence requirements for divorces in States where they were temporarily stationed. Also, lack of information precluded their allocation to their respective States of residence.

By 1947, demobilization of the armed forces was largely completed, and the military personnel overseas formed only 0.47 percent of the total United States population; in 1948, 1949, and 1950, they constituted only 0.36, 0.35, and 0.28 percent, respectively, of the total population. Comparison of the estimates of the civilian population in the States and of the total population present in the States (including the armed forces stationed in the area) shows that the differences rarely exceeded 2 percent in these years.

It is, therefore, of little significance to distinguish between the different estimated populations in computing birth, death, marriage, and divorce rates. Consequently, birth and divorce rates for 1947, 1948, 1949, and 1950, for the United States and for the individual States are based on the population present in the respective areas. This procedure places the United States and individual State birth and divorce rates on the same base, and has the additional advantage of making all vital statistics rates (birth, death, marriage, and divorce) strictly comparable in this respect. Tables 2.18 and 2.19 give for each year from 1940 through 1950 the populations used in computing the birth, death, marriage, and divorce rates for the United States and each State.

<sup>12</sup>For a more detailed discussion of this problem with respect to birth and death rates, see "Vital Statistics of the United States, Part I, 1946," pp. VIII-X; with respect to marriage and divorce rates, see "Marriage and Divorce in the United States, 1937 to 1945," and "Marriage and Divorce Statistics: United States, 1946," National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 23, No. 9, pp. 210 and 214, and vol. 27, No. 10, pp. 168 and 170, 1946 and 1947, respectively.

**Population estimates.**—Rates shown for the years 1941 to 1949, inclusive, are based on the latest estimates available at the time this report was being prepared. The annual estimates of the total population of the United States and of the United States population by age, race, and sex, used in this report and shown in tables 2.21 and 2.22, are based on final data from the 1940 and 1950 censuses, and statistics of births, deaths, immigration, and emigration during the period between the censuses.<sup>13</sup> The estimates for individual States for the period 1941 to 1949 are based on the 1940 and 1950 censuses, ration book registrations in 1942 and 1943, estimates of internal migration derived from school enrollment data, and resident births and deaths, corrected for estimated under-registration. The civilian population estimates obtained in this manner provided the bases for deriving estimates of the population present in each State. The total population present in each State includes members of the armed forces stationed in the respective States, but excludes troops and civilian personnel overseas.<sup>14</sup>

**Completeness of enumeration.**—A direct check on the 1950 census enumeration was made by the Bureau of the Census in its Post-Enumeration Survey. A sample of small areas was canvassed to check for entire households not covered in the regular census. Another sample of households was reinterviewed to determine the number of persons erroneously omitted or erroneously included in the census and the accuracy of reported characteristics of the enumerated persons.

The results of this survey indicate a net underenumeration of the total population in the 1950 census of about 1.4 percent. By geographic region, net underenumeration is estimated to range from 0.8 percent in the Northeast to 1.8 percent in the South. It varied from 1.1 percent for urban areas to 1.9 percent for rural, and from 1.2 percent for total white persons to 3.3 percent for total nonwhite.<sup>15</sup>

Errors in the enumeration of the population and in the registration of vital events (discussed elsewhere in this report) should, to the extent they are known or have been estimated, be taken into account in any detailed use of the data.

### Age reporting

Very little direct evidence of the accuracy of age information on vital records is available. For the most part, data on age have been evaluated on the basis of internal consistency in any one year, from year to year, or between population groups. For example, it has been found that a characteristic error in reported ages is an excess of ages ending in the digit 0 or 5. To minimize the effect of this error, age is usually tabulated in 5- or 10- year groups.

An examination of the age distribution of deaths suggests also that age on the death certificate may not be reported with the same degree of accuracy at all ages, or for all groups of the population. Indications from such a study are that misstatement of age occurs particularly in the nonwhite population at ages 50 and over. In 1950, almost the same number of deaths was reported for the nonwhite population in each 5-year age period between 50 and 69. In the white population, the number of deaths increased sharply with age in this interval. At ages 85 years and over, the number of deaths falls off rapidly in each 5-year interval for the white population, but much less rapidly for the nonwhite, suggesting

that the overstatement of age at death at these ages may be greater for the nonwhite population.<sup>16</sup>

Although some inaccuracies undoubtedly occur also in the reporting of young adult ages on vital records, they are generally less discernible than the errors at the older ages. One exception is the marked overreporting of age 18 for brides and age 21 for grooms, both ages having special significance in the application for marriage licenses in many areas.

The completeness of registration, discussed in the previous section, may also vary with age and thus affect the number of events reported for each age group. Measures of this source of inaccuracy are available only for "age of mother" and "age of father" for live births. These figures were derived from nationwide tests of birth registration completeness and are summarized in tables 6.50 and 6.54. For deaths, in the absence of quantitative measures, it has been assumed for many purposes that the registration of deaths under 1 year is incomplete to the same extent as births; while at other ages, all deaths are registered.

In the computation of rates, errors in the population base are also of importance. Errors in the age distribution of the population arise in two ways, through underenumeration, and through misstatements of age. For the United States as a whole, the net underenumeration in the census count for 1950 is estimated at 1.4 percent. There appears to be an underenumeration of children under 5 years of approximately 4.8 percent. Males between the ages of 18 and 24 also appear to be relatively underenumerated. In the age range 55 to 64 years, there seems to be a deficit of persons which is more than offset by an excess over the number expected in the age group 65 years old and over.<sup>17</sup> An examination of vital statistics rates shows that the errors in the numerator and in the denominator are not generally of the same magnitude.

### Race reporting

The correct designation of race is a difficult and complex problem; but classification from vital statistics records into the broad groups used in these volumes is relatively simple. Difficulties may arise in computing rates based on populations classified by race because of differences resulting from the registration and enumeration methods of collecting this information.

The procedures used in completing vital statistics records have been described in chapter 1. The process, in general, results in an entry of race on the certificate that is accepted by the family. Race reported in the Census of Population is recorded on the basis of observation by the enumerator. Serious differences arise for Indians, and for the "other nonwhite" group. In several Southern States, groups of persons of mixed stock of Indian and other races, who for purposes of reporting vital events consider themselves Indian, have been classified in the 1950 census as other nonwhite.<sup>18</sup> These

<sup>13</sup>U. S. Bureau of the Census, official unpublished figures.

<sup>14</sup>U. S. Bureau of the Census, "Current Population Reports, Population Estimates," Series P-25, No. 72, 1953.

<sup>15</sup>Same as footnote 7, pp. 4-8.

<sup>16</sup>For a more complete discussion of the age distribution at death, see Greville, Thomas N. E. "United States Life Tables and Actuarial Tables, 1939-1941," pp. 110-112. U. S. Government Printing Office, Washington, D. C., 1946.

<sup>17</sup>U. S. Bureau of the Census, "United States Census of Population: 1950, Volume II, Characteristics of the Population," Part 1, United States Summary, Chapter B, U. S. Government Printing Office, Washington, D. C., 1952.

<sup>18</sup>U. S. Bureau of the Census, "United States Census of Population: 1950, Volume IV, Special Reports, Part 3, Chapter B, Nonwhite Population by Race," U. S. Government Printing Office, Washington, D. C., 1953.

groups contain about 32,000 persons.<sup>19</sup> For the most part, they were enumerated as "Indian" in the 1940 census.

In other areas of the country, where Indians live among the general population, census figures are lower than estimates made by the Bureau of Indian Affairs. The population enumerated as Indian for the entire country numbered 342,226, while the Bureau of Indian Affairs has estimated the 1950

population at 421,600. The latter figure was obtained by adding the natural increase to the Indian population enumerated in 1930 and is subject to the inaccuracies of the source figures. It is obvious that such differences in population estimates will produce large differences in rates.

Observed differences in vital statistics rates for various racial groups should not be interpreted as necessarily due to inherent racial causes. Race is not independent of other factors, and the economic, social, and medical circumstances of one racial group may be quite different from those of another. An observed difference in mortality by race may in actuality be no more than a difference of mortality for different economic classes.

<sup>19</sup>Beale, Calvin L., "The Enumeration of Mixed-Blood Racial Groups of the Eastern United States in the Census of 1950." Unpublished paper presented at the annual meeting of the Population Association of America, May 1953.

## INTERPRETATION OF CAUSE-OF-DEATH STATISTICS

### Effect of the decennial list revisions

Cause-of-death data given in this volume are classified according to the Sixth Revision (1948) of the International Lists of Diseases and Causes of Death, which was adopted for use in the United States in 1949. It has been the practice to revise the International List of Causes of Death every 10 years since 1900 to keep abreast of medical progress. Each decennial revision of the International List has produced some break in comparability of cause-of-death statistics. For the most part, the degree of discontinuity in the trend has not been considered a problem of great concern. Van Buren<sup>20</sup> described some of the major shifts in the cause-of-death statistics up to the 1938 Revision due to changes in the classification of causes of death. In connection with the Fifth Revision (1938) of the International List of Causes of Death, Dunn and Shackley<sup>21</sup> measured the change in mortality by cause due to the revision. This was done by coding mortality data for 1940 by the 1929 and 1938 Revisions. The results of the study have been useful in evaluating the effects of the Fifth Revision of the International List and changes in the joint-cause selection procedure.

The Sixth Revision represents a more sweeping change than any of the previous revisions. The classification scheme has been expanded considerably to provide specific categories for nonfatal diseases and injuries. In the process of expansion, provision has been made to permit comparability of certain categories with important titles of the Fifth Revision of the International List. However, strict comparability between the two revisions is lost because of some regrouping of the titles necessary in the Sixth Revision to accommodate the causes of morbidity, and because of the change in the method of selecting the underlying cause of death. The rules adopted with the Sixth Revision specify that, where the medical certification is properly completed, the underlying cause of death indicated by the physician shall be the cause used for tabulation. With the Fifth Revision, a fixed set of priorities was used to select the cause to be tabulated when more than one cause of death was reported.

In order to make it possible to compute a comparable time series of mortality rates by cause, the International Conference for the Sixth Decennial Revision of the International Lists recommended that deaths for a country as a whole in the year

1949 or 1950 should be coded according to both the Sixth Revision and the Fifth Revision. In the United States, 1950 will be used as the transition year. Until data for deaths in 1950 coded by both revisions become available, provisional comparability ratios obtained from a 10-percent sample of deaths in 1949 and 1950 will be used.

Table 2.02 is a summary of results obtained by coding a 10-percent sample of death certificates for 1949 and 1950 according to the two methods of cause-of-death classification. The differences resulting from the use of the two procedures are expressed by a factor termed the "comparability ratio." This ratio is obtained by taking the number of deaths assigned to a particular cause using the Sixth Revision and dividing it by the number of deaths assigned to that cause by the Fifth Revision. A comparability ratio of 1.00 indicates that the same number of deaths would be assigned to a particular cause of death whether the new or old classification and coding procedures were used. A ratio of 1.00 does not mean, however, that the classification of a particular cause of death remained the same in the two revisions. For example, the comparability ratio for malignant neoplasms is 1.01. However, examination of the two classifications will show that leukemia and aleukemia which were categories under the diseases of the blood in the Fifth Revision are now classified under neoplasms in the Sixth Revision. The transfer of these categories as well as some others such as Hodgkin's disease (lymphogranulomatosis) would have increased the number of deaths ascribable to malignant neoplasms by the 1948 Revision had it not been for some losses resulting from the new rules for the selection of the underlying cause. According to these rules, deaths would not ordinarily be assigned to neoplasms if the physician had certified the malignancy as a contributory cause; whereas, according to the old priority procedure, the neoplasm would probably have been selected as the primary cause of death even though reported as a contributory condition. In the case of malignant neoplasms, therefore, the loss due to the new selection procedure was compensated for by the gain resulting from the transfer of certain categories to the classification of malignant neoplasms.

The net loss or gain indicated by the comparability ratios shows rather serious differences in comparability between the two revisions. For example, mortality data classified by the Sixth Revision show about 43 percent fewer deaths from diabetes mellitus when compared with data for the same period based on the Fifth Revision. Since the International List classification of diabetes has not changed; all of this difference is the result of the revision in the method for selecting the cause of death to be tabulated. According to the physician's judgment, a death may be due to diabetes; or diabetes may be considered a contributory cause and not directly connected with the sequence of events leading to death. In the latter case, the death is not assigned to diabetes by the new coding procedure based upon the physician's judgment or opinion. In the

<sup>20</sup>Van Buren, George H., "Some Things You Can't Prove by Mortality Statistics," Vital Statistics—Special Reports, vol. 12, No. 13, 1940.

<sup>21</sup>Dunn, Halbert L., and Shackley, William, "Comparison of Cause-of-Death Assignments by the 1929 and 1938 Revisions of the International List: Deaths in the United States, 1940," Vital Statistics—Special Reports, vol. 19, No. 14, 1944.

Table 2.02. COMPARISON OF CAUSE-OF-DEATH ASSIGNMENTS FOR 64 SELECTED CAUSES OF DEATH, BY THE SIXTH AND FIFTH REVISIONS OF THE INTERNATIONAL LISTS, FOR A 10-PERCENT SAMPLE OF DEATH CERTIFICATES FILED IN 1949 AND 1950 IN STATE VITAL STATISTICS OFFICES: UNITED STATES

(Exclusive of fetal deaths and of deaths among armed forces overseas)

CAUSE OF DEATH (Sixth Revision of the International Lists)	CATEGORY NUMBERS		NUMBER OF DEATHS CLASSIFIED BY—		DIFFERENCE DUE TO REVISION Number of deaths	Provi- sional compara- bility ratio <sup>1</sup>
	Sixth Revision	Fifth Revision	Sixth Revision	Fifth Revision		
Tuberculosis, all forms-----	001-019	13-22	7,346	7,659	-313	0.96
Tuberculosis of respiratory system-----	001-008	13	6,771	7,066	-295	0.96
Tuberculosis, other forms-----	010-019	14-22	575	593	-18	0.97
Syphilis and its sequelae-----	020-029	30	1,623	2,179	-556	0.74
Typhoid fever-----	040	1	22	24	-2	( <sup>2</sup> )
Cholera-----	043	4	-	-	-	-
Dysentery, all forms-----	045-048	27	227	208	+19	1.09
Scarlet fever and streptococcal sore throat-----	050,051	8,115b	83	74	+9	1.12
Diphtheria-----	055	10	105	105	0	1.00
Whooping cough-----	056	9	187	188	-1	0.99
Meningococcal infections-----	057	6	179	181	-2	0.99
Plague-----	058	3	-	-	-	-
Acute poliomyelitis-----	080	36	408	417	-9	0.98
Smallpox-----	084	34	-	-	-	-
Measles-----	085	35	149	156	-7	0.96
Typhus and other rickettsial diseases-----	100-108	39	16	15	+1	( <sup>2</sup> )
Malaria-----	110-117	28	23	22	+1	( <sup>2</sup> )
All other infective and parasitic diseases-----	030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138	2, 5, 7, 11, 12, 23-26, 29, 31, 32, 37, 38, 40-44, 177	839	1,135	-296	0.74
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----	140-205	45-55	41,366	40,814	+552	1.01
Malignant neoplasm of buccal cavity and pharynx-----	140-148	45a,b,c,e,f	1,056	1,056	0	1.00
Malignant neoplasm of digestive organs and peritoneum-----	150-156a, 157-159	46	16,230	17,028	-798	0.95
Malignant neoplasm of respiratory system-----	160-164	47	3,977	4,195	-218	0.95
Malignant neoplasm of breast-----	170	50	3,792	4,050	-258	0.94
Malignant neoplasm of genital organs-----	171-179	48, 49, 51	6,832	7,378	-546	0.93
Malignant neoplasm of urinary organs-----	180, 181	52	1,970	2,013	-43	0.98
Malignant neoplasm of other and unspecified sites-----	156b, 165, 190-199					
Leukemia and aleukemia-----	204					
Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues-----	200-203, 205	45d, 53-55	7,509	5,094	+2,415	1.47
Benign neoplasms and neoplasms of unspecified nature-----	210-239	56, 57	1,183	1,133	+50	1.04
Diabetes mellitus-----	260	61	4,955	8,707	-3,752	0.57
Anemias-----	290-293	73	858	536	+322	1.60
Meningitis, except meningococcal and tuberculous-----	340	81	428	345	+83	1.24
Major cardiovascular-renal diseases-----	330-334, 400-468, 592-594	58, 83, 90-103, 151, 132	151,993	145,632	+6,361	1.04
Diseases of cardiovascular system-----	330-334, 400-468	58, 83, 90-103	147,003	131,530	+15,473	1.12
Vascular lesions affecting central nervous system-----	330-334	83	30,478	26,875	+3,603	1.13
Rheumatic fever-----	400-402	58	432	162	+270	2.67
Diseases of heart-----	410-443	90-95	105,820	97,357	+8,463	1.09
Chronic rheumatic heart disease-----	410-416	90a, 92b, c, 93c, 95b	4,199	4,626	-427	0.91
Arteriosclerotic heart disease, incl. coronary disease	420					
Nonrheumatic chronic endocarditis and other myocardial degeneration-----	421, 422	90b, 91, 92a, d, e, 93a, b, d, e, 94, 95a, c	101,621	92,731	+8,890	1.10
Other diseases of heart-----	430-434					
Hypertension with heart disease-----	440-443					
Hypertension without mention of heart-----	444-447	102	2,630	402	+2,228	6.54
General arteriosclerosis-----	450	97	6,185	5,408	+777	1.14
Other diseases of circulatory system-----	451-468	96, 96-101, 103	1,458	1,326	+132	1.10
Chronic and unspecified nephritis and other renal sclerosis-----	592-594	131, 132	4,990	14,102	-9,112	0.35
Influenza and pneumonia, except pneumonia of newborn-----	480-493	33, 107-109	4,670	4,249	+421	0.89
Influenza-----	480-483	33	4,679	4,542	+137	1.25
Pneumonia, except pneumonia of newborn-----	490-493	107-109	4,391	4,707	-716	0.85
Bronchitis-----	500-502	106	593	634	-41	0.94
Ulcer of stomach and duodenum-----	540, 541	117	1,584	1,853	-269	0.85
Appendicitis-----	550-553	121	691	753	-62	0.92
Hernia and intestinal obstruction-----	560, 561, 570	122	1,856	1,747	+109	1.06
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----	543, 571, 572	119, 120	1,744	1,722	+22	1.01
Cirrhosis of liver-----	581	124	2,818	3,448	-630	0.82

<sup>1</sup>Ratio of deaths classified by the Sixth Revision to deaths classified by the Fifth Revision.

<sup>2</sup>Ratio not computed.

<sup>3</sup>Excludes 474 deaths from Lymphogranulomatosis, Hodgkin's disease (Fifth Revision number 44b and Sixth Revision number 201); and 1,738 deaths from Leukemia and aleukemia (Fifth Revision number 74 and Sixth Revision number 204). When these deaths are added to the number assigned to Fifth Revision numbers 45-55, the comparability ratio (41,366 ÷ 43,026) becomes 0.96. The comparability ratio for Leukemia and aleukemia is 1,721 ÷ 1,738, or 0.99, and for Lymphogranulomatosis (Hodgkin's disease), 475 ÷ 474, or 1.00.

<sup>4</sup>Frequencies are from the 1950 sample only. Data for 1949 were not used because changes in coding rules were made during the time the sample was being processed.

Table 2.02. COMPARISON OF CAUSE-OF-DEATH ASSIGNMENTS FOR 64 SELECTED CAUSES OF DEATH, BY THE SIXTH AND FIFTH REVISIONS OF THE INTERNATIONAL LISTS, FOR A 10-PERCENT SAMPLE OF DEATH CERTIFICATES FILED IN 1949 AND 1950 IN STATE VITAL STATISTICS OFFICES: UNITED STATES—Continued

(Exclusive of fetal deaths and of deaths among armed forces overseas)

CAUSE OF DEATH (Sixth Revision of the International Lists)	CATEGORY NUMBERS		NUMBER OF DEATHS CLASSIFIED BY—		DIFFERENCE DUE TO REVISION	Provisional comparability ratio <sup>1</sup>
	Sixth Revision	Fifth Revision	Sixth Revision	Fifth Revision	Number of deaths	
Acute nephritis and nephritis with edema, incl. nephrosis-----	590,591	130	721	403	+318	1.79
Hyperplasia of prostate-----	610	137	1,240	1,219	+21	1.02
Deliveries and complications of pregnancy, childbirth, and the puerperium-----	640-689	140-150	560	614	-54	0.91
Abortion-----	680-682	140,141	58	67	-9	0.87
All other complications-----	640-649,660-689	142-150	502	547	-45	0.92
Congenital malformations-----	750-759	157	3,650	3,743	-93	0.98
Certain diseases of early infancy-----	760-776	158-161	12,053	11,430	+623	1.05
Birth injuries, postnatal asphyxia, and atelectasis-----	760-762	(5)	4,806	(5)	(5)	(5)
Infections of newborn-----	763-768	(5)	817	(5)	(5)	(5)
Other diseases peculiar to early infancy, and immaturity unqualified-----	769-776	(5)	6,430	(5)	(5)	(5)
Symptoms, senility, and ill-defined conditions-----	780-795	162,199,200	5,641	5,674	-33	0.99
All other diseases-----	Residual	Residual	...	...	...	...
Accidents-----	E800-E962	169-176,178-195	17,511	18,425	-914	0.95
Motor-vehicle accidents-----	E810-E835	170	6,074	6,077	-3	1.00
All other accidents-----	E800-E802,E840-E962	169,171-176,178-195	11,437	12,348	-911	0.93
Suicide-----	E963,E970-E979	163,164	3,241	3,234	+7	1.00
Homicide-----	E964,E980-E985	165-168,198	1,496	1,494	+2	1.00
Injury resulting from operations of war-----	E965,E990-E999	196,197	10	1	+9	(2)

<sup>1</sup>Ratio of deaths classified by the Sixth Revision to deaths classified by the Fifth Revision.

<sup>2</sup>Ratio not computed.

<sup>3</sup>Comparable category numbers and comparability ratios for subdivisions of Certain diseases of early infancy are shown in table 2.03.

former situation, diabetes may be coded as the primary cause of death. Since diabetes is reported as a contributory condition in a large proportion of cases,<sup>22</sup> the new coding procedure results in a significantly smaller number of deaths assigned to diabetes.

There are other causes of death in which trend data have been markedly affected by the new revision. For example, chronic nephritis has been considered one of the major causes of death in past years. However, in the Sixth Revision, the terms denoting arteriolar nephrosclerosis which were once classified under chronic nephritis were transferred to form new categories under hypertensive diseases. This has resulted in a very large decrease in the number of deaths now attributed to chronic nephritis. Another example may be found in the statistics for rheumatic fever. In the Fifth Revision, chronic rheumatic heart disease took precedence over rheumatic fever. In the Sixth Revision, deaths are assigned to rheumatic fever if reported as the underlying cause of chronic rheumatic heart disease. However, the rheumatic fever categories include only deaths in which rheumatic fever was present or active at the time of death.

Major realignments were made in various parts of the 1948 Revision. For example, in the section on diseases of pregnancy, childbirth, and the puerperium in the 1938 Revision, the major factor in determining the classification was whether the death occurred before, during, or after childbirth. In the 1948 Revision, the classification is based on whether the condition arose during pregnancy, or was noted before delivery; whether the delivery occurred with complications; or whether there were some complications of the puerperium. Data on the detailed changes are not yet available, but it may be seen that even the total assigned to maternal causes has been affected by the revision. The classification procedures used in 1949 result in about 9 percent fewer deaths assigned to

deliveries and complications of pregnancy, childbirth, and the puerperium. Most of this is due to the fact that "childbirth" or certain complications of childbirth and the puerperium are frequently mentioned as a contributory cause rather than as an underlying cause of death.

About 5 percent more deaths are being classified as certain diseases of early infancy by the Sixth Revision as compared with the previous classification. A large part of the apparent increase resulted from the reclassification of pneumonia among infants under 1 month and diarrhea of newborn under certain diseases of early infancy. Another major change made was with respect to prematurity. In the 1938 Revision, prematurity was a separate category with priority over other diseases of early infancy, except injury at birth. In the 1948 Revision, prematurity or immaturity was made a secondary axis of classification. Since the various specific morbid conditions under certain diseases of early infancy are now further categorized as whether or not there was mention of immaturity, it is possible to assess how immaturity of the infant was associated with the various causes of death in infancy. A procedure for deriving comparable figures under the Fifth Revision is described later.

Mention was made of the comparability of data for malignant neoplasms. Although the net change in the data for total malignant neoplasms is small, the statistics for specific sites of the malignancy have been affected. Except for the provision of categories for secondary neoplasms of the lung and bronchus, thoracic organs, and the lymph nodes, all of the categories in the section on malignant neoplasms relating to specific sites in the 1948 Revision are now being used to classify the primary or the presumptive primary site of the neoplasm. In the past revisions, the neoplasms of the various sites were weighted according to the priority tables in the Manual of Joint Causes of Death. Therefore, this difference in procedure as well as in the classification will make it difficult to interpret cancer mortality trends for the various sites of the disease without data on comparability by specific sites.

Although the data presented in table 2.02 relate to a limited number of groups of causes and are subject to various

<sup>22</sup>For further discussion of this problem, see Moriyama, I. M., "Is Diabetes Mortality Increasing?" Public Health Reports, vol. 63, No. 41, October 8, 1948.

qualifications,<sup>23</sup> they will be useful in bridging the gap between the two revisions until more complete tabulations are available. The comparability ratios may be applied as correction factors to data prior to 1948 to make them comparable with data for 1949 and subsequent years. While it seems reasonably valid to correct the death rates for major causes of death from these provisional data, the numbers of deaths which have been coded

by both revisions are too few to provide ratios for correction of rates by age and sex. The comparability ratios have been found to vary considerably by age, race, and sex<sup>24</sup> so that the ratio for total deaths from a cause cannot be applied routinely to an age-specific rate.

In addition, comparability ratios vary by State. These figures have been published for a limited number of causes.<sup>25</sup> These ratios must be used with caution because of the small frequencies and the relatively large sampling errors involved.

<sup>23</sup>For further discussion of problems in comparability, see 'The Effect of the Sixth Revision of the International Lists of Diseases and Causes of Death Upon Comparability of Mortality Trends,' National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 36, No. 10, 1951.

<sup>24</sup>National Office of Vital Statistics, 'Current Mortality Analysis,' vol. 7, No. 13, p. 18, 1950.

<sup>25</sup>Same as footnote 23.

Table 2.03. COMPARISON OF CAUSE-OF-DEATH ASSIGNMENTS FOR SELECTED CAUSES OF DEATH UNDER 1 YEAR OF AGE, BY THE SIXTH AND FIFTH REVISIONS OF THE INTERNATIONAL LISTS, FOR A 10-PERCENT SAMPLE OF DEATH CERTIFICATES FILED IN 1949 AND 1950 IN STATE VITAL STATISTICS OFFICES: UNITED STATES

(Exclusive of fetal deaths)

CAUSE OF DEATH (Sixth Revision of the International Lists)	CATEGORY NUMBERS		NUMBER OF DEATHS CLASSIFIED BY—		DIFFERENCE DUE TO REVISION	Provi- sional compara- bility ratio <sup>1</sup>
	Sixth Revision	Fifth Revision	Sixth Revision	Fifth Revision		
Tuberculosis, all forms-----	001-019	13-22	57	58	-1	0.98
Syphilis and its sequelae-----	020-029	30	53	55	-2	0.96
Dysentery, all forms-----	045-048	27	124	119	+5	1.04
Whooping cough-----	056	9	125	125	0	1.00
All other infective and parasitic diseases-----	{030-044,049-055, 057-130	{1-8,10-12,23-26,28, 29,31-32,34-44,177 <sup>2</sup> }	262	225	+37	1.16
Diseases of thymus gland-----	273	64	114	107	+7	1.07
Meningitis, except meningococcal and tuberculous-----	340	81	126	97	+29	1.30
Influenza and pneumonia, except pneumonia of newborn-----	480-493	33,107-109 pt. <sup>3</sup>	1,733	1,058	-125	0.93
Influenza-----	480-483	33	150	142	+8	1.06
Pneumonia, except pneumonia of newborn-----	490-493	107-109 pt. <sup>3</sup>	1,583	1,716	-133	0.92
Hernia and intestinal obstruction-----	560,561,570	122 <sup>4</sup>	205	84	+121	2.44
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----	543,571,572	119 pt. <sup>5</sup>	929	1,057	-128	0.88
Congenital malformations-----	750-759	157	2,816	2,961	-145	0.95
Congenital malformations of circulatory system-----	754	157e,f	1,270	1,347	-77	0.94
All other congenital malformations-----	750-753,755-759	157a-d,g-m	1,546	1,614	-68	0.96
Certain diseases of early infancy-----	760-776	158-161	12,050	11,428	+622	1.05
Birth injuries-----	760,761	160	2,282	2,399	-117	0.95
Intracranial and spinal injury at birth-----	760	160a,b	993	1,013	-20	0.98
Other birth injury-----	761	160c	1,289	1,386	-97	0.93
Postnatal asphyxia and atelectasis-----	762	...	2,523	...	...	...
Without mention of immaturity-----	.0	161a	961	951	+10	1.01
With mention of immaturity-----	.5	159 pt.	1,562	...	...	<sup>5</sup> 0.22
Pneumonia of newborn-----	763	...	541	...	...	...
Without mention of immaturity-----	.0	107-109 pt. <sup>6</sup>	372	505	-133	0.74
With mention of immaturity-----	.5	159 pt.	169	...	...	<sup>5</sup> 0.02
Diarrhea of newborn-----	764	119 pt. <sup>6</sup>	192	194	-2	0.99
Other infections of newborn-----	765-768	161b	84	57	+27	1.47
Other specified diseases of early infancy-----	769-771	...	846	...	...	...
Without mention of immaturity-----	.0	161c	542	565	-23	0.96
With mention of immaturity-----	.5	159 pt.	304	...	...	<sup>5</sup> 0.04
Ill-defined diseases peculiar to early infancy, including nutritional maladjustment-----	772,773	...	860	...	...	...
Without mention of immaturity-----	.0	158	327	233	+94	1.40
With mention of immaturity-----	.5	159 pt.	533	...	...	<sup>5</sup> 0.07
Immaturity with mention of any other subsidiary condition-----	774	159 pt.	221	...	...	<sup>5</sup> 0.03
Immaturity unqualified-----	776	159 pt.	4,501	...	...	<sup>5</sup> 0.62
Symptoms and ill-defined conditions-----	780-795	199,200	803	772	+31	1.04
All other diseases-----	Residual	Residual	...	...	...	...
Accidents-----	E800-E962	169-176,178-195	672	658	+14	1.02
Inhalation and ingestion of food or other object causing obstruction or suffocation-----	E921,E922	195d	176	177	-1	0.99
Accidental mechanical suffocation in bed and cradle-----	E924	182	197	260	-63	0.76
All other accidental causes-----	E800-E920,E923, E925-E962	169-176,178-181, 183-194,195a,b,c,e	299	221	+78	1.35
Homicide-----	E964,E980-E999	165-168	21	23	-2	(7)

<sup>1</sup>Ratio of deaths classified by the Sixth Revision to deaths classified by the Fifth Revision.

<sup>2</sup>Excludes deaths from Septic sore throat (Fifth Revision number 115b and Sixth Revision number 051). Not available by age.

<sup>3</sup>Excludes deaths under 1 month.

<sup>4</sup>No deaths were assigned to Hernia, Fifth Revision number 122a.

<sup>5</sup>Ratio of deaths assigned to specified Sixth Revision category number to total deaths (7,225) assigned to Premature birth, Fifth Revision category number 159.

<sup>6</sup>Under 1 month only.

<sup>7</sup>Ratio not computed.



As previously mentioned, major changes in the classification of deaths attributed to certain diseases of early infancy were made in the Sixth Revision as compared with the Fifth. Since deaths under 1 year have a relatively high frequency, it was possible to compute provisional comparability ratios for many of the causes of death that are important in the first year of life from the 10-percent samples for 1949 and 1950. Deaths coded to prematurity (International List No. 159) under the Fifth Revision presented a special problem since there is no equivalent title under the Sixth Revision. However, the distribution of the deaths assigned to prematurity in the Fifth Revision according to their Sixth Revision categories could be determined. From these figures an appropriate proportion of all deaths from prematurity, to be used in place of a comparability ratio, was computed for various causes in the Sixth Revision.

The comparability ratios for these and other causes of death under 1 year are shown in table 2.03. In general, the procedures followed in deriving this table were similar to those described for table 2.02, with two exceptions. Special provision had to be made for pneumonia of the newborn, and diarrhea of the newborn, and consequently for pneumonia (except pneumonia of the newborn), and for gastritis, duodenitis, enteritis, and colitis (except diarrhea of the newborn). Comparability ratios for the two former causes were computed from deaths under 28 days, and for the latter, from deaths between 28 days and 1 year.

#### Medical certification

The use of a standard classification list, although essential for State, regional, and international comparisons, does not assure strict comparability of the tabulated figures. A high

degree of comparability could be attained only if all of the data on cause of death were reported with equal accuracy and completeness. Since the medical certification of death can be made only by a qualified person, usually a physician or a coroner, the reliability and accuracy of cause-of-death statistics are, to a large extent, governed by the acumen and ability of the medical attendant to make the proper diagnosis and by the care with which the death certificate is filled out.

The quality of the basic data reported on the death certificate is, of course, of fundamental importance in the interpretation of cause-of-death statistics. Although a number of notable studies have been made of the accuracy of medical diagnoses, there is an unfortunate lack of national statistics on the subject. All of these investigations are extremely limited in scope since they are based upon comparison of autopsy and clinical records in certain hospitals and pertain only to those cases that came up for post-mortem examinations. Despite the paucity of data regarding the accuracy of certification of death, the cause-of-death information given on the death certificate is, for the most part, probably fairly reliable.

One index of the quality of cause-of-death statistics is the proportion of death certificates coded to the Sixth Revision category numbers 780-793 and 795, which are the rubrics for ill-defined and unknown causes of death. This percentage indicates the care and consideration given to the certification of cause of death by the attending physician. It may also be used as a rough measure of the specificity of the medical diagnoses made by the physicians in the various areas. In 1950, only 1.2 percent of all reported deaths in the United States were assigned to ill-defined or unknown causes. However, this percentage varied from 0.1 percent for two States and the District of Columbia to 13.6 for Mississippi, reflecting the difference in quality of reporting among the States.

### INTERPRETATION OF RESIDENCE STATISTICS

Official national birth and death statistics and those published by most State and city agencies were once compiled only according to place of birth and death. Under this system of tabulation, the data are tabulated by the city, county, or State in which the birth or death occurred, irrespective of the usual place of residence of the mother of the child, or the usual place of residence of the decedent.

The difficulties involved in interpreting data obtained by this method of tabulation can be understood by considering the effect of movement of people on death rates. For example, the hospital facilities in a city may attract patients from surrounding areas and, as a result, many of the deaths occurring in this city will not be deaths of residents of this city. The enumerated population of the city does not, under such conditions, represent the number of persons exposed to the risk of death; and the death rate does not accurately describe the mortality conditions of this particular city. A more correct figure is obtained by reallocating all deaths to the place of residence. Since there are so many causes contributing to the movement of patients to some area other than their usual place of residence, it cannot be assumed that the direction of the movement is always from the rural to the urban areas. Similar nonresident factors affect the interpretation of birth statistics based upon place of occurrence. In order to determine the direction or the magnitude of the differences between rates based on births or deaths according to place of occurrence and those compiled according to place of residence, it is necessary to examine tabulations on both bases.

In addition to difficulties in the definition of residence, there are factors in the original collection of information concerning vital events that produce errors or inconsistencies. The place of birth or death is usually obvious or easily determined by the person who files the certificate. In contrast,

a special inquiry is frequently necessary to obtain place of usual residence. It is sometimes difficult to ascertain the precise geographic location of the resident address, particularly for places near the boundaries of cities, towns, and counties. These difficulties sometimes cause the residence information on the certificate to be omitted, incomplete, or inaccurate. The results of a recent study of this problem are presented in the section on Accuracy of residence reporting.

Data given in these volumes are tabulated according to place of residence and place of occurrence. Figures for individual cities and counties or for population groups by place of occurrence do not give an accurate indication of relative health and fertility conditions. However, for a larger area such as a State, the tabulations compiled on the two bases do not usually show a substantial difference. The tabulations by place of occurrence and by place of residence are identical for the total United States, because births and deaths of United States residents occurring outside of the country and of foreign residents occurring in the country are not reallocated to the country of residence.

A discussion of the differences between recorded and resident figures, with summary tables, will be found in the section on Effect of Residence Allocation on Vital Statistics.

All statistics of marriages and divorces shown in this volume have been tabulated by place of occurrence, i. e., the place in which the marriage was performed or in which the divorce was granted. The detailed information required to allocate marriages and divorces to place of residence is not available.

The practice of allocating notifiable diseases by residence varies not only with respect to diseases but also among the various States. Corrections usually are not made for diseases of high frequency such as measles and whooping cough. In

some States, an attempt is made to allocate by residence cases of typhoid fever, poliomyelitis, diphtheria, smallpox, and certain other diseases but this practice is not uniform.

### Changes in definitions of residence

Serious methodological problems arise in the process of (1) allocating vital events, particularly deaths, on the same basis as the enumerated population, and (2) allocating them so as to describe accurately the mortality conditions of a particular area. Differences in the manner of collecting vital statistics data and of population data introduce inconsistencies in their allocation by place of residence. In addition, a strict application of population enumeration definitions to deaths distorts the description of mortality conditions in certain areas. This is particularly true for areas in which large resident-type institutions, such as mental and tuberculosis hospitals, are located. In the population census, the patients or inmates of these institutions are counted as residents of the institution. The death rate among these people is usually very high, because of the illness or infirmity which caused them to enter the institution. If these deaths are allocated to the city or county in which the hospital or institution is located, the death rate of the area is likely to be much higher than it would be if they were allocated to the area of residence prior to hospitalization. Nevertheless, the residence allocation rules used by the National Office of Vital Statistics from 1935 to 1948, inclusive, corresponded closely to those of the population census.

In response to increasing dissatisfaction among public health agencies with these definitions, the National Office of Vital Statistics made a study of this problem in 1949. Three different crude death rates were computed for each of 188 counties for which in 1940 the deaths in resident-type hospitals or other institutions constituted 10 percent or more of total resident deaths. In method (1) the rates were computed using the total resident deaths and total enumerated population, the institutional population being included in both the numerator and denominator of the rate formula. In method (2) the rates were computed using total resident deaths minus deaths in resident-type institutions and the total enumerated population including the institutional population. In method (3) the rates were computed using total resident deaths minus deaths in resident-type institutions and the total enumerated population minus the population living in such institutions. Method (1) was used by the National Office of Vital Statistics with minor changes from 1935 through 1948. Method (2) gives the rate which results when the institutional population is deducted from the deaths but included in the population base. Method (3) gives the rate which is obtained when the institutional population is excluded from both the deaths and the population base. Of the three rates computed, the third method can be regarded as the rate which describes most accurately the mortality experience of the population of the counties uninfluenced by the special factor of institution location.

The average crude resident death rates per 1,000 population obtained for the 188 counties in 1940 were as follows:

Method (1)-----	14.0
Method (2)-----	10.0
Method (3)-----	10.7

The average rate by method (1) was 30.8 percent above the average rate by method (3), while the average rate by method (2) was 6.5 percent below the average rate obtained by method (3).

This study led to the conclusion that allocation of deaths

according to the rules of the population census resulted in serious distortion of mortality statistics for counties and cities in which the population in resident-type institutions is a significant proportion of the total population. Therefore, beginning with data for 1949, the National Office of Vital Statistics introduced a major change into its rules for residence allocation of deaths occurring in resident-type institutions. The crude death rates which will be obtained under the revised rules will be comparable with those obtained by method (3) when the institutional population is deducted from the population base and with those obtained by method (2) when it is not deducted. Under the revised rule, all deaths which occur in institutions of all types are allocated to the reported place of usual residence, regardless of the length of time spent by the decedent in the institution. In actual practice, the new rules differ significantly from the previous definitions only with respect to deaths occurring in resident-type institutions (mental hospitals, homes for the aged, penitentiaries, etc.) and in tuberculosis hospitals. Under the old rules all deaths in resident institutions regardless of length of stay and all deaths in tuberculosis hospitals where the decedent had lived in the hospital more than 1 year were allocated to the place of death. Beginning with 1949, they are allocated to the place of usual residence. A complete statement of the residence-allocation rules used in classifying 1949 and 1950 data is given in the Instruction Manuals<sup>26</sup> for these years.

Beginning with data for 1949, a change was also made in the rules for allocation of deaths of military personnel. For the years 1943 through 1948, the post or port at which the deceased was stationed was considered to be the usual place of residence. Under the new rule, these cases are classified as residents of the place of death if length of stay in that place is stated to be 1 year or more. If length of stay in place of death is stated to have been less than 1 year, the death is allocated to the deceased's home residence, if stated.

### Accuracy of residence reporting

Live birth, death, and fetal death certificates contain items designed to obtain residence information for civil subdivisions, that conforms as closely as possible to the way the population is enumerated or estimated. In the decennial census, the inhabitants are counted according to their usual place of abode, without regard to legal or voting residence, or mailing address. This is the frame of reference for designing the items on the vital records and is the guide for coding residence data, except for the situation discussed in the section on Changes in definitions of residence.

However, there is a fundamental difference between the enumeration process and vital registration in the ability to allocate individuals to the proper place of residence. In the census, geographic locations can be fixed precisely in almost every case, since streets and highways are carefully mapped. The main problem, aside from enumeration completeness, is to determine whether a person found at a location is actually a resident there. This, however, affects only a relatively small segment of the population.

The situation is not nearly as favorable for the vital record. Persons responsible for recording information on the certificate are dependent for their understanding of what

<sup>26</sup>National Office of Vital Statistics, "Vital Statistics Instruction Manual, Part I, Coding and Punching Geographic and Personal Particulars of Births, Deaths, and Stillbirths Occurring During 1949 (1950)," Washington, D. C., 1949 (1950).

is wanted, on the explanatory notes found on the form and in various handbooks issued by the National Office of Vital Statistics and the State offices of vital statistics. Individual instruction is not feasible and it is not known whether the intent of the residence items is fully appreciated or is conveyed to the respondent. Furthermore, the person who fills out the record may not be sufficiently familiar with certain areas to know whether inconsistent information is being given him.

Under these circumstances, the possibility of errors in residence data arising from misinformation or omission of information essential for an accurate determination of residence, has always been present. However, during the past decade, the potential for discrepancy has greatly increased as a result of the major growth in population of areas close to cities. Frequently, parts of these surrounding areas have city mailing addresses, and unless special care is taken in asking for residence information, they could be identified as being inside the cities. This situation has assumed special importance because of a concomitant development, i. e., the increased utilization of hospitals in cities by residents of nearby places. Misstatements of residence are more likely to remain undetected in such cases than when the birth or death occurs in the place of residence.

An opportunity to evaluate the magnitude of the problem has recently presented itself. In the course of conducting the 1950 birth registration test, there became available a set of punched cards containing residence data coded from two sources separately: census and live birth records for births

from January 1 through March 31, 1950.<sup>27</sup> By the time this report was being prepared, however, it was not possible to carry out the full scale tabulations necessary to clarify the scope of misreporting residence on the birth certificate and the relative importance of the various factors involved. Instead, an "approximation" procedure was used to estimate "true" distributions of the births for 1950.

In this procedure, urban and rural percentage distributions derived from the census records for births for January-March 1950 (based on the 1940 definition of urban) were applied to registered birth totals for 1950, on a State and race basis. It was assumed that similar results would be obtained from the more detailed procedures of (a) obtaining correction factors through a cross-tabulation of birth record and census information on the punched cards mentioned, and (b) applying these adjustments to the 1950 tabulated data. A test of this assumption in 6 States indicated that estimates of urban and rural resulting from the approximation method differed from those obtained by the more exact method by 1 percent in 5 of the States and by 3 percent in the other.

Another assumption implicit in these adjustments is that all differences are due to "errors" on the birth record. However, valid differences undoubtedly did arise as the result of moves between the date of the child's birth and the census

<sup>27</sup>See chapter 6 for a discussion of records in the test and preparation of the punched cards.

Table 2.04. REGISTERED LIVE BIRTHS AND LIVE BIRTHS ADJUSTED FOR MISREPORTING OF RESIDENCE, BY RACE AND POPULATION-SIZE GROUP IN METROPOLITAN AND NONMETROPOLITAN COUNTIES: UNITED STATES, 1950, WITH PERCENT DIFFERENCES

(By place of residence)

AREA	ALL RACES			WHITE			NONWHITE		
	Tabulated births	Births adjusted for misreporting of residence <sup>1</sup>	Percent difference <sup>2</sup>	Tabulated births	Births adjusted for misreporting of residence <sup>1</sup>	Percent difference <sup>2</sup>	Tabulated births	Births adjusted for misreporting of residence <sup>1</sup>	Percent difference <sup>2</sup>
ALL COUNTIES-----	3,554,149	3,554,149	...	3,063,627	3,063,627	...	490,522	490,522	...
Urban-----	2,155,081	2,016,633	-6.4	1,870,858	1,743,252	-6.8	284,223	273,381	-3.8
Places of 250,000 or more----	785,390	745,539	-5.1	643,259	608,210	-5.4	142,131	137,329	-3.4
Places of 100,000 to 250,000--	241,180	223,107	-7.5	205,873	188,589	-8.4	35,307	34,518	-2.2
Places of 50,000 to 100,000---	223,085	208,074	-6.7	197,708	183,627	-7.1	25,377	24,447	-3.7
Places of 25,000 to 50,000----	235,005	217,074	-7.6	212,503	196,396	-7.6	22,502	20,678	-8.1
Places of 10,000 to 25,000----	316,763	298,988	-5.6	290,058	272,756	-6.0	26,705	26,232	-1.8
Places of 2,500 to 10,000-----	353,658	323,851	-8.4	321,457	285,674	-8.6	32,201	30,177	-6.3
Rural-----	1,399,068	1,537,516	+9.9	1,192,769	1,320,375	+10.7	206,299	217,141	+5.3
Metropolitan counties-----	1,959,535	1,959,535	...	1,711,265	1,711,265	...	248,270	248,270	...
Urban-----	1,579,016	1,497,944	-5.1	1,360,296	1,285,808	-5.5	218,720	212,136	-3.0
Places of 250,000 or more----	785,390	745,539	-5.1	643,259	608,210	-5.4	142,131	137,329	-3.4
Places of 100,000 to 250,000--	241,180	223,107	-7.5	205,873	188,589	-8.4	35,307	34,518	-2.2
Places of 50,000 to 100,000---	223,085	208,074	-6.7	197,708	183,627	-7.1	25,377	24,447	-3.7
Places of 25,000 to 50,000----	96,089	96,495	+0.4	90,585	91,061	+0.5	5,504	5,434	-1.3
Places of 10,000 to 25,000----	126,609	123,737	-2.3	120,223	117,254	-2.5	6,396	6,483	+1.5
Places of 2,500 to 10,000-----	106,663	100,992	-5.3	102,648	97,067	-5.4	4,015	3,925	-2.2
Rural-----	380,519	461,591	+21.3	350,969	425,457	+21.2	29,550	36,134	+22.3
Nonmetropolitan counties--	1,594,614	1,594,614	...	1,352,362	1,352,362	...	242,252	242,252	...
Urban-----	576,065	518,689	-10.0	510,562	457,444	-10.4	65,503	61,245	-6.5
Places of 25,000 to 50,000----	138,916	120,579	-13.2	121,918	105,335	-13.6	16,998	15,244	-10.3
Places of 10,000 to 25,000----	190,154	175,251	-7.8	169,855	155,502	-8.4	20,319	19,749	-2.8
Places of 2,500 to 10,000-----	246,995	222,859	-9.8	218,809	196,607	-10.1	28,186	26,252	-6.9
Rural-----	1,018,549	1,075,925	+5.6	841,800	894,918	+6.3	176,749	181,007	+2.4

<sup>1</sup>Provisional estimates.

<sup>2</sup>Tabulated births used as the base.

enumeration. Until intensive studies involving examination of entries on the birth records can be conducted, the magnitude of this group will remain unknown. Nevertheless, it seems likely that only a relatively small proportion of the error would be accounted for by this factor.

Data in tables 2.04 and 2.05 give the results of the application of the approximation method to tabulated figures for the United States and geographic divisions. It should be borne in mind that the percent differences shown relate to broad aggregates of situations that might be quite different when viewed, for example, on an individual city basis. In addition, until the nature of the residence error is more fully understood, it is not possible to utilize the relationships found for births to adjust death figures with any confidence.

Adjustments for misreporting residence<sup>28</sup> resulted in the figure for registered births to urban residents in 1950 being reduced by an estimated 6.4 percent, and in the tabulated number of births to rural residents being raised by 9.9 percent. Every size city, from the smallest to the largest shown in table 2.04 (all counties combined) was affected to an im-

portant extent.

As would be expected from what is known about the growth of urban-fringe areas and the difference in the urban-rural distribution of the population, the relative and absolute net adjustment in rural data for metropolitan counties was far greater than the comparable one in nonmetropolitan counties. Misstatements of residence involved about 80,000 births in the former group, half of which (40,000) were identified as being residents of cities of 250,000 population or more. All but 8,000 of the remaining portion of the net error were located in cities of 50,000 to 250,000 population.

Although rural was affected less in nonmetropolitan counties than in metropolitan, the urban adjustment in the former group of counties was far greater than in the metropolitan counties. In fact, whereas the tabulated figure for metropolitan cities of 25,000 to 50,000 population was virtually unchanged by the corrections, an adjustment of 13 percent was applied to the data for the same size cities in nonmetropolitan counties.

Percentage errors in urban-rural residence data were on the whole considerably greater for white births than for nonwhite. In metropolitan counties, however, the relative adjustments on rural figures were almost the same. The corresponding adjustment in the urban figure was appreciably larger for the white group than for the nonwhite. This situation arose from the differences between the two race groups in

<sup>28</sup>The term 'misreporting' is applied to all situations causing inaccurate residence determinations, e. g., misstatements, and failure to enter all information called for in the residence section of the birth record.

Table 2.05. REGISTERED LIVE BIRTHS AND LIVE BIRTHS ADJUSTED FOR MISREPORTING OF RESIDENCE, BY RACE: UNITED STATES AND EACH GEOGRAPHIC DIVISION, 1950, WITH PERCENT DIFFERENCES

(By place of residence)

AREA AND RACE	Tabulated births	URBAN			RURAL		
		Tabulated births	Births adjusted for misreporting of residence <sup>1</sup>	Percent difference <sup>2</sup>	Tabulated births	Births adjusted for misreporting of residence <sup>1</sup>	Percent difference <sup>2</sup>
UNITED STATES-----	3,554,149	2,155,061	2,016,633	-6.4	1,399,068	1,537,516	+9.9
White-----	3,063,627	1,870,858	1,743,252	-6.8	1,192,769	1,320,375	+10.7
Nonwhite--	490,522	284,223	273,381	-3.8	206,299	217,141	+5.3
New England-----	194,625	143,625	138,723	-3.4	51,000	55,902	+9.6
White-----	190,464	139,791	134,925	-3.5	50,673	55,539	+9.6
Nonwhite--	4,161	3,834	3,798	-0.9	327	363	+11.0
Middle Atlantic-----	620,480	463,359	451,773	-2.5	157,121	168,707	+7.4
White-----	566,277	412,611	402,140	-2.5	153,666	164,137	+6.8
Nonwhite--	54,203	50,748	49,633	-2.2	3,455	4,570	+32.3
East North Central-----	712,871	489,631	458,843	-6.3	223,240	254,028	+13.8
White-----	657,440	437,029	407,380	-6.8	220,411	250,060	+13.5
Nonwhite--	55,431	52,602	51,463	-2.2	2,829	3,968	+40.3
West North Central-----	354,464	177,060	168,536	-4.8	157,404	165,928	+5.4
White-----	320,371	166,099	157,646	-5.1	154,272	162,725	+5.5
Nonwhite--	14,093	10,961	10,890	-0.6	3,132	3,203	+2.3
South Atlantic-----	534,194	239,328	212,738	-11.1	294,866	321,456	+9.0
White-----	371,148	168,346	145,110	-13.8	202,802	226,038	+11.5
Nonwhite--	163,046	70,982	67,628	-4.7	92,064	95,418	+3.6
East South Central-----	303,922	111,559	104,090	-6.7	192,363	199,832	+3.9
White-----	212,100	77,273	70,691	-8.5	134,827	141,409	+4.9
Nonwhite--	91,822	34,286	33,399	-2.6	57,536	58,423	+1.5
West South Central-----	375,915	224,378	209,034	-6.8	151,537	166,881	+10.1
White-----	299,045	184,383	171,698	-6.9	114,662	127,347	+11.1
Nonwhite--	76,870	39,995	37,336	-6.7	36,875	39,534	+7.2
Mountain-----	140,911	78,550	67,949	-13.5	62,361	72,962	+17.0
White-----	133,255	76,246	65,666	-13.9	57,009	67,589	+18.6
Nonwhite--	7,656	2,304	2,283	-0.9	5,352	5,373	+0.4
Pacific-----	336,767	227,691	204,947	-9.9	109,176	131,820	+20.7
White-----	313,527	208,080	187,996	-10.1	104,447	125,531	+20.2
Nonwhite--	23,240	18,511	16,951	-8.4	4,729	6,289	+33.0

<sup>1</sup>Provisional estimates.

<sup>2</sup>Tabulated births used as the base.

urban-rural distribution of their births—one in seven nonwhite births were to rural residents, as compared with almost one in four in the case of white births.

In nonmetropolitan counties, greater errors in the residence statistics for the white race were found in both urban and rural areas. Here, the more important elements are probably differences between the races in the utilization of city hospital facilities and the proximity of rural residents to cities.

Appreciable errors in residence reporting were found in every part of the country (table 2.05). The smallest percentage errors in the urban figures occurred in the New England and Middle Atlantic Divisions. This, in part, is a reflection of the fact that a large proportion of the total births were to urban residents and even a major error in the rural group would have had comparatively little effect on the urban totals. The largest urban errors were in the South Atlantic and Mountain Divisions, where rural residents predominated. Other factors, besides the over-all urban and rural distribution of the population, influenced the magnitude of these errors. Most significant, undoubtedly, are the other conditions already mentioned, i. e., the amount of movement into cities for hospital care, and the extent to which rural is concentrated around urban areas.

In view of the preceding, the birth rates presented in tables 6.22 to 6.24 of this volume have been adjusted for the estimated amount of misreporting. Birth rates based on tabulated data for individual cities and population-size groups

(tables 13 and 14 in Volume II) should be interpreted with this discussion in mind. It is hoped that fuller exploitation of the birth registration test punched cards will provide more specific information for estimating "true" birth rates for these areas. The extent to which county of residence is misreported also requires intensive investigation. However, a review of data for a limited group of counties suggests that the problem may generally be very minor for these areas.

Aside from the need for assessing the error in past statistical series, there is the difficult task of finding practical means for reducing or eliminating errors in the future. This is a serious challenge to the entire field of vital statistics. The solution will have to cover a broad range of activities, including improvement in the basic information reported on the record and procedures for detecting reporting errors in time to be reflected in the statistics. Use of street maps would greatly facilitate the latter, but its cost has been an important deterrent thus far.

Although a rural classification of vital events, according to the new census definition, would unquestionably reduce the rural error, there are major obstacles to coding consistently on this basis. Whether these difficulties are more serious than those posed by solving the problem within the current coding framework is a question requiring further study. In any event, it would still be necessary to increase the accuracy of city statistics to meet the many public health, demographic, and business needs for such data.

EFFECT OF RESIDENCE ALLOCATION ON VITAL STATISTICS

Natality

The data presented in this section are based on a comparison of information by place of occurrence and usual residence of the child's mother as reported on the live birth record. Considering the errors in residence reporting discussed in the previous section, these data understate somewhat the total amount of nonresident births.

Births are classified as "nonresident" if they did not occur in the urban place or rural part of a county in which the mother usually resides. Of the 3,554,149 live births registered in the United States in 1950, 40.6 percent were in this category. A large proportion of the nonresident births were to mothers who lived in rural areas and had their babies delivered in hospitals in cities. Only a small percentage of the mothers who gave birth elsewhere than in their usual residence crossed State lines (table 2.06).

The situation in 1950 represented a marked change over 1940. During the war years, intrastate nonresident births represented 19.9 percent of the total number of registered births, but by the end of the war the proportion had risen to 30.9 percent. Further increases have taken place since 1945 but at a slower rate.

Nonresidence involving the crossing of State lines more than doubled in relative frequency between 1940 and 1945. However, the maximum figure was only 2.8 percent of the total birth group. In more recent years the proportion has been slightly lower.

A summary of births in 1950 by place of occurrence and by place of residence is given for each State in table 2.07. The type of data just described for the United States as a whole can be obtained for individual States from this table. In addition, the table indicates the gross movement into a State by residents of all of the other States combined, and the

Table 2.06. NUMBER AND PERCENT OF NONRESIDENT LIVE BIRTHS FROM THE SAME STATE AND FROM OTHER STATES, UNITED STATES, 1940-50

YEAR	Total births	NONRESIDENT BIRTHS			PERCENT OF NON-RESIDENT BIRTHS		
		Total	From same State	From other States	Total	From same State	From other States
1950-	3,554,149	1,444,647	1,358,739	85,908	40.6	38.2	2.4
1949-	3,559,529	1,367,282	1,281,223	86,059	38.4	36.0	2.4
1948-	3,535,068	1,319,454	1,230,366	89,088	37.3	34.8	2.5
1947-	3,699,940	1,347,877	1,256,494	91,383	36.4	34.0	2.5
1946-	3,288,672	1,151,941	1,072,030	79,911	35.0	32.6	2.4
1945-	2,735,456	922,064	844,778	77,286	33.7	30.9	2.8
1944-	2,794,800	871,785	798,776	73,009	31.2	28.6	2.6
1943-	2,934,860	838,609	774,252	64,357	28.6	26.4	2.2
1942-	2,808,996	734,328	684,160	50,168	26.1	24.4	1.8
1941-	2,513,427	592,084	552,775	39,309	23.6	22.0	1.6
1940-	2,360,399	500,918	469,228	31,690	21.2	19.9	1.3

comparable movement out of the State. Information concerning the amount of movement between specific States is found in table 15, Volume II.

Percentage differences between the residence and occurrence totals of births are shown for individual States in table 2.08. Excluding the District of Columbia, Maryland and Virginia had the largest differences. For these States, the occurrence figures were below the residence by 7.4 percent and 5.3 percent, respectively. For Rhode Island, the occurrence total exceeded the residence total by 4.9 percent.

Place-of-occurrence figures were much higher than those by place of residence for cities of all sizes (table 2.09). Each group of cities from places with populations of 2,500 to 250,000,

Table 2.07. LIVE BIRTHS TO NONRESIDENTS IN EACH STATE AND LIVE BIRTHS TO RESIDENTS IN OTHER STATES: 1950

AREA	Total births in area	BIRTHS						Total births to residents
		To nonresidents in area			To residents in other areas			
		Total	From same State	From other States	Total	In same State	In other States	
UNITED STATES-----	3,554,149	1,444,647	1,358,739	85,908	1,444,647	1,358,739	85,908	3,554,149
Alabama-----	82,237	26,113	24,812	1,201	26,492	24,812	1,580	82,616
Arizona-----	20,893	10,795	10,414	381	10,725	10,414	311	20,823
Arkansas-----	45,782	16,864	15,295	1,569	16,674	15,295	1,379	45,592
California-----	243,757	122,669	122,374	295	123,783	122,374	1,409	244,871
Colorado-----	34,332	14,278	13,343	935	13,831	13,343	488	33,885
Connecticut-----	39,764	17,672	17,100	572	18,528	17,100	1,428	40,620
Delaware-----	7,779	4,422	3,923	499	4,286	3,923	363	7,643
District of Columbia-----	28,955	10,372	...	10,372	1,243	...	1,243	19,826
Florida-----	63,972	22,952	22,435	517	23,624	22,435	1,189	64,644
Georgia-----	91,815	32,711	30,711	2,000	32,308	30,711	1,597	91,412
Idaho-----	15,697	7,759	7,250	509	8,097	7,250	847	16,035
Illinois-----	186,716	73,464	71,323	2,141	76,661	71,323	5,338	189,913
Indiana-----	94,159	41,516	38,635	2,881	40,836	38,635	2,201	93,479
Iowa-----	63,641	32,405	29,983	2,422	31,424	29,983	1,441	62,660
Kansas-----	42,494	17,203	15,494	1,709	18,637	15,494	3,143	43,928
Kentucky-----	75,456	24,968	22,341	2,627	24,538	22,341	2,197	75,026
Louisiana-----	76,066	29,598	28,979	619	29,894	28,979	915	76,362
Maine-----	20,802	10,559	10,329	230	10,818	10,329	489	21,061
Maryland-----	50,213	20,114	16,749	3,365	24,101	16,749	7,352	54,205
Massachusetts-----	96,699	40,193	38,349	1,844	39,708	38,349	1,359	96,214
Michigan-----	160,445	74,111	72,962	1,149	74,621	72,962	1,659	160,955
Minnesota-----	75,310	35,264	33,310	1,954	35,271	33,310	1,961	75,317
Mississippi-----	65,712	16,856	15,250	1,606	16,048	15,250	798	64,904
Missouri-----	88,109	36,853	32,057	4,796	34,668	32,057	2,611	85,924
Montana-----	15,397	5,873	5,703	170	6,087	5,703	384	15,611
Nebraska-----	31,703	12,309	11,265	1,044	12,405	11,265	1,140	31,799
Nevada-----	3,757	1,486	1,280	206	1,396	1,280	116	3,667
New Hampshire-----	11,677	4,484	3,482	1,002	4,324	3,482	842	11,517
New Jersey-----	94,446	54,298	53,235	1,063	57,654	53,235	4,419	97,802
New Mexico-----	21,722	5,812	5,169	643	6,182	5,169	1,013	22,092
New York-----	302,579	102,979	99,249	3,730	101,443	99,249	2,194	301,043
North Carolina-----	106,891	42,858	41,064	1,794	42,453	41,064	1,389	106,486
North Dakota-----	17,182	8,852	7,587	1,265	8,700	7,587	1,113	17,030
Ohio-----	185,887	77,098	73,653	3,445	77,061	73,653	3,408	185,850
Oklahoma-----	49,988	19,364	17,847	1,517	19,496	17,847	1,649	50,120
Oregon-----	36,005	16,091	15,105	986	16,165	15,105	1,060	36,079
Pennsylvania-----	222,104	103,473	99,433	4,040	103,004	99,433	3,571	221,635
Rhode Island-----	16,998	8,559	7,138	1,421	7,771	7,138	633	16,210
South Carolina-----	57,373	17,381	16,462	919	17,458	16,462	996	57,450
South Dakota-----	17,884	8,411	7,449	962	8,333	7,449	884	17,806
Tennessee-----	82,402	30,564	27,310	3,254	29,538	27,310	2,228	81,376
Texas-----	203,964	55,205	52,715	2,490	55,082	52,715	2,367	203,841
Utah-----	21,375	9,640	9,222	418	9,457	9,222	235	21,192
Vermont-----	8,702	4,228	3,843	385	4,529	3,843	686	9,003
Virginia-----	77,702	32,392	30,058	2,334	36,711	30,058	6,653	82,021
Washington-----	56,990	22,106	19,958	2,148	20,933	19,958	975	55,817
West Virginia-----	50,902	19,463	16,745	2,718	19,068	16,745	2,323	50,507
Wisconsin-----	82,188	39,379	37,980	1,399	39,865	37,980	1,885	82,674
Wyoming-----	7,521	2,631	2,269	362	2,716	2,269	447	7,606

were affected to about the same extent by the nonresidence factor. Among the very large cities, i. e., those over a quarter of a million population, the effect was much less although even here it was substantial. In terms of numbers of births involved, the nonresidence situation was most important among the very large and the very small cities.

The proportion of rural residents who go to urban areas for delivery has increased rapidly as indicated by table 2.10.

In 1940, the number of births occurring in rural areas was 21.7 percent less than the number to residents of these areas. By 1950, this difference had increased to 54.5 percent. During the same period, the excess of births occurring in urban areas over the births to urban residents almost doubled to reach 35.4 percent in 1950. The nonresident factor has increased markedly in importance between 1940 and 1950 for cities of all sizes. Relatively, the largest change occurred

Table 2.08. DIFFERENCE BETWEEN RESIDENT AND RECORDED LIVE BIRTHS: EACH STATE, 1950

AREA	DIFFERENCE		AREA	DIFFERENCE	
	Number	Per-cent <sup>1</sup>		Number	Per-cent <sup>1</sup>
UNITED STATES-----	...	...	Montana-----	-214	-1.4
Alabama-----	-379	-0.5	Nebraska-----	-96	-0.3
Arizona-----	+70	+0.3	Nevada-----	+90	+2.5
Arkansas-----	+190	+0.4	New Hampshire-----	+160	+1.4
California-----	-1,114	-0.5	New Jersey-----	-3,356	-3.4
Colorado-----	+447	+1.3	New Mexico-----	-370	-1.7
Connecticut-----	-856	-2.1	New York-----	+1,538	+0.5
Delaware-----	+136	+1.8	North Carolina-----	+405	+0.4
Dist. of Columbia-----	+9,129	+46.0	North Dakota-----	+152	+0.9
Florida-----	-672	-1.0	Ohio-----	+37	+0.0
Georgia-----	+403	+0.4	Oklahoma-----	-132	-0.3
Idaho-----	-358	-2.1	Oregon-----	-74	-0.2
Illinois-----	-3,197	-1.7	Pennsylvania-----	+469	+0.2
Indiana-----	+680	+0.7	Rhode Island-----	+788	+4.9
Iowa-----	+981	+1.6	South Carolina-----	-77	-0.1
Kansas-----	-1,434	-3.3	South Dakota-----	+78	+0.4
Kentucky-----	+430	+0.6	Tennessee-----	+1,026	+1.3
Louisiana-----	-296	-0.4	Texas-----	+123	+0.1
Maine-----	-259	-1.2	Utah-----	+183	+0.9
Maryland-----	-3,987	-7.4	Vermont-----	-301	-5.3
Massachusetts-----	+485	+0.5	Virginia-----	-4,319	-5.3
Michigan-----	-510	-0.3	Washington-----	+1,173	+2.1
Minnesota-----	-7	-0.0	West Virginia-----	+395	+0.8
Mississippi-----	+808	+1.2	Wisconsin-----	-486	-0.6
Missouri-----	+2,185	+2.5	Wyoming-----	-85	-1.1

<sup>1</sup>In computing percents, resident births have been used as the base.

in the smallest cities.

To establish the precise reason for a major difference between occurrence and residence figures in local communities, it would be necessary to conduct a careful study of local conditions. Among the important factors are: the number and location of hospitals in suburbs surrounding a given city, the density of population in adjacent rural areas, the distance to other cities, and the extent to which hospital facilities are available within the given city.

Table 2.09. RESIDENT AND RECORDED LIVE BIRTHS FOR URBAN AND RURAL AREAS: UNITED STATES, 1950, WITH PERCENT DIFFERENCES

AREA	Births to residents	Births in area	DIFFERENCE	
			Number	Per-cent <sup>1</sup>
UNITED STATES-----	3,554,149	3,554,149	...	...
Urban-----	2,155,081	2,917,088	+762,007	+35.4
Places of 25,000 or more-----	785,390	956,622	+151,232	+19.3
Places of 100,000 to 250,000--	241,180	348,272	+107,092	+44.4
Places of 50,000 to 100,000--	223,085	320,039	+96,954	+43.5
Places of 25,000 to 50,000--	235,005	343,899	+108,894	+46.3
Places of 10,000 to 25,000--	316,763	459,761	+142,998	+45.1
Places of 2,500 to 10,000--	353,658	508,495	+154,837	+43.8
Rural-----	1,399,068	637,061	-762,007	-54.5

<sup>1</sup>In computing percents, resident births have been used as the base.

Table 2.10. PERCENTAGE DIFFERENCE BETWEEN RESIDENT AND RECORDED LIVE BIRTHS FOR URBAN AND RURAL AREAS: UNITED STATES, 1940-50

AREA	1950	1949	1948	1947	1946	1945
	Urban-----	+35.4	+35.8	+34.1	+32.7	+30.4
Places of:						
100,000 or more-----	+25.2	+23.0	+21.4	+20.8	+19.8	+18.1
25,000 to 100,000-----	+44.9	+45.3	+43.5	+42.7	+40.0	+35.4
10,000 to 25,000-----	+45.1	+50.5	+49.1	+45.1	+41.0	+37.7
2,500 to 10,000-----	+43.8	+46.7	+44.5	+42.9	+39.2	+36.9
Rural-----	-54.5	-51.2	-49.5	-48.8	-45.9	-40.2
	1944	1943	1942	1941	1940	
Urban-----	+27.1	+24.7	+21.9	+21.1	+18.7	
Places of:						
100,000 or more-----	+18.0	+17.2	+17.0	+17.1	+15.7	
25,000 to 100,000-----	+34.3	+31.3	+28.4	+27.5	+25.0	
10,000 to 25,000-----	+35.6	+32.4	+28.2	+27.6	+24.3	
2,500 to 10,000-----	+35.8	+31.5	+25.0	+19.5	+15.0	
Rural-----	-37.5	-34.7	-30.7	-26.0	-21.7	

NOTE.--In computing percents, resident births have been used as the base.

Mortality

Deaths are classified as "nonresident" if the information on the death certificate indicated that they did not occur in the urban place or rural part of a county in which the decedent had usually resided. Of the 1,452,454 deaths registered in the continental United States in 1950, 27.5 percent were nonresident (table 2.11). Almost 9 in 10 of the nonresident deaths occurred in the State of residence.

The proportion of deaths that were nonresident changed very slowly between 1940 and 1948, increasing from 14.8 percent to 18.7 percent. But, with the redefinition of place of residence, discussed on page 36, the proportion rose to 26.4 percent in 1949. The effect of this change was heavily concentrated in the intrastate nonresident group.

Table 2.11. NUMBER AND PERCENT OF NONRESIDENT DEATHS FROM THE SAME STATE AND FROM OTHER STATES: UNITED STATES, 1940-50

(Exclusive of fetal deaths and of deaths among armed forces overseas)

YEAR	Total deaths	NONRESIDENT DEATHS			PERCENT OF NON-RESIDENT DEATHS		
		Total	From same State	From other States	Total	From same State	From other States
1950-----	1,452,454	398,897	354,673	44,224	27.5	24.4	3.0
1949-----	1,443,607	380,401	336,745	43,656	26.4	23.3	3.0
1948-----	1,444,337	269,485	230,521	38,964	18.7	16.0	2.7
1947-----	1,445,370	266,081	226,774	39,307	18.4	15.7	2.7
1946-----	1,395,617	257,886	219,565	38,321	18.5	15.7	2.7
1945-----	1,401,719	254,795	216,531	38,262	18.2	15.4	2.7
1944-----	1,411,358	243,678	206,603	37,075	17.3	14.6	2.6
1943-----	1,459,544	266,739	228,262	38,477	18.3	15.6	2.6
1942-----	1,385,187	244,752	210,955	33,797	17.7	15.2	2.4
1941-----	1,397,642	246,811	213,108	33,703	17.7	15.2	2.4
1940-----	1,417,269	209,176	179,365	29,811	14.8	12.7	2.1

Table 2.12. DEATHS OF NONRESIDENTS IN EACH STATE AND DEATHS OF RESIDENTS IN OTHER STATES: 1950

(Exclusive of fetal deaths and of deaths among armed forces overseas)

AREA	Total deaths in area	DEATHS						Total deaths of residents
		Of nonresidents in area			Of residents in other areas			
		Total	From same State	From other States	Total	In same State	In other States	
UNITED STATES-----	1,452,454	398,897	354,673	44,224	398,897	354,673	44,224	1,452,454
Alabama-----	26,660	6,296	5,711	585	6,472	5,711	761	26,836
Arizona-----	6,822	2,784	2,108	678	2,394	2,108	278	6,422
Arkansas-----	15,298	4,268	3,589	679	4,361	3,589	792	15,411
California-----	98,672	32,685	31,375	1,310	32,773	31,375	1,398	98,760
Colorado-----	12,578	4,089	3,370	719	3,791	3,370	421	12,280
Connecticut-----	18,908	5,348	4,910	438	5,563	4,910	653	19,123
Delaware-----	3,558	1,245	1,014	231	1,198	1,014	174	3,501
District of Columbia-----	8,867	1,212	...	1,212	905	...	905	8,560
Florida-----	27,939	8,913	6,482	2,431	7,543	6,482	1,061	26,569
Georgia-----	30,444	7,428	6,478	950	7,309	6,478	831	30,325
Idaho-----	4,714	1,620	1,382	238	1,743	1,382	361	4,837
Illinois-----	91,074	24,288	22,478	1,810	25,704	22,478	3,226	92,490
Indiana-----	40,374	10,493	9,320	1,173	10,749	9,320	1,429	40,630
Iowa-----	27,098	8,234	7,230	1,004	8,115	7,230	885	26,979
Kansas-----	19,234	5,800	4,663	1,137	5,624	4,663	961	19,058
Kentucky-----	27,600	6,460	5,570	890	6,715	5,570	1,145	27,855
Louisiana-----	23,898	6,591	6,001	590	6,430	6,001	429	23,738
Maine-----	9,868	3,053	2,804	249	3,071	2,804	267	9,886
Maryland-----	22,857	5,831	4,252	1,579	5,391	4,252	1,139	22,417
Massachusetts-----	49,370	9,230	8,260	970	9,246	8,260	986	49,386
Michigan-----	57,431	17,580	16,682	898	17,892	16,682	1,210	57,743
Minnesota-----	28,394	9,182	7,962	1,220	8,808	7,962	846	28,020
Mississippi-----	20,629	4,912	4,370	542	5,067	4,370	697	20,784
Missouri-----	43,954	11,295	9,361	1,934	11,051	9,361	1,690	43,710
Montana-----	5,789	1,980	1,741	239	2,013	1,741	272	5,822
Nebraska-----	12,541	3,313	2,809	504	3,389	2,809	580	12,617
Nevada-----	1,663	553	318	235	478	318	160	1,588
New Hampshire-----	6,102	1,678	1,275	403	1,652	1,275	377	6,076
New Jersey-----	47,976	16,231	14,803	1,428	17,355	14,803	2,552	49,100
New Mexico-----	5,589	1,608	1,123	485	1,490	1,123	367	5,471
New York-----	156,291	37,192	34,289	2,903	36,975	34,289	2,686	156,074
North Carolina-----	31,203	8,975	7,999	876	8,802	7,999	803	31,130
North Dakota-----	5,137	2,115	1,776	339	2,169	1,776	393	5,191
Ohio-----	80,517	19,897	18,110	1,787	20,013	18,110	1,903	80,633
Oklahoma-----	18,972	5,120	4,677	443	5,621	4,677	944	19,473
Oregon-----	14,011	4,631	4,035	596	4,555	4,035	520	13,935
Pennsylvania-----	109,727	29,367	27,394	1,973	29,852	27,394	2,458	110,212
Rhode Island-----	8,308	2,508	2,187	321	2,516	2,187	329	8,308
South Carolina-----	17,829	4,561	4,151	410	4,705	4,151	554	17,973
South Dakota-----	5,687	2,019	1,662	357	2,012	1,662	350	5,680
Tennessee-----	30,324	7,658	5,930	1,728	6,759	5,930	829	29,425
Texas-----	63,362	15,782	14,510	1,272	15,769	14,510	1,259	63,349
Utah-----	5,032	1,473	1,228	245	1,415	1,228	187	4,974
Vermont-----	4,166	1,254	1,028	226	1,255	1,028	227	4,167
Virginia-----	29,590	8,416	7,220	1,196	8,534	7,220	1,314	29,708
Washington-----	22,550	6,780	6,101	679	6,716	6,101	615	22,486
West Virginia-----	17,509	5,422	4,461	961	5,341	4,461	880	17,428
Wisconsin-----	33,847	10,859	9,937	922	10,790	9,937	853	33,778
Wyoming-----	2,298	768	539	229	806	539	267	2,336

A summary of deaths in 1950 by place of occurrence and by place of residence is given for each State in table 2.12. The total amount of intrastate and interstate movement for individual States is given. Also, the table indicates for each State the number of residents of all the other States who died there and the reverse situation. Table 43, Volume III, contains more detailed information on the interstate movement.

In most cases, the number of residents of other States who die in a State is approximately balanced by the reverse type of movement (table 2.13). Exceptions are to be found in States where a relatively large number of out-of-State residents come for health reasons. In Arizona, the recorded

death total for 1950 exceeded the resident figure by 6.2 percent and the comparable excess for Florida was 5.2 percent. For 32 States, the difference, plus or minus, was 1.0 percent or less. While relatively unimportant in the statistics for most States, reallocating interstate nonresident deaths has a major effect on the data for certain communities lying close to State borders.

Reallocation of deaths to the place of residence of the decedent affects mortality data for urban places of all sizes. Table 2.14 shows, for places classified according to population size, the total number of deaths of residents in 1950 wherever occurring, except among the armed forces overseas, and the



Table 2.13. DIFFERENCE BETWEEN RESIDENT AND RECORDED DEATHS: EACH STATE, 1950

(Exclusive of fetal deaths and of deaths among armed forces overseas)

AREA	DIFFERENCE		AREA	DIFFERENCE	
	Number	Per-cent <sup>1</sup>		Number	Per-cent <sup>1</sup>
UNITED STATES-----	...	...	Montana-----	-33	-0.6
Alabama-----	-176	-0.7	Nebraska-----	-76	-0.6
Arizona-----	+400	+6.2	Nevada-----	+75	+4.7
Arkansas-----	-113	-0.7	New Hampshire-----	+26	+0.4
California-----	-88	-0.1	New Jersey-----	-1,124	-2.5
Colorado-----	+298	+2.4	New Mexico-----	+118	+2.2
Connecticut-----	-215	-1.1	New York-----	+217	+0.1
Delaware-----	+57	+1.6	North Carolina-----	+73	+0.2
Dist. of Columbia-----	+307	+3.6	North Dakota-----	-54	-1.0
Florida-----	+1,370	+5.2	Ohio-----	-116	-0.1
Georgia-----	+119	+0.4	Oklahoma-----	-501	-2.6
Idaho-----	-123	-2.5	Oregon-----	+76	+0.5
Illinois-----	-1,416	-1.5	Pennsylvania-----	-485	-0.4
Indiana-----	-256	-0.8	Rhode Island-----	-8	-0.1
Iowa-----	+119	+0.4	South Carolina-----	-144	-0.8
Kansas-----	+176	+0.9	South Dakota-----	+7	+0.1
Kentucky-----	-255	-0.9	Tennessee-----	+899	+3.1
Louisiana-----	+161	+0.7	Texas-----	+13	+0.0
Maine-----	-18	-0.2	Utah-----	+58	+1.2
Maryland-----	+440	+2.0	Vermont-----	-1	-0.0
Massachusetts-----	-16	-0.0	Virginia-----	-118	-0.4
Michigan-----	-312	-0.5	Washington-----	+64	+0.3
Minnesota-----	+374	+1.3	West Virginia-----	+81	+0.5
Mississippi-----	-155	-0.7	Wisconsin-----	+69	+0.2
Missouri-----	+244	+0.6	Wyoming-----	-38	-1.6

<sup>1</sup>In computing percents, resident deaths have been used as the base.

total number of deaths occurring in each type of area. The percentages refer to net differences and cannot be used as a measure of the gross amount of movement from one place to another. It will be noted that the percentage difference between the occurrence and residence figures was very small for cities of a quarter of a million population or more. Among the other cities, the percentage differences were considerably larger. In all cases, however, the number of recorded deaths was higher than the number of resident deaths. The converse was true of deaths for rural areas.

The trend of the percentage differences between the totals of resident and recorded deaths for urban and rural

Table 2.14. RESIDENT AND RECORDED DEATHS FOR URBAN AND RURAL AREAS: UNITED STATES, 1950, WITH PERCENT DIFFERENCES

(Exclusive of fetal deaths and of deaths among armed forces overseas)

AREA	Deaths of residents	Deaths in area	DIFFERENCE	
			Number	Per-cent <sup>1</sup>
UNITED STATES-----	1,452,454	1,452,454	...	...
Urban-----	938,170	1,017,583	+79,413	+8.5
Places of 250,000 or more-----	374,589	382,068	+7,479	+2.0
Places of 100,000 to 250,000-----	101,423	114,050	+12,627	+12.4
Places of 50,000 to 100,000-----	94,007	106,076	+12,069	+12.8
Places of 25,000 to 50,000-----	96,529	112,438	+15,909	+16.5
Places of 10,000 to 25,000-----	125,330	142,790	+17,460	+13.9
Places of 2,500 to 10,000-----	146,292	160,161	+13,869	+9.5
Rural-----	514,284	434,871	-79,413	-15.4

<sup>1</sup>In computing percents, resident deaths have been used as the base.

Table 2.15. PERCENTAGE DIFFERENCE BETWEEN RESIDENT AND RECORDED DEATHS FOR URBAN AND RURAL AREAS: UNITED STATES, 1940-50

(Exclusive of fetal deaths and of deaths among armed forces overseas)

AREA	1950	1949	1948	1947	1946	1945
	Urban-----	+8.5	+8.5	+9.2	+8.7	+8.7
Places of:						
100,000 or more-----	+4.2	+3.2	+5.8	+5.5	+5.8	+6.0
25,000 to 100,000-----	+14.7	+14.7	+14.2	+14.0	+14.3	+13.6
10,000 to 25,000-----	+13.9	+15.2	+14.6	+12.8	+12.7	+12.7
2,500 to 10,000-----	+9.5	+10.6	+8.9	+8.4	+7.6	+7.3
Rural-----	-15.4	-14.4	-15.6	-14.9	-15.1	-14.9
	1944	1943	1942	1941	1940	
Urban-----	+7.7	+8.9	+8.7	+8.5	+7.4	
Places of:						
100,000 or more-----	+4.3	+6.1	+5.7	+5.2	+5.1	
25,000 to 100,000-----	+13.3	+13.5	+13.1	+13.9	+12.1	
10,000 to 25,000-----	+12.8	+13.3	+13.4	+13.4	+12.1	
2,500 to 10,000-----	+7.2	+8.7	+8.8	+8.1	+4.9	
Rural-----	-12.9	-14.8	-13.8	-12.9	-11.2	

NOTE.—In computing percents, resident deaths have been used as the base.

areas is given in table 2.15. The change since 1940 has been slower than indicated by the figures in table 2.11, and has not always been consistent with these measures of nonresidence. In fact, the change in definition that occurred in 1949 had the net effect of reducing slightly percentage differences between the occurrence and resident totals for both urban and rural areas, despite the rise in the percent of deaths that were nonresident. This results from the fact that the new definition affected mainly resident-type institutions, which are frequently located in rural areas. Apparently an appreciable proportion of the deaths in these institutions were among urban residents, thereby offsetting to some extent the movement of rural residents to urban areas for hospital care.

### Resident and nonresident marriages

Numbers and percentage distributions of marriages classified according to whether either the bride or the groom, or both, or neither, resided in the States where the marriage occurred are shown in table 2.16 for 21 States for 1950. This table is a compilation of all available data on the subject. It is not necessarily representative of the United States as a whole.

The data reveal the importance and need of tabulations by place of residence. Of the 537,754 marriages recorded in 1950 in the 21 specified States, 72,741, or 13.5 percent, occurred in a State where neither party resided. In Mississippi, nonresident couples constituted 50.3 percent of the total number of marriages in the State; in New Hampshire, 40.1 percent; and in Idaho, 35.9 percent. North Dakota was at the other extreme with a negligible number of marriages between nonresidents (0.2 percent). The percentages of marriages where only one of the parties was a nonresident ranged from 37.2 percent in Massachusetts to 4.8 percent in California and Michigan. In each instance, marriages of resident brides and nonresident grooms were more numerous than the reverse combination. It should be pointed out that the criteria determining residence are not necessarily uniform in all reporting States.

While these data indicate a considerable degree of immigration to certain States for the purpose of getting married,

## ANALYSIS

Table 2.16. NUMBER AND PERCENTAGE DISTRIBUTION OF MARRIAGES IN STATE OF OCCURRENCE, BY RESIDENT STATUS OF BRIDE AND GROOM: 21 REPORTING STATES, 1950

AREA	Total	RESIDENT BRIDE		NONRESIDENT BRIDE		Not stated for one or both
		Resident groom	Nonresident groom	Resident groom	Nonresident groom	
NUMBER						
TOTAL-----	537,754	409,696	40,312	14,041	72,741	964
California-----	79,360	73,393	2,533	1,235	1,331	868
Connecticut-----	19,474	15,429	1,438	382	2,225	-
Delaware-----	2,635	1,898	264	20	448	5
Florida-----	27,598	24,000	1,635	867	1,074	12
Idaho-----	8,345	4,568	506	274	2,995	2
Iowa-----	27,603	20,996	1,661	522	4,392	32
Kansas-----	18,486	14,404	1,554	720	1,808	-
Louisiana <sup>1</sup> -----	18,791	16,523	852	442	974	-
Maine-----	8,617	7,450	640	138	389	-
Massachusetts-----	41,711	18,740	13,058	2,468	7,445	-
Michigan-----	59,180	54,287	2,130	665	1,093	5
Mississippi-----	56,738	25,115	1,744	1,349	28,530	-
Missouri-----	34,300	28,665	2,426	939	2,243	27
Nebraska-----	13,828	11,040	998	328	1,462	-
New Hampshire-----	7,631	3,653	691	229	3,058	-
New York <sup>2</sup> -----	58,540	50,774	3,916	1,486	2,364	-
North Dakota-----	5,108	4,472	478	146	10	2
South Dakota-----	6,969	4,829	606	175	1,348	11
Vermont-----	3,569	2,693	345	127	404	-
Virginia-----	36,732	24,665	2,516	1,380	8,171	-
Wyoming-----	3,549	2,102	321	149	977	-
PERCENT						
TOTAL-----	100.0	76.2	7.5	2.6	13.5	0.2
California-----	100.0	92.5	3.2	1.6	1.7	1.1
Connecticut-----	100.0	79.2	7.4	2.0	11.4	0
Delaware-----	100.0	72.0	10.0	0.8	17.0	0.2
Florida-----	100.0	87.0	5.9	3.1	3.9	0.0
Idaho-----	100.0	54.7	6.1	3.3	35.9	0.0
Iowa-----	100.0	76.1	6.0	1.9	15.9	0.1
Kansas-----	100.0	77.9	8.4	3.9	9.8	0
Louisiana <sup>1</sup> -----	100.0	87.9	4.5	2.4	5.2	0
Maine-----	100.0	86.5	7.4	1.6	4.5	0
Massachusetts-----	100.0	44.9	31.3	5.9	17.8	0
Michigan-----	100.0	93.3	3.7	1.1	1.9	0.0
Mississippi-----	100.0	44.3	3.1	2.4	50.3	0
Missouri-----	100.0	83.6	7.1	2.7	6.5	0.1
Nebraska-----	100.0	78.8	7.2	2.4	10.6	0
New Hampshire-----	100.0	47.9	9.1	3.0	40.1	0
New York <sup>2</sup> -----	100.0	86.7	6.7	2.5	4.0	0
North Dakota-----	100.0	87.5	9.4	2.9	0.2	0.0
South Dakota-----	100.0	69.3	8.7	2.5	19.4	0.2
Vermont-----	100.0	75.5	9.7	3.5	11.3	0
Virginia-----	100.0	67.1	6.8	3.8	22.2	0
Wyoming-----	100.0	59.2	9.0	4.2	27.5	0

<sup>1</sup>Excludes the following 9 parishes: Beauregard, Bienville, De Soto, Jefferson, Orleans, Pointe Coupee, St. Martin, Vermilion, and Webster. Estimated State total 26,900.

<sup>2</sup>Excludes 82,535 marriages for which licenses had been issued in New York City.

they do not show the corresponding out-migration. It is, therefore, impossible to ascertain the effect of allocating marriages according to place of residence, and such classification will not be possible until tabulations of marriages by residence are available for all States.

The crude marriage rates shown in subsequent pages

of this volume are based on the number of marriages occurring in a State and on its resident population. Although data on marriages by place of occurrence are useful and necessary for many purposes, tabulations by place of residence and the computation of resident rates would provide data of greater value and meaning for many uses.

## TABULATION AND PUBLICATION PROGRAM: 1949 TO 1951

The decennial census always has significant implications for vital statistics. Every 10 years the census provides detailed population data by geographic area and by demographic, social, and economic characteristics. Thus, it becomes possible and highly important to relate vital statistics data to the corresponding populations and to compute rates which measure the comparative frequency of vital events in different areas and population groups.

For the 3-year period 1949 to 1951, the tabulation, publication, and special study program for vital statistics has been expanded to make available additional information which is particularly useful in conjunction with the population statistics.

### Tabulations for 1950

The "Guide to 1950 Tabulations," as presented in this section, is a complete index to all data tabulated on deaths, live births, and fetal deaths for 1950. A similar index to the 1949 tabulations was published in "Vital Statistics of the United States, 1949, Part I." Since only the tabulations that seem most important or of general interest can be published, much of the available data are never printed. Nevertheless, the unpublished data, maintained chiefly in the form of summary punch cards, are available to research workers and to many others having specialized interests. The guide (table 2.17) is included here for reference by persons who may need certain statistical data which have not been published.

### New tabulations

#### A. Live births

1. For each county and each city of 10,000 population or more—age of mother by race and birth order by race.
2. For each State—birth weight by period of gestation, sex, race, and other variables. (Not available for 1949.)
3. For each State—birth order including fetal deaths, by race, nativity, sex, and age of mother. (Not available for 1949.)

#### B. Deaths

1. For each county and each city of 10,000 population or more—age by sex.
2. For each standard metropolitan area—cause of death by age, race, and sex.
3. For each State—metropolitan and nonmetropolitan counties by population-size group (urban places) race, sex, and cause of death.
4. For each State—marital status by cause of death, sex, race, and age.
5. For each State—nativity by sex, age, population-size group, and cause of death. (Not available for 1949.)

### New tables in the 1950 report

- A. Marriages and divorces—additional data are published for 1950, particularly for divorces.
- B. Live births—tables giving data by metropolitan and nonmetropolitan counties, birth weight and period of gestation,

and birth order including fetal deaths.

- C. Fetal deaths—data paralleling the new information for live births.
- D. Infant deaths—data for metropolitan and nonmetropolitan counties.
- E. Deaths—data by marital status, and by nativity for metropolitan and nonmetropolitan counties.

### New rate tables

The availability of detailed population statistics for 1950 makes possible computation of many vital rates. Therefore, a considerable number of useful rate tables have been included in this report which have not been shown in preceding annual reports.

### Special publications

A number of special compilations of data covering the 1950 census period are planned. They are in varying stages of completion as of the date of publication of the present volume.

1. A volume giving detailed natality and mortality data for local areas for the combined years 1949 and 1950.
2. Detailed life tables for the period 1949 through 1951.
3. Reports on the nationwide test of completeness of birth registration made in 1950. In addition to presenting registration completeness data and the methodology of the test, these reports will include a demographic study based on interrelations of census and vital statistics data.
4. Study of neonatal mortality based on matched birth and infant death records, obtained as part of the birth registration study in 1950.
5. A detailed study of the comparability of the classification procedures used in connection with the Fifth and Sixth Revisions of the International List of Causes of Death and their effects on the comparability of mortality statistics by cause of death.
6. A special study of deaths of males 20 to 64 years of age in 1950 by occupation and industry.

### Other publications

Other national vital statistics publications are issued periodically.

1. Vital Statistics—Special Reports—reports containing data for 1950 on particular subjects have been published in Volume 37 of this series. Special analytical reports are issued from time to time in this series under the subtitle "Selected Studies," as a separate volume.
2. Monthly Vital Statistics Report—current preliminary data on births, deaths, marriages, and divorces.
3. Morbidity and Mortality Weekly Report—current information on reported cases of notifiable diseases and mortality in the larger cities.

Table 2.17. Guide to 1950 Tabulations  
MORTALITY

Tabulation number	AREA	Each urban place of 10,000+. Totals by county for urban places under 10,000 and rural areas	Population-size groups	Metropolitan and non-metropolitan grouping of counties	CAUSE OF DEATH					Race	Sex	Age	Month of death	Marital status	Activity
					Complete International List	255 selected causes	64 selected causes	32 selected causes	Infant, 45 selected causes						
I	United States				X					a	a	a			
II	Each State <sup>1</sup>	X	X	X				a		X	b	b			
III	Each State <sup>1</sup>		a			X				X	X	b	c		
IV	Each State <sup>2</sup>						X			a	a	a		X	
V	Each State <sup>2</sup>		X	X				X		X	a	a			X
VI	Each urban place of 100,000 or more and each metropolitan area <sup>2</sup>						X			a	a	a			
VII	Each State (deaths under 1 year of age) <sup>1</sup>	X	X	X						a	b	a,b			
VIII	Each State (deaths under 1 year of age) <sup>2</sup>		a	X					X	X	b	X	c		

NATALITY

Tabulation number	AREA	Each urban place of 10,000+. Totals by county for urban places under 10,000 and rural areas	Population-size groups	Metropolitan and non-metropolitan grouping of counties	NATIVITY										NUMBER OF CHILDREN <sup>3</sup>		PLURAL SETS					
					Race	Sex	White, mother	Father	Age of mother	Age of father	Month of birth	Person in attendance	Period of gestation <sup>4</sup>	Legitimacy <sup>5</sup>	Birth weight <sup>6</sup>	Born alive	Ever born	Plurality (single or plural births)	Twins, triplets, etc.	Number born alive	Sex of sets	
I	Each State <sup>1</sup>	X	X	X	b,c,d,e	a			b			c		a		a	1					
II	Each State <sup>1</sup>				X	X	X	a	X	b	c			d		a	1					
III	Each State <sup>4</sup>				X	b,c					a	b	c		X			b,c				
IV	Each State (plural births) <sup>2</sup>				X													X	X			
V	United States (plural births)				X				X									X	X	X		

FETAL MORTALITY<sup>5</sup>

I	Each State <sup>2</sup>	X	X	X	a				b													
II	Each State <sup>2</sup>		X	X	X				a			X	b									
III	Each State <sup>2</sup>				X	X							X		a			X				
IV	Each State <sup>2</sup>				X				a									b				
V	United States				X	X			X									X				

<sup>1</sup>Data available on both a residence and an occurrence basis.

<sup>2</sup>Data available on residence basis only.

<sup>3</sup>Data available only for States reporting this item.

<sup>4</sup>Data available for each State on a residence basis, and for selected States on an occurrence basis.

<sup>5</sup>All tabulations include only fetal deaths for which period of gestation was stated to be 20 weeks or more, or was not stated. Gestation age data for all fetal deaths including those under 20 weeks of gestation are available for each State (place of occurrence).

NOTES:

In the tabular outline, each tabulation is described separately. Column headings show all of the different classifications of subject matter used in the general body of data being described, and the stub shows the scope of the tabulation. The notations in the stub indicate whether the tabulation was made for each State or for the United States, for urban places having populations of 100,000 or more in each State, or for selected areas only.

The many interrelations of data within this framework are shown by simple notations. In the horizontal rows for each tabulation, and under each subject-classification are placed alphabetical notations which indicate the interrelations within the particular tabulation. Within each tabulation, subjects noted by X are cross-tabulated with each other and with all lettered subjects; for example, in mortality tabulation III (see above table), deaths for each State are tabulated by cause of death and the cause groups in turn are cross-tabulated by race and sex. The resulting cause-race-sex groups are then tabulated by population-size group, by age, and by month of death. However, the lettered subjects (population-size group, age, and month of death) are not cross-tabulated with each other.

The only exception to this general principle is the case where two or more lettered subjects are cross-tabulated with each other but are not crossed with other lettered subjects in the tabulation. In such cases, the same letter is used to indicate those which are cross-tabulated. For example, in natality tabulation I, race is cross-classified with attendant, legitimacy, age of mother, and children born alive. However, attendant, legitimacy, age of mother, and children born alive are not cross-classified with each other.

The detail in which some of the items have been tabulated is not indicated in this guide. Class intervals for the same item may vary between tabulations. The purpose of the guide is only to indicate the scope, and not the detail, of data included in the vital statistics tabulating program. Specific information on the detail available for any item may be had from the National Office of Vital Statistics.

# POPULATION

### Table 2.18. Total Population: United States, Each Division and State, 1940-50

(Figures include persons in the armed forces stationed in each area and exclude members of the armed forces overseas. Estimates were rounded to the nearest thousand without being adjusted to totals which were independently rounded)

AREA	Enumerated as of April 1, 1950	ESTIMATED AS OF JULY 1									Enumerated as of April 1, 1940
		1949	1948	1947	1946	1945	1944	1943	1942	1941	
<b>UNITED STATES</b>	150,697,361	148,665,000	146,088,000	143,446,000	140,054,000	132,481,000	132,868,000	134,245,000	133,920,000	133,121,000	131,669,275
<b>GEOGRAPHIC DIVISIONS</b>											
New England	9,314,455	9,379,000	9,233,000	9,039,000	8,839,000	8,321,000	8,335,000	8,404,000	8,572,000	8,556,000	8,437,290
Middle Atlantic	30,165,555	30,172,000	29,557,000	28,796,000	27,755,000	25,746,000	26,000,000	26,477,000	27,005,000	27,432,000	27,539,487
East North Central	30,399,368	30,325,000	29,833,000	29,151,000	28,411,000	26,381,000	26,524,000	26,498,000	27,135,000	27,049,000	26,628,342
West North Central	14,061,594	13,851,000	13,604,000	13,447,000	13,165,000	12,427,000	12,481,000	12,786,000	13,101,000	13,256,000	13,516,990
South Atlantic	21,182,335	20,607,000	20,199,000	20,086,000	19,774,000	19,210,000	19,539,000	19,460,000	18,933,000	18,439,000	17,823,151
East South Central	11,477,181	11,169,000	11,078,000	11,019,000	10,810,000	10,339,000	10,468,000	10,847,000	10,898,000	10,883,000	10,779,225
West South Central	14,537,572	14,205,000	14,137,000	13,936,000	13,677,000	13,045,000	13,185,000	13,626,000	13,448,000	13,300,000	13,064,525
Mountain	5,074,998	4,896,000	4,727,000	4,569,000	4,439,000	4,212,000	4,272,000	4,393,000	4,098,000	4,062,000	4,150,003
Pacific	14,486,527	14,062,000	13,725,000	13,405,000	13,185,000	12,800,000	12,271,000	11,754,000	10,743,000	10,096,000	9,733,262
<b>NEW ENGLAND</b>											
Maine	913,774	903,000	878,000	854,000	832,000	800,000	801,000	806,000	839,000	852,000	847,226
New Hampshire	553,242	533,000	520,000	507,000	494,000	459,000	458,000	462,000	481,000	490,000	491,524
Vermont	377,747	369,000	359,000	354,000	342,000	315,000	314,000	327,000	343,000	348,000	359,231
Massachusetts	4,690,514	4,741,000	4,674,000	4,580,000	4,494,000	4,201,000	4,192,000	4,287,000	4,370,000	4,399,000	4,316,721
Rhode Island	791,886	801,000	787,000	776,000	770,000	776,000	795,000	760,000	748,000	731,000	713,346
Connecticut	2,007,280	2,032,000	2,014,000	1,967,000	1,906,000	1,769,000	1,778,000	1,792,000	1,792,000	1,746,000	1,709,242
<b>MIDDLE ATLANTIC</b>											
New York	14,830,192	14,892,000	14,497,000	13,982,000	13,398,000	12,495,000	12,628,000	12,807,000	13,002,000	13,267,000	13,479,142
New Jersey	4,836,829	4,889,000	4,774,000	4,618,000	4,492,000	4,108,000	4,158,000	4,226,000	4,297,000	4,254,000	4,160,185
Pennsylvania	10,498,012	10,390,000	10,287,000	10,196,000	9,866,000	9,143,000	9,214,000	9,444,000	9,704,000	9,911,000	9,900,180
<b>EAST NORTH CENTRAL</b>											
Ohio	7,846,627	7,973,000	7,876,000	7,705,000	7,512,000	6,916,000	6,918,000	6,866,000	6,969,000	6,958,000	6,907,612
Indiana	3,854,224	3,958,000	3,877,000	3,779,000	3,702,000	3,427,000	3,440,000	3,449,000	3,507,000	3,483,000	3,427,796
Illinois	8,712,178	8,670,000	8,552,000	8,341,000	8,155,000	7,601,000	7,719,000	7,761,000	8,057,000	7,993,000	7,937,241
Michigan	6,371,768	6,332,000	6,213,000	6,076,000	5,874,000	5,475,000	5,467,000	5,405,000	5,549,000	5,472,000	5,256,106
Wisconsin	3,434,575	3,391,000	3,314,000	3,250,000	3,167,000	2,961,000	2,980,000	3,014,000	3,055,000	3,140,000	3,137,587
<b>WEST NORTH CENTRAL</b>											
Minnesota	2,982,483	2,935,000	2,868,000	2,796,000	2,734,000	2,537,000	2,526,000	2,577,000	2,662,000	2,718,000	2,792,300
Iowa	2,621,073	2,578,000	2,543,000	2,509,000	2,467,000	2,308,000	2,301,000	2,334,000	2,439,000	2,491,000	2,539,268
Missouri	3,954,653	3,822,000	3,844,000	3,845,000	3,746,000	3,516,000	3,560,000	3,705,000	3,829,000	3,811,000	3,784,664
North Dakota	619,636	597,000	580,000	578,000	570,000	546,000	534,000	546,000	583,000	615,000	641,935
South Dakota	652,740	631,000	612,000	601,000	580,000	579,000	565,000	587,000	599,000	615,000	642,961
Nebraska	1,325,510	1,302,000	1,265,000	1,265,000	1,256,000	1,211,000	1,216,000	1,241,000	1,239,000	1,272,000	1,335,854
Kansas	1,905,289	1,925,000	1,892,000	1,853,000	1,805,000	1,731,000	1,779,000	1,796,000	1,760,000	1,785,000	1,801,028
<b>SOUTH ATLANTIC</b>											
Delaware	316,085	316,000	312,000	305,000	299,000	286,000	285,000	262,000	279,000	275,000	266,505
Maryland	2,345,001	2,329,000	2,271,000	2,248,000	2,214,000	2,095,000	2,118,000	2,089,000	1,998,000	1,915,000	1,821,244
District of Columbia	802,378	807,000	840,000	888,000	899,000	876,000	861,000	900,000	861,000	764,000	685,091
Virginia	3,318,690	3,292,000	3,207,000	3,201,000	3,212,000	3,195,000	3,248,000	3,130,000	3,038,000	2,855,000	2,677,773
West Virginia	2,005,552	1,930,000	1,899,000	1,885,000	1,826,000	1,708,000	1,706,000	1,741,000	1,831,000	1,885,000	1,901,974
North Carolina	4,061,929	3,911,000	3,837,000	3,769,000	3,708,000	3,633,000	3,560,000	3,654,000	3,589,000	3,589,000	3,571,623
South Carolina	2,117,027	2,029,000	1,996,000	1,922,000	1,856,000	1,854,000	1,943,000	1,967,000	2,007,000	1,962,000	1,899,804
Georgia	3,444,578	3,325,000	3,259,000	3,272,000	3,242,000	3,119,000	3,176,000	3,245,000	3,209,000	3,179,000	3,123,723
Florida	2,771,305	2,668,000	2,578,000	2,528,000	2,440,000	2,405,000	2,420,000	2,451,000	2,431,000	2,017,000	1,897,414
<b>EAST SOUTH CENTRAL</b>											
Kentucky	2,944,806	2,949,000	2,817,000	2,803,000	2,761,000	2,697,000	2,631,000	2,693,000	2,797,000	2,824,000	2,845,627
Tennessee	3,291,718	3,236,000	3,216,000	3,166,000	3,074,000	2,878,000	2,868,000	2,972,000	2,939,000	2,973,000	2,915,841
Alabama	3,061,743	3,000,000	2,989,000	2,942,000	2,911,000	2,775,000	2,802,000	2,902,000	2,941,000	2,902,000	2,832,961
Mississippi	2,178,314	2,085,000	2,076,000	2,107,000	2,064,000	2,090,000	2,167,000	2,280,000	2,210,000	2,184,000	2,183,796
<b>WEST SOUTH CENTRAL</b>											
Arkansas	1,909,511	1,844,000	1,825,000	1,836,000	1,797,000	1,762,000	1,768,000	1,843,000	1,877,000	1,969,000	1,949,387
Louisiana	2,683,516	2,634,000	2,596,000	2,579,000	2,556,000	2,429,000	2,508,000	2,565,000	2,546,000	2,484,000	2,363,880
Oklahoma	2,233,351	2,105,000	2,089,000	2,133,000	2,128,000	2,028,000	2,043,000	2,205,000	2,215,000	2,262,000	2,336,434
Texas	7,711,194	7,623,000	7,526,000	7,389,000	7,197,000	6,826,000	6,876,000	7,012,000	6,711,000	6,585,000	6,414,824
<b>MOUNTAIN</b>											
Montana	591,024	589,000	542,000	531,000	514,000	477,000	469,000	485,000	518,000	543,000	559,456
Idaho	598,637	570,000	551,000	522,000	509,000	507,000	529,000	500,000	478,000	501,000	524,873
Wyoming	290,529	277,000	269,000	289,000	254,000	239,000	242,000	247,000	251,000	247,000	250,742
Colorado	1,325,089	1,296,000	1,263,000	1,237,000	1,203,000	1,116,000	1,137,000	1,153,000	1,113,000	1,124,000	1,203,296
New Mexico	681,187	644,000	604,000	582,000	561,000	537,000	527,000	534,000	502,000	506,000	531,818
Arizona	749,587	714,000	690,000	653,000	616,000	594,000	610,000	692,000	624,000	490,000	499,261
Utah	688,862	671,000	653,000	636,000	639,000	591,000	605,000	631,000	575,000	551,000	550,310
Nevada	160,093	157,000	156,000	149,000	143,000	149,000	153,000	161,000	157,000	120,000	110,247
<b>PACIFIC</b>											
Washington	2,378,963	2,294,000	2,255,000	2,211,000	2,286,000	2,206,000	2,092,000	2,027,000	1,901,000	1,789,000	1,736,191
Oregon	1,521,341	1,431,000	1,405,000	1,361,000	1,338,000	1,250,000	1,233,000	1,221,000	1,071,000	1,069,000	1,069,684
California	10,586,223	10,337,000	10,084,000	9,832,000	9,559,000	9,344,000	8,945,000	8,506,000	7,735,000	7,237,000	6,907,387

NOTE.—For population by State for years prior to 1940, see "Vital Statistics Rates in the United States, 1900-1940," U. S. Bureau of the Census, U. S. Government Printing Office, Washington, D. C., 1943.

Source: U. S. Bureau of the Census, for 1940 and 1950, "United States Census of Population: 1950, Volume I, Number of Inhabitants," U. S. Government Printing Office, Washington, D. C., 1952; for 1941-49, "Estimates of the Population of States: July 1, 1940 to 1949," Current Population Reports, Series P-25, No. 72, 1953.

## SUMMARY TABLES

 Table 2.19. Estimated Civilian Population: United States,  
 Each Division and State, 1940-50

(Estimates were rounded to the nearest thousand without being adjusted to totals which were independently rounded)

AREA	Estimated as of April 1, 1950	ESTIMATED AS OF JULY 1									Estimated as of April 1, 1940
		1949	1948	1947	1946	1945	1944	1943	1942	1941	
UNITED STATES-----	149,634,000	147,578,000	145,168,000	142,566,000	139,395,000	127,575,000	126,708,000	127,489,000	130,942,000	131,595,000	131,391,000
GEOGRAPHIC DIVISIONS											
New England-----	9,261,000	9,321,000	9,198,000	8,999,000	8,772,000	8,075,000	8,054,000	8,112,000	8,414,000	8,464,000	8,424,000
Middle Atlantic-----	30,085,000	30,080,000	29,472,000	28,705,000	27,592,000	25,341,000	25,493,000	25,958,000	26,814,000	27,310,000	27,505,000
East North Central-----	30,537,000	30,282,000	29,762,000	29,093,000	28,264,000	26,047,000	26,094,000	26,064,000	26,986,000	26,967,000	26,604,000
West North Central-----	14,032,000	13,814,000	13,578,000	13,427,000	13,116,000	12,156,000	12,144,000	12,426,000	12,968,000	13,216,000	13,506,000
South Atlantic-----	20,860,000	20,269,000	19,913,000	19,808,000	19,502,000	17,811,000	17,855,000	17,802,000	18,011,000	17,952,000	17,747,000
East South Central-----	11,412,000	11,111,000	11,022,000	10,976,000	10,888,000	10,057,000	9,968,000	10,165,000	10,626,000	10,764,000	10,767,000
West South Central-----	14,380,000	14,052,000	14,034,000	13,838,000	13,449,000	12,532,000	12,154,000	12,436,000	12,959,000	13,035,000	13,029,000
Mountain-----	5,021,000	4,947,000	4,695,000	4,525,000	4,365,000	3,956,000	3,955,000	3,985,000	3,983,000	4,050,000	4,140,000
Pacific-----	14,248,000	13,824,000	13,517,000	13,201,000	12,929,000	11,820,000	11,251,000	10,561,000	10,181,000	9,837,000	9,689,000
NEW ENGLAND											
Maine-----	912,000	899,000	875,000	852,000	829,000	785,000	781,000	784,000	630,000	847,000	845,000
New Hampshire-----	531,000	529,000	517,000	505,000	491,000	455,000	447,000	454,000	473,000	486,000	491,000
Vermont-----	378,000	369,000	359,000	354,000	342,000	315,000	314,000	319,000	242,000	344,000	358,000
Massachusetts-----	4,665,000	4,735,000	4,656,000	4,563,000	4,464,000	4,086,000	4,080,000	4,105,000	4,273,000	4,325,000	4,312,000
Rhode Island-----	774,000	785,000	773,000	764,000	749,000	698,000	686,000	693,000	720,000	719,000	710,000
Connecticut-----	2,001,000	2,026,000	2,008,000	1,961,000	1,898,000	1,745,000	1,746,000	1,756,000	1,776,000	1,743,000	1,708,000
MIDDLE ATLANTIC											
New York-----	14,801,000	14,863,000	14,465,000	13,954,000	13,546,000	12,246,000	12,304,000	12,542,000	12,910,000	13,215,000	13,454,000
New Jersey-----	4,802,000	4,842,000	4,736,000	4,571,000	4,403,000	4,009,000	4,056,000	4,091,000	4,232,000	4,209,000	4,155,000
Pennsylvania-----	10,480,000	10,375,000	10,271,000	10,180,000	9,943,000	9,086,000	9,133,000	9,335,000	9,672,000	9,687,000	9,685,000
EAST NORTH CENTRAL											
Ohio-----	7,836,000	7,964,000	7,865,000	7,896,000	7,494,000	6,865,000	6,874,000	6,817,000	6,951,000	6,954,000	6,904,000
Indiana-----	3,932,000	3,955,000	3,875,000	3,777,000	3,679,000	3,376,000	3,388,000	3,382,000	3,493,000	3,477,000	3,425,000
Illinois-----	8,872,000	8,629,000	8,503,000	8,307,000	8,071,000	7,426,000	7,487,000	7,582,000	7,971,000	7,951,000	7,886,000
Michigan-----	6,361,000	6,324,000	6,206,000	6,065,000	5,859,000	5,437,000	5,414,000	5,331,000	5,523,000	5,445,000	5,253,000
Wisconsin-----	3,433,000	3,390,000	3,313,000	3,248,000	3,162,000	2,943,000	2,934,000	2,953,000	3,048,000	3,140,000	3,137,000
WEST NORTH CENTRAL											
Minnesota-----	2,981,000	2,934,000	2,867,000	2,795,000	2,731,000	2,524,000	2,510,000	2,557,000	2,656,000	2,715,000	2,790,000
Iowa-----	2,821,000	2,578,000	2,542,000	2,508,000	2,464,000	2,284,000	2,273,000	2,308,000	2,437,000	2,490,000	2,557,000
Missouri-----	3,852,000	3,880,000	3,841,000	3,844,000	3,736,000	3,440,000	3,455,000	3,562,000	3,744,000	3,789,000	3,784,000
North Dakota-----	620,000	597,000	590,000	578,000	570,000	544,000	535,000	543,000	583,000	615,000	642,000
South Dakota-----	655,000	628,000	609,000	598,000	587,000	550,000	542,000	559,000	586,000	611,000	643,000
Nebraska-----	1,322,000	1,299,000	1,261,000	1,263,000	1,250,000	1,168,000	1,164,000	1,196,000	1,234,000	1,270,000	1,314,000
Kansas-----	1,887,000	1,898,000	1,878,000	1,841,000	1,779,000	1,646,000	1,666,000	1,701,000	1,729,000	1,747,000	1,797,000
SOUTH ATLANTIC											
Delaware-----	318,000	315,000	311,000	305,000	298,000	277,000	275,000	272,000	276,000	273,000	266,000
Maryland-----	2,306,000	2,296,000	2,241,000	2,219,000	2,135,000	1,987,000	1,990,000	1,974,000	1,916,000	1,860,000	1,812,000
District of Columbia-----	769,000	778,000	814,000	857,000	870,000	819,000	818,000	858,000	826,000	826,000	857,000
Virginia-----	3,220,000	3,186,000	3,121,000	3,126,000	3,062,000	2,811,000	2,749,000	2,764,000	2,794,000	2,743,000	2,650,000
West Virginia-----	2,005,000	1,930,000	1,899,000	1,882,000	1,825,000	1,700,000	1,703,000	1,733,000	1,831,000	1,885,000	1,902,000
North Carolina-----	4,014,000	3,857,000	3,796,000	3,729,000	3,637,000	3,360,000	3,345,000	3,361,000	3,462,000	3,515,000	3,566,000
South Carolina-----	2,096,000	2,004,000	1,960,000	1,966,000	1,904,000	1,811,000	1,799,000	1,807,000	1,877,000	1,885,000	1,894,000
Georgia-----	3,402,000	3,281,000	3,235,000	3,245,000	3,201,000	2,928,000	2,919,000	2,990,000	3,048,000	3,091,000	3,109,000
Florida-----	2,729,000	2,623,000	2,537,000	2,473,000	2,370,000	2,118,000	2,058,000	2,038,000	1,982,000	1,944,000	1,892,000
EAST SOUTH CENTRAL											
Kentucky-----	2,813,000	2,819,000	2,790,000	2,782,000	2,713,000	2,539,000	2,516,000	2,555,000	2,739,000	2,816,000	2,838,000
Tennessee-----	3,281,000	3,225,000	3,207,000	3,161,000	3,062,000	2,831,000	2,801,000	2,829,000	2,913,000	2,948,000	2,916,000
Alabama-----	3,053,000	2,992,000	2,959,000	2,935,000	2,876,000	2,689,000	2,697,000	2,753,000	2,877,000	2,871,000	2,830,000
Mississippi-----	2,164,000	2,075,000	2,066,000	2,098,000	2,045,000	1,998,000	1,963,000	2,029,000	2,098,000	2,129,000	2,184,000
WEST SOUTH CENTRAL											
Arkansas-----	1,908,000	1,834,000	1,824,000	1,834,000	1,789,000	1,688,000	1,698,000	1,767,000	1,937,000	1,943,000	1,948,000
Louisiana-----	2,870,000	2,621,000	2,584,000	2,569,000	2,501,000	2,309,000	2,281,000	2,324,000	2,411,000	2,417,000	2,561,000
Oklahoma-----	2,218,000	2,091,000	2,079,000	2,124,000	2,114,000	1,934,000	1,929,000	2,067,000	2,166,000	2,237,000	2,331,000
Texas-----	7,584,000	7,505,000	7,547,000	7,311,000	7,043,000	6,371,000	6,247,000	6,277,000	6,445,000	6,437,000	6,389,000
MOUNTAIN											
Montana-----	589,000	565,000	539,000	529,000	512,000	472,000	465,000	475,000	518,000	543,000	559,000
Idaho-----	588,000	567,000	551,000	522,000	507,000	487,000	461,000	468,000	476,000	500,000	525,000
Wyoming-----	282,000	272,000	263,000	253,000	251,000	227,000	219,000	224,000	231,000	236,000	246,000
Colorado-----	1,307,000	1,278,000	1,249,000	1,219,000	1,168,000	1,055,000	1,048,000	1,050,000	1,089,000	1,117,000	1,120,000
New Mexico-----	668,000	634,000	595,000	573,000	551,000	492,000	481,000	489,000	490,000	504,000	532,000
Arizona-----	742,000	706,000	680,000	645,000	611,000	532,000	547,000	548,000	487,000	481,000	498,000
Utah-----	687,000	669,000	650,000	634,000	624,000	586,000	584,000	576,000	559,000	548,000	580,000
Nevada-----	157,000	155,000	155,000	149,000	142,000	125,000	130,000	135,000	132,000	119,000	110,000
PACIFIC											
Washington-----	2,317,000	2,234,000	2,218,000	2,169,000	2,196,000	2,080,000	1,950,000	1,845,000	1,787,000	1,725,000	1,722,000
Oregon-----	1,519,000	1,429,000	1,404,000	1,360,000	1,335,000	1,237,000	1,198,000	1,146,000	1,097,000	1,063,000	1,059,000
California-----	10,413,000	10,161,000	9,885,000	9,672,000	9,298,000	6,523,000	6,083,000	7,570,000	7,297,000	7,049,000	6,856,000

Source: U. S. Bureau of the Census, "Estimates of the Population of States: July 1, 1940 to 1949," Current Population Reports, Series P-25, No. 72, 1953.

Table 2.20. Enumerated Population by Race and Population-Size Group in Metropolitan and Nonmetropolitan Counties, United States and Each State; and by Sex for the United States Only: April 1, 1950

Table with columns: AREA (SEX FOR THE U.S. ONLY), All races, White, Nonwhite. Rows include: UNITED STATES, ALABAMA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO. Sub-sections for Metropolitan and Nonmetropolitan counties, and various population size groups (e.g., Places of 250,000 or more, Places of 100,000 to 250,000).

Table 2.20. Enumerated Population by Race and Population-Size Group in Metropolitan and Nonmetropolitan Counties, United States and Each State; and by Sex for the United States Only: April 1, 1950—Continued

AREA	All races	White	Nonwhite	AREA	All races	White	Nonwhite
<b>COLORADO—Continued</b>				<b>FLORIDA—Continued</b>			
Places of 25,000 to 50,000-----	45,472	44,261	1,211	<b>Nonmetropolitan counties—Continued</b>			
Places of 10,000 to 25,000-----	110,288	109,585	703	Places of 2,500 to 10,000-----	240,878	154,017	76,861
Places of 2,500 to 10,000-----	124,708	123,894	814	Rural-----	794,313	600,148	194,165
Rural-----	565,150	559,289	5,861	<b>GEORGIA-----</b>			
Metropolitan counties-----	654,020	631,918	22,102	Urban-----	3,444,578	2,380,577	1,064,001
Urban-----	523,293	503,199	20,094	Places of 250,000 or more-----	1,381,888	915,792	466,076
Places of 250,000 or more-----	415,786	397,534	18,252	Places of 100,000 to 250,000-----	353,407	225,175	128,232
Places of 50,000 to 100,000-----	53,685	52,090	1,595	Places of 50,000 to 100,000-----	119,638	71,288	48,350
Places of 10,000 to 25,000-----	28,290	28,131	159	Places of 25,000 to 50,000-----	221,371	137,461	83,910
Places of 2,500 to 10,000-----	15,532	15,444	88	Places of 10,000 to 25,000-----	113,975	79,217	34,759
Rural-----	130,727	128,719	2,008	Places of 2,500 to 10,000-----	224,408	180,205	44,201
Nonmetropolitan counties-----	671,069	664,735	6,334	Rural-----	349,071	242,446	106,625
Urban-----	236,646	234,165	2,481	Metropolitan counties-----	2,082,710	1,464,785	597,925
Places of 25,000 to 50,000-----	45,472	44,261	1,211	Urban-----	1,235,572	891,160	344,412
Places of 10,000 to 25,000-----	81,998	81,454	544	Places of 250,000 or more-----	807,592	531,178	276,414
Places of 2,500 to 10,000-----	109,176	108,450	726	Places of 100,000 to 250,000-----	353,407	225,175	128,232
Rural-----	434,423	430,570	3,853	Places of 50,000 to 100,000-----	119,638	71,288	48,350
<b>CONNECTICUT-----</b>				Places of 25,000 to 50,000-----	221,371	137,461	83,910
Urban-----	1,286,817	1,239,120	47,697	Places of 10,000 to 25,000-----	74,830	62,592	12,238
Places of 100,000 to 250,000-----	605,026	571,894	33,132	Places of 2,500 to 10,000-----	38,545	34,662	3,883
Places of 50,000 to 100,000-----	148,019	143,000	5,019	Rural-----	427,980	359,982	67,998
Places of 25,000 to 50,000-----	357,364	350,859	6,505	Nonmetropolitan counties-----	2,208,006	1,489,417	719,589
Places of 10,000 to 25,000-----	130,190	127,581	2,599	Urban-----	574,278	384,614	189,662
Places of 2,500 to 10,000-----	46,218	45,976	242	Places of 25,000 to 50,000-----	113,975	79,217	34,759
Rural-----	720,483	713,209	7,254	Places of 10,000 to 25,000-----	149,776	97,813	51,963
Metropolitan counties-----	1,589,787	1,539,705	50,082	Places of 2,500 to 10,000-----	310,525	207,784	102,741
Urban-----	1,118,054	1,073,272	44,782	Rural-----	1,834,730	1,104,803	529,927
Places of 100,000 to 250,000-----	605,026	571,894	33,132	<b>IDAHO-----</b>			
Places of 50,000 to 100,000-----	148,019	143,000	5,019	Urban-----	586,637	581,395	7,242
Places of 25,000 to 50,000-----	269,282	264,772	4,510	Places of 25,000 to 50,000-----	234,138	232,498	1,640
Places of 10,000 to 25,000-----	93,175	91,108	2,067	Places of 10,000 to 25,000-----	60,524	59,668	856
Places of 2,500 to 10,000-----	2,552	2,498	54	Places of 2,500 to 10,000-----	99,266	98,804	462
Rural-----	471,733	466,433	5,300	Places of 2,500 to 10,000-----	74,348	74,026	322
Nonmetropolitan counties-----	417,493	412,624	4,869	Rural-----	354,499	348,897	5,602
Urban-----	168,763	165,848	2,915	Nonmetropolitan counties-----	586,637	581,395	7,242
Places of 25,000 to 50,000-----	86,082	85,867	2,195	Urban-----	234,138	232,498	1,640
Places of 10,000 to 25,000-----	37,015	36,483	532	Places of 25,000 to 50,000-----	60,524	59,668	856
Places of 2,500 to 10,000-----	43,666	43,478	188	Places of 10,000 to 25,000-----	99,266	98,804	462
Rural-----	246,730	246,776	1,954	Places of 2,500 to 10,000-----	74,348	74,026	322
<b>DELAWARE-----</b>				Rural-----	354,499	348,897	5,602
Urban-----	318,085	273,878	44,207	<b>ILLINOIS-----</b>			
Places of 100,000 to 250,000-----	147,890	125,611	22,279	Urban-----	8,712,176	6,046,058	666,118
Places of 50,000 to 100,000-----	110,356	93,079	17,277	Places of 250,000 or more-----	6,486,673	5,857,096	529,577
Places of 2,500 to 10,000-----	37,534	32,532	5,002	Places of 100,000 to 250,000-----	3,620,962	3,111,825	509,437
Rural-----	170,196	148,267	21,928	Places of 50,000 to 100,000-----	111,856	106,941	5,915
Metropolitan counties-----	218,879	193,016	25,863	Places of 25,000 to 50,000-----	681,290	632,868	48,422
Urban-----	127,797	108,235	19,562	Places of 10,000 to 25,000-----	501,806	479,801	22,005
Places of 100,000 to 250,000-----	110,356	93,079	17,277	Places of 2,500 to 10,000-----	684,778	662,853	21,925
Places of 2,500 to 10,000-----	17,441	16,156	1,285	Rural-----	885,981	864,808	21,173
Rural-----	91,082	85,761	7,301	Metropolitan counties-----	2,225,503	2,188,962	36,541
Nonmetropolitan counties-----	99,206	80,862	18,344	Urban-----	6,282,306	5,662,736	619,570
Places of 25,000 to 50,000-----	20,093	16,378	3,717	Places of 250,000 or more-----	5,436,017	4,895,008	601,009
Places of 10,000 to 25,000-----	20,093	16,378	3,717	Places of 100,000 to 250,000-----	3,620,962	3,111,825	509,437
Rural-----	79,113	64,486	14,627	Places of 50,000 to 100,000-----	111,856	106,941	5,915
<b>DISTRICT OF COLUMBIA-----</b>				Places of 25,000 to 50,000-----	681,290	632,868	48,422
Urban-----	802,178	517,865	284,313	Places of 10,000 to 25,000-----	291,485	280,023	11,462
Places of 100,000 to 250,000-----	147,890	125,611	22,279	Places of 2,500 to 10,000-----	370,742	362,038	8,704
Places of 50,000 to 100,000-----	110,356	93,079	17,277	Rural-----	419,682	402,613	17,069
Places of 2,500 to 10,000-----	37,534	32,532	5,002	Nonmetropolitan counties-----	786,289	767,728	18,561
Rural-----	170,196	148,267	21,928	<b>INDIANA-----</b>			
Metropolitan counties-----	218,879	193,016	25,863	Urban-----	3,934,224	3,759,512	175,712
Urban-----	127,797	108,235	19,562	Places of 250,000 or more-----	2,217,469	2,051,095	166,375
Places of 100,000 to 250,000-----	110,356	93,079	17,277	Places of 100,000 to 250,000-----	427,173	363,082	64,091
Places of 2,500 to 10,000-----	17,441	16,156	1,285	Places of 50,000 to 100,000-----	512,065	450,703	61,362
Rural-----	91,082	85,761	7,301	Places of 25,000 to 50,000-----	264,550	245,274	19,276
Nonmetropolitan counties-----	99,206	80,862	18,344	Places of 10,000 to 25,000-----	345,143	331,140	14,003
Places of 25,000 to 50,000-----	20,093	16,378	3,717	Places of 2,500 to 10,000-----	288,300	280,823	4,477
Places of 10,000 to 25,000-----	20,093	16,378	3,717	Places of 2,500 to 10,000-----	583,237	560,073	3,164
Rural-----	79,113	64,486	14,627	Rural-----	1,716,756	1,707,417	9,339
<b>FLORIDA-----</b>				Metropolitan counties-----	1,756,828	1,604,850	152,178
Urban-----	2,771,305	2,166,051	605,254	Urban-----	1,352,450	1,204,166	148,284
Places of 100,000 to 250,000-----	1,566,798	1,193,777	373,011	Places of 250,000 or more-----	427,173	363,082	64,091
Places of 50,000 to 100,000-----	578,474	437,972	140,502	Places of 100,000 to 250,000-----	512,065	450,703	61,362
Places of 25,000 to 50,000-----	149,105	121,705	27,400	Places of 50,000 to 100,000-----	264,550	245,274	19,276
Places of 10,000 to 25,000-----	336,634	259,940	76,694	Places of 25,000 to 50,000-----	345,143	331,140	14,003
Places of 2,500 to 10,000-----	188,384	152,087	36,297	Places of 10,000 to 25,000-----	288,300	280,823	4,477
Rural-----	314,191	222,073	92,118	Places of 2,500 to 10,000-----	583,237	560,073	3,164
Metropolitan counties-----	1,204,817	972,274	232,543	Rural-----	1,716,756	1,707,417	9,339
Urban-----	1,323,206	1,096,181	227,025	<b>MISSISSIPPI-----</b>			
Places of 100,000 to 250,000-----	913,002	724,055	188,947	Urban-----	1,756,828	1,604,850	152,178
Places of 50,000 to 100,000-----	578,474	437,972	140,502	Places of 250,000 or more-----	1,352,450	1,204,166	148,284
Places of 25,000 to 50,000-----	149,105	121,705	27,400	Places of 100,000 to 250,000-----	427,173	363,082	64,091
Places of 10,000 to 25,000-----	46,282	45,642	640	Places of 50,000 to 100,000-----	512,065	450,703	61,362
Places of 2,500 to 10,000-----	65,828	60,690	5,148	Places of 25,000 to 50,000-----	264,550	245,274	19,276
Rural-----	73,313	58,056	15,257	Places of 10,000 to 25,000-----	345,143	331,140	14,003
Nonmetropolitan counties-----	410,204	372,126	38,078	Places of 2,500 to 10,000-----	288,300	280,823	4,477
Urban-----	1,448,099	1,069,870	378,229	Places of 2,500 to 10,000-----	583,237	560,073	3,164
Places of 25,000 to 50,000-----	653,786	469,722	184,064	Metropolitan counties-----	1,756,828	1,604,850	152,178
Places of 10,000 to 25,000-----	290,352	214,298	76,054	Urban-----	1,352,450	1,204,166	148,284
Metropolitan counties-----	122,566	91,407	31,149	Places of 250,000 or more-----	427,173	363,082	64,091
Urban-----	653,786	469,722	184,064	Places of 100,000 to 250,000-----	512,065	450,703	61,362
Places of 25,000 to 50,000-----	290,352	214,298	76,054	Places of 50,000 to 100,000-----	264,550	245,274	19,276
Places of 10,000 to 25,000-----	122,566	91,407	31,149	Places of 2,500 to 10,000-----	288,300	280,823	4,477
Rural-----	410,204	372,126	38,078				



Table 2.20. Enumerated Population by Race and Population-Size Group in Metropolitan and Nonmetropolitan Counties, United States and Each State; and by Sex for the United States Only: April 1, 1950—Continued

AREA	All races	White	Nonwhite	AREA	All races	White	Nonwhite
<b>INDIANA—Continued</b>				<b>LOUISIANA</b>			
Metropolitan counties—Continued				Urban			
Places of 25,000 to 50,000	62,259	60,812	1,447	Places of 250,000 or more	1,363,789	840,878	422,911
Places of 10,000 to 25,000	24,929	25,005	1,926	Places of 100,000 to 250,000	570,445	387,814	182,631
Places of 2,500 to 10,000	61,474	61,292	182	Places of 25,000 to 50,000	252,835	175,411	77,424
Rural	404,378	400,484	3,894	Places of 10,000 to 25,000	148,298	97,393	50,905
Nonmetropolitan counties				Places of 2,500 to 10,000	132,939	98,487	36,452
Urban	2,177,396	2,153,862	23,534	Rural	259,272	183,773	75,498
Places of 25,000 to 50,000	865,018	846,929	18,089	Metropolitan parishes	1,319,727	855,805	463,922
Places of 10,000 to 25,000	282,884	270,328	12,556	Urban	1,020,188	700,868	319,320
Places of 2,500 to 10,000	260,371	257,820	2,551	Places of 250,000 or more	854,350	587,557	266,793
Rural	321,765	318,791	2,982	Places of 100,000 to 250,000	570,445	387,814	182,631
	1,312,378	1,306,933	5,445	Places of 25,000 to 50,000	252,835	175,411	77,424
				Places of 10,000 to 25,000	15,815	9,821	5,994
				Places of 2,500 to 10,000	17,257	14,500	2,757
				Rural	165,836	113,311	52,527
<b>IOWA</b>	2,821,073	2,599,546	21,527	Nonmetropolitan parishes	1,020,188	700,868	319,320
Urban	1,229,453	1,209,864	19,589	Urban	1,665,328	1,095,815	569,513
Places of 100,000 to 250,000	177,865	169,745	8,220	Places of 25,000 to 50,000	509,439	355,321	154,118
Places of 50,000 to 100,000	296,034	290,230	5,754	Places of 10,000 to 25,000	148,298	97,393	50,905
Places of 25,000 to 50,000	270,030	267,898	2,142	Places of 2,500 to 10,000	119,126	86,655	32,471
Places of 10,000 to 25,000	156,512	150,704	5,808	Rural	242,015	169,273	72,742
Places of 2,500 to 10,000	332,892	331,747	1,145	Metropolitan counties	1,183,889	742,494	441,395
Rural	1,391,840	1,389,682	1,958	Urban	815,774	510,846	2,928
Metropolitan counties	705,029	699,817	15,112	Places of 50,000 to 100,000	374,507	375,502	1,005
Urban	553,996	539,183	14,813	Places of 25,000 to 50,000	77,634	77,246	398
Places of 100,000 to 250,000	177,865	169,745	8,220	Places of 10,000 to 25,000	72,532	72,234	298
Places of 50,000 to 100,000	296,034	290,230	5,754	Places of 2,500 to 10,000	138,288	138,115	173
Places of 25,000 to 50,000	45,429	44,732	697	Rural	86,033	85,807	146
Places of 10,000 to 25,000	14,334	14,236	98	Metropolitan counties	539,267	537,344	1,923
Places of 2,500 to 10,000	20,234	20,070	164	Urban	169,201	168,655	546
Rural	151,033	150,734	299	Places of 50,000 to 100,000	119,126	118,674	452
Nonmetropolitan counties	1,916,044	1,909,629	6,415	Places of 10,000 to 25,000	77,634	77,246	398
Urban	675,437	670,621	4,756	Places of 2,500 to 10,000	34,150	34,035	57
Places of 25,000 to 50,000	224,601	222,536	2,065	Rural	7,342	7,335	7
Places of 10,000 to 25,000	158,178	156,408	1,770	Nonmetropolitan counties	50,075	49,981	94
Places of 2,500 to 10,000	312,658	311,677	981	Urban	744,573	742,191	2,382
Rural	1,240,607	1,238,948	1,659	Places of 25,000 to 50,000	255,381	254,828	553
<b>KANSAS</b>	1,905,299	1,828,961	76,338	Places of 10,000 to 25,000	72,532	72,234	298
Urban	903,469	841,543	61,925	Places of 2,500 to 10,000	104,136	104,022	116
Places of 100,000 to 250,000	297,832	282,753	35,079	Rural	78,711	78,572	139
Places of 50,000 to 100,000	78,791	78,248	5,543	Metropolitan counties	489,192	487,363	1,829
Places of 25,000 to 50,000	59,751	58,177	1,574	Urban	2,343,001	1,954,975	388,026
Places of 10,000 to 25,000	278,599	262,559	16,040	Places of 250,000 or more	1,274,618	1,017,612	257,006
Places of 2,500 to 10,000	188,495	185,806	2,689	Places of 100,000 to 250,000	949,708	723,655	226,053
Rural	1,001,831	987,418	14,413	Places of 25,000 to 50,000	114,094	105,479	10,615
Metropolitan counties	555,809	507,697	48,112	Places of 10,000 to 25,000	120,634	108,230	12,404
Urban	382,216	340,340	41,876	Places of 2,500 to 10,000	90,122	82,248	7,874
Places of 100,000 to 250,000	287,832	262,753	35,079	Rural	1,068,383	937,363	131,020
Places of 50,000 to 100,000	78,791	78,248	5,543	Metropolitan counties	1,688,856	1,396,753	300,203
Places of 25,000 to 50,000	5,593	5,339	254	Urban	1,108,412	862,109	246,303
Places of 10,000 to 25,000	173,593	167,357	6,236	Places of 250,000 or more	948,708	723,655	226,053
Nonmetropolitan counties	1,349,490	1,321,264	28,226	Places of 100,000 to 250,000	40,155	32,010	8,145
Urban	521,252	501,203	20,049	Places of 25,000 to 50,000	77,060	71,627	5,433
Places of 25,000 to 50,000	59,751	58,177	1,574	Places of 10,000 to 25,000	36,489	34,817	1,672
Places of 10,000 to 25,000	278,599	262,559	16,040	Places of 2,500 to 10,000	592,544	533,644	58,900
Places of 2,500 to 10,000	182,902	180,467	2,435	Nonmetropolitan counties	647,045	559,222	87,823
Rural	828,238	820,061	8,177	Urban	171,206	155,503	15,703
<b>KENTUCKY</b>	2,944,808	2,742,080	202,716	Places of 25,000 to 50,000	73,959	71,469	2,470
Urban	985,739	861,509	124,230	Places of 10,000 to 25,000	45,634	36,603	7,031
Places of 250,000 or more	369,129	311,357	57,772	Places of 2,500 to 10,000	53,633	47,431	6,202
Places of 100,000 to 250,000	119,886	102,710	17,276	Rural	475,839	403,719	72,120
Places of 50,000 to 100,000	128,654	118,994	9,660	<b>MASSACHUSETTS</b>	4,680,514	4,611,503	79,011
Places of 25,000 to 50,000	106,378	91,370	15,008	Urban	4,122,138	4,049,806	73,632
Places of 10,000 to 25,000	261,592	237,078	24,514	Places of 250,000 or more	801,444	759,700	42,744
Rural	1,959,067	1,880,581	78,486	Places of 100,000 to 250,000	810,128	792,585	17,543
Metropolitan counties	815,760	729,615	86,145	Places of 25,000 to 50,000	797,727	797,261	5,466
Urban	604,197	527,005	77,192	Places of 10,000 to 25,000	669,956	666,656	3,300
Places of 250,000 or more	369,129	311,357	57,772	Places of 2,500 to 10,000	789,635	786,032	3,603
Places of 100,000 to 250,000	119,886	102,710	17,276	Rural	253,248	252,192	1,056
Places of 50,000 to 100,000	82,175	60,404	1,771	Metropolitan counties	588,376	562,997	25,379
Places of 25,000 to 50,000	10,870	10,850	20	Urban	4,581,845	4,505,612	76,233
Places of 10,000 to 25,000	42,037	41,684	353	Places of 250,000 or more	4,075,324	4,000,550	72,774
Places of 2,500 to 10,000	211,563	202,610	8,953	Places of 100,000 to 250,000	801,444	759,700	42,744
Nonmetropolitan counties	2,129,046	2,012,475	116,571	Places of 25,000 to 50,000	810,128	792,585	17,543
Urban	361,542	334,504	47,038	Places of 10,000 to 25,000	797,727	792,261	5,466
Places of 25,000 to 50,000	66,479	58,590	7,889	Places of 2,500 to 10,000	669,956	666,656	3,300
Places of 10,000 to 25,000	95,508	80,520	14,988	Places of 10,000 to 25,000	789,635	786,032	3,603
Places of 2,500 to 10,000	219,555	185,384	34,161	Places of 2,500 to 10,000	781,806	759,989	21,817
Rural	1,747,504	1,677,971	69,533	Places of 2,500 to 10,000	232,263	231,359	904
				Rural	506,521	505,082	1,439

## SUMMARY TABLES

Table 2.20. Enumerated Population by Race and Population-Size Group in Metropolitan and Nonmetropolitan Counties, United States and Each State; and by Sex for the United States Only: April 1, 1950—Continued

AREA	All races	White	Nonwhite	AREA	All races	White	Nonwhite
<b>MASSACHUSETTS—Continued</b>				<b>MISSOURI—Continued</b>			
Nonmetropolitan counties-----	108,669	105,691	2,778	Metropolitan counties-----	2,080,884	1,845,445	235,439
Urban-----	48,814	47,956	858	Urban-----	1,766,030	1,537,013	229,017
Places of 10,000 to 25,000-----	27,829	27,123	706	Places of 250,000 or more-----	1,312,418	1,102,947	210,471
Places of 2,500 to 10,000-----	20,985	20,833	152	Places of 50,000 to 100,000-----	145,319	140,280	5,039
Rural-----	59,855	57,935	1,920	Places of 25,000 to 50,000-----	76,865	76,807	58
				Places of 10,000 to 25,000-----	139,261	135,263	3,998
				Places of 2,500 to 10,000-----	91,177	82,616	8,561
				Rural-----	314,854	308,432	6,422
<b>MICHIGAN-----</b>	<b>6,371,766</b>	<b>5,917,825</b>	<b>453,941</b>	Nonmetropolitan counties-----	1,873,769	1,810,148	63,621
Urban-----	4,099,007	3,689,878	409,129	Urban-----	524,119	485,047	39,072
Places of 250,000 or more-----	1,849,569	1,545,947	303,721	Places of 25,000 to 50,000-----	95,734	89,593	6,141
Places of 100,000 to 250,000-----	339,659	318,679	20,980	Places of 10,000 to 25,000-----	146,168	135,647	10,521
Places of 50,000 to 100,000-----	515,037	490,615	24,422	Places of 2,500 to 10,000-----	282,187	269,807	12,380
Places of 25,000 to 50,000-----	413,549	394,431	19,117	Rural-----	1,349,650	1,315,101	34,549
Places of 10,000 to 25,000-----	554,616	516,902	37,714				
Places of 2,500 to 10,000-----	426,580	423,405	3,175				
Rural-----	2,272,759	2,227,947	44,812				
Metropolitan counties-----	4,225,001	3,820,708	404,293	<b>MONTANA-----</b>	<b>591,024</b>	<b>572,038</b>	<b>18,986</b>
Urban-----	3,307,392	2,924,667	382,725	Urban-----	252,906	250,642	2,264
Places of 250,000 or more-----	1,849,568	1,545,947	303,721	Places of 25,000 to 50,000-----	104,299	103,372	927
Places of 100,000 to 250,000-----	339,658	318,679	20,980	Places of 10,000 to 25,000-----	62,645	62,126	519
Places of 50,000 to 100,000-----	515,037	490,615	24,422	Places of 2,500 to 10,000-----	85,962	85,144	818
Places of 25,000 to 50,000-----	413,549	394,431	9,117	Rural-----	338,118	321,396	16,722
Places of 10,000 to 25,000-----	254,164	230,161	24,003	Nonmetropolitan counties-----	591,024	572,038	18,986
Places of 2,500 to 10,000-----	116,498	115,902	596	Urban-----	252,905	250,642	2,264
Rural-----	917,609	896,041	21,568	Places of 25,000 to 50,000-----	104,299	103,372	927
Metropolitan counties-----	4,225,001	3,820,708	404,293	Places of 10,000 to 25,000-----	62,645	62,126	519
Urban-----	3,307,392	2,924,667	382,725	Places of 2,500 to 10,000-----	85,962	85,144	818
Places of 250,000 or more-----	1,849,568	1,545,947	303,721	Rural-----	338,118	321,396	16,722
Places of 100,000 to 250,000-----	339,658	318,679	20,980				
Places of 50,000 to 100,000-----	515,037	490,615	24,422	<b>NEBRASKA-----</b>	<b>1,325,510</b>	<b>1,301,328</b>	<b>24,182</b>
Places of 25,000 to 50,000-----	413,549	394,431	9,117	Urban-----	606,530	586,607	19,923
Places of 10,000 to 25,000-----	254,164	230,161	24,003	Places of 250,000 or more-----	251,117	234,235	16,882
Places of 2,500 to 10,000-----	116,498	115,902	596	Places of 50,000 to 100,000-----	98,884	97,495	1,389
Rural-----	917,609	896,041	21,568	Places of 10,000 to 25,000-----	121,209	120,468	741
Nonmetropolitan counties-----	2,146,765	2,097,117	49,648	Places of 2,500 to 10,000-----	135,320	134,409	911
Urban-----	791,615	765,211	26,404	Rural-----	718,990	714,721	4,259
Places of 25,000 to 50,000-----	181,071	170,967	10,104	Metropolitan counties-----	416,455	397,532	18,923
Places of 10,000 to 25,000-----	300,452	286,741	13,711	Urban-----	353,859	335,596	18,273
Places of 2,500 to 10,000-----	310,092	307,503	2,589	Places of 250,000 or more-----	251,117	234,235	16,882
Rural-----	1,355,150	1,331,906	23,244	Places of 50,000 to 100,000-----	98,884	97,495	1,389
				Places of 10,000 to 25,000-----	3,656	3,656	2
				Rural-----	62,596	61,946	650
				Nonmetropolitan counties-----	909,055	903,796	5,259
				Urban-----	252,671	251,021	1,650
				Places of 10,000 to 25,000-----	121,209	120,468	741
				Places of 2,500 to 10,000-----	131,462	130,553	909
				Rural-----	656,384	652,776	3,608
				<b>NEVADA-----</b>	<b>160,083</b>	<b>149,908</b>	<b>10,175</b>
				Urban-----	84,079	79,773	4,306
				Places of 25,000 to 50,000-----	32,497	31,893	604
				Places of 10,000 to 25,000-----	24,624	21,736	2,888
				Places of 2,500 to 10,000-----	26,958	26,144	814
				Rural-----	76,004	70,135	5,869
				Nonmetropolitan counties-----	160,083	149,908	10,175
				Urban-----	84,079	79,773	4,306
				Places of 25,000 to 50,000-----	32,497	31,893	604
				Places of 10,000 to 25,000-----	24,624	21,736	2,888
				Places of 2,500 to 10,000-----	26,958	26,144	814
				Rural-----	76,004	70,135	5,869
				<b>NEW HAMPSHIRE-----</b>	<b>533,242</b>	<b>532,275</b>	<b>967</b>
				Urban-----	301,249	300,612	637
				Places of 50,000 to 100,000-----	82,732	82,590	142
				Places of 25,000 to 50,000-----	62,657	62,513	144
				Places of 10,000 to 25,000-----	108,289	107,975	314
				Places of 2,500 to 10,000-----	47,571	47,544	27
				Rural-----	231,993	231,663	330
				Metropolitan counties-----	156,987	156,687	300
				Urban-----	121,560	121,302	258
				Places of 50,000 to 100,000-----	82,732	82,590	142
				Places of 25,000 to 50,000-----	34,689	34,554	135
				Places of 10,000 to 25,000-----	4,158	4,158	1
				Rural-----	35,427	35,395	32
				Nonmetropolitan counties-----	376,255	375,596	657
				Urban-----	179,699	179,310	379
				Places of 25,000 to 50,000-----	27,948	27,948	39
				Places of 10,000 to 25,000-----	106,299	107,975	514
				Places of 2,500 to 10,000-----	43,412	43,386	26
				Rural-----	196,566	196,278	288

Table 2.20. Enumerated Population by Race and Population-Size Group in Metropolitan and Nonmetropolitan Counties, United States and Each State; and by Sex for the United States Only: April 1, 1950—Continued

AREA	All races	White	Nonwhite	AREA	All races	White	Nonwhite
<b>NEW JERSEY</b>				<b>NORTH CAROLINA—Continued</b>			
Urban	4,835,329	4,511,585	323,744	Nonmetropolitan counties	3,185,193	2,304,260	880,933
Places of 250,000 or more	3,847,771	3,576,318	271,453	Urban	708,284	514,760	193,524
Places of 100,000 to 250,000	737,793	641,200	96,593	Places of 25,000 to 50,000	107,455	67,526	39,929
Places of 50,000 to 100,000	504,717	456,726	47,991	Places of 10,000 to 25,000	318,782	229,131	89,651
Places of 25,000 to 50,000	505,827	474,059	31,768	Places of 2,500 to 10,000	282,047	218,103	63,944
Places of 10,000 to 25,000	655,536	617,689	37,847	Rural	2,456,909	1,789,500	667,409
Places of 2,500 to 10,000	784,579	744,932	39,647	<b>NORTH DAKOTA</b>			
Rural	657,519	639,712	17,807	Urban	619,636	608,448	11,188
Metropolitan counties	387,358	355,267	32,091	Places of 25,000 to 50,000	164,817	163,664	1,153
Urban	4,350,493	4,063,131	287,362	Places of 10,000 to 25,000	65,092	64,900	192
Places of 250,000 or more	3,625,508	3,373,744	251,762	Places of 2,500 to 10,000	51,369	51,044	325
Places of 100,000 to 250,000	737,793	641,200	96,593	Rural	46,356	47,720	636
Places of 50,000 to 100,000	504,717	456,726	47,991	Nonmetropolitan counties	454,819	444,784	10,035
Places of 25,000 to 50,000	505,827	474,059	31,768	Urban	619,636	608,448	11,188
Places of 10,000 to 25,000	655,536	617,689	37,847	Places of 25,000 to 50,000	164,817	163,664	1,153
Places of 2,500 to 10,000	784,579	744,932	39,647	Places of 10,000 to 25,000	65,092	64,900	192
Rural	657,519	639,712	17,807	Places of 2,500 to 10,000	51,369	51,044	325
Metropolitan counties	484,836	448,454	36,382	Rural	46,356	47,720	636
Urban	222,265	202,574	19,691	Nonmetropolitan counties	454,819	444,784	10,035
Places of 10,000 to 25,000	100,959	86,645	14,314	Urban	7,946,627	7,426,222	518,405
Places of 2,500 to 10,000	121,806	115,929	5,877	Places of 250,000 or more	5,273,206	4,801,856	471,350
Rural	262,571	245,880	16,691	Places of 100,000 to 250,000	2,572,928	2,048,340	524,588
<b>NEW MEXICO</b>				Places of 50,000 to 100,000	529,114	466,138	62,976
Urban	681,187	630,211	50,976	Places of 25,000 to 50,000	365,119	346,051	19,068
Places of 250,000 or more	514,636	305,650	208,986	Places of 10,000 to 25,000	654,409	628,708	25,701
Places of 100,000 to 250,000	96,815	94,849	1,966	Places of 2,500 to 10,000	646,030	628,777	17,253
Places of 50,000 to 100,000	53,736	52,038	1,698	Rural	705,606	686,842	18,764
Places of 25,000 to 50,000	61,493	58,630	2,863	Places of 250,000 or more	2,673,421	2,626,368	47,053
Places of 10,000 to 25,000	102,592	100,133	2,459	Metropolitan counties	5,384,066	4,908,896	475,190
Places of 2,500 to 10,000	366,551	324,561	41,990	Urban	4,272,728	3,826,643	446,085
Metropolitan counties	145,673	141,512	4,161	Places of 250,000 or more	2,372,928	2,048,340	324,588
Urban	96,815	94,849	1,966	Places of 100,000 to 250,000	529,114	466,138	62,976
Places of 50,000 to 100,000	96,815	94,849	1,966	Places of 50,000 to 100,000	365,119	346,051	19,068
Rural	48,858	46,663	2,195	Places of 25,000 to 50,000	436,063	416,592	19,471
Nonmetropolitan counties	535,514	488,699	46,815	Places of 10,000 to 25,000	221,056	212,130	8,926
Urban	217,821	210,801	7,020	Places of 2,500 to 10,000	348,448	337,392	11,056
Places of 25,000 to 50,000	53,736	52,038	1,698	Rural	1,111,358	1,082,253	29,105
Places of 10,000 to 25,000	61,493	58,630	2,863	Nonmetropolitan counties	2,562,541	2,519,326	43,215
Places of 2,500 to 10,000	102,592	100,133	2,459	Urban	1,000,478	975,213	25,265
Rural	317,693	277,898	39,795	Places of 25,000 to 50,000	218,346	209,116	9,230
<b>NEW YORK</b>				Places of 10,000 to 25,000	424,974	416,647	8,327
Urban	14,830,192	13,872,095	958,097	Places of 2,500 to 10,000	357,158	349,450	7,708
Places of 250,000 or more	11,689,008	10,980,700	708,308	Rural	1,562,063	1,544,113	17,950
Places of 100,000 to 250,000	8,804,577	7,985,516	819,061	<b>OKLAHOMA</b>			
Places of 50,000 to 100,000	609,907	592,228	17,679	Urban	2,233,351	2,032,526	200,825
Places of 25,000 to 50,000	467,266	444,852	22,414	Places of 100,000 to 250,000	1,107,252	1,008,546	98,706
Places of 10,000 to 25,000	555,780	536,618	19,162	Places of 25,000 to 50,000	426,244	385,244	41,000
Places of 2,500 to 10,000	745,081	729,906	15,175	Places of 10,000 to 25,000	135,069	122,073	12,996
Rural	705,397	694,583	10,814	Places of 2,500 to 10,000	262,347	239,566	22,781
Metropolitan counties	2,941,184	2,891,395	49,789	Places of 2,500 to 10,000	283,592	261,663	21,929
Urban	12,457,974	11,532,902	925,072	Rural	1,126,039	1,023,980	102,119
Places of 250,000 or more	10,868,305	9,977,919	890,386	Metropolitan counties	577,038	526,040	50,998
Places of 100,000 to 250,000	8,804,577	7,985,516	819,061	Urban	463,567	421,635	41,932
Places of 50,000 to 100,000	609,907	592,228	17,679	Places of 100,000 to 250,000	426,244	385,244	41,000
Places of 25,000 to 50,000	467,266	444,852	22,414	Places of 10,000 to 25,000	10,186	10,089	97
Places of 10,000 to 25,000	555,780	536,618	19,162	Places of 2,500 to 10,000	27,157	26,302	855
Places of 2,500 to 10,000	745,081	729,906	15,175	Rural	113,471	104,405	9,066
Rural	375,509	368,332	7,177	Nonmetropolitan counties	1,656,313	1,508,486	149,827
Metropolitan counties	1,589,669	1,554,963	34,686	Urban	643,685	586,911	56,774
Urban	2,372,218	2,339,193	33,025	Places of 25,000 to 50,000	135,069	122,073	12,996
Places of 25,000 to 50,000	1,020,703	1,002,781	17,922	Places of 10,000 to 25,000	252,181	229,477	22,704
Places of 10,000 to 25,000	327,435	318,110	9,325	Places of 2,500 to 10,000	256,435	235,361	21,074
Places of 2,500 to 10,000	363,380	358,419	4,961	Rural	1,012,628	918,575	94,053
Rural	1,351,515	1,336,412	15,103	<b>OREGON</b>			
<b>NORTH CAROLINA</b>				Urban	1,521,341	1,497,128	24,213
Urban	4,061,929	2,985,121	1,076,808	Places of 250,000 or more	732,247	716,881	15,366
Places of 100,000 to 250,000	1,258,193	885,776	372,417	Places of 100,000 to 250,000	373,628	360,338	13,290
Places of 50,000 to 100,000	154,042	96,531	57,511	Places of 25,000 to 50,000	79,019	78,630	389
Places of 25,000 to 50,000	352,190	299,760	52,430	Places of 10,000 to 25,000	105,823	104,991	832
Places of 10,000 to 25,000	147,428	99,225	48,203	Places of 2,500 to 10,000	173,777	172,872	905
Places of 2,500 to 10,000	318,782	229,131	89,651	Rural	789,094	780,247	8,847
Rural	285,781	221,129	64,652	Metropolitan counties	619,522	604,629	14,893
Metropolitan counties	2,823,736	2,097,345	726,391	Urban	407,870	394,523	13,347
Urban	896,736	678,861	217,875	Places of 250,000 or more	373,628	360,338	13,290
Places of 100,000 to 250,000	529,909	371,016	158,893	Places of 10,000 to 25,000	54,242	54,135	107
Places of 50,000 to 100,000	154,042	96,531	57,511	Rural	211,632	210,106	1,526
Places of 25,000 to 50,000	352,190	299,760	52,430	619 522 901 819 1,521,341			
Places of 10,000 to 25,000	39,873	31,639	8,234				
Places of 2,500 to 10,000	3,704	3,026	678				
Rural	366,827	307,845	58,982				

## SUMMARY TABLES

Table 2.20. Enumerated Population by Race and Population-Size Group in Metropolitan and Nonmetropolitan Counties, United States and Each State; and by Sex for the United States Only: April 1, 1950—Continued

AREA	All races	White	Nonwhite	AREA	All races	White	Nonwhite
<b>OREGON—Continued</b>				<b>SOUTH DAKOTA—Continued</b>			
Nonmetropolitan counties-----	901,819	892,499	9,320	Metropolitan counties-----	70,810	70,484	426
Urban-----	324,377	322,358	2,019	Urban-----	52,696	52,278	418
Places of 25,000 to 50,000-----	79,019	78,830	189	Places of 50,000 to 100,000-----	52,696	52,278	418
Places of 10,000 to 25,000-----	105,823	104,991	832	Rural-----	18,214	18,206	8
Places of 2,500 to 10,000-----	159,535	158,737	798	Nonmetropolitan counties-----	581,830	558,020	23,810
Rural-----	577,442	570,141	7,301	Urban-----	163,461	160,712	2,749
<b>PENNSYLVANIA-----</b>				Places of 25,000 to 50,000-----	25,810	24,291	1,019
Urban-----	6,909,302	6,326,174	583,128	Places of 10,000 to 25,000-----	58,661	58,458	203
Places of 250,000 or more-----	2,748,411	2,286,462	461,949	Places of 2,500 to 10,000-----	79,490	77,963	1,527
Places of 100,000 to 250,000-----	472,415	464,834	7,581	Rural-----	418,369	397,308	21,061
Places of 50,000 to 100,000-----	699,338	683,005	16,333	<b>TENNESSEE-----</b>			
Places of 25,000 to 50,000-----	510,694	499,715	10,979	Urban-----	3,291,718	2,760,267	531,461
Places of 10,000 to 25,000-----	1,151,684	1,082,155	69,529	Places of 250,000 or more-----	1,284,159	933,681	350,478
Places of 2,500 to 10,000-----	1,348,760	1,330,005	18,755	Places of 100,000 to 250,000-----	396,000	248,713	147,287
Rural-----	3,589,710	3,527,674	62,036	Places of 50,000 to 100,000-----	450,117	316,646	113,469
Metropolitan counties-----	8,136,636	7,515,965	620,671	Places of 25,000 to 50,000-----	58,071	45,196	12,875
Urban-----	6,026,525	5,453,901	572,624	Places of 10,000 to 25,000-----	123,814	106,083	17,731
Places of 250,000 or more-----	2,748,411	2,286,462	461,949	Places of 2,500 to 10,000-----	256,157	216,841	39,316
Places of 100,000 to 250,000-----	472,415	464,834	7,581	Rural-----	2,027,559	1,826,576	200,983
Places of 50,000 to 100,000-----	699,338	683,005	16,333	Metropolitan counties-----	1,349,511	1,036,122	313,389
Places of 25,000 to 50,000-----	510,694	499,715	10,979	Urban-----	861,098	597,530	263,568
Places of 10,000 to 25,000-----	1,151,684	1,082,155	69,529	Places of 250,000 or more-----	396,000	248,713	147,287
Places of 2,500 to 10,000-----	1,348,760	1,330,005	18,755	Places of 100,000 to 250,000-----	450,117	316,646	113,469
Rural-----	2,110,111	2,062,064	48,047	Places of 50,000 to 100,000-----	34,981	31,969	3,012
Nonmetropolitan counties-----	2,361,376	2,337,883	23,493	Rural-----	469,413	430,592	38,821
Urban-----	692,777	672,273	10,504	Nonmetropolitan counties-----	1,942,207	1,724,135	218,072
Places of 25,000 to 50,000-----	122,037	119,061	2,976	Urban-----	403,061	336,151	66,910
Places of 10,000 to 25,000-----	376,040	372,114	3,926	Places of 25,000 to 50,000-----	59,071	45,196	12,875
Places of 2,500 to 10,000-----	394,700	381,088	13,612	Places of 10,000 to 25,000-----	123,814	106,083	17,731
Rural-----	1,478,599	1,485,610	12,989	Places of 2,500 to 10,000-----	221,176	184,872	36,304
<b>RHODE ISLAND-----</b>				Rural-----	1,539,146	1,387,984	151,162
Urban-----	791,896	777,015	14,881	<b>TEXAS-----</b>			
Places of 100,000 to 250,000-----	700,410	686,834	13,576	Urban-----	7,711,194	6,726,534	984,660
Places of 50,000 to 100,000-----	248,874	239,993	8,881	Places of 250,000 or more-----	4,612,666	4,035,587	577,079
Places of 25,000 to 50,000-----	186,707	185,945	762	Places of 100,000 to 250,000-----	1,717,945	1,468,250	249,595
Places of 10,000 to 25,000-----	118,463	112,876	5,587	Places of 50,000 to 100,000-----	371,231	342,808	28,423
Places of 2,500 to 10,000-----	118,110	117,717	393	Places of 25,000 to 50,000-----	620,856	527,953	92,903
Rural-----	30,456	30,303	153	Places of 10,000 to 25,000-----	175,586	157,586	18,000
Metropolitan counties-----	681,815	670,803	11,012	Places of 2,500 to 10,000-----	806,434	718,279	90,155
Urban-----	650,466	639,498	10,968	Places of 2,500 to 10,000-----	920,734	822,831	97,903
Places of 100,000 to 250,000-----	248,874	239,993	8,881	Rural-----	3,088,528	2,680,947	407,581
Places of 50,000 to 100,000-----	186,707	185,945	762	Metropolitan counties-----	3,644,726	3,190,522	454,204
Places of 25,000 to 50,000-----	79,899	77,734	2,165	Urban-----	2,990,762	2,600,082	390,680
Places of 10,000 to 25,000-----	105,730	105,523	207	Places of 250,000 or more-----	1,717,945	1,468,250	249,595
Places of 2,500 to 10,000-----	30,456	30,303	153	Places of 100,000 to 250,000-----	371,231	342,808	28,423
Rural-----	31,349	31,305	44	Places of 50,000 to 100,000-----	620,856	527,953	92,903
Nonmetropolitan counties-----	110,081	106,212	3,869	Places of 25,000 to 50,000-----	175,586	157,586	18,000
Urban-----	49,944	47,436	2,508	Places of 10,000 to 25,000-----	161,005	154,667	6,338
Places of 25,000 to 50,000-----	37,564	35,242	2,322	Places of 2,500 to 10,000-----	109,825	108,404	4,421
Places of 10,000 to 25,000-----	12,380	12,194	186	Rural-----	663,964	590,440	73,524
Rural-----	60,137	59,776	361	Nonmetropolitan counties-----	4,068,468	3,536,012	532,456
<b>SOUTH CAROLINA-----</b>				Urban-----	1,631,904	1,435,505	196,399
Urban-----	2,117,027	1,293,405	823,622	Places of 25,000 to 50,000-----	175,586	157,586	18,000
Places of 50,000 to 100,000-----	609,225	405,714	203,511	Places of 10,000 to 25,000-----	645,429	561,612	83,817
Places of 25,000 to 50,000-----	215,249	137,021	78,228	Places of 2,500 to 10,000-----	810,909	716,527	94,382
Places of 10,000 to 25,000-----	36,785	24,569	12,216	Rural-----	2,454,564	2,100,507	354,057
Places of 2,500 to 10,000-----	116,098	77,776	38,322	<b>UTAH-----</b>			
Rural-----	241,083	186,349	54,734	Urban-----	669,862	676,909	11,953
Metropolitan counties-----	1,507,802	687,691	820,111	Places of 100,000 to 250,000-----	412,518	408,600	3,918
Urban-----	526,710	359,021	169,689	Places of 50,000 to 100,000-----	182,121	179,019	3,102
Places of 50,000 to 100,000-----	242,902	159,666	83,236	Places of 25,000 to 50,000-----	57,112	55,509	1,603
Places of 25,000 to 50,000-----	215,249	137,021	78,228	Places of 10,000 to 25,000-----	28,937	28,841	96
Places of 2,500 to 10,000-----	27,653	22,645	5,008	Places of 2,500 to 10,000-----	18,832	18,787	45
Rural-----	285,808	199,365	86,443	Places of 2,500 to 10,000-----	127,516	128,464	1,048
Nonmetropolitan counties-----	1,596,317	934,384	661,933	Rural-----	276,344	270,309	6,035
Urban-----	366,323	246,048	120,275	Metropolitan counties-----	358,214	352,305	5,909
Places of 25,000 to 50,000-----	36,795	24,568	12,227	Urban-----	269,994	264,838	5,056
Places of 10,000 to 25,000-----	116,098	77,776	38,322	Places of 100,000 to 250,000-----	182,121	179,019	3,102
Places of 2,500 to 10,000-----	213,430	143,704	69,726	Places of 50,000 to 100,000-----	57,112	55,509	1,603
Rural-----	1,221,994	688,336	533,658	Places of 25,000 to 50,000-----	30,761	30,410	351
<b>SOUTH DAKOTA-----</b>				Rural-----	88,220	87,387	833
Urban-----	652,740	628,504	24,236	Nonmetropolitan counties-----	330,648	324,604	6,044
Places of 50,000 to 100,000-----	216,157	212,990	3,167	Urban-----	142,524	141,662	862
Places of 25,000 to 50,000-----	52,696	52,278	418	Places of 25,000 to 50,000-----	28,937	28,841	96
Places of 10,000 to 25,000-----	25,310	24,291	1,019	Places of 10,000 to 25,000-----	16,832	16,787	45
Places of 2,500 to 10,000-----	58,661	58,458	203	Places of 2,500 to 10,000-----	96,755	96,054	701
Rural-----	79,490	77,963	1,527	Rural-----	186,124	182,942	3,182
Nonmetropolitan counties-----	436,583	415,514	21,069				

Table 2.20. Enumerated Population by Race and Population-Size Group in Metropolitan and Nonmetropolitan Counties, United States and Each State; and by Sex for the United States Only: April 1, 1950—Continued

AREA	All races	White	Nonwhite	AREA	All races	White	Nonwhite
<b>VERMONT</b>	377,747	377,188	559	<b>WEST VIRGINIA</b>	2,005,552	1,880,282	115,270
Urban	157,612	157,363	249	Urban	640,606	600,440	40,166
Places of 25,000 to 50,000	33,155	33,081	74	Places of 50,000 to 100,000	218,745	205,160	13,585
Places of 10,000 to 25,000	28,581	28,519	62	Places of 25,000 to 50,000	116,569	112,773	3,796
Places of 2,500 to 10,000	75,876	75,763	113	Places of 10,000 to 25,000	111,987	99,518	12,469
Rural	240,135	239,825	310	Places of 2,500 to 10,000	193,305	182,889	10,416
Nonmetropolitan counties	377,747	377,188	559	Rural	1,364,946	1,288,842	75,104
Urban	157,612	157,363	249	Metropolitan counties	658,660	602,032	56,628
Places of 25,000 to 50,000	33,155	33,081	74	Urban	335,285	318,257	17,028
Places of 10,000 to 25,000	28,581	28,519	62	Places of 50,000 to 100,000	218,745	205,160	13,585
Places of 2,500 to 10,000	75,876	75,763	113	Places of 10,000 to 25,000	55,463	53,705	1,758
Rural	240,135	239,825	310	Places of 2,500 to 10,000	81,057	59,394	21,663
<b>VIRGINIA</b>	3,518,680	2,981,555	737,125	Rural	303,395	283,775	19,620
Urban	1,535,944	1,050,434	505,510	Nonmetropolitan counties	1,366,892	1,288,250	78,642
Places of 100,000 to 250,000	579,272	436,073	143,199	Urban	305,341	282,183	23,158
Places of 50,000 to 100,000	285,747	180,760	104,987	Places of 25,000 to 50,000	116,569	112,773	3,796
Places of 25,000 to 50,000	186,174	127,239	58,935	Places of 10,000 to 25,000	58,524	45,815	10,709
Places of 10,000 to 25,000	135,290	115,707	21,583	Places of 2,500 to 10,000	132,248	123,595	8,653
Places of 2,500 to 10,000	201,461	172,605	28,856	Rural	1,061,551	1,006,087	55,464
Rural	1,982,736	1,551,121	431,615	<b>WISCONSIN</b>	3,434,575	3,392,690	41,885
Metropolitan counties	1,210,985	958,523	252,462	Urban	1,908,363	1,877,586	30,777
Urban	650,639	649,375	201,264	Places of 250,000 or more	637,392	614,650	22,742
Places of 100,000 to 250,000	579,272	436,073	143,199	Places of 50,000 to 100,000	274,352	271,463	2,884
Places of 50,000 to 100,000	233,747	180,760	52,987	Places of 25,000 to 50,000	430,198	428,253	1,945
Places of 25,000 to 50,000	10,434	8,036	2,398	Places of 10,000 to 25,000	239,742	239,058	684
Places of 2,500 to 10,000	27,186	24,506	2,680	Places of 2,500 to 10,000	324,679	324,157	522
Rural	360,346	309,148	51,198	Rural	1,628,212	1,515,104	113,108
Nonmetropolitan counties	2,107,695	1,623,032	484,663	Metropolitan counties	1,570,256	1,342,580	227,676
Urban	485,305	381,059	104,246	Urban	1,110,322	1,084,333	25,989
Places of 25,000 to 50,000	186,174	127,239	58,935	Places of 250,000 or more	637,392	614,650	22,742
Places of 10,000 to 25,000	124,856	105,671	19,185	Places of 50,000 to 100,000	274,352	271,463	2,884
Places of 2,500 to 10,000	174,275	148,099	26,176	Places of 25,000 to 50,000	111,608	111,351	257
Rural	1,622,380	1,241,973	380,417	Places of 10,000 to 25,000	55,801	55,831	70
<b>WASHINGTON</b>	2,378,863	2,316,496	62,367	Places of 2,500 to 10,000	31,069	31,035	36
Urban	1,274,152	1,233,115	41,037	Rural	259,854	258,247	1,607
Places of 250,000 or more	467,591	440,424	27,167	Nonmetropolitan counties	2,064,319	2,050,110	14,209
Places of 100,000 to 250,000	305,394	298,273	7,121	Urban	796,041	793,253	2,788
Places of 25,000 to 50,000	175,769	172,849	2,940	Places of 25,000 to 50,000	318,590	316,902	1,688
Places of 10,000 to 25,000	173,746	171,272	2,474	Places of 10,000 to 25,000	183,841	183,227	614
Places of 2,500 to 10,000	151,632	150,297	1,335	Places of 2,500 to 10,000	293,610	293,224	486
Rural	1,104,811	1,083,381	21,430	Rural	1,268,278	1,256,857	11,421
Metropolitan counties	1,315,756	1,272,606	43,150	<b>WYOMING</b>	290,529	284,009	6,520
Urban	875,506	839,608	35,898	Urban	144,618	142,568	2,050
Places of 250,000 or more	467,591	440,424	27,167	Places of 25,000 to 50,000	31,935	31,089	846
Places of 100,000 to 250,000	305,394	298,273	7,121	Places of 10,000 to 25,000	61,611	60,670	941
Places of 25,000 to 50,000	41,664	40,683	981	Places of 2,500 to 10,000	51,072	50,799	273
Places of 10,000 to 25,000	26,049	25,637	412	Rural	145,911	141,441	4,470
Places of 2,500 to 10,000	34,808	34,591	217	Nonmetropolitan counties	290,529	284,009	6,520
Rural	440,230	432,986	7,244	Urban	144,618	142,568	2,050
Nonmetropolitan counties	1,063,227	1,043,880	19,347	Places of 25,000 to 50,000	31,935	31,089	846
Urban	398,646	383,507	15,139	Places of 10,000 to 25,000	61,611	60,670	941
Places of 25,000 to 50,000	134,125	132,166	1,959	Places of 2,500 to 10,000	51,072	50,799	273
Places of 10,000 to 25,000	147,697	145,635	2,062	Rural	145,911	141,441	4,470
Places of 2,500 to 10,000	116,824	115,706	1,118				
Rural	684,581	650,383	14,198				

NOTE.—For definitions of areas, see text.

Source: U. S. Bureau of the Census, official records and "United States Census of Population: 1950, Volume II, Characteristics of the Population," Part I, United States Summary, U. S. Government Printing Office, Washington, D. C. 1953.



Table 2.21. Total Population Residing in Continental United States, by Age, Race, and Sex: 1940-50—Continued

(Figures include persons in the armed forces stationed in continental United States and exclude members of the armed forces overseas. Estimates were rounded to the nearest thousand without being adjusted to totals which were independently rounded)

RACE, AGE, AND SEX	Enumerated as of April 1, 1950	ESTIMATED AS OF JULY 1									Enumerated as of April 1, 1940
		1949	1948	1947	1946	1945	1944	1943	1942	1941	
NONWHITE FEMALE-----	8,051,286	7,932,000	7,776,000	7,628,000	7,480,000	7,375,000	7,260,000	7,156,000	7,046,000	6,947,000	6,841,361
Under 1 year-----	205,728	201,000	187,000	182,000	141,000	147,000	143,000	145,000	136,000	129,000	122,038
1-4 years-----	783,386	739,000	697,000	653,000	655,000	637,000	617,000	591,000	572,000	554,000	536,643
5-9 years-----	803,688	794,000	780,000	786,000	752,000	739,000	727,000	716,000	704,000	694,000	681,365
10-14 years-----	708,875	708,000	705,000	705,000	700,000	699,000	688,000	687,000	687,000	684,000	689,918
15-19 years-----	680,581	663,000	667,000	669,000	672,000	676,000	680,000	685,000	691,000	697,000	705,243
20-24 years-----	699,130	696,000	692,000	687,000	683,000	679,000	676,000	674,000	671,000	670,000	668,936
25-29 years-----	695,085	690,000	682,000	675,000	667,000	660,000	654,000	649,000	643,000	639,000	633,719
30-34 years-----	616,563	610,000	601,000	592,000	585,000	575,000	567,000	560,000	553,000	546,000	538,914
35-39 years-----	626,310	619,000	609,000	599,000	589,000	579,000	570,000	562,000	554,000	546,000	537,426
40-44 years-----	516,943	510,000	500,000	490,000	480,000	471,000	462,000	453,000	445,000	437,000	427,815
45-49 years-----	454,919	447,000	436,000	426,000	415,000	404,000	394,000	385,000	376,000	367,000	355,813
50-54 years-----	364,226	357,000	348,000	338,000	328,000	319,000	310,000	302,000	295,000	285,000	275,506
55-59 years-----	260,230	255,000	248,000	241,000	234,000	228,000	221,000	215,000	209,000	203,000	195,702
60-64 years-----	198,430	194,000	189,000	183,000	178,000	172,000	167,000	162,000	157,000	152,000	146,284
65-69 years-----	215,803	211,000	203,000	196,000	189,000	182,000	176,000	169,000	163,000	156,000	148,460
70-74 years-----	114,853	112,000	109,000	105,000	102,000	99,000	95,000	92,000	88,000	85,000	81,303
75-79 years-----	67,077	65,000	63,000	60,000	58,000	55,000	53,000	51,000	48,000	46,000	43,543
80-84 years-----	35,362	34,000	33,000	32,000	30,000	29,000	28,000	26,000	25,000	24,000	22,526
85 years and over-----	26,117	26,000	25,000	24,000	24,000	23,000	23,000	22,000	22,000	21,000	20,387

NOTE.—For population by age (10-year age groups), race, and sex, for years prior to 1940, see "Vital Statistics Rates in the United States, 1900-1940," U. S. Bureau of the Census, U. S. Government Printing Office, Washington, D. C., 1943.

Source: U. S. Bureau of the Census, for 1940-49, official records; for 1940 and 1950, "United States Census of Population: 1950, Volume II, Characteristics of the Population," Part 1, United States Summary, U. S. Government Printing Office, Washington, D. C., 1953.

Table 2.22. Estimated Population Including Armed Forces Overseas, by Age, Race, and Sex: United States, 1940-50

(Estimates were rounded to the nearest thousand without being adjusted to totals which were independently rounded)

RACE, AGE, AND SEX	Estimated as of April 1, 1950	ESTIMATED AS OF JULY 1									Estimated as of April 1, 1940
		1949	1948	1947	1946	1945	1944	1943	1942	1941	
ALL RACES-----	151,132,000	149,188,000	146,631,000	144,126,000	141,389,000	139,928,000	138,397,000	136,739,000	134,860,000	133,402,000	131,820,000
Under 5 years-----	16,164,000	15,569,000	14,910,000	14,312,000	13,209,000	12,951,000	12,519,000	12,011,000	11,292,000	10,854,000	10,541,000
5-9 years-----	13,200,000	12,981,000	12,679,000	12,378,000	12,105,000	11,871,000	11,645,000	11,413,000	11,179,000	10,960,000	10,684,000
10-14 years-----	11,119,000	11,161,000	11,169,000	11,176,000	11,214,000	11,280,000	11,373,000	11,482,000	11,531,000	11,666,000	11,746,000
15-19 years-----	10,700,000	10,798,000	10,921,000	11,039,000	11,179,000	11,355,000	11,540,000	11,723,000	11,906,000	12,104,000	12,355,000
20-24 years-----	11,651,000	11,624,000	11,579,000	11,531,000	11,508,000	11,522,000	11,543,000	11,564,000	11,583,000	11,617,000	11,660,000
25-29 years-----	12,318,000	12,193,000	12,032,000	11,863,000	11,718,000	11,615,000	11,520,000	11,421,000	11,319,000	11,233,000	11,124,000
30-34 years-----	11,575,000	11,448,000	11,271,000	11,083,000	10,940,000	10,822,000	10,714,000	10,601,000	10,488,000	10,386,000	10,288,000
35-39 years-----	11,274,000	11,118,000	10,903,000	10,688,000	10,495,000	10,337,000	10,188,000	10,035,000	9,880,000	9,736,000	9,555,000
40-44 years-----	10,217,000	10,086,000	9,903,000	9,720,000	9,559,000	9,429,000	9,307,000	9,181,000	9,055,000	8,938,000	8,792,000
45-49 years-----	9,075,000	8,991,000	8,874,000	8,756,000	8,656,000	8,584,000	8,521,000	8,454,000	8,387,000	8,329,000	8,257,000
50-54 years-----	8,274,000	8,178,000	8,044,000	7,908,000	7,791,000	7,698,000	7,614,000	7,527,000	7,438,000	7,358,000	7,288,000
55-59 years-----	7,236,000	7,113,000	6,945,000	6,778,000	6,624,000	6,486,000	6,372,000	6,245,000	6,118,000	5,996,000	5,844,000
60-64 years-----	6,060,000	5,944,000	5,788,000	5,638,000	5,488,000	5,341,000	5,242,000	5,119,000	4,996,000	4,877,000	4,728,000
65-69 years-----	5,005,000	4,902,000	4,782,000	4,623,000	4,494,000	4,381,000	4,273,000	4,162,000	4,050,000	3,942,000	3,806,000
70-74 years-----	3,412,000	3,340,000	3,243,000	3,146,000	3,056,000	2,974,000	2,899,000	2,820,000	2,741,000	2,665,000	2,569,000
75-79 years-----	2,152,000	2,098,000	2,025,000	1,952,000	1,884,000	1,822,000	1,762,000	1,701,000	1,639,000	1,579,000	1,503,000
80-84 years-----	1,125,000	1,095,000	1,057,000	1,017,000	980,000	947,000	914,000	881,000	848,000	815,000	775,000
85 years and over-----	577,000	560,000	536,000	513,000	491,000	470,000	451,000	430,000	411,000	389,000	364,000
WHITE MALE-----	67,528,000	66,678,000	65,582,000	64,507,000	63,287,000	62,748,000	62,250,000	61,568,000	60,775,000	60,196,000	59,600,000
Under 5 years-----	7,244,000	6,990,000	6,710,000	6,450,000	5,927,000	5,807,000	5,608,000	5,376,000	5,038,000	4,838,000	4,701,000
5-9 years-----	5,915,000	5,809,000	5,665,000	5,522,000	5,391,000	5,286,000	5,192,000	5,084,000	4,975,000	4,872,000	4,745,000
10-14 years-----	4,945,000	4,922,000	4,960,000	4,967,000	4,984,000	5,025,000	5,076,000	5,115,000	5,154,000	5,200,000	5,259,000
15-19 years-----	4,762,000	4,804,000	4,850,000	4,912,000	4,974,000	5,060,000	5,187,000	5,242,000	5,326,000	5,419,000	5,536,000
20-24 years-----	5,168,000	5,143,000	5,122,000	5,100,000	5,088,000	5,101,000	5,124,000	5,134,000	5,144,000	5,162,000	5,185,000
25-29 years-----	5,419,000	5,364,000	5,290,000	5,215,000	5,150,000	5,111,000	5,083,000	5,041,000	4,998,000	4,962,000	4,919,000
30-34 years-----	5,135,000	5,077,000	4,999,000	4,921,000	4,854,000	4,798,000	4,775,000	4,728,000	4,681,000	4,640,000	4,599,000
35-39 years-----	4,902,000	4,812,000	4,818,000	4,724,000	4,640,000	4,578,000	4,526,000	4,482,000	4,437,000	4,388,000	4,365,000
40-44 years-----	4,585,000	4,527,000	4,447,000	4,368,000	4,296,000	4,248,000	4,208,000	4,156,000	4,104,000	4,057,000	3,999,000
45-49 years-----	4,094,000	4,053,000	4,010,000	3,967,000	3,932,000	3,916,000	3,898,000	3,890,000	3,872,000	3,859,000	3,844,000
50-54 years-----	3,758,000	3,723,000	3,675,000	3,627,000	3,587,000	3,548,000	3,548,000	3,523,000	3,498,000	3,477,000	3,452,000
55-59 years-----	3,351,000	3,299,000	3,227,000	3,157,000	3,092,000	3,043,000	3,000,000	2,949,000	2,897,000	2,849,000	2,790,000
60-64 years-----	2,830,000	2,776,000	2,704,000	2,632,000	2,565,000	2,511,000	2,463,000	2,407,000	2,351,000	2,298,000	2,233,000
65-69 years-----	2,223,000	2,180,000	2,121,000	2,063,000	2,009,000	1,965,000	1,925,000	1,880,000	1,834,000	1,791,000	1,737,000
70-74 years-----	1,513,000	1,484,000	1,444,000	1,405,000	1,368,000	1,338,000	1,311,000	1,280,000	1,249,000	1,220,000	1,183,000
75-79 years-----	933,000	911,000	882,000	853,000	825,000	803,000	781,000	757,000	733,000	710,000	681,000
80-84 years-----	473,000	461,000	446,000	430,000	416,000	404,000	392,000	380,000	367,000	355,000	339,000
85 years and over-----	218,000	212,000	203,000	195,000	186,000	179,000	172,000	165,000	158,000	150,000	141,000

## SUMMARY TABLES

Table 2.22. Estimated Population Including Armed Forces Overseas, by Age, Race, and Sex: United States, 1940-50—Continued

(Estimates were rounded to the nearest thousand without being adjusted to totals which were independently rounded)

RACE, AGE, AND SEX	Estimated as of April 1, 1950	ESTIMATED AS OF JULY 1									Estimated as of April 1, 1940
		1949	1948	1947	1946	1945	1944	1943	1942	1941	
<b>WHITE FEMALE</b> -----	67,616,000	66,921,000	65,726,000	64,552,000	63,277,000	62,518,000	61,759,000	61,037,000	60,217,000	59,555,000	58,766,000
Under 5 years-----	6,940,000	6,685,000	6,426,000	6,178,000	5,887,000	5,572,000	5,387,000	5,163,000	4,842,000	4,659,000	4,528,000
5-9 years-----	5,681,000	5,585,000	5,451,000	5,318,000	5,188,000	5,091,000	4,980,000	4,895,000	4,800,000	4,705,000	4,584,000
10-14 years-----	4,750,000	4,764,000	4,777,000	4,789,000	4,812,000	4,847,000	4,888,000	4,936,000	4,984,000	5,033,000	5,094,000
15-19 years-----	4,645,000	4,694,000	4,753,000	4,810,000	4,879,000	4,959,000	5,045,000	5,138,000	5,234,000	5,329,000	5,448,000
20-24 years-----	5,177,000	5,169,000	5,150,000	5,131,000	5,125,000	5,131,000	5,143,000	5,162,000	5,182,000	5,203,000	5,227,000
25-29 years-----	5,576,000	5,519,000	5,439,000	5,359,000	5,291,000	5,237,000	5,188,000	5,147,000	5,106,000	5,065,000	5,012,000
30-34 years-----	5,276,000	5,215,000	5,128,000	5,041,000	4,966,000	4,904,000	4,847,000	4,797,000	4,747,000	4,697,000	4,653,000
35-39 years-----	5,105,000	5,027,000	4,921,000	4,818,000	4,722,000	4,640,000	4,584,000	4,494,000	4,425,000	4,352,000	4,284,000
40-44 years-----	4,617,000	4,555,000	4,468,000	4,380,000	4,304,000	4,238,000	4,177,000	4,122,000	4,067,000	4,011,000	3,941,000
45-49 years-----	4,089,000	4,049,000	3,992,000	3,934,000	3,885,000	3,847,000	3,813,000	3,785,000	3,756,000	3,727,000	3,690,000
50-54 years-----	3,779,000	3,729,000	3,658,000	3,586,000	3,524,000	3,470,000	3,421,000	3,376,000	3,331,000	3,286,000	3,229,000
55-59 years-----	3,345,000	3,283,000	3,199,000	3,114,000	3,037,000	2,968,000	2,902,000	2,840,000	2,778,000	2,716,000	2,657,000
60-64 years-----	2,925,000	2,788,000	2,695,000	2,617,000	2,548,000	2,486,000	2,426,000	2,370,000	2,313,000	2,256,000	2,184,000
65-69 years-----	2,365,000	2,312,000	2,242,000	2,172,000	2,108,000	2,049,000	1,995,000	1,939,000	1,885,000	1,831,000	1,762,000
70-74 years-----	1,669,000	1,630,000	1,578,000	1,527,000	1,479,000	1,434,000	1,392,000	1,351,000	1,310,000	1,269,000	1,217,000
75-79 years-----	1,004,000	1,055,000	1,016,000	977,000	941,000	907,000	874,000	842,000	810,000	778,000	757,000
80-84 years-----	585,000	589,000	548,000	525,000	506,000	487,000	469,000	451,000	433,000	415,000	393,000
85 years and over-----	314,000	304,000	280,000	275,000	265,000	251,000	239,000	227,000	215,000	203,000	196,000
<b>NONWHITE MALE</b> -----	7,738,000	7,658,000	7,548,000	7,439,000	7,344,000	7,287,000	7,128,000	6,978,000	6,822,000	6,724,000	6,615,000
Under 5 years-----	992,000	944,000	899,000	843,000	799,000	788,000	783,000	736,000	704,000	675,000	653,000
5-9 years-----	799,000	793,000	783,000	773,000	764,000	755,000	736,000	718,000	700,000	689,000	674,000
10-14 years-----	716,000	717,000	717,000	717,000	719,000	719,000	711,000	704,000	698,000	695,000	693,000
15-19 years-----	632,000	637,000	643,000	648,000	654,000	660,000	658,000	657,000	655,000	659,000	664,000
20-24 years-----	617,000	617,000	615,000	613,000	612,000	611,000	602,000	594,000	586,000	583,000	579,000
25-29 years-----	628,000	625,000	621,000	615,000	611,000	607,000	595,000	594,000	572,000	567,000	559,000
30-34 years-----	548,000	546,000	543,000	539,000	537,000	534,000	525,000	516,000	507,000	503,000	497,000
35-39 years-----	564,000	560,000	555,000	549,000	544,000	540,000	528,000	517,000	506,000	500,000	491,000
40-44 years-----	488,000	494,000	488,000	482,000	477,000	472,000	460,000	450,000	439,000	433,000	424,000
45-49 years-----	447,000	442,000	436,000	429,000	423,000	417,000	405,000	394,000	383,000	376,000	367,000
50-54 years-----	373,000	369,000	363,000	357,000	351,000	345,000	335,000	326,000	316,000	310,000	304,000
55-59 years-----	279,000	276,000	271,000	266,000	261,000	257,000	249,000	241,000	234,000	228,000	221,000
60-64 years-----	208,000	206,000	202,000	199,000	195,000	192,000	186,000	180,000	175,000	171,000	165,000
65-69 years-----	202,000	199,000	196,000	192,000	188,000	185,000	175,000	174,000	168,000	164,000	159,000
70-74 years-----	116,000	114,000	112,000	109,000	107,000	104,000	101,000	97,000	94,000	91,000	89,000
75-79 years-----	66,000	67,000	64,000	62,000	59,000	57,000	54,000	51,000	48,000	45,000	42,000
80-84 years-----	32,000	32,000	30,000	29,000	28,000	27,000	25,000	24,000	23,000	21,000	20,000
85 years and over-----	19,000	18,000	18,000	18,000	18,000	17,000	17,000	16,000	16,000	15,000	15,000
<b>NONWHITE FEMALE</b> -----	6,051,000	7,932,000	7,776,000	7,628,000	7,480,000	7,375,000	7,260,000	7,156,000	7,046,000	6,947,000	6,841,000
Under 5 years-----	987,000	940,000	885,000	840,000	796,000	784,000	781,000	736,000	708,000	682,000	659,000
5-9 years-----	804,000	794,000	780,000	786,000	752,000	739,000	727,000	715,000	704,000	694,000	681,000
10-14 years-----	709,000	708,000	705,000	703,000	700,000	698,000	696,000	697,000	697,000	699,000	700,000
15-19 years-----	661,000	663,000	667,000	669,000	672,000	676,000	680,000	685,000	691,000	697,000	705,000
20-24 years-----	699,000	696,000	692,000	687,000	683,000	679,000	676,000	674,000	671,000	670,000	669,000
25-29 years-----	655,000	690,000	682,000	675,000	667,000	660,000	654,000	649,000	643,000	639,000	634,000
30-34 years-----	617,000	610,000	601,000	592,000	583,000	575,000	567,000	560,000	553,000	546,000	539,000
35-39 years-----	626,000	619,000	609,000	599,000	589,000	579,000	570,000	562,000	554,000	546,000	537,000
40-44 years-----	517,000	510,000	500,000	490,000	480,000	471,000	462,000	453,000	445,000	437,000	429,000
45-49 years-----	455,000	447,000	436,000	428,000	415,000	404,000	394,000	385,000	376,000	367,000	358,000
50-54 years-----	364,000	357,000	348,000	339,000	329,000	319,000	310,000	302,000	293,000	285,000	278,000
55-59 years-----	260,000	255,000	246,000	241,000	234,000	228,000	221,000	215,000	209,000	203,000	196,000
60-64 years-----	198,000	194,000	189,000	183,000	178,000	172,000	167,000	162,000	157,000	152,000	146,000
65-69 years-----	216,000	211,000	203,000	196,000	189,000	182,000	176,000	169,000	163,000	156,000	148,000
70-74 years-----	115,000	112,000	109,000	105,000	102,000	98,000	95,000	92,000	88,000	85,000	81,000
75-79 years-----	67,000	65,000	63,000	60,000	58,000	55,000	53,000	51,000	48,000	46,000	43,000
80-84 years-----	35,000	34,000	33,000	32,000	30,000	29,000	28,000	26,000	25,000	24,000	23,000
85 years and over-----	26,000	26,000	25,000	24,000	24,000	23,000	23,000	22,000	22,000	21,000	20,000

Source: U. S. Bureau of the Census, for 1940-49, official records; for 1950, "Estimates of the Population of the United States, by Age, Color, and Sex: July 1, 1950, 1951, and 1952," Current Population Reports, Series P-25, No. 73, 1953.



## Chapter 3

### HEALTH AND DEMOGRAPHIC DEVELOPMENTS—GENERAL REVIEW

The decade 1940 to 1950 was characterized by many significant changes in the numbers and characteristics of the population of the United States. Most of the changes represented a continuation of demographic trends which had started much earlier. Others were due to sharp departures from the patterns of preceding decades.

The size and the age, sex, and geographic distribution of the population reflect the combined effects of past marriage, birth, death, and migration rates. The population characteristics, in turn, affect profoundly the present levels of these rates and their future prospects. However, the interactions of population characteristics and vital rates are influenced greatly by social and economic developments and can vary widely with these factors. For this reason, it is obviously much easier to describe and interpret past developments than to predict their future course.

#### Total population changes

The total population of the continental United States increased about 19,000,000 persons, or 14 percent, between the 1940 and 1950 censuses. About 1,400,000 of this increase was due to a net excess of immigrants from other countries. The remaining part, about 17,600,000, was due to the excess of births over deaths.<sup>1</sup> During the 1930-40 decade, the population increased about 9,000,000, or only 7 percent. All of this increase was due to the excess of births over deaths as there was a slight loss from migration. This was the smallest percentage increase in the United States population since the decennial census was first taken in 1790 and the smallest absolute increase since the 1860-70 decade. It was due chiefly to the rapid decline of the birth rate and secondarily to the cutback in immigration. The sharp rise in the rate of population growth between 1940 and 1950 was, likewise, due largely to the reversal of the long-continued downward trend of the birth rate which extended into the middle thirties and which was followed by significantly higher rates in the period 1940 to 1950. Continued reductions in the age-specific death rates and a rise in immigration made additional relatively minor contributions to the total population increase.

The increase in the birth rate during the past decade coincided with a substantial rise in the marriage rate to the highest levels recorded since 1867, the earliest year for which national marriage statistics are available. As a result, 68 percent of males 14 years old or over and 66 percent of females were married in 1950. The corresponding percentage in 1940 was 60 for both males and females. In the group 14-29 years of age, the differences are even more striking—38 (males) and 54 (females) percent in 1950, compared with 27 and 42 percent in 1940. The increase in the proportion of persons married, particularly in the early childbearing ages, undoubtedly contributed to the higher birth rates during the period.

<sup>1</sup>U. S. Bureau of the Census, "Current Population Reports, Population Estimates," Series P-25, No. 72, 1953.

#### Changes in population by demographic characteristics

The significant change in the rate of growth of the total population was accompanied by important changes in its demographic composition.

The number and percentage distribution of the United States population by broad age groups for each of the 3 years 1930, 1940, and 1950, together with projections of these figures to 1960,<sup>2</sup> are given below:

AGE	1960 <sup>1</sup> (July 1)	1950 <sup>2</sup> (April 1)	1940 (April 1)	1930 (April 1)
NUMBER				
Total-----	176,126,000	151,132,000	131,669,275	122,775,046
Under 5 years----	16,766,000	16,164,000	10,541,524	11,444,390
5-19 years-----	49,190,000	35,019,000	34,764,080	36,164,601
20-44 years-----	57,880,000	57,035,000	51,260,081	47,023,247
45-64 years-----	36,589,000	30,645,000	26,084,276	21,414,981
65 years and over-	15,701,000	12,269,000	9,019,314	6,663,805
PERCENT DISTRIBUTION				
Total-----	100.0	100.0	100.0	100.0
Under 5 years----	9.5	10.7	8.0	9.3
5-19 years-----	27.9	23.2	26.4	29.5
20-44 years-----	32.9	37.7	38.9	38.3
45-64 years-----	20.8	20.3	19.8	17.4
65 years and over-	8.9	8.1	6.8	5.4

<sup>1</sup>Figures for 1960 are projections.

<sup>2</sup>Includes armed forces overseas.

<sup>3</sup>Includes figures for age not reported, which are not distributed.

NOTE.—For 1930 and 1940, U. S. Bureau of the Census, "United States Census of Population: 1950, Volume II, Characteristics of the Population," Part 1, U. S. Summary, U. S. Government Printing Office, Washington, D. C., 1952. For 1950 and 1960, U. S. Bureau of the Census, "Current Population Reports, Population Estimates," Series P-25, Nos. 73 and 78, respectively.

The projected figures for 1960 involve assumptions as to future death rates and migration rates by age, and for the age group under 5 and part of the group 5-19 assumptions concerning the future course of the birth rate. Certain facts shown by this table are particularly significant. For example, the population of the under 5 group increased about 53 percent between 1940 and 1950. This will contribute to an estimated increase of approximately 40 percent in the 5-19 year age group by 1960, although this group changed relatively little between 1940 and 1950. While the population 20-44 years increased almost 6,000,000, or about 11 percent, between 1940 and 1950, only a small increase in this group is expected by 1960. The group 45-64 years of age increased about 17 percent between 1940 and 1950 and is expected to continue to increase at almost the same rate by 1960. The 65 years and over group has been increasing at a rapid rate for several

<sup>2</sup>Ibid., No. 78.

decades. Between 1940 and 1950, it increased 36 percent. The expected increase between 1950 and 1960 is about 28 percent.

In summary, the high birth rates of the past decade have resulted in significant population increases in the youngest age groups. The relatively low birth rates of the 1920-30 and 1930-40 decades are causing a temporary slowing down in the growth of the population in the young and middle adult age groups. The large reductions in death rates over the past several decades are resulting in significant increases in the population of the older age groups.

For the first time, females outnumbered males in the United States population in 1950. While the number of male births always exceeds the number of female births (the ratio in the United States has usually been about 105 to 100), the lower age-specific death rates of females lead to an excess of females in the population. In the past, a high volume of immigrants, predominantly males, maintained a large excess of males in the population. With the decline of immigration, the male-female ratio declined rapidly from 104.0 in 1920 to 102.5 in 1930, 100.7 in 1940, and 99.2 in 1950. Since the sex differences in mortality have steadily increased in recent decades and show no signs of getting smaller, the ratio is likely to decline further in future years.

The substantial increase between 1940 and 1950 in the proportion of the population who are married was mentioned earlier. This increase, as would be expected, was accompanied by a corresponding decrease in the single or never-married group. The percentages of divorced males and females in the population continued to rise between 1940 and 1950, from 1.2 and 1.6 percent to 2.0 and 2.4 percent, respectively. The proportion of the male population widowed declined slightly between the two census years, but among females the proportion rose from 11.3 to 11.8 percent. At ages 55-64, widows constituted 25 percent of the female population in 1950, and 54 percent at ages 65 and over.

The general increase in the birth rate during the 1940-50 decade was shared in varying degrees by all birth orders up to and including the fifth child. The rates (per 1,000 females aged 15-44 years) for third, fourth, and fifth children in 1950 were 68, 42, and 20 percent, respectively, higher than the corresponding rates in 1940 when adjusted for underregistration. This represents a reversal of the long decline in the formation of medium-sized families. However, the rates for the higher birth orders declined over this period, continuing the downward movement of the 1920's and 1930's. These developments suggest an increased relative importance of the medium-sized family and a decreasing relative importance of the large family, which are pertinent in gaging present and future housing needs.

### Changes in population by economic and social characteristics

Several changes have occurred in the composition of the labor force and in the occupational distribution of the population. A significant rise occurred in the proportion of women 14 years and over who were in the labor force, from 25 percent in 1940 to 29 percent in 1950. The increase was greater in the age period 35-64 years, from 23 percent to 31 percent.

A significant change is indicated in the occupational distribution. Laborers, including private household workers, declined from 12 percent in 1940 to 9 percent in 1950. Farm laborers, including unpaid family workers, declined from 7 to 4 percent during the decade. Farmers and farm managers also declined from 11 to 8 percent. In contrast, moderate increases occurred in the professional, proprietor, and managerial groups (16 to 18 percent); among clerical, sales, and service workers (24 to 27 percent); and among craftsmen, foremen, and operatives (29 to 34 percent).

A very important social change which has been in process

for many decades and which continued between 1940 and 1950, is the increase in the proportion of the population 5-24 years of age attending school. In the past two decades, it has been particularly significant at ages 14 and over. In the group 14-19 years, the proportion in school increased from 62 percent in 1940 to 66 percent in 1950. In the college group, 20-24 years, 13 percent were in school in 1950 compared with 7 percent in 1940.

Probably the most significant factor in the spectacular rises in marriage and birth rates during the past decade, and an important contributor, too, to the accelerated decline of the age-specific death rates, has been the great improvement in employment conditions, income, and the associated standard of living. The percentage of the civilian population 14 years and over who were unemployed declined from 15 percent in 1940 to 5 percent in 1950. Net per capita income and personal consumption expenditures expressed in dollars of constant value rose about 30 percent between 1940 and 1950.<sup>3</sup>

The increased proportion of women in the labor force and the changes in occupational distribution within the labor force have significant implications for medical and health services. It has been pretty well demonstrated that definite relationships exist between kinds of occupation and various health problems.

Increased school attendance, reduced unemployment, and the marked rise in per capita income indicate substantial improvement in the social and economic well-being of the population, which in turn may be expected to raise the general level of health.

### Changes in geographic distribution of the population

Significant changes occurred between 1940 and 1950 in the geographic distribution of the population and in the degree of concentration in urban as compared with rural areas. These changes due to internal migration have altered the age and race distributions of many areas and have probably contributed, along with other factors, to the reductions in the differences between birth and death rates in the various parts of the country.

The urban population increased by 19 percent between 1940 and 1950, while the rural population gained only 8 percent. But the latter figure conceals a rather startling fact. All of the gain was in the rural nonfarm population which increased 43 percent. In contrast, the rural farm population declined 24 percent. The movement to urban areas affected suburban districts much more than the central cities. While the central cities in the 168 standard metropolitan areas increased 14 percent, the outlying suburban parts of these areas increased 36 percent. There was a race differential in this movement from rural to urban areas. The white population of the urban areas increased 17 percent, but for the nonwhite group the rise was 44 percent. The increases in the rural nonfarm (largely suburban) areas were about the same for both groups, 43 percent for the white and 40 percent for the nonwhite. In the rural farm areas, the nonwhite population decreased 30 percent, compared with 22 percent for the white.

Comparison of the civilian populations of the nine census geographic divisions in 1940 and 1950 reveals wide variation in net migration during the decade. Net migration was calculated by adding the estimated number of resident births during the decade to the 1940 population, deducting the estimated deaths, and then subtracting this sum from the 1950 population. The increase for the United States as a whole was due, of course, to immigration from other countries. The percent

<sup>3</sup>U. S. Bureau of the Census, "Statistical Abstract of the United States, 1952," p. 256, U. S. Government Printing Office, Washington, D. C., 1952.

increase or decrease from migration in the geographic divisions is given below:<sup>4</sup>

Division	Percent increase or decrease from migration, 1940 to 1950
United States-----	+1.0
New England-----	+1.2
Middle Atlantic-----	+0.8
East North Central-----	+2.5
West North Central-----	-7.3
South Atlantic-----	+0.4
East South Central-----	-11.9
West South Central-----	-7.1
Mountain-----	+4.0
Pacific-----	+34.3

There are indications of age and race differentials in the migratory population. For example, the median age of the nation's population increased 1.2 years between 1940 and 1950. It also increased from 0.7 to 1.8 years in eight of the nine geographic divisions. The one exception was the Pacific Division which had experienced by far the largest volume of net in-migration. Here the median age of the population actually decreased 1.0 year. The smallest increases in the median age occurred in the Mountain and East North Central Divisions which also experienced the second and third largest relative increases by migration. Thus, it appears that the migrants were on the whole young people.

The migration differentials by race group were sufficient to result in changes in the race composition of the population in several geographic divisions. For example, in 1940 the non-white group constituted 27, 26, and 19 percent of the population in the South Atlantic, East South Central, and West South Central Divisions. In 1950, the corresponding percentages had dropped to 24, 24, and 17. In contrast, in the Middle Atlantic, East North Central, and Pacific Divisions, the percentages of the nonwhite rose from 4.7, 4.1, and 3.7, respectively, in 1940 to 6.4, 6.1, and 5.2 in 1950.

These changes in the age and race composition of the population, due to migration, operated to reduce the differences in fertility rates between the geographic divisions, but they had the opposite effect of increasing the differences between races within most of the geographic divisions. (See natality text, chapter 6.) The changes in age distribution, due to migration, also affected the crude death rates, notably in the Pacific Division which showed the largest reduction in the crude death rate between 1940 and 1950. (See mortality text, chapter 8.)

### Medical and health services

The quantity and quality of health and medical services, and hospital facilities available to and used by the population, undoubtedly affect its morbidity and mortality experience. The quality of such services is dependent upon the training of the professional personnel who provide the services and the degree of advancement in the basic health and medical sciences. The use of available services depends chiefly upon the economic condition of the population and its attitudes and living habits.

The number of physicians per 100,000 population in the country had declined slowly from at least 1910 to about 1930. The ratio rose from 125 in 1930 to 133 in 1940, and remained approximately at that level throughout the past decade.<sup>5</sup> How-

ever, there are several bits of evidence that there has been a considerable improvement in the average level of training of physicians during this period. The number of internships and residencies offered in approved hospitals rose rapidly from 428 in 1914 to 4,709 in 1940 and 18,689 in 1950.<sup>6</sup> Also, the number of specialists has increased much more rapidly than the total number of physicians. The proportion of physicians who are specialists has increased from 15 percent in 1929 to 21 in 1940 and 31 in 1949. Correspondingly, the number of specialists increased from 18 per 100,000 population in 1929 to 28 in 1940 and 42 in 1949.<sup>7</sup>

Hospital facilities have been expanded steadily during the past several decades. In 1920, there were 2.9 beds in general hospitals per 1,000 population. By 1940, the ratio had increased to 3.5, and by 1950 to 3.9. The bed-population ratio for mental and tuberculosis hospitals also increased greatly between 1920 and 1940, but remained constant from 1940 to 1950. During the past decade, utilization of hospital facilities rose much more sharply than did the number of available beds. Hospital admissions increased about 47 percent, from 77 per 1,000 population in 1940 to 113 in 1950.<sup>8</sup> This was achieved by reducing the average length of stay in the hospital and increasing the occupancy rate. The number of nurses working in hospitals also increased greatly, about 70 percent, from 1941 to 1950—an indication of improved care in the hospitals.<sup>9</sup>

A food supply adequate in quantity and variety is generally accepted as essential to health. The total amount of food (calories) consumed per capita in the United States has decreased moderately—about 7 percent during the past 40 years.<sup>10</sup> Significant changes have occurred in the relative use of different types of foods. The consumption of grain products, potatoes, and sugar combined declined about 33 percent between 1910 and 1950, while the use of fruits and vegetables has increased about 37 percent. Both the consumption of eggs, dairy products, and meats combined and fats and oils combined have increased about 15 percent.<sup>11</sup> Thus, it would appear that while people are eating a slightly smaller amount of food in terms of calories, the types of foods in the diet have changed markedly.

### Demographic and health high lights

The demographic and health situation in the United States, as evidenced by vital rates, may be considered in relation to the population changes outlined.

The accelerated rate of growth of the total United States population between 1940 and 1950 created a correspondingly increased need for expanded public health, medical, and hospital services. The even greater increase in per capita income made it possible to translate a higher proportion of this need into effective use of the available services. This is indicated by the increase in hospital admission rates per 1,000 population. While comparative figures on patient visits to physicians are not available, it is quite likely that they increased on a per capita basis, in spite of the fact that the ratio of physicians to population did not change appreciably during the decade.

The sharp upswing in the number and proportion of the

<sup>6</sup>Ibid., p. 158.

<sup>7</sup>Ibid., p. 160.

<sup>8</sup>Ibid., p. 229.

<sup>9</sup>Ibid., p. 187.

<sup>10</sup>U. S. Bureau of the Census, "Historical Statistics of the United States, 1789-1945," p. 52, and "Statistical Abstract of the United States, 1952," p. 90, U. S. Government Printing Office, Washington, D. C., 1949 and 1952, respectively.

<sup>11</sup>Ibid., Historical Statistics, p. 74.

<sup>4</sup>Same as footnote 1.

<sup>5</sup>The President's Commission on the Health Needs of the Nation, "America's Health Status, Needs, and Resources," Volume 3, p. 135, U. S. Government Printing Office, Washington, D. C., 1953.

population in the young age groups and the continuing high birth rate increase the demand for medical skills and hospital facilities specializing in maternal and infant care and in childhood health problems. Fetal mortality, the full extent of which is unknown, and neonatal mortality which accounts for more than two-thirds of all deaths under 1 year of age, assume greater importance. Premature birth which is perhaps the most significant condition associated with fetal and early neonatal mortality is now one of the most urgent unsolved medical problems. Accidents, which is the leading cause of death between the ages of 1 and 25, deserves even more attention from preventive health services. Poliomyelitis and rheumatic fever continue to be major health problems. The great advances made in the prevention and control of diphtheria, early whooping cough, and the various forms of gastro-enteritis must be maintained. Tuberculosis, influenza and pneumonia, and malignant neoplasms are among the leading causes of death at the young ages, and require a continued high priority of attention.

The continuing rapid increase in the number and proportion of the population in the older age-periods gives added urgency to the treatment of the major chronic diseases—the cardiovascular-renal diseases, cancer, diabetes, etc. Recent studies have indicated that the United States death rates for males after age 35 and for females after age 55 are high in comparison with those of most European countries, Canada, Australia, and New Zealand. The record is particularly poor for the death rates from cardiovascular-renal diseases, diabetes, and accidents.<sup>12</sup> In contrast, the United States rates for the younger ages are lower than those in most other countries.

The decrease in the ratio of males to females in the population will continue if immigration remains restricted and the differential between male and female mortality rates remains constant. The more rapid decline of the age specific mortality rates of the females during the past several decades as compared with the rates for males, is probably of considerable significance. In some way, the factors making for generally lower mortality rates have had a sex-selectivity factor. The increasing sex differential in mortality rates has been particularly noticeable for the cardiovascular-renal diseases.

In contrast to the diverging trends of the sex-specific death rates, the rates for the white and nonwhite groups have tended to converge, particularly in the last decade, although the age-adjusted rate for the nonwhite is still much higher than that for the white group. Similarly, the age-adjusted rates for States varied less in 1950 than in 1940. These changes may be related to the rise in income noted earlier, and to the increase in availability and use of medical facilities.

The actual and prospective decline in the relative size of the young adult population, which is due to the relatively low birth rates from, roughly, 1930 to 1940, and the higher birth rates in the preceding and following periods, have implications for the course of the crude marriage and birth rates in the present decade. Even if the present high age-specific marriage and birth rates were to continue at or near their present levels, it is likely that the crude rates would fall. This is due to the fact that the parts of the population outside the marriageable and reproductive ages are proportionately large and contribute heavily to the denominators of the crude rates without adding much to the numerators. Even higher age-specific marriage and birth rates will be required to maintain the crude rates at their present levels.

Vital rate changes between 1940 and 1950 suggest consideration of certain social problems. The steady upward movement of the divorce rate gradually increases the proportion of the population in that status. The increasing difference

between male and female death rates has raised the proportion of widows in the population, especially at the older ages. While the ratio of illegitimate births to total births did not change appreciably between 1940 and 1950, this means only that illegitimate births increased at about the same rate as legitimate births. The actual rate of illegitimacy based on the unmarried female population increased markedly during the decade. These developments are significant because they involve increases in population groups which actually or potentially are faced with particular problems in economic and social adjustments.

### Summary

The 1940-50 decade saw an accelerated rise in the total population after a sharp drop in the rate of increase in the preceding 10 years which was due to the decline in the number of births and the virtual cessation of immigration. The increase in the past 10 years was due primarily to a sharp upswing in the marriage and birth rates, with increased immigration and lower death rates making lesser contributions. In terms of population composition, the combined effect of much higher birth rates and continued reduction of the age-specific death rates was to increase absolutely and relatively the numbers of persons at the very young and very old ages.

These national demographic changes were accompanied by large increases in family income, by marked shifts in occupation from unskilled to semiskilled and skilled work, and by notable advances in the proportion of the younger population attending school.

Hospital facilities were expanded and used more widely than in preceding periods. While the number of physicians increased at about the same rate as the population, the number of specialists increased much more rapidly. Notable advances occurred in medical treatment, particularly the discovery and widespread use of various antibiotics.

Within the country, the internal migration resulted in major changes in the geographic distribution of the population. The movement was predominantly from the Southern and Midwestern States to the Pacific area and from rural areas generally to urban centers. These changes have probably contributed to the reduction in the differences between the birth and death rates of the various parts of the country. Another factor in this reduced variation may have been the rise in standard of living and increased availability and use of hospital facilities.

In terms of magnitude, the major public health problems, as evidenced by vital rates, seem to be:

1. The high neonatal mortality rate and the unknown but certainly high fetal mortality rate.
2. Mortality from accidents at all ages.
3. High mortality from the cardiovascular-renal diseases and malignant neoplasms in the middle and older years of life.
4. The still large difference between the mortality rates of the white and nonwhite groups.
5. The increasingly unfavorable mortality experience of males, as compared with that of females.
6. The significant, although decreasing, differences in the age-specific mortality rates in different geographic areas.

The major demographic developments seem to be:

1. The rise of the birth rate, particularly for second, third, and fourth children, resulting in more medium-sized families.
2. The higher marriage rate, particularly at the younger ages.
3. Reduction of the still large geographic variation in birth rates, due to migration and other factors.
4. The continued large differential between the birth rates of the white and nonwhite populations.

<sup>12</sup>Dublin, Louis I., and Spiegelman, Mortimer, "Factors in the Higher Mortality of Our Older Age Groups," *American Journal of Public Health*, vol. 42, No. 4, pp. 422-429, April 1952.

## Chapter 4

### NOTIFIABLE DISEASE STATISTICS

Notifiable disease statistics are collected to meet a variety of needs. First, reporting by physicians supplies the local and State health officers with information on current trends of communicable diseases in their respective areas. Notification is essential if diseases are to be investigated epidemiologically or if appropriate control measures are to be applied. When these statistics are assembled on a local, State, and national basis, they provide basic information for planning more effective public health programs and medical research studies. Such data are also needed for health education and publicity purposes. Certain commercial groups also have a legitimate need for information on communicable diseases, which can be used for developing or marketing their products.

The completeness of reporting communicable diseases varies from State to State and in different parts of the same State. Several variables influence the reporting of diseases. Certain so-called minor communicable diseases such as measles are poorly reported because a large proportion of the cases are never seen by a physician. The fact that few cases of measles have a fatal termination and because restrictive measures are minimum and no investigation of cases is made, also mitigates against complete reporting. On the other hand, a very high proportion of the potentially dangerous diseases such as smallpox, diphtheria, and typhoid fever, are reported. As a rule, cases of these diseases are investigated epidemiologically and specific control or preventive measures can be applied. Other diseases such as poliomyelitis and Rocky Mountain spotted fever are reasonably well reported because they have a wide or peculiar public interest.

#### Trends in incidence of specified notifiable diseases

Table 4.01 shows the number of reported cases of certain diseases in the United States over a period of 10 years from 1941 to 1950. Some have shown a decline during this period, others an increase, and a few have shown no appreciable change. Typhoid fever, smallpox, diphtheria, and malaria have shown a downward trend in the numbers of cases reported.

The decline in incidence of typhoid fever and smallpox has been uninterrupted over the 10-year period, and with minor interruptions for the latter two diseases. All four can be controlled effectively when appropriate measures are applied.

A pronounced trend in the incidence of diseases such as scarlet fever and streptococcal sore throat, and meningococcal infections is more difficult to demonstrate over a period of 10 years because of their cyclic characteristics. These infections tend to wax and wane over periods of years in an irregular wave-like fashion. The explanation for these cycles is not known. However, the fairly regular occurrence or cycles of measles every 2 or 3 years is explained on the basis of an accumulation in the numbers of susceptibles in the population in interepidemic years. An epidemic can be expected to occur when the proportion of susceptible persons reaches a certain critical level.

The upward trend in the number of cases of poliomyelitis reported in the country as a whole is very apparent. This could have occurred because: (1) there was a general improvement in reporting all types of cases; (2) a larger proportion of nonparalytic cases were included in the total; or (3) there was a real increase in incidence. A slight increase in death rates over the same period suggests that some of the upward trend was due to an actual increase in incidence.

Reported incidence of some diseases has declined when confirmation of diagnosis by a laboratory test has become an established procedure. For instance, the increasing practice of diagnosing malaria only when a laboratory examination of blood smears showed the presence of the malaria parasite has tended to reduce the number of reported cases. Likewise, when confirmation of the diagnosis of endemic typhus fever by means of the complement fixation test became an established procedure, the number of cases decreased.

#### Reported incidence by geographic division and State

The numbers or cases of specified diseases by each geographic division and State are shown in table 4.02. Geographic differences in incidence may be due to environmental factors in

Table 4.01. REPORTED CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES, 1941-50  
(Numbers after diseases are category numbers of the Sixth Revision of the International Lists, 1948)

DISEASE	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941
Typhoid fever-----040	2,484	2,795	2,840	3,075	3,268	4,211	4,599	4,690	5,595	18,601
Brucellosis (undulant fever)-----044	3,510	4,235	4,991	6,321	5,887	5,049	4,436	3,733	3,228	3,484
Scarlet fever and streptococcal sore throat-----050,051	64,494	87,220	91,295	93,595	125,511	185,570	200,539	150,362	135,755	139,424
Diphtheria-----055	5,796	7,969	9,493	12,262	16,354	18,675	14,150	14,811	16,260	17,987
Whooping cough-----056	120,718	69,479	74,715	156,517	109,860	133,792	109,873	191,890	191,393	222,202
Meningococcal infections-----057	3,788	3,519	3,376	3,420	5,693	8,208	16,312	18,223	3,823	2,006
Tularemia-----059	927	1,179	1,086	1,401	1,355	900	781	966	1,024	1,530
Acute poliomyelitis-----080	33,300	42,033	27,726	10,827	25,698	13,624	19,029	12,450	4,167	9,086
Acute infectious encephalitis-----082	1,135	903	730	785	728	785	788	771	666	3,516
Smallpox-----084	39	49	57	176	337	346	397	765	865	1,396
Measles-----085	319,124	625,281	615,104	222,375	695,843	146,015	630,291	633,627	547,413	894,134
Endemic typhus fever-----101	685	985	1,171	2,050	3,365	5,193	5,401	4,528	3,736	2,784
Rocky Mountain spotted fever-----104A	464	570	547	596	587	472	470	473	498	516
Malaria-----110-117	2,184	4,151	9,606	15,116	48,610	62,763	57,626	54,554	60,077	68,074

<sup>1</sup>Includes paratyphoid fever.

Table 4.02. REPORTED CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES, EACH DIVISION AND STATE, 1950

(Numbers under diseases are category numbers of the Sixth Revision of the International Lists, 1948)

AREA	Ty- phoid fever (040)	Brucel- losis (undul- tant fever) (044)	Scarlet fever and strep- tococcal sore throat (050,051)	Diph- the- ria (055)	Whoop- ing cough (056)	Men- ingo- coccal infec- tions (057)	Tu- lare- mia (059)	Acute polio- mye- litis (080)	Acute infec- tious encepha- litis (082)	Small- pox (084)	Measles (085)	En- dem- ic typhus fever (101)	Rocky Moun- tain spotted fever (104A)	Ma- la- ria (110- 117)
UNITED STATES--	2,484	3,510	64,494	5,798	120,716	3,788	927	33,300	1,135	39	319,124	685	464	2,184
GEOGRAPHIC DIVISIONS														
New England-----	65	91	6,783	175	15,555	144	2	1,217	44	-	19,491	-	-	6
Middle Atlantic----	288	263	10,231	328	20,306	632	7	6,344	224	-	80,746	7	35	25
East North Central--	323	803	17,872	535	28,121	726	122	7,270	164	3	98,567	-	29	10
West North Central--	141	1,109	3,619	272	6,237	314	66	3,606	90	15	23,106	-	5	6
South Atlantic-----	385	280	8,610	1,585	13,666	571	177	4,641	63	-	24,766	228	241	180
East South Central--	358	174	3,878	1,045	5,320	442	100	1,928	54	9	13,038	156	50	173
West South Central--	652	458	4,637	1,314	14,803	532	348	4,057	94	6	17,900	288	30	1,746
Mountain-----	137	132	5,534	213	6,536	82	93	369	44	5	20,594	1	58	22
Pacific-----	135	202	3,330	331	10,174	345	4	3,368	358	1	20,916	5	16	16
NEW ENGLAND														
Maine-----	14	12	445	17	1,964	24	-	93	1	-	999	-	-	-
New Hampshire-----	7	3	291	8	406	5	-	39	-	-	599	-	-	-
Vermont-----	1	7	143	2	1,784	8	-	35	-	-	607	-	-	-
Massachusetts-----	20	22	4,528	135	5,639	60	2	518	39	-	12,850	-	-	3
Rhode Island-----	9	4	265	8	1,987	11	-	55	1	-	342	-	-	-
Connecticut-----	14	43	1,111	5	3,775	38	-	478	3	-	4,094	-	-	3
MIDDLE ATLANTIC														
New York-----	69	149	4,898	134	7,465	290	1	4,043	176	-	32,462	6	12	10
New Jersey-----	60	35	1,496	50	6,201	80	2	866	42	-	30,797	-	11	11
Pennsylvania-----	159	79	3,837	142	6,640	262	4	1,435	6	-	17,467	1	12	4
EAST NORTH CENTRAL														
Ohio-----	121	41	6,572	220	7,334	227	6	1,833	3	2	13,490	-	7	2
Indiana-----	49	42	1,543	154	1,769	31	24	598	26	-	7,795	-	7	1
Illinois-----	80	442	2,178	60	3,339	223	78	1,941	50	-	19,231	-	13	4
Michigan-----	43	93	5,186	84	9,184	133	9	2,029	71	-	38,245	-	2	-
Wisconsin-----	30	185	2,393	17	6,495	112	5	869	14	1	19,806	-	-	3
WEST NORTH CENTRAL														
Minnesota-----	12	283	939	99	1,377	68	1	586	15	-	4,073	-	-	3
Iowa-----	9	549	383	24	1,160	43	1	1,399	14	-	10,872	-	-	1
Missouri-----	89	80	664	72	1,355	100	52	412	6	2	2,375	-	2	2
North Dakota-----	4	38	133	6	336	30	2	42	21	1	374	-	-	-
South Dakota-----	2	10	120	2	168	19	-	192	22	2	812	-	-	-
Nebraska-----	5	15	555	21	302	15	-	457	1	7	2,763	-	1	-
Kansas-----	20	134	825	48	1,539	39	10	518	11	3	1,837	-	2	-
SOUTH ATLANTIC														
Delaware-----	11	-	132	5	263	18	-	40	1	-	629	-	1	-
Maryland-----	-	44	795	95	2,227	63	10	708	4	-	1,523	1	56	7
District of Columbia--	7	-	206	3	190	18	-	184	1	-	1,792	-	1	2
Virginia-----	68	67	3,498	192	3,293	124	44	1,200	16	-	2,959	4	77	16
West Virginia-----	68	8	796	190	2,338	78	3	376	5	-	6,164	-	11	1
North Carolina-----	58	21	1,926	499	3,352	116	25	756	9	-	4,964	12	70	36
South Carolina-----	71	9	238	212	474	46	9	431	7	-	1,937	15	12	85
Georgia-----	72	95	742	292	1,058	55	68	477	11	-	2,239	162	13	26
Florida-----	30	36	277	97	471	53	18	471	9	-	2,499	34	-	7
EAST SOUTH CENTRAL														
Kentucky-----	118	19	1,228	220	1,956	131	12	692	6	7	5,298	1	7	6
Tennessee-----	130	51	1,743	262	1,874	178	33	561	27	1	3,771	12	23	16
Alabama-----	52	43	611	317	1,212	84	19	282	5	-	1,654	130	15	87
Mississippi-----	58	61	296	246	269	49	44	393	16	1	2,315	13	5	64
WEST SOUTH CENTRAL														
Arkansas-----	118	34	2,094	158	2,011	62	194	337	7	-	1,895	3	16	48
Louisiana-----	137	32	161	125	242	69	29	409	2	-	791	62	4	6
Oklahoma-----	84	102	919	131	934	56	61	533	26	5	645	1	10	91
Texas-----	313	288	1,443	900	11,616	345	64	2,778	59	1	14,576	222	-	1,601
MOUNTAIN														
Montana-----	12	18	322	35	614	10	31	48	2	-	1,833	1	15	-
Idaho-----	23	24	731	25	720	8	2	161	6	-	1,872	-	10	1
Wyoming-----	3	5	60	6	120	8	9	47	1	-	703	-	4	2
Colorado-----	23	55	647	43	1,134	28	2	205	9	2	5,431	-	17	2
New Mexico-----	45	1	167	24	994	3	6	134	1	1	972	-	2	1
Arizona-----	27	16	2,844	58	2,093	17	3	168	13	1	2,566	-	-	13
Utah-----	3	9	285	19	731	7	38	81	5	-	6,867	-	6	-
Nevada-----	1	4	478	3	130	1	2	25	5	1	350	-	4	3
PACIFIC														
Washington-----	21	37	1,759	20	2,141	65	-	635	6	-	3,895	-	-	1
Oregon-----	11	45	951	43	1,420	41	2	520	2	1	726	-	12	1
California-----	103	120	620	268	6,613	239	2	2,213	350	-	16,495	5	4	14

some instances, social and economic factors in others, or to variations in completeness of reporting.

The distribution of arthropod-borne diseases such as Rocky Mountain spotted fever, malaria, endemic or murine typhus, and mosquito-transmitted encephalitis, depends on the presence or absence of specific vectors. Since some tularemia infections result from bites of ticks or blood-sucking flies, such cases will also be limited geographically.

Diseases such as measles, whooping cough, and poliomyelitis tend to occur unevenly throughout the country. Measles occurs in fairly regular cycles of 2 to 3 years in a given area, but there may be high incidence in one area one year, and in other areas in other years. Whooping cough and poliomyelitis show a greater amount of irregularity.

About two-thirds of the cases of diphtheria and over one-half of the number of cases of typhoid fever in 1950 were reported in Southern States. The former disease has declined more slowly in the Southern States than in other parts of the

country, while environmental conditions probably account for a greater incidence of the latter in these States.<sup>1</sup>

Seven States, all but two located in the East and West North Central Divisions reported almost one-half of the cases of brucellosis in 1950. All of these States have large rural populations which have considerable exposure to infected animals that constitute the reservoir of infection for man. In some, there is also exposure to animals in meat packing establishments. To some extent the number of reported cases is directly proportional to the amount of interest shown by private physicians and public health officers in dealing with the problem of brucellosis.

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<sup>1</sup>National Office of Vital Statistics, "Reported Incidence of Selected Notifiable Diseases: United States, Each Division and State, 1920-50," Vital Statistics--Special Reports, vol. 37, No. 9, 1953.

## Chapter 5

### MARRIAGE AND DIVORCE STATISTICS

#### MARRIAGE DATA

There were 1,667,231 marriages in the United States in 1950, which represented a crude marriage rate of 11.1 per 1,000 population. Compared with corresponding figures for 1949, the number of marriages in 1950 increased 5.5 percent, or 87,433, and the marriage rate increased 4.7 percent over that of 10.6 per 1,000 for 1949.

The year 1950 was the first since 1946 in which there were more marriages than in the preceding year. Monthly statistics on marriage licenses<sup>1</sup> indicate that the increase occurred during the latter half of the year, following the outbreak of hostilities in Korea.

In spite of the rise in the number of marriages in 1950, the decline since the all-time peak in 1946, when 2,291,045 marriages occurred, remained substantial. This decrease in marriages occurred during a period when the number of young persons 15-24 years of age had been greatly reduced<sup>2</sup> as a consequence of the low birth rates of the early 1930's. Furthermore, the unusually large number of marriages in the immediate postwar years has depleted the number of single persons.

#### Marriage trend

Numbers of marriages, crude marriage rates, and the population for computing these rates, covering the years 1867 through 1950, are presented in table 5.01. For most years the numbers of marriages include estimates for some States and marriage licenses for those States from which data on marriages performed were not available.

Over this 84-year period, the number of marriages increased as the population increased, doubling between 1867 and 1900, and again between 1900 and 1950.

In the same 84-year period, the crude marriage rate fluctuated sharply reaching its low point of 7.9 per 1,000 population in 1932, a depression year, and its high point of 16.4 in 1946, the first year following the termination of World War II. In the period between these two points, the rise in marriage rates was interrupted only in 1938 and in 1943 and 1944. Similar, though less pronounced, increases occurred at the turn of the century and in the years immediately following World War I. (See figure 5.A.)

#### Marriages by State

Marriages or marriage licenses and crude rates by geographic division and by State for 1949 and 1950 are presented in table 5.02. For 15 States in both years the data represent marriage licenses. All figures are shown by State where the marriage was performed or the marriage license was issued.

A larger number of marriages in 1950 than in 1949 was

Table 5.01. POPULATION, MARRIAGES, AND CRUDE MARRIAGE RATES: UNITED STATES, 1867-1950

(Rates per 1,000 population)

YEAR	Population <sup>1</sup>	MARRIAGES <sup>2</sup>		YEAR	Population <sup>1</sup>	MARRIAGES <sup>2</sup>	
		Number	Rate			Number	Rate
1950-	150,697,361	1,667,231	11.1	1908-	68,708,976	857,461	9.7
1949-	148,665,000	1,579,798	10.6	1907-	87,000,271	936,936	10.8
1948-	146,093,000	1,811,155	12.4	1906-	85,436,556	895,000	10.5
1947-	143,446,000	1,991,878	13.9	1905-	83,819,666	842,000	10.0
1946-	140,054,000	2,291,045	16.4	1904-	82,184,374	815,000	9.9
1945-	132,481,000	1,612,992	12.2	1903-	80,632,152	818,000	10.1
1944-	132,885,000	1,452,394	10.9	1902-	79,160,196	776,000	9.8
1943-	134,245,000	1,577,050	11.7	1901-	77,585,128	742,000	9.6
1942-	133,920,000	1,772,132	13.2	1900-	76,094,134	709,000	9.3
1941-	133,121,000	1,695,989	12.7	1899-	74,796,612	675,000	9.0
1940-	131,669,275	1,595,879	12.1	1898-	73,495,926	647,000	8.8
1939-	130,879,718	1,403,633	10.7	1897-	72,189,240	643,000	8.9
1938-	129,824,939	1,330,780	10.3	1896-	70,884,554	635,000	9.0
1937-	128,824,829	1,451,296	11.3	1895-	69,579,668	620,000	8.9
1936-	128,053,180	1,369,000	10.7	1894-	68,275,182	588,000	8.6
1935-	127,250,232	1,327,000	10.4	1893-	66,970,496	601,000	9.0
1934-	126,373,773	1,302,000	10.3	1892-	65,665,810	601,000	9.2
1933-	125,578,763	1,098,000	8.7	1891-	64,361,124	592,000	9.2
1932-	124,840,471	981,903	7.9	1890-	63,058,438	570,000	9.0
1931-	124,039,648	1,060,914	8.6	1889-	61,775,121	565,000	9.1
1930-	123,076,741	1,126,856	9.2	1888-	60,495,927	535,000	8.8
1929-	121,769,939	1,232,559	10.1	1887-	59,216,733	513,000	8.7
1928-	120,501,115	1,182,497	9.8	1886-	57,937,540	534,000	9.2
1927-	119,036,062	1,201,053	10.1	1885-	56,658,347	507,000	8.9
1926-	117,399,225	1,202,574	10.2	1884-	55,379,154	485,000	8.8
1925-	115,831,963	1,186,334	10.3	1883-	54,099,961	501,000	9.3
1924-	114,113,463	1,184,574	10.4	1882-	52,820,768	484,000	9.2
1923-	111,949,945	1,229,784	11.0	1881-	51,541,575	464,000	9.0
1922-	110,054,778	1,134,151	10.3	1880-	50,262,382	453,000	9.0
1921-	108,541,489	1,163,863	10.7	1879-	49,208,194	438,000	8.9
1920-	106,466,420	1,274,476	12.0	1878-	48,174,461	423,000	8.8
1919-	104,512,110	1,150,186	11.0	1877-	47,140,727	411,000	8.7
1918-	103,202,801	1,000,109	9.7	1876-	46,106,994	405,000	8.8
1917-	103,265,913	1,144,200	11.1	1875-	45,073,260	409,000	9.1
1916-	101,965,964	1,075,775	10.6	1874-	44,039,527	388,000	8.7
1915-	100,549,013	1,007,595	10.0	1873-	43,005,794	386,000	9.0
1914-	99,117,567	1,025,092	10.3	1872-	41,972,060	378,000	9.0
1913-	97,226,814	1,021,398	10.5	1871-	40,938,327	359,000	8.8
1912-	95,331,300	1,004,602	10.5	1870-	39,904,593	352,000	8.8
1911-	93,867,814	955,287	10.2	1869-	39,050,729	348,000	8.9
1910-	92,406,536	948,166	10.3	1868-	38,213,216	345,000	9.0
1909-	90,491,525	897,354	9.9	1867-	37,375,703	357,000	9.6

<sup>1</sup>For 1940 and 1950, enumerated as of April 1; for other years, estimated as of July 1. Figures represent total population residing in the United States, that is, exclusive of armed forces overseas.

<sup>2</sup>Includes estimates and marriage licenses; for sources of data, see table 1.05 in chapter 1.

<sup>1</sup>See table 5, p. 21, in Volume II of this annual report.

<sup>2</sup>Between 1940 and 1950, the number of persons in this age group has declined 1.8 million. See "United States Census of Population: 1950, Volume II, Characteristics of the Population," Part 1, United States Summary, pp. 90-92, U. S. Bureau of the Census, U. S. Government Printing Office, Washington, D. C., 1953.

recorded in 43 States and the District of Columbia, and in 8 of the 9 geographic divisions. The number of marriages in each State is affected by such factors as the age, race, and marital status of the population; the sex ratio; and laws and regulations relating to marriage.



FIGURE 5.A

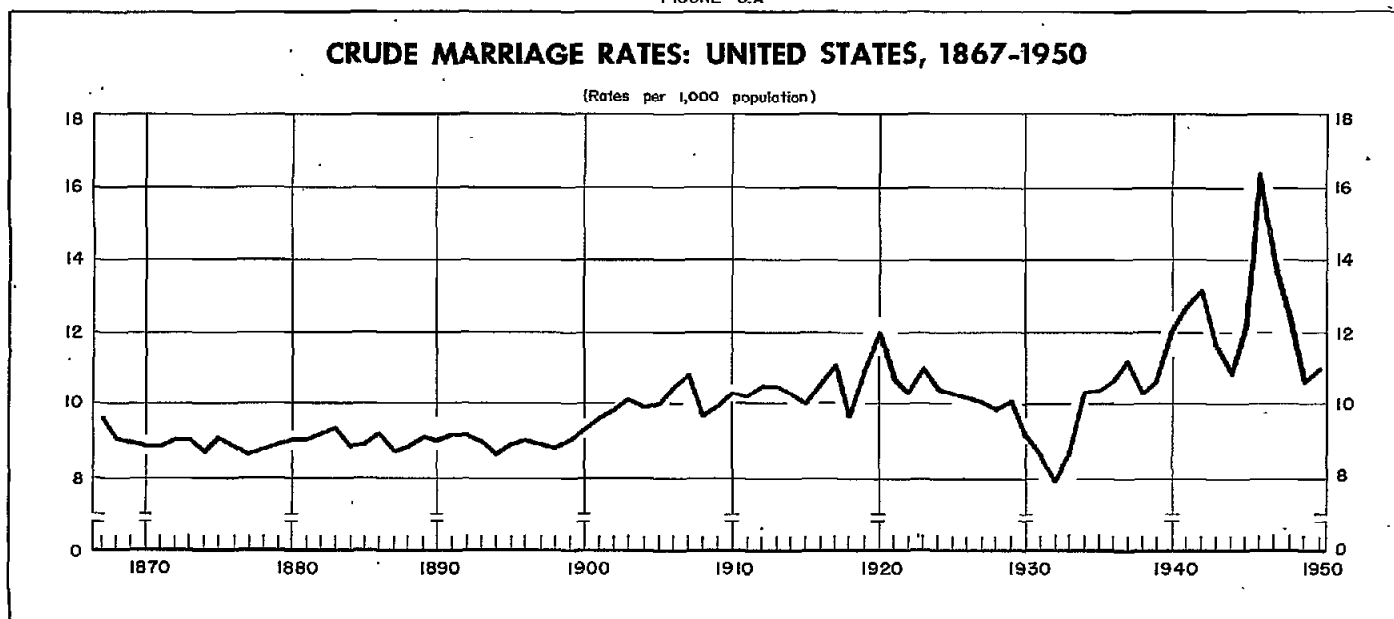


Table 5.02. MARRIAGES AND CRUDE MARRIAGE RATES: UNITED STATES, EACH DIVISION AND STATE, 1949 AND 1950  
(By place of occurrence. Rates per 1,000 population in each specified area, estimated as of July 1 for 1949, and enumerated as of April 1 for 1950)

AREA	NUMBER		RATE		AREA	NUMBER		RATE	
	1950	1949	1950	1949		1950	1949	1950	1949
UNITED STATES-----	1,667,231	1,579,798	11.1	10.6	WEST NORTH CENTRAL--Continued				
<b>GEOGRAPHIC DIVISIONS</b>					Nebraska-----	13,828	12,743	10.4	9.8
New England-----	88,503	84,176	9.5	9.0	Kansas-----	18,486	17,538	9.7	9.1
Middle Atlantic-----	277,035	262,579	9.2	8.7	<b>SOUTH ATLANTIC</b>				
East North Central-----	317,344	276,793	10.4	9.1	Delaware-----	2,635	2,597	8.3	8.2
West North Central-----	157,285	132,915	9.8	9.6	Maryland <sup>2</sup> -----	50,661	47,842	21.6	20.5
South Atlantic-----	265,061	250,091	12.5	12.1	District of Columbia <sup>2</sup> -----	10,198	9,991	12.7	12.4
East South Central-----	134,272	145,821	11.7	13.1	Virginia-----	36,732	33,174	11.1	10.1
West South Central-----	190,039	184,743	13.1	13.0	West Virginia <sup>2</sup> -----	17,199	13,739	8.6	7.1
Mountain-----	132,594	121,687	26.1	24.9	North Carolina <sup>2</sup> -----	29,751	27,275	7.3	7.0
Pacific-----	125,098	120,995	8.6	8.6	South Carolina <sup>2</sup> -----	46,175	39,509	21.8	19.5
<b>NEW ENGLAND</b>					Georgia <sup>2</sup> -----	44,122	53,925	12.8	16.2
Maine-----	8,617	8,085	9.4	9.0	Florida-----	27,588	22,039	10.0	8.3
New Hampshire-----	7,631	7,428	14.3	13.9	<b>EAST SOUTH CENTRAL</b>				
Vermont-----	3,569	3,385	9.4	9.2	Kentucky <sup>2</sup> -----	53,019	58,621	11.2	20.6
Massachusetts-----	41,711	39,639	8.9	8.4	Tennessee-----	21,692	15,024	6.6	4.6
Rhode Island-----	7,501	7,098	9.5	8.9	Alabama-----	22,823	19,411	7.5	6.5
Connecticut-----	19,474	18,541	9.7	9.1	Mississippi-----	56,738	52,765	28.0	25.3
<b>MIDDLE ATLANTIC</b>					<b>WEST SOUTH CENTRAL</b>				
New York-----	141,075	134,115	9.5	9.0	Arkansas-----	<sup>2</sup> 51,584	44,043	<sup>2</sup> 27.0	23.9
New Jersey-----	46,291	44,469	9.6	9.1	Louisiana <sup>1</sup> -----	26,900	26,000	10.0	9.9
Pennsylvania-----	69,669	63,995	8.5	8.1	Oklahoma-----	<sup>1</sup> 22,400	<sup>2</sup> 18,486	<sup>1</sup> 10.0	<sup>2</sup> 8.8
<b>EAST NORTH CENTRAL</b>					Texas <sup>2</sup> -----	89,155	96,214	11.6	12.6
Ohio-----	75,136	<sup>1</sup> 59,600	9.5	<sup>1</sup> 7.5	<b>MOUNTAIN</b>				
Indiana <sup>2</sup> -----	61,659	48,282	15.7	12.2	Montana-----	7,235	6,981	12.2	12.3
Illinois <sup>2</sup> -----	93,288	88,020	10.7	10.2	Idaho-----	8,545	7,565	14.2	13.3
Michigan-----	58,180	53,109	9.1	8.4	Wyoming-----	3,549	3,414	12.2	12.3
Wisconsin-----	29,081	27,782	8.5	8.2	Colorado <sup>2</sup> -----	13,735	12,639	10.4	9.8
<b>WEST NORTH CENTRAL</b>					New Mexico-----	22,717	16,392	33.3	25.5
Minnesota <sup>2</sup> -----	30,991	28,659	10.4	9.8	Arizona-----	20,031	23,139	26.7	32.4
Iowa-----	27,603	25,515	10.5	9.9	Utah <sup>2</sup> -----	7,110	6,402	10.3	9.5
Missouri-----	34,300	37,113	8.7	9.6	Nevada <sup>2</sup> -----	49,872	45,156	311.5	287.6
North Dakota-----	5,108	4,828	8.2	8.1	<b>PACIFIC</b>				
South Dakota-----	6,969	6,519	10.7	10.3	Washington <sup>2</sup> -----	34,438	32,374	14.5	14.1
					Oregon-----	11,300	10,746	7.4	7.5
					California-----	79,360	77,873	7.5	7.5

<sup>1</sup>Estimated.  
<sup>2</sup>Marriage licenses.

For 1950 crude marriage rates, by place of occurrence, were below the national rate of 11.1 per 1,000 population in 31 States, above the national rate in 16 States and the District of Columbia, and coincided with the national rate in 1 State. Crude marriage rates are computed by dividing the number of marriages performed in a State, or the number of marriage licenses issued in a State, by the total population present in the area, including military personnel stationed in the area. Many persons marry in a State where they do not reside. Consequently, there is an extreme range in marriage rates by State.

For certain States, figures on marriages are not available and figures on marriage licenses are used as the nearest approximation to marriages. This factor influences marriage rates.

A comparison of marriages and marriage licenses for a group of 18 States for which these data were available for the years 1948 through 1950<sup>3</sup> indicated that marriage licenses exceeded marriages by 1 to 3 percent. For individual States differences are considerably greater.

### Marriage license rates by month

Crude marriage license rates for the years 1945 through 1950 by month are presented in table 5.03. Compared with the crude marriage rate for the same years in table 5.01, the annual marriage license rates are slightly higher. Marriage licenses exceed marriages because some licenses are never used and a few are used after a considerable lapse of time.

Monthly marriage license rates rose sharply during the demobilization period following World War II. Rates for each of the first 11 months of 1946 remain the highest for that month on record. Beginning with December 1946 and for 43 consecutive months, the rate for each month was lower than the rate for the same month in the preceding year. Marriage license rates for July through December 1950 exceeded those for the same months in 1949.

The seasonal index of marriage licenses for the 37 States and the District of Columbia for which these data were available for the period from July 1946 through June 1950 is presented in table 5.04 and in figure 5.B.

Table 5.03. CRUDE MARRIAGE LICENSE RATES BY MONTH: UNITED STATES, 1945-50

(Rates on an annual basis per 1,000 population, excluding armed forces overseas, estimated as of July 1 for 1945-49, and enumerated as of April 1 for 1950)

MONTH	1950	1949	1948	1947	1946	1945
TOTAL-----	11.2	10.8	12.5	14.0	16.5	12.3
January-----	7.8	8.9	10.5	12.4	15.2	10.4
February-----	8.8	9.5	9.7	12.6	16.5	10.2
March-----	7.7	8.3	10.6	11.4	14.3	10.2
April-----	10.2	10.6	11.7	13.5	16.1	10.3
May-----	10.8	11.1	12.6	14.8	17.0	10.6
June-----	14.9	15.2	17.9	19.3	21.7	13.8
July-----	12.2	10.8	13.0	13.4	15.6	12.1
August-----	14.1	12.4	14.1	15.2	18.0	12.4
September-----	13.9	12.1	14.3	15.6	17.1	12.6
October-----	11.6	10.5	12.2	13.7	15.6	13.5
November-----	10.8	10.2	12.1	13.5	16.1	14.9
December-----	11.7	10.4	11.7	13.3	15.1	16.5

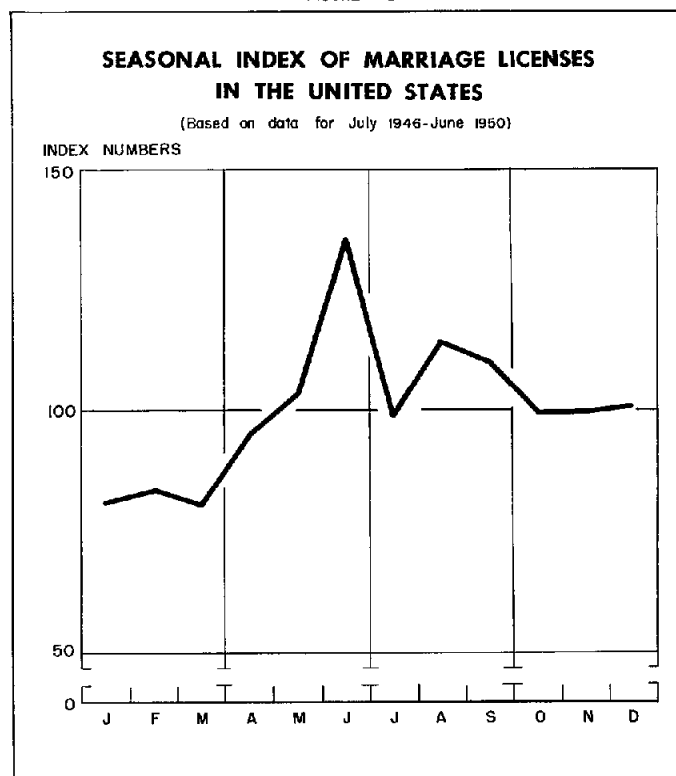
<sup>3</sup>See "Summary of Marriage and Divorce Statistics: United States, 1950," National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 37, No. 3, 1952.

Table 5.04. INDEX OF SEASONAL VARIATION IN MARRIAGE LICENSES: UNITED STATES, JULY 1946 TO JUNE 1950

(Computed by mean-link relative method. Based on data for 37 States and the District of Columbia)

MONTH	Seasonal index	MONTH	Seasonal index
January-----	80.7	July-----	98.8
February-----	83.1	August-----	114.1
March-----	80.5	September-----	109.9
April-----	95.2	October-----	99.2
May-----	103.1	November-----	99.4
June-----	135.2	December-----	100.7

FIGURE 5.B



### Methods of estimating marriages: 1949 and 1950

**State estimates.**—Numbers of marriages for Louisiana for 1949 and 1950 and for Oklahoma for 1950 were reported by county, with the names of counties for which no figures were available. For each of these two States, data on marriage licenses by county (or parish in Louisiana) were available for the entire State. On the basis of the marriage license data, the total number of marriages was estimated to include nonreporting counties or parishes. The estimating procedure was as follows: The ratio between marriages and marriage licenses was determined for the reporting counties and then applied to the number of marriage licenses for the entire State.

**United States.**—For both 1949 and 1950, total numbers of marriages for the United States included data on marriage licenses for 15 States and the District of Columbia and estimates of the numbers of marriages for 2 States.

# MARRIAGE AND DIVORCE

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**Table 5.05. MARRIAGE RATES BY AGE OF BRIDE AND OF GROOM AT FIRST MARRIAGE AND REMARRIAGE:  
15 REPORTING STATES, 1950**

(By place of occurrence. Rates per 1,000 population in each specified group, enumerated as of April 1)

AREA AND MARITAL STATUS	15 and over <sup>1</sup>	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55 years and over
<b>AGE OF BRIDE</b>										
ALL MARRIAGES <sup>2</sup> -----	82.7	102.6	277.2	196.2	129.7	85.7	56.2	36.5	21.8	5.0
First marriage-----	114.9	100.6	267.5	187.2	89.5	49.2	26.1	16.0	8.2	2.4
Remarriage-----	42.2	448.4	401.3	286.3	198.3	129.0	82.5	48.5	27.3	5.5
Connecticut-----	68.1	55.5	233.8	187.0	117.3	76.5	45.3	33.6	18.0	4.0
First marriage-----	85.4	55.3	226.8	185.2	84.8	42.8	20.3	14.9	4.9	2.2
Delaware-----	66.3	71.4	228.0	174.4	134.5	73.5	36.7	27.6	16.1	3.8
First marriage-----	94.6	71.2	225.8	154.5	105.9	54.6	30.5	22.5	13.4	3.4
Florida <sup>2</sup> -----	85.5	109.0	269.2	229.6	174.3	116.3	77.3	46.9	28.4	8.2
First marriage-----	121.1	104.9	247.4	179.3	122.3	68.1	37.4	26.6	17.3	4.5
Idaho <sup>2</sup> -----	167.9	194.1	476.0	442.5	324.4	251.8	164.1	94.0	62.7	9.9
First marriage-----	202.2	187.0	408.6	254.9	126.8	86.1	40.3	34.9	26.2	4.4
Iowa <sup>2</sup> -----	90.1	130.9	331.5	232.1	140.9	89.4	58.5	36.3	21.9	3.9
First marriage-----	127.9	127.1	315.5	190.0	94.4	49.4	23.0	14.5	8.5	2.5
Kansas <sup>2</sup> -----	85.3	128.9	311.8	219.1	135.1	85.8	51.9	40.1	22.6	4.9
First marriage-----	125.2	127.0	298.5	175.6	78.4	44.2	19.6	15.2	5.5	1.6
Maine-----	73.3	104.8	249.1	178.7	107.1	69.7	43.4	30.1	18.5	4.5
First marriage-----	103.0	103.6	239.1	150.6	69.0	41.8	21.0	13.8	6.1	2.6
Michigan <sup>2</sup> -----	84.2	99.2	262.0	179.4	110.4	74.2	54.7	35.6	24.1	5.7
First marriage-----	117.2	98.0	257.6	161.4	77.9	40.5	23.9	13.5	8.5	2.0
New Hampshire-----	103.8	122.2	351.7	353.8	252.5	154.9	88.8	65.7	35.6	6.2
First marriage-----	132.4	121.2	308.3	249.1	146.9	81.9	39.1	26.9	14.3	3.9
Oregon-----	73.3	108.6	259.4	169.1	113.2	85.0	56.0	35.0	22.1	5.4
First marriage-----	113.4	107.7	253.7	146.6	75.3	51.9	25.2	11.1	8.1	2.9
South Dakota-----	101.8	117.2	340.0	252.5	186.9	106.4	67.9	41.4	23.7	3.4
First marriage-----	135.0	114.9	322.6	200.8	114.5	59.8	35.2	14.2	10.7	1.4
Tennessee <sup>2</sup> -----	56.4	72.5	200.8	116.4	74.7	45.4	30.7	21.1	12.9	3.4
First marriage-----	82.7	71.1	197.8	104.2	57.9	30.3	19.2	11.0	5.9	1.5
Vermont-----	70.4	94.5	242.4	175.7	119.9	71.8	45.6	33.2	23.6	4.2
First marriage-----	101.0	94.5	239.1	164.3	96.1	39.1	22.6	14.6	7.5	2.2
Virginia <sup>2</sup> -----	94.8	101.4	329.6	211.9	142.1	95.1	59.0	33.9	17.3	3.6
First marriage-----	131.7	98.9	324.6	190.7	109.8	67.7	36.8	19.5	7.1	2.6
Wyoming-----	151.9	142.0	543.1	467.0	323.5	191.8	140.8	101.5	36.1	9.6
First marriage-----	180.6	137.1	468.7	306.0	155.0	60.5	33.3	18.5	15.4	4.7
<b>AGE OF GROOM</b>										
ALL MARRIAGES <sup>3</sup> -----	87.1	21.6	190.8	204.9	156.5	113.5	86.1	65.0	49.1	16.8
First marriage-----	85.9	21.5	187.5	188.0	120.0	68.4	40.9	25.0	15.2	5.0
Remarriage-----	90.9	40.4	335.5	372.2	324.5	245.5	178.7	128.4	88.5	25.2
Connecticut-----	79.6	9.9	148.2	184.9	157.7	112.1	83.7	62.2	46.5	15.9
First marriage-----	76.8	9.9	147.0	173.7	125.3	87.3	37.2	23.2	11.2	5.2
Delaware <sup>3</sup> -----	76.8	15.2	165.3	202.5	166.3	88.5	62.2	63.1	32.9	14.9
First marriage-----	78.8	15.2	163.8	187.2	137.1	59.9	40.6	42.4	11.9	9.2
Florida <sup>3</sup> -----	99.2	20.5	167.0	215.1	210.2	174.4	149.2	116.0	91.0	39.3
First marriage-----	85.6	20.4	160.6	182.8	139.7	91.6	67.7	40.4	32.8	11.3
Idaho <sup>3</sup> -----	134.7	43.4	316.8	323.9	249.8	208.1	161.7	98.8	75.7	23.9
First marriage-----	123.7	43.3	308.0	271.5	153.5	105.4	53.0	44.5	16.7	8.0
Iowa <sup>3</sup> -----	96.8	27.9	252.5	254.8	175.6	114.2	78.0	56.3	43.8	13.6
First marriage-----	100.1	27.5	245.6	234.4	137.3	70.6	38.6	23.1	15.7	3.8
Kansas <sup>3</sup> -----	91.2	27.9	220.4	211.1	148.8	111.2	88.2	64.6	48.1	16.6
First marriage-----	91.4	27.7	216.4	188.3	105.4	83.5	37.3	20.0	11.7	4.6
Maine-----	82.4	28.4	202.8	221.9	162.7	96.8	63.6	47.7	33.2	15.2
First marriage-----	86.4	28.3	198.6	204.1	121.9	58.2	33.2	20.9	9.9	3.8
Michigan <sup>3</sup> -----	83.9	23.3	195.4	189.1	132.2	95.3	69.7	52.3	40.4	16.6
First marriage-----	86.2	23.3	193.0	176.8	105.6	61.1	34.3	19.6	13.4	4.2
New Hampshire-----	120.7	16.2	261.9	345.2	299.8	208.9	146.8	111.2	72.4	23.7
First marriage-----	115.1	16.1	256.7	296.7	215.6	100.2	66.1	42.2	22.4	7.9
Oregon <sup>3</sup> -----	69.3	22.9	182.7	174.8	111.2	81.2	60.8	43.0	29.8	13.2
First marriage-----	73.0	22.8	181.3	171.1	94.4	48.7	29.8	16.6	10.1	3.1
South Dakota-----	83.5	17.7	198.7	209.9	146.9	93.5	70.4	46.4	33.2	10.9
First marriage-----	82.6	17.6	195.0	194.6	113.7	59.0	36.4	20.5	12.2	3.3
Tennessee <sup>3</sup> -----	66.8	16.9	151.6	160.9	119.9	81.6	67.6	55.5	47.9	18.7
First marriage-----	64.3	16.8	148.0	146.1	90.6	50.6	32.7	20.3	12.0	3.1
Vermont-----	79.0	22.1	184.7	206.7	149.9	89.2	70.9	56.1	43.8	15.0
First marriage-----	83.2	22.2	184.0	195.8	126.3	61.6	35.7	22.2	16.7	9.7
Virginia-----	94.2	18.3	179.4	210.5	163.9	124.1	93.8	77.5	59.4	22.9
First marriage-----	92.2	18.3	178.7	198.9	134.1	82.2	53.7	36.9	22.1	6.2
Wyoming <sup>3</sup> -----	92.5	20.2	180.9	244.8	201.1	152.6	101.0	74.5	50.0	19.9
First marriage-----	81.7	20.1	174.2	205.4	135.3	84.7	33.8	13.1	10.9	3.9

<sup>1</sup>Figures for age of bride or groom not stated included in the total, but not distributed among the specified age groups.

<sup>2</sup>Includes figures for marital status not stated. For the 15 States combined, marital status not stated constituted 0.3 percent of all marriages.

<sup>3</sup>Includes figures for marital status not stated. For the 15 States combined, marital status not stated constituted 0.2 percent of all marriages.

NOTE.—Rates for all marriages based on unmarried population aged 15 years and over; for first marriages, on single (never married) population; for remarriages, on widowed and divorced population.

### Detailed Marriage Statistics

The National Office of Vital Statistics sends to each State annually a set of tables requesting the State to complete as many as possible. The tables cover such social characteristics as age, race, and marital status of the persons who were married in the State during the course of the year. These detailed tables have been collected and published since 1948 in the series of Vital Statistics—Special Reports.<sup>4</sup> In the years since 1948, the number of States returning completed tables has increased.

For the most part, these detailed statistics are available from those States which maintain central files of marriage records. In a few instances, special surveys are conducted by State registrars in States which do not maintain central files. These data for the 1950 text appear in tables 1 through 7 of Volume II of this annual report.

#### Rates by age at first marriage and remarriage

Age-specific marriage rates for brides and grooms married for the first time, or remarried, in 15 States in 1950 are presented in table 5.05. For all marriages and first marriages these rates are shown by State. For remarriages, the age-specific rates are shown for the combined group of States only because of the small frequencies involved when remarriages were distributed by age. For the older age groups, the number of remarriages is small even for the combined group of States. The marriage data used in computing these rates were reported in 5-year age groups and by State of occurrence, that is, where the ceremony was performed. The population base is the unmarried population 15 years of age and over, by sex. For first marriages, the single (never married) population was used, and for remarriages, the widowed and divorced population. All rates are computed per 1,000 population of the specified marital status, by age and sex.

Marriage rates by age for any State are affected by several factors. There are varying premarital laws regarding blood tests, waiting periods, and age. Laws or regulations vary regarding remarriages of divorced persons. Available data on marriages by residence status indicate a considerable mobility among persons who marry. (See table 2.16 in chapter 2.) The effect of migration of persons marrying in the 15 States on the age-specific rates shown in table 5.05 is not known.

For the 15 States combined, the marriage rate of all brides 15 years of age and over was 82.7 per 1,000 for 1950. Computed on the same population base, that is, unmarried females 15 years of age and over, the marriage rate for the United States for 1950 was 90.2 per 1,000.<sup>5</sup> The rate of first marriages for brides 15 years of age and over was almost three times their rate of remarriage (114.9 and 42.2 per 1,000, respectively). It may be noted that the rate of remarriage was higher than the rate of first marriage in each age group. The differences in the age distribution of the single population compared with the widowed and divorced population account for the differences between these rates for all brides 15 years of age and over, and for brides in each specified age group.

The highest rates for brides at first marriage for the 15 States combined, as well as for the individual States, occurred in the age group 20-24. The remarriage rate for brides was highest in the 15-19 year age group.

For grooms 15 years of age and over the remarriage rate in the 15 States combined was higher than the rate of first marriage (90.9 and 85.9, respectively). Remarriage rates were

higher than rates at first marriage in each age group. The highest rates at first marriage were practically identical in the 20-24 and 25-29 year age groups in the 15 States combined and fell in either of these groups in each of the States. The highest remarriage rate for grooms occurred in the 25-29 year age group.

The rates of both first marriages and remarriages were higher at younger ages for brides than for grooms, and rates declined more rapidly for brides with increasing age.

#### Median age at first marriage and remarriage

Table 5.06 presents data on median ages of brides and grooms at first marriage and at remarriage in 1950 for 19 States except that for Louisiana, figures are lacking for 9 parishes, and for New York, marriages for which licenses had been issued in New York City are excluded. The median ages are based on marriage data distributed by 5-year age groups. Remarriages refer to marriages of widowed and divorced persons including those who had been married more than once previously.

In all 19 States, median ages of brides were consistently lower than those of grooms, and as would be expected, average ages at first marriage of both brides and grooms were consistently lower than their respective ages at remarriage.

Median ages of grooms at first marriage and at remarriage tended to rise with advancing median ages of brides. For instance, Idaho had both the youngest brides and the youngest grooms at first marriage (19.2 and 23.2 years of age, respectively); and Connecticut, the oldest (23.0 and 24.9 years of age, respectively). At remarriage, the youngest brides and grooms were in Wyoming (31.2 and 36.0 years of

Table 5.06. MEDIAN AGE OF BRIDE AND OF GROOM AT FIRST MARRIAGE AND AT REMARRIAGE: 19 REPORTING STATES, 1950

(By place of occurrence)

AREA	FIRST MARRIAGE		REMARRIAGE	
	Bride	Groom	Bride	Groom
TOTAL-----	21.5	23.9	34.3	39.9
Connecticut-----	23.0	24.9	35.9	40.9
Delaware-----	22.2	24.5	33.8	37.7
Florida-----	21.1	23.9	34.1	39.9
Idaho-----	19.2	23.2	31.6	36.5
Iowa-----	20.8	23.4	33.2	38.0
Kansas-----	20.0	23.2	32.9	37.7
Louisiana <sup>1</sup> -----	19.8	23.3	33.3	38.9
Maine-----	<sup>2</sup> 20.6	<sup>3</sup> 23.4	33.4	37.9
Massachusetts-----	22.8	24.7	36.4	42.7
Michigan-----	21.2	23.6	34.7	39.2
Missouri-----	21.4	23.9	34.1	38.8
New Hampshire-----	21.7	24.1	34.4	38.9
New York <sup>4</sup> -----	22.1	24.3	37.5	43.4
Oregon-----	20.0	23.5	34.6	39.1
South Dakota-----	20.6	23.8	32.3	37.3
Tennessee-----	20.8	23.4	32.5	38.2
Vermont-----	21.1	23.7	37.2	41.6
Virginia-----	21.7	23.8	32.9	39.2
Wyoming-----	20.4	23.6	31.2	36.0

<sup>1</sup>Excludes the following 9 parishes: Beauregard, Bienville, De Soto, Jefferson, Orleans, Pointe Coupee, St. Martin, Vermilion, and Webster. Estimated State total, 26,900.

<sup>2</sup>Includes 4 brides with previous marriage annulled.

<sup>3</sup>Includes 5 grooms with previous marriage annulled.

<sup>4</sup>Excludes 82,535 marriages for which licenses had been issued in New York City.

NOTE.—Medians computed from distributions of marriages by 5-year age groups.

<sup>4</sup>National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 35, Nos. 3 and 9, 1950; vol. 36, Nos. 3 and 6, 1951; and vol. 37, Nos. 1 and 5, 1952.

<sup>5</sup>Same as footnote 3.

age, respectively) and the oldest in New York, excluding New York City (37.5 and 43.4 years of age, respectively).

Differences between the median ages of brides and grooms at first marriage tended to decrease with advancing ages of both. Median ages at remarriage showed a similar though less consistent pattern.

In the 14 States for which comparable data are available for 1949, median ages at first marriage in 1950 were lower for brides in 11 States and for grooms in 13, and median ages at remarriage in 1950 were lower for brides in 6 States and for grooms in 5 States.

**Median ages by race**

Median ages of white and nonwhite brides and grooms in 1950, shown in table 5.07, are based on data for all marriages, including first marriages and remarriages, distributed by 5-year age groups. Data on first marriages and remarriages by race are not available for 1950. The table covers 20 States except that data are lacking for 9 parishes in Louisiana and that marriages for New York exclude those for which licenses had been issued in New York City. Separate medians for the nonwhite group are not shown for Idaho, Maine, New Hampshire, Vermont, and Wyoming, in each of which nonwhite marriages numbered less than 100.

For the 20 States combined, the median age of grooms in 1950 was 2.4 years higher than the median age of brides. White brides in the combined group of States were slightly (0.3 years) younger than nonwhite brides, and white grooms were 1.6 years younger than nonwhite grooms.

In the 15 States for which median ages are shown separately for the white and nonwhite groups, median ages for both race groups were higher for grooms than for brides, and differences between the ages of brides and grooms were larger for the nonwhite group in almost every instance. Median ages of nonwhite grooms were higher than those of white grooms in 14 of the 15 States; and of nonwhite brides, higher than those of white brides in 13 of the 15 States.

In the 11 States for which comparable data for both the white and nonwhite groups are available for 1949, median ages at marriage for white grooms and brides were lower in 1950 in every instance. For the nonwhite group, median ages of

brides were lower in 1950 in 6 of the 11 States; and of grooms, in 7 States.

Table 5.07. MEDIAN AGE OF BRIDE AND OF GROOM AT MARRIAGE, BY RACE: 20 REPORTING STATES, 1950  
(By place of occurrence)

AREA	BRIDE			GROOM		
	Total	White	Non-white	Total	White	Non-white
TOTAL-----	22.5	22.5	22.8	24.9	24.8	26.4
Alabama-----	21.0	20.8	21.5	24.3	24.1	24.8
California-----	23.3	23.2	24.6	25.7	25.5	28.3
Connecticut-----	24.0	24.0	24.4	26.8	26.7	27.2
Delaware-----	23.3	23.2	23.7	25.8	25.5	27.3
Florida-----	23.8	24.0	22.7	26.9	27.1	26.0
Idaho-----	21.5	21.5	( <sup>1</sup> )	24.6	24.6	( <sup>1</sup> )
Iowa-----	21.7	21.7	23.9	24.2	24.1	27.1
Kansas-----	21.6	21.5	23.5	24.2	24.2	26.6
Louisiana <sup>2</sup> -----	21.9	21.7	22.4	24.7	24.4	25.7
Maine-----	21.9	21.9	( <sup>1</sup> )	24.4	24.4	( <sup>1</sup> )
Michigan-----	22.4	22.4	23.3	24.5	24.4	26.7
Mississippi-----	21.2	20.7	22.3	24.6	24.3	26.2
Missouri-----	23.0	22.8	24.7	25.5	25.2	28.5
New Hampshire-----	23.5	23.4	( <sup>1</sup> )	26.1	26.0	( <sup>1</sup> )
New York <sup>3</sup> -----	22.9	22.9	23.7	25.0	24.9	26.7
South Dakota-----	21.7	21.7	23.0	24.5	24.5	28.1
Tennessee-----	22.0	21.9	23.4	24.4	24.3	27.2
Vermont-----	22.1	22.1	( <sup>1</sup> )	24.6	24.5	( <sup>1</sup> )
Virginia-----	22.7	22.7	22.5	24.7	24.6	25.2
Wyoming-----	22.8	22.8	( <sup>1</sup> )	25.2	25.1	( <sup>1</sup> )

<sup>1</sup>Median not computed for frequencies of less than 100.

<sup>2</sup>Excludes the following 9 parishes: Beauregard, Bienville, De Soto, Jefferson, Orleans, Pointe Coupee, St. Martin, Vermilion, and Webster. Estimated State total, 26,900.

<sup>3</sup>Excludes 82,535 marriages for which licenses had been issued in New York City.

NOTE.—Medians computed from distributions of marriages by 5-year age groups.

**DIVORCE DATA**

The estimated total of 385,144 divorces and annulments in the United States in 1950 represents a decrease of 3.0 percent from the final estimate for 1949 of 397,000 divorces. The crude divorce rate declined to 2.6 divorces per 1,000 population in 1950 from 2.7 in 1949.

The year 1950 was the fourth consecutive year in which divorces declined. The bulk of the decrease from the 1946 peak of 610,000 divorces occurred in 1947 and 1948. In 1948, there were 408,000 divorces, a decrease of one-third from the 1946 figure. The divorce rate changed from 4.3 per 1,000 population in 1946 to 2.8 in 1948.

**Divorce trend**

Table 5.08 presents numbers of divorces, and crude divorce rates, for the years 1867 through 1950. Numbers of divorces include those granted to persons previously married twice or more, as well as those granted to persons previously married once.

Between 1867 and 1946, judging from the available figures, divorces in the United States increased almost without interruption (figure 5.C). Except for a decrease of approximately 20 percent in the years from 1929 to 1932, when divorces declined from 205,876 to 164,241, and a few scattered decreases in other years, changes were in general upward. The postwar

periods of the two World Wars were both characterized by sharp increases followed by definite though less pronounced declines.

**Divorces by State**

Numbers of divorces, including annulments when reported, and crude divorce rates by division and State for 1949 and 1950 are presented in table 5.09. For 1950 complete or partially complete figures were available for all States and the District of Columbia; and for 1949, for 37 States and the District of Columbia.

Of the 38 areas for which figures are available for both years, the numbers are smaller in 1950 in 27 States, and larger in 11. The largest numbers, but not the highest rates, in 1949 and 1950 were reported for California and Texas whose combined totals accounted for one-fifth of the estimated national totals (76,467 out of 397,000 in 1949 and 76,233 out of 385,144 in 1950).

Crude divorce rates in 1950 ranged from 55.7 per 1,000 population in Nevada to 0.8 in New York, compared with a national rate of 2.6. The second highest rate in 1950 was 6.5 per 1,000 population in Florida; and the third highest, 6.2 in Oklahoma.

It is a statutory requirement in all States that one or

both parties maintain legal residence in the State where the divorce is granted. The prescribed durations of residence vary widely and, in general, divorce rates are highest in States having minimum requirements. Among other factors which may affect crude divorce rates are the legal grounds on which divorces may be granted, dispositions of individual judges, and prevailing social attitudes.

Table 5.08. POPULATION, DIVORCES, AND CRUDE DIVORCE RATES: UNITED STATES, 1867-1950

(Includes reported annulments. Rates per 1,000 population)

YEAR	Population <sup>1</sup>	DIVORCES <sup>2</sup>		YEAR	Population <sup>1</sup>	DIVORCES <sup>2</sup>	
		Number	Rate			Number	Rate
1950-	150,897,361	385,144	2.6	1908-	88,708,976	76,852	0.9
1949-	148,665,000	397,000	2.7	1907-	87,000,271	76,571	0.9
1948-	146,093,000	408,000	2.8	1906-	85,436,556	72,062	0.8
1947-	143,446,000	483,000	3.4	1905-	83,819,666	67,976	0.8
1946-	141,389,000	610,000	4.3	1904-	82,164,974	66,199	0.8
1945-	139,928,000	485,000	3.5	1903-	80,632,152	64,925	0.8
1944-	138,597,000	400,000	2.9	1902-	79,160,196	61,490	0.8
1943-	136,739,000	359,000	2.6	1901-	77,585,128	60,994	0.8
1942-	134,860,000	321,000	2.4	1900-	76,094,134	55,751	0.7
1941-	133,402,000	293,000	2.2	1899-	74,798,612	51,437	0.7
1940-	131,669,275	264,000	2.0	1898-	73,493,926	47,949	0.7
1939-	130,879,718	251,000	1.9	1897-	72,189,240	44,699	0.6
1938-	129,824,939	244,000	1.9	1896-	70,884,554	42,937	0.6
1937-	129,824,829	249,000	1.9	1895-	69,579,868	40,397	0.6
1936-	128,053,180	236,000	1.8	1894-	68,275,182	37,568	0.6
1935-	127,250,232	218,000	1.7	1893-	66,970,496	37,468	0.6
1934-	126,373,773	204,000	1.6	1892-	65,665,810	36,579	0.6
1933-	125,578,783	185,000	1.3	1891-	64,361,124	35,540	0.6
1932-	124,840,471	164,241	1.3	1890-	63,056,438	33,461	0.5
1931-	124,059,648	188,003	1.5	1889-	61,775,121	31,735	0.5
1930-	123,076,741	195,961	1.6	1888-	60,495,927	28,669	0.5
1929-	121,769,939	205,876	1.7	1887-	59,216,733	27,919	0.5
1928-	120,501,115	200,176	1.7	1886-	57,937,540	25,535	0.4
1927-	119,038,062	196,292	1.6	1885-	56,658,347	23,472	0.4
1926-	117,399,225	184,678	1.6	1884-	55,379,154	22,994	0.4
1925-	115,831,963	175,449	1.5	1883-	54,099,961	23,198	0.4
1924-	114,113,463	170,952	1.5	1882-	52,820,768	22,112	0.4
1923-	111,949,945	165,096	1.5	1881-	51,541,575	20,762	0.4
1922-	110,054,778	148,815	1.4	1880-	50,262,382	19,663	0.4
1921-	108,541,489	159,580	1.5	1879-	49,208,194	17,083	0.3
1920-	106,466,420	170,505	1.6	1878-	48,174,461	16,089	0.3
1919-	105,082,747	141,527	1.3	1877-	47,140,727	15,687	0.3
1918-	104,549,886	116,254	1.1	1876-	46,106,994	14,900	0.3
1917-	103,413,743	121,564	1.2	1875-	45,073,260	14,212	0.3
1916-	101,965,984	114,000	1.1	1874-	44,039,527	13,989	0.3
1915-	100,549,013	104,298	1.0	1873-	43,005,794	13,156	0.3
1914-	99,117,567	100,594	1.0	1872-	41,972,060	12,390	0.3
1913-	97,226,814	91,307	0.9	1871-	40,938,327	11,506	0.3
1912-	95,331,300	94,318	1.0	1870-	39,904,593	10,962	0.3
1911-	93,867,814	89,219	1.0	1869-	38,870,859	10,339	0.3
1910-	92,406,536	83,045	0.9	1868-	37,837,126	10,150	0.3
1909-	90,491,525	79,671	0.9	1867-	36,803,393	9,357	0.3

<sup>1</sup>For 1940 and 1950, enumerated as of April 1; for other years, estimates of July 1. Estimates for the two periods 1917-19 and 1941-46, include armed forces overseas.

<sup>2</sup>Includes estimates; for sources of data, see table 1.05 in chapter 1.

## Methods of estimating divorces: 1949 and 1950

**State estimates.**—Numbers of divorces were estimated from incomplete reports for 11 States in 1950 and for 5 States in 1949.

For Arkansas and Kansas numbers of divorces were estimated for both years. However, the nature of the data available for each year required the application of different estimating methods.

For Arkansas, for 1949, the number of divorces reported was incomplete. Names of counties for which there was no information on divorces were available. The total for the entire State was estimated by dividing the reported total by the percentage contribution of the reporting counties to the State total for Arkansas for the 11-year period 1922 to 1932, the last period for which data on divorces by county were available<sup>6</sup> prior to 1949. For 1950, the figure reported for the State was not distributed by county and was qualified with the statement that it was 90 percent complete. The reported figure was divided by 90 percent to arrive at a State estimate for the year.

For Kansas and Nevada for 1949, reported figures on divorces covered the fiscal rather than the calendar year. Calendar-year figures for selected counties were obtained by correspondence, and fiscal-year figures by county from published reports. By assuming the same ratio between calendar- and fiscal-year figures for the entire State as between calendar- and fiscal-year figures for selected counties, the annual total was estimated for each State.

Estimates for Missouri and Ohio for 1949 were made in their respective State Offices of Vital Statistics.

In addition to Arkansas, individual estimates of divorces in 1950 were made for the following 10 States for which the divorces in 1950 were reported by county, including counties for which there was no information on divorces: Colorado, Indiana, Kansas, Kentucky, Louisiana, New York, Oklahoma, South Carolina, Texas, and West Virginia.

The estimating method applied in each State involved the use of populations distributed by metropolitan and nonmetropolitan counties as defined by the Bureau of the Census.<sup>7</sup> Except for Colorado, the procedure was as follows:

- (1) The reporting counties were arranged into two groups, metropolitan and nonmetropolitan,<sup>7</sup> with reported divorces distributed accordingly.
- (2) The counties from which there were no reports were also distributed into a metropolitan county group and a nonmetropolitan county group.
- (3) Populations from releases of the Bureau of the Census<sup>8</sup> were summed for each group in (1) and (2) above.
- (4) Divorce rates for the metropolitan and nonmetropolitan counties in (1) above were computed.
- (5) These rates were applied to the corresponding populations in metropolitan and nonmetropolitan groups in (2) above.
- (6) The rounded sum of the reported and estimated figures represented the estimated State total.

In estimating the total number of divorces in Colorado in 1950, it was necessary to take account of the fact that in most counties in that State two courts (district and county) were authorized to grant divorces. Furthermore, for several counties reports were received from one court only. The same estimating procedure as outlined in steps 1-6 above was used in estimating the number of divorces in 1950 in Colorado except that separate estimates were made, and then combined, of the number of divorces granted in district courts and the number granted in county courts.

**United States.**—For 1950, the total number of divorces, including reported annulments, for the United States represents a summation of reported figures from all States including those for which totals were estimated on the basis of incomplete returns from local areas.

Thirty-seven States and the District of Columbia reported the number of divorces granted in 1949. States for which totals were estimated were considered reporting States. The total

<sup>6</sup>U. S. Bureau of the Census, "Marriage and Divorce Annual Reports, 1922-1932," U. S. Government Printing Office, Washington, D. C., 1925 to 1934.

<sup>7</sup>U. S. Bureau of the Census, "1950 Census of Population, Preliminary Counts," Series PC-8, No. 3, 1950.

<sup>8</sup>U. S. Bureau of the Census, "1950 Census of Population, Advanced Reports," Series PC-8, 1951.

FIGURE 5.C

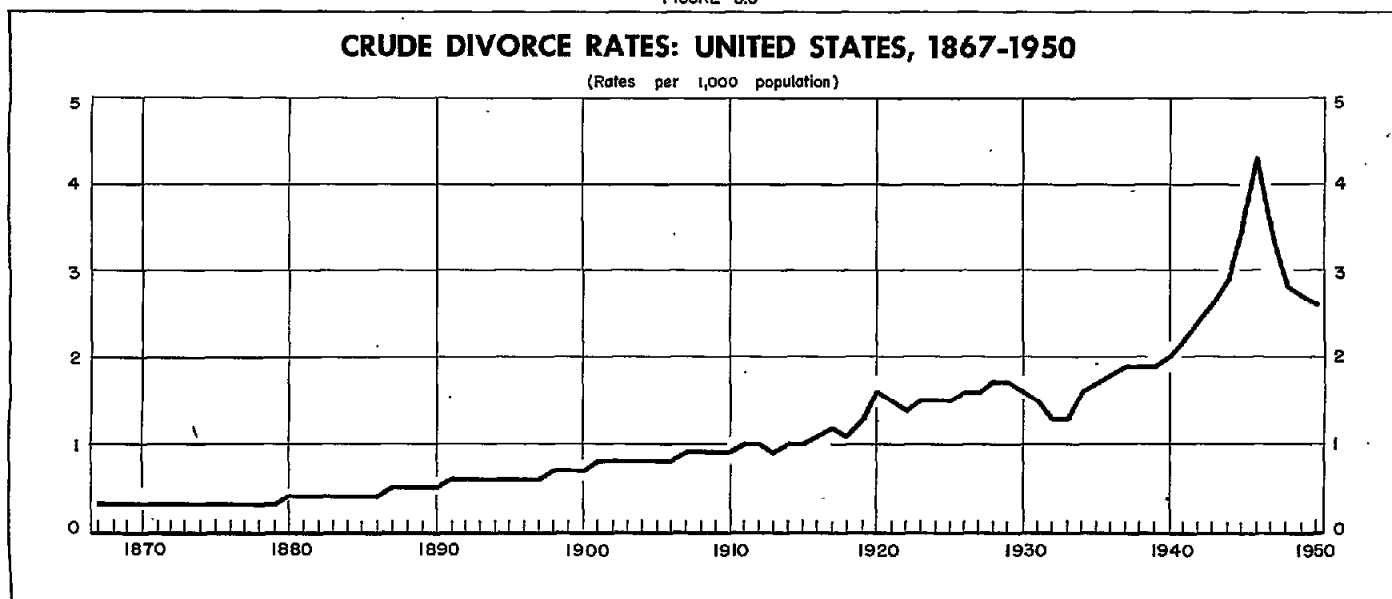


Table 5.09. DIVORCES AND CRUDE DIVORCE RATES: UNITED STATES, EACH DIVISION AND STATE, 1949 AND 1950  
(By place of occurrence. Includes reported annulments. Rates per 1,000 population in each specified area, estimated as of July 1 for 1949, and enumerated as of April 1 for 1950)

AREA	NUMBER		RATE		AREA	NUMBER		RATE	
	1950	1949	1950	1949		1950	1949	1950	1949
UNITED STATES <sup>1</sup>	385,144	397,000	2.6	2.7	WEST NORTH CENTRAL—Continued				
<b>GEOGRAPHIC DIVISIONS</b>					Nebraska	2,554	2,587	1.9	2.0
New England	14,027	14,411	1.5	1.5	Kansas <sup>1</sup>	5,000	4,500	2.6	2.3
Middle Atlantic	<sup>1</sup> 29,274	---	<sup>1</sup> 1.0	---	<b>SOUTH ATLANTIC</b>				
East North Central	<sup>1</sup> 77,279	---	<sup>1</sup> 2.5	---	Delaware	637	821	2.0	2.6
West North Central	30,702	<sup>1</sup> 52,318	2.2	<sup>1</sup> 2.3	Maryland	5,039	4,919	2.2	2.1
South Atlantic	<sup>1</sup> 53,722	---	<sup>1</sup> 2.5	---	District of Columbia	1,697	1,586	2.1	2.0
East South Central	<sup>1</sup> 30,736	---	<sup>1</sup> 2.7	---	Virginia	5,941	6,167	1.8	1.9
West South Central	<sup>1</sup> 65,500	---	<sup>1</sup> 4.5	---	West Virginia	<sup>1</sup> 4,200	---	<sup>1</sup> 2.1	---
Mountain	<sup>1</sup> 27,931	---	<sup>1</sup> 5.5	---	North Carolina	6,361	---	1.6	---
Pacific	55,973	---	3.9	---	South Carolina	<sup>1</sup> 2,300	---	<sup>1</sup> 1.1	---
<b>NEW ENGLAND</b>					Georgia	9,514	---	2.8	---
Maine	2,175	2,107	2.4	2.3	Florida	18,033	17,810	6.5	6.7
New Hampshire	1,040	1,062	2.0	2.0	<b>EAST SOUTH CENTRAL</b>				
Vermont	678	565	1.8	1.5	Kentucky	<sup>1</sup> 8,100	---	<sup>1</sup> 2.8	---
Massachusetts	6,515	6,855	1.4	1.4	Tennessee	7,828	7,477	2.4	2.3
Rhode Island	907	1,011	1.1	1.3	Alabama	8,743	8,562	2.9	2.9
Connecticut	2,712	2,811	1.4	1.4	Mississippi	6,065	6,285	2.8	3.0
<b>MIDDLE ATLANTIC</b>					<b>WEST SOUTH CENTRAL</b>				
New York	<sup>1</sup> 11,700	---	<sup>1</sup> 0.8	---	Arkansas <sup>1</sup>	8,800	9,800	4.6	5.3
New Jersey	5,434	5,826	1.1	1.2	Louisiana	<sup>1</sup> 5,400	---	<sup>1</sup> 2.0	---
Pennsylvania	12,140	13,571	1.2	1.5	Oklahoma	<sup>1</sup> 13,900	---	<sup>1</sup> 6.2	---
<b>EAST NORTH CENTRAL</b>					Texas	<sup>1</sup> 37,400	38,027	<sup>1</sup> 4.9	5.0
Ohio	21,853	<sup>1</sup> 23,000	2.7	<sup>1</sup> 2.9	<b>MOUNTAIN</b>				
Indiana	<sup>1</sup> 11,600	---	<sup>1</sup> 2.9	---	Montana	1,951	1,995	3.3	3.5
Illinois	23,002	23,791	2.6	2.7	Idaho	2,696	2,773	4.6	4.9
Michigan	15,979	16,274	2.5	2.6	Wyoming	1,151	1,211	4.0	4.4
Wisconsin	4,845	4,815	1.4	1.4	Colorado	<sup>1</sup> 4,400	---	<sup>1</sup> 3.3	---
<b>WEST NORTH CENTRAL</b>					New Mexico	2,655	2,884	3.9	4.5
Minnesota	4,049	4,195	1.4	1.4	Arizona	4,062	4,478	5.4	6.3
Iowa	5,404	5,482	2.1	2.1	Utah	2,107	2,166	3.1	3.3
Missouri	12,177	<sup>1</sup> 14,000	3.1	<sup>1</sup> 3.6	Nevada	8,909	<sup>1</sup> 10,800	55.7	<sup>1</sup> 68.8
North Dakota	589	633	1.0	1.1	<b>PACIFIC</b>				
South Dakota	929	921	1.4	1.5	Washington	11,197	---	4.7	---
					Oregon	5,943	6,274	3.9	4.4
					California	38,833	38,440	3.7	3.7

<sup>1</sup>Estimated.

for the United States for 1949 was estimated on the assumption that the number granted in the reporting States in that year represented the same proportion of the national total as it did on the average in the 4 years 1937 through 1940.

The period 1937 through 1940 was selected as a base because it was the last period prior to 1950 for which reasonably complete data on divorces were available for every State. Furthermore, it might be expected to approximate current conditions more closely than earlier periods for which reporting was also complete.

Thus, a total of 306,481 divorces granted in 1949, covering figures from 37 States and the District of Columbia, was assumed to represent 77.1 percent of the national total for 1949 since the same group of States granted that proportion of the combined national total in the period 1937 through 1940.

### Detailed Divorce Statistics

The National Office of Vital Statistics sends annually to each State a set of table forms on divorces which each State is requested to complete. These forms include divorces by duration of marriage, by legal grounds, and by number of children reported. The data collected in this manner have been published in a series of reports.<sup>9</sup> Since the inception of this collection program, the number of States furnishing completed tables has increased each year.

In general, detailed statistics on divorces are obtained from those States which maintain central files of divorce records. In the remaining States divorce records are retained by the individual courts. In some instances, State Registrars of Vital Statistics in States which do not have central files conduct special surveys and provide State-wide tabulations. These data for the 1950 text appear in tables 8 through 12 of Volume II of this annual report.

### Duration of marriage prior to divorce

Table 5.10 presents figures on median durations in years for all marriages, including first marriages and remarriages, terminated by divorce or by annulment,<sup>10</sup> in 16 States in 1950. The method of computing duration of marriage prior to divorce was not identical for these 16 States. For 12 States the years of duration were computed by subtracting the exact date of the marriage from the date of the divorce. This is more accurate than subtracting year of marriage from year of divorce, the method used in 4 States.

Median durations ranged from 4.2 years in Idaho and in Wyoming to 9.5 years in Connecticut. The median duration of marriage prior to divorce for the 16 States combined was 5.8 years. For the 11 States for which comparable data are available for 1949, median durations of marriage prior to divorce were higher in 1950 in 5 States, and lower in the remaining 6 States.

Divorce occurred most frequently during the first 5 years of marriage. For 16 States there were wide variations in the modal years of duration of marriage (table 5.10). In 2 States the largest numbers of divorces were granted to persons married less than 1 year; in 5 States, to persons in the second year of marriage; in 4 States, in the third year; in 3 States in the fourth year; and in 2 States, in the fifth year.

<sup>9</sup>National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 35, No. 12, 1950; vol. 36, No. 7, 1951; and vol. 37, Nos. 2 and 4, 1952.

<sup>10</sup>Annulments are not included for Nebraska.

Table 5.10. DIVORCES AND ANNULMENTS BY MEDIAN DURATION OF MARRIAGE IN YEARS: 16 REPORTING STATES, 1950

(By place of occurrence)

AREA	Median duration in years	AREA	Median duration in years
TOTAL-----	5.8	Missouri <sup>1</sup> -----	5.2
Connecticut <sup>1</sup> -----	9.5	Nebraska <sup>2</sup> -----	5.7
Florida-----	6.0	New Hampshire-----	7.2
Idaho-----	4.2	North Dakota-----	5.7
Iowa-----	4.5	Oregon-----	4.7
Maine-----	6.0	South Dakota-----	4.8
Michigan <sup>1</sup> -----	6.6	Tennessee-----	4.6
Mississippi-----	5.0	Virginia-----	8.2
		Wyoming-----	4.2

<sup>1</sup>Duration computed by subtracting year of marriage from year of divorce.

<sup>2</sup>Excludes annulments.

### Divorces reported with and without children

Percentage distributions of divorces between those reported with children and those without children are shown for 16 States in table 5.11. Data are not available concerning the number of children of these divorced couples. There is information from 16 States regarding the proportion of couples

Table 5.11. PERCENT OF DIVORCES AND ANNULMENTS WITH AND WITHOUT CHILDREN REPORTED: 16 REPORTING STATES, 1950

(By place of occurrence)

AREA	Total	With children reported	Without children reported
TOTAL-----	100.0	44.0	56.0
Connecticut-----	100.0	64.3	35.7
Florida-----	100.0	36.8	63.2
Idaho-----	100.0	52.5	47.5
Iowa-----	100.0	49.1	50.9
Michigan-----	100.0	46.1	53.9
Mississippi-----	100.0	39.5	60.5
Missouri-----	100.0	39.0	61.0
Montana-----	100.0	49.5	50.5
Nebraska-----	100.0	50.4	49.6
New Hampshire-----	100.0	59.5	40.5
North Dakota-----	100.0	57.8	42.2
Oregon-----	100.0	46.5	53.5
South Dakota-----	100.0	54.0	46.0
Tennessee-----	100.0	44.5	55.5
Virginia-----	100.0	44.7	55.3
Wyoming-----	100.0	45.4	54.6

#### NOTES:

Definition of "children" varies from State to State. For Connecticut, Florida, and Tennessee, "children under 21"; for Idaho and Oregon, "children affected by this decree"; for Iowa, Mississippi, and Virginia, "minor children affected by this decree"; for Michigan "children under 18"; for Missouri, "number of minor children"; for Nebraska, "dependent children"; for New Hampshire, "minor children as interpreted by the courts"; for North Dakota, "dependent children under 21 of this marriage or adopted"; for South Dakota and Wyoming, "all children." No information was supplied for Montana.

Number of children in annulment decrees not stated in figures for Iowa, Michigan, Nebraska, New Hampshire, North Dakota, Virginia, and Wyoming.



reporting children at the time of divorce. For the 16 States combined, 44.0 percent of the decrees were reported with children; and 56.0, without children. For 9 States, decrees of annulment were included. Considerable variation exists from State to State in the definition of "children" reported in decrees of divorce.<sup>11</sup>

Florida reported the smallest proportion of divorces granted with children (36.8 percent); and Connecticut, the largest (64.3 percent). In 3 States, less than 40.0 percent of the divorces were reported with children; in 10 States, less than 50.0 percent; in 15 States, less than 60.0 percent. Conversely, in 1 State less than 40.0 percent of the divorces were reported without children; in 6 States, less than 50.0 percent; in 13 States, less than 60.0 percent; and in all 16 States, less than 65.0 percent.

#### Divorces granted to husband or to wife

Divorces and annulments distributed by party to whom granted in 20 States for 1950 are shown in table 5.12. In almost three cases out of four the divorce was granted to the wife. For 1 State, the tabulation was made by "complainant," and in 2 States a small number of decrees were granted to the father, mother, guardian, or to the cross-complainant. In the 20 States combined, 72.1 percent of the decrees were granted to wives; and 27.8 percent, to husbands. In the individual States the range was from 61.3 percent to wives in Mississippi (38.7 percent to husbands) to 77.9 percent to wives in Massachusetts (22.1 percent to husbands).

<sup>11</sup>See "Notes" for table 5.11.

Table 5.12. PERCENT OF DIVORCES AND ANNULMENTS BY PARTY TO WHOM GRANTED: 20 REPORTING STATES, 1950

(By place of occurrence)

AREA	Total	Husband	Wife	Other <sup>1</sup>
TOTAL-----	100.0	27.8	72.1	0.0
Connecticut-----	100.0	23.9	76.1	0
Delaware-----	100.0	32.5	67.5	0
Florida-----	100.0	33.0	67.0	0
Idaho-----	100.0	26.5	73.5	0
Iowa-----	100.0	29.7	70.3	0
Maine-----	100.0	25.1	74.9	0
Massachusetts-----	100.0	22.1	77.9	0
Michigan-----	100.0	24.9	75.1	0
Mississippi <sup>2</sup> -----	100.0	38.7	61.3	0
Missouri-----	100.0	25.1	74.9	0
Montana-----	100.0	26.2	73.4	0.4
Nebraska-----	100.0	23.2	76.8	0
New Hampshire-----	100.0	24.4	75.6	0
North Dakota-----	100.0	26.1	73.9	0
Oregon-----	100.0	23.7	76.3	0
South Dakota-----	100.0	26.4	73.6	0
Tennessee-----	100.0	23.7	75.9	0.5
Vermont-----	100.0	28.8	71.2	0
Virginia-----	100.0	34.8	65.2	0
Wyoming-----	100.0	29.0	71.0	0

<sup>1</sup>Father, mother, guardian, or cross-complainant.

<sup>2</sup>Tabulated according to complainant.

Table 5.13. Crude Marriage Rates by Place of Occurrence: United States, Each Division and State, 1946-50

(Rates per 1,000 population in each specified area, estimated as of July 1 for 1946-49, and enumerated as of April 1 for 1950)

AREA	1950	1949	1948	1947	1946
UNITED STATES <sup>1</sup>	11.1	10.6	12.4	13.9	16.4
GEOGRAPHIC DIVISIONS					
New England	9.5	9.0	10.7	12.0	13.6
Middle Atlantic	9.2	8.7	10.4	11.4	13.2
East North Central	10.4	9.1	11.2	12.6	14.5
West North Central	9.8	9.6	11.2	13.1	16.3
South Atlantic	12.8	12.1	14.4	15.4	18.6
East South Central	11.7	13.1	13.9	17.1	20.8
West South Central	13.1	13.0	14.6	15.9	19.0
Mountain	26.1	24.9	28.4	31.4	34.9
Pacific	8.6	8.6	9.9	11.0	12.8
NEW ENGLAND					
Maine	9.4	9.0	11.7	13.1	16.2
New Hampshire	14.3	13.9	16.2	18.3	20.8
Vermont	9.4	9.2	10.8	12.3	14.4
Massachusetts	8.9	8.4	9.8	10.9	12.6
Rhode Island	9.5	8.9	11.1	12.0	13.8
Connecticut	9.7	9.1	10.7	12.4	13.8
MIDDLE ATLANTIC					
New York	9.5	9.0	10.8	11.8	13.7
New Jersey	9.6	9.1	10.9	12.1	13.6
Pennsylvania	8.5	8.1	9.6	10.6	12.4
EAST NORTH CENTRAL					
Ohio	9.5	17.5	20.6	12.2	14.1
Indiana <sup>2</sup>	15.7	12.2	14.0	15.5	18.0
Illinois <sup>2</sup>	10.7	10.2	11.8	13.0	14.9
Michigan	9.1	8.4	10.0	11.7	13.4
Wisconsin	8.5	8.2	9.8	10.9	12.3
WEST NORTH CENTRAL					
Minnesota <sup>2</sup>	10.4	9.8	11.5	12.9	14.0
Iowa	10.5	9.9	11.2	12.0	13.1
Missouri	8.7	9.6	21.1	21.3	22.4
North Dakota	8.2	8.1	9.5	9.6	9.7
South Dakota	10.7	10.3	12.0	13.2	14.3
Nebraska	10.4	9.6	11.8	11.6	11.3
Kansas	9.7	9.1	10.7	20.4	38.5
SOUTH ATLANTIC					
Delaware	8.3	8.2	8.5	16.9	27.7
Maryland <sup>2</sup>	21.6	20.5	24.7	26.8	31.4
District of Columbia <sup>2</sup>	12.7	12.4	13.8	14.4	16.8
Virginia	11.1	10.1	11.7	12.6	14.5
West Virginia <sup>2</sup>	8.6	7.1	9.7	9.9	12.7
North Carolina	27.3	27.0	27.8	28.5	30.5
South Carolina <sup>2</sup>	21.8	19.5	23.4	24.3	30.2
Georgia <sup>2</sup>	12.8	16.2	20.9	21.0	24.1
Florida	10.0	8.3	8.3	9.5	12.3
EAST SOUTH CENTRAL					
Kentucky <sup>2</sup>	11.2	20.6	22.8	25.5	29.9
Tennessee	6.6	4.6	4.8	5.4	7.0
Alabama	7.5	6.5	7.0	15.8	19.4
Mississippi	26.0	25.3	25.8	25.4	31.1
WEST SOUTH CENTRAL					
Arkansas	227.0	23.9	223.6	23.8	28.7
Louisiana	210.0	19.9	211.2	212.8	216.1
Oklahoma	210.0	23.8	29.9	29.9	211.2
Texas <sup>2</sup>	11.6	12.6	14.8	16.8	19.9
MOUNTAIN					
Montana	12.2	12.3	13.2	19.4	25.2
Idaho	14.2	13.3	15.2	15.4	14.5
Wyoming	12.2	12.3	13.9	14.3	15.2
Colorado <sup>2</sup>	10.4	9.8	11.1	12.3	13.5
New Mexico	33.3	25.5	27.3	27.5	32.3
Arizona	26.7	32.4	236.0	238.4	244.3
Utah	210.3	29.5	212.2	215.3	215.3
Nevada <sup>2</sup>	311.5	287.6	335.6	386.3	415.9
PACIFIC					
Washington <sup>2</sup>	14.5	14.1	15.5	17.9	20.0
Oregon	7.4	7.5	8.8	9.5	11.0
California	7.5	7.5	8.8	9.6	11.3

<sup>1</sup>Based on estimate.

<sup>2</sup>Based on marriage licenses.

NOTE.—For discussion of population bases, see text in chapter 2.

Table 5.14. Crude Divorce Rates by Place of Occurrence: United States, Each Division and State, 1946-50

(Includes reported annulments. Rates per 1,000 population in each specified area, estimated as of July 1 for 1946-49, and enumerated as of April 1 for 1950)

AREA	1950	1949	1948	1947	1946 <sup>1</sup>
UNITED STATES <sup>2</sup>	2.6	2.7	2.6	3.4	4.3
GEOGRAPHIC DIVISIONS					
New England	1.5	1.5	1.7	2.2	2.6
Middle Atlantic	21.0	---	---	---	---
East North Central	21.5	---	---	---	---
West North Central	2.2	22.3	22.4	23.1	24.7
South Atlantic	22.5	---	---	---	---
East South Central	22.7	---	---	---	---
West South Central	24.5	---	---	---	---
Mountain	25.5	---	---	---	---
Pacific	3.9	---	4.1	25.1	26.7
NEW ENGLAND					
Maine	2.4	2.3	2.6	3.4	4.8
New Hampshire	2.0	2.0	2.4	2.6	4.2
Vermont	1.8	1.5	1.4	2.1	3.0
Massachusetts	1.4	1.4	1.6	2.2	2.3
Rhode Island	1.1	1.3	1.0	2.0	2.0
Connecticut	1.4	1.4	1.4	1.7	2.0
MIDDLE ATLANTIC					
New York	20.8	---	---	---	---
New Jersey	1.1	1.2	1.5	2.0	1.8
Pennsylvania	1.2	1.3	1.3	1.6	2.1
EAST NORTH CENTRAL					
Ohio	2.7	22.8	23.3	3.8	4.7
Indiana	22.9	---	---	---	---
Illinois	2.8	2.7	---	---	---
Michigan	2.5	2.8	2.8	3.5	5.0
Wisconsin	1.4	1.4	1.5	1.9	2.6
WEST NORTH CENTRAL					
Minnesota	1.4	1.4	1.6	2.0	2.9
Iowa	2.1	2.1	2.2	2.7	4.0
Missouri	31.1	25.6	25.2	24.5	27.2
North Dakota	1.0	1.1	1.2	1.4	1.8
South Dakota	1.4	1.5	1.7	2.1	2.6
Nebraska	1.9	2.0	2.2	2.6	3.7
Kansas <sup>2</sup>	2.6	2.3	3.0	3.7	5.2
SOUTH ATLANTIC					
Delaware	2.0	2.6	1.3	2.7	1.2
Maryland	2.2	2.1	2.6	3.0	3.9
District of Columbia	2.1	2.0	2.3	2.3	2.7
Virginia	2.1	1.9	2.2	2.2	3.0
West Virginia	22.1	---	---	---	---
North Carolina	3.8	---	---	21.9	22.6
South Carolina	21.1	---	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Georgia	2.8	---	---	---	---
Florida	6.5	6.7	7.0	8.3	11.1
EAST SOUTH CENTRAL					
Kentucky	22.9	---	---	---	---
Tennessee	2.4	2.3	2.6	3.0	4.6
Alabama	2.9	2.9	3.3	3.7	5.0
Mississippi	2.8	3.0	3.2	3.3	4.6
WEST SOUTH CENTRAL					
Arkansas	24.6	25.3	4.9	5.2	7.7
Louisiana	22.0	---	---	---	---
Oklahoma	26.2	---	---	---	---
Texas	24.9	5.0	5.2	5.9	8.1
MOUNTAIN					
Montana	3.3	3.5	3.8	4.6	6.3
Idaho	4.6	4.9	5.8	26.5	---
Wyoming	4.0	4.4	4.6	5.7	6.6
Colorado	23.3	---	---	---	---
New Mexico	3.9	4.5	4.4	5.4	7.1
Arizona	5.4	6.3	---	23.7	24.7
Utah	3.1	3.3	3.4	4.6	5.5
Nevada	55.7	268.8	270.5	292.6	2137.3
PACIFIC					
Washington	4.7	---	3.6	25.0	28.2
Oregon	3.9	4.4	4.6	4.9	7.7
California	3.7	3.7	4.2	5.2	5.2

<sup>1</sup>Rate for the United States based on population including armed foreign overseas; rates for geographic divisions and States based on civilian population in each area. United States rate based on civilian population was 4.4.

<sup>2</sup>Based on estimate.

<sup>3</sup>No divorces permitted until 1949. Figures on annulments not available.

NOTE.—For discussion of population bases, see text in chapter 2.

## Chapter 6

### NATALITY STATISTICS

#### DETAILED NATALITY STATISTICS

##### Births in 1950

There were 3,554,149 live births registered in the United States during 1950. This was approximately the same number as in each of the 2 preceding years, and represents a decrease of only 3.9 percent from the all-time high number of births (3,699,940) registered in 1947. The crude birth rate for 1950 based on registered events was 23.6 per 1,000 population, continuing the slight downward movement since 1947, when the rate was at the postwar high of 25.8 (table 6.01).

Estimates of the total number of live births show approximately the same change. According to these figures—registered births adjusted for underregistration—births declined from 3,817,000 in 1947 to 3,632,000 in 1950. The corresponding decrease in the birth rate was from 26.6 to 24.1, a drop of 9.4 percent.

The decrease in the crude birth rate from the 1947 high was related directly to a sharp decline (30 percent) in first births, which followed a comparable drop in marriages. Births of second, third, and fourth children in 1950 were above the 1947 levels. These increases were responsible for offsetting much of the decrease in first births.

During the 1947 to 1950 period, fertility decreased among women in each of the 5-year age groups between 20 and 44 years. The general fertility rate, obtained by relating the number of births to the number of women 15-44 years of age, fell 8 percent in these 3 years.

Birth rate statistics in the text of this volume are based largely on data adjusted for underregistration. Allowance is made for States missing from the birth-registration area prior to 1933, in the discussion on trends for early periods in this century.<sup>1</sup> The few sections dealing with unadjusted data (registered births) are so noted. In former reports of this Office, such adjustments were fairly limited primarily because of the lack of current measures of registration completeness.

##### General Natality Trends

##### Trend since 1915

The midthirties separate two contrasting periods of change in the birth rate. In the earlier period, the rate underwent a marked decline, continuing the downward trend that had apparently started many years prior to 1915, the first year shown in table 6.02 and figure 6.A.<sup>2</sup> The only appreciable interruption in the decline from 29.5 in 1915 to 18.4 in 1933, occurred in the post World War I period. Following a sharp dip in 1919, the rate climbed during the next 2 years before

again turning downward to reach an all-time low during the depression.

In the latter part of the 1930's, the rate underwent a slow and irregular upward movement. It was expected that after a comparatively short period of stability or a further slight rise, the birth rate would undergo additional reductions. A return to

Table 6.01. POPULATION, REGISTERED LIVE BIRTHS, AND CRUDE BIRTH RATES: BIRTH-REGISTRATION STATES, 1915-50

(Rates per 1,000 population)

YEAR	Population of continental United States <sup>1</sup>	BIRTH-REGISTRATION STATES		
		Population <sup>2</sup>	Live births	
			Number	Rate
1950-----	151,132,000	150,697,361	3,554,149	23.6
1949-----	149,188,000	148,665,000	3,559,529	23.9
1948-----	146,651,000	146,093,000	3,535,068	24.2
1947-----	144,126,000	143,446,000	3,699,940	25.8
1946-----	141,389,000	141,389,000	3,288,672	23.3
1945-----	139,928,000	139,928,000	2,735,456	19.5
1944-----	138,397,000	138,397,000	2,794,800	20.2
1943-----	136,739,000	136,739,000	2,934,860	21.5
1942-----	134,860,000	134,860,000	2,808,996	20.8
1941-----	133,402,000	133,402,000	2,513,427	18.8
1940-----	131,820,000	131,669,275	2,360,599	17.9
1939-----	130,879,718	130,879,718	2,265,588	17.3
1938-----	129,824,939	129,824,939	2,286,962	17.6
1937-----	128,824,829	128,824,829	2,203,337	17.1
1936-----	128,053,180	128,053,180	2,144,790	16.7
1935-----	127,250,232	127,250,232	2,155,105	16.9
1934-----	126,373,773	126,373,773	2,167,636	17.2
1933-----	125,578,763	125,578,763	2,081,232	16.6
1932-----	124,840,471	118,903,899	2,074,042	17.4
1931-----	124,039,648	117,455,229	2,112,760	18.0
1930-----	123,076,741	116,544,946	2,203,958	18.9
1929-----	121,769,939	115,317,450	2,169,920	18.8
1928-----	120,501,115	113,636,160	2,233,149	19.7
1927-----	119,038,062	104,320,830	2,137,856	20.5
1926-----	117,599,225	80,400,590	1,856,068	20.5
1925-----	115,831,963	88,294,564	1,878,880	21.3
1924-----	114,113,463	87,000,295	1,930,614	22.2
1923-----	111,949,945	81,072,123	1,792,646	22.1
1922-----	110,054,778	79,560,746	1,774,911	22.3
1921-----	108,541,489	70,807,090	1,714,261	24.2
1920-----	106,466,420	63,597,307	1,508,874	23.7
1919-----	104,512,110	61,212,076	1,373,438	22.4
1918-----	103,202,801	55,153,782	1,363,649	24.7
1917-----	103,265,913	55,197,952	1,353,792	24.5
1916-----	101,965,984	32,944,013	818,983	24.9
1915-----	100,549,013	31,096,697	776,304	25.0

<sup>1</sup>For fuller discussion of adjustment factors for under-registration, see section on Measures of registration completeness for adjusting registered birth statistics.

<sup>2</sup>Whelpton, P. K., "Forecasts of the Population of the United States, 1945-1975," U. S. Bureau of the Census, 1947.

<sup>1</sup>For 1940 and 1950, enumerated as of April 1, plus estimates of armed forces overseas; for other years, estimated as of July 1. Estimates for the two periods 1917-19 and 1941-49, include armed forces overseas.

<sup>2</sup>For 1940 and 1950, enumerated as of April 1; for other years, estimated as of July 1. Estimates for the period 1941-46, include armed forces overseas.

Table 6.02. LIVE BIRTHS AND BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY RACE: UNITED STATES, 1915-50

(Includes adjustment for States not in the birth-registration area prior to 1933. Figures were rounded to the nearest thousand without being adjusted to totals, which were independently rounded. Rates per 1,000 population in each specified group, estimated as of July 1 for 1915-39 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

YEAR	NUMBER			RATE <sup>1</sup>		
	All races	White	Nonwhite	All races	White	Non-white
1950-----	3,632,000	3,108,000	524,000	24.1	23.0	33.3
1949-----	3,649,000	3,136,000	513,000	24.5	23.6	33.0
1948-----	3,637,000	3,141,000	495,000	24.9	24.0	32.4
1947-----	3,817,000	3,347,000	469,000	26.6	26.1	31.2
1946-----	3,411,000	2,990,000	420,000	24.1	23.6	28.4
1945-----	2,856,000	2,471,000	386,000	20.4	19.7	26.5
1944-----	2,939,000	2,545,000	394,000	21.2	20.5	27.4
1943-----	3,104,000	2,704,000	400,000	22.7	22.1	28.3
1942-----	2,989,000	2,605,000	384,000	22.2	21.5	27.7
1941-----	2,703,000	2,330,000	374,000	20.3	19.5	27.3
1940-----	2,559,000	2,199,000	360,000	19.4	18.6	26.7
1939-----	2,466,000	2,117,000	349,000	18.8	18.0	26.1
1938-----	2,496,000	2,148,000	348,000	19.2	18.4	26.3
1937-----	2,413,000	2,071,000	342,000	16.7	17.9	26.0
1936-----	2,355,000	2,027,000	328,000	16.4	17.6	25.1
1935-----	2,377,000	2,042,000	334,000	18.7	17.9	25.8
1934-----	2,396,000	2,058,000	338,000	19.0	18.1	26.3
1933-----	2,307,000	1,982,000	325,000	18.4	17.6	25.5
1932-----	2,440,000	2,099,000	341,000	19.5	18.7	26.9
1931-----	2,506,000	2,170,000	335,000	20.2	19.5	26.6
1930-----	2,618,000	2,274,000	344,000	21.3	20.6	27.5
1929-----	2,582,000	2,244,000	339,000	21.2	20.5	27.3
1928-----	2,674,000	2,325,000	349,000	22.2	21.5	28.5
1927-----	2,602,000	2,425,000	377,000	23.5	22.7	31.1
1926-----	2,639,000	2,441,000	398,000	24.2	23.1	33.4
1925-----	2,909,000	2,506,000	403,000	25.1	24.1	34.2
1924-----	2,979,000	2,577,000	401,000	26.1	25.1	34.6
1923-----	2,910,000	2,531,000	380,000	26.0	25.2	33.2
1922-----	2,882,000	2,507,000	375,000	26.2	25.4	33.2
1921-----	3,055,000	2,657,000	398,000	28.1	27.3	35.8
1920-----	2,950,000	2,566,000	383,000	27.7	26.9	35.0
1919-----	2,740,000	2,387,000	353,000	26.1	25.3	32.4
1918-----	2,946,000	2,588,000	360,000	28.2	27.6	33.0
1917-----	2,944,000	2,587,000	357,000	28.5	27.9	32.9
1916-----	2,964,000	2,599,000	---	29.1	28.5	---
1915-----	2,965,000	2,594,000	---	29.5	28.9	---

<sup>1</sup>For 1917-19 and 1941-46, based on population including armed forces overseas.

NOTE.—Estimates for 1915-34, prepared by P. K. Whelpton. For source, see "Births and Birth Rates in the Entire United States, 1909 to 1948," National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 33, No. 8, 1950.

the rates of the early 1920's seemed out of the question. The decline had spanned both the prosperity of the 1920's and the depression of the early 1930's, and was interpreted as part of the long-term trend to lower birth rates which all modern nations were experiencing. Events in the 1940's radically altered the picture, with far-reaching effects on the birth rate.

During the early years of World War II, the rate rose rapidly, and in 1943, it was at its wartime peak (22.7). Although some decreases occurred in the later years of the war, the rate remained well above the prewar level. With the end of the war, the rate increased sharply until 1947, when it reached the highest point in 25 years—26.6. The decrease that followed consisted of a recession the next year and only slight changes between 1948 and 1950.

On the whole, fluctuations in the birth rate during the last decade were more extreme than in any similar period since 1915. For example, from 1945 to 1947 the rate increased by 30 percent, whereas prior to 1940, the largest 2-year change was a decrease of 10 percent occurring between 1927 and 1929. The absolute changes in the birth rates for these

two periods were 6.2 and 2.3 per 1,000 population, respectively.

Basically the same trend is observed using registered birth data (table 6.01). However, the adjusted rates show a greater decline from 1921 to 1933 than do the rates based on recorded births. In addition, while the registered birth rate was at the highest point on record in 1947, the adjusted figure for this year was exceeded by the rate in each of the years from 1915 through 1921 except 1919.

The decline in the crude birth rate between 1921 and 1933 meant a decrease in the annual number of births from 3,055,000 to 2,307,000 (table 6.02). Although the rate in recent years has not exceeded the figures in the early 1920's, the number of births in each of the post World War II years has been considerably greater.

### Birth rates by race

Following the end of World War II, the birth rate for the white race rose to a postwar peak in 1947 and decreased in each of the 3 following years. The rate for the nonwhite group increased comparatively slowly in the first 2 postwar years but continued to gain after 1947. By 1950, the rate for the nonwhite group (33.3) was nearly half again as large as that for the white (23.0), and was at about the same level as in the early twenties (table 6.02).

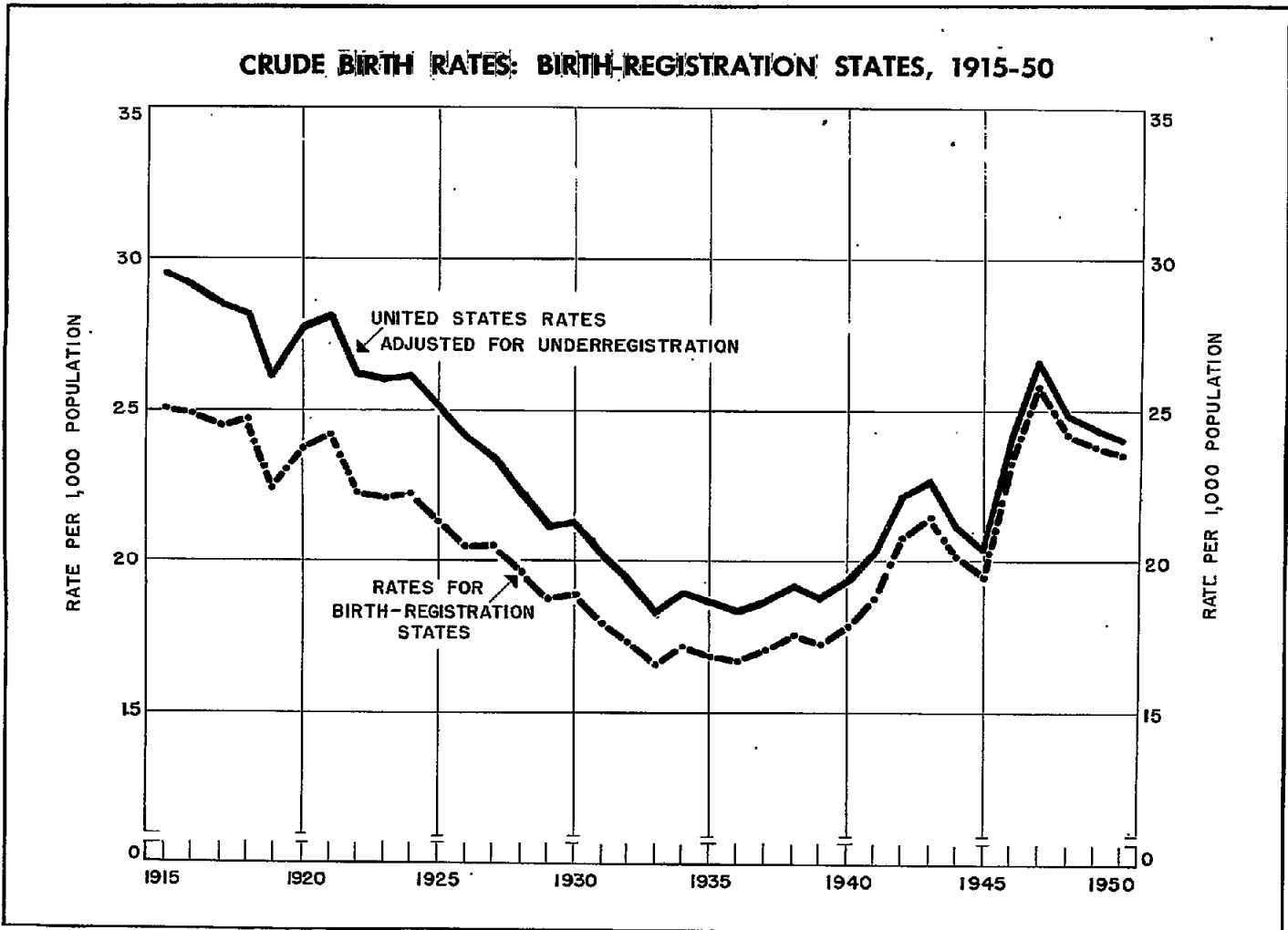
Table 6.03. REGISTERED LIVE BIRTHS AND BIRTH RATES, BY RACE: BIRTH-REGISTRATION STATES, 1915-50

(Rates per 1,000 population in each specified group, estimated as of July 1 for 1915-39 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

YEAR	NUMBER			RATE <sup>1</sup>		
	All races	White	Nonwhite	All races	White	Non-white
1950-----	3,554,149	3,063,627	490,522	23.6	22.7	31.1
1949-----	3,559,529	3,085,721	475,808	23.9	23.2	30.6
1948-----	3,535,068	3,080,516	454,752	24.2	23.5	29.8
1947-----	3,699,940	3,274,620	425,320	25.8	25.5	28.3
1946-----	3,288,672	2,913,645	375,027	23.3	23.0	25.3
1945-----	2,735,456	2,395,563	339,893	19.5	19.1	23.2
1944-----	2,794,800	2,454,700	340,100	20.2	19.8	23.6
1943-----	2,934,860	2,594,763	340,097	21.5	21.2	24.1
1942-----	2,808,996	2,486,934	322,062	20.8	20.6	23.2
1941-----	2,513,427	2,204,903	308,524	18.8	18.4	22.6
1940-----	2,360,399	2,067,953	292,446	17.9	17.5	21.7
1939-----	2,265,589	1,982,671	282,917	17.3	16.9	21.2
1938-----	2,286,962	2,005,955	281,007	17.6	17.2	21.2
1937-----	2,203,337	1,928,437	274,900	17.1	16.7	20.9
1936-----	2,144,790	1,881,883	262,907	16.7	16.4	20.1
1935-----	2,155,105	1,898,012	267,093	16.9	16.5	20.6
1934-----	2,167,636	1,898,501	269,135	17.2	16.7	20.9
1933-----	2,081,232	1,823,531	257,701	16.6	16.2	20.2
1932-----	2,074,042	1,822,425	251,617	17.4	17.0	21.3
1931-----	2,112,760	1,867,245	245,515	18.0	17.7	21.0
1930-----	2,203,958	1,953,163	250,795	18.9	18.6	21.6
1929-----	2,189,920	1,924,475	245,445	18.8	18.5	21.3
1928-----	2,233,149	1,982,246	250,903	19.7	19.4	22.1
1927-----	2,137,836	1,925,585	212,251	20.5	20.2	23.6
1926-----	1,856,068	1,707,034	149,034	20.5	20.2	25.0
1925-----	1,878,880	1,731,669	147,211	21.3	21.0	25.4
1924-----	1,930,614	1,762,872	167,742	22.2	21.9	26.3
1923-----	1,792,646	1,644,034	148,612	22.1	21.9	25.3
1922-----	1,774,911	1,629,387	145,524	22.3	22.1	25.3
1921-----	1,714,261	1,565,446	148,815	24.2	23.9	27.6
1920-----	1,508,874	1,395,523	113,351	23.7	23.5	27.0
1919-----	1,373,438	1,269,363	104,075	22.4	22.3	24.9
1918-----	1,363,649	1,288,711	74,938	24.7	24.8	24.3
1917-----	1,353,792	1,200,298	73,504	24.5	24.5	24.3
1916-----	818,983	799,817	19,166	24.9	25.0	20.4
1915-----	778,304	763,899	12,405	25.0	25.1	18.4

<sup>1</sup>For 1941-46, based on population including armed forces overseas.

FIGURE 6.A



Extensive changes in the birth rates for both the white and nonwhite races also occurred in earlier periods. Throughout these variations the rate for the nonwhite group remained higher than that for the white. In the 1920's and early 1930's, the rates for the two groups declined by about a third, although the timing of some of the changes differed somewhat. During the years immediately preceding World War II, there was a moderate recovery in the rates for both race groups. The rate for the white race rose much more rapidly than that for the nonwhite in the early years of the war, and then experienced a greater drop in the last 2 years.

Rates for the nonwhite group, based on registered births, differed considerably from those adjusted for incompleteness of the birth-registration area and for underregistration (table 6.03). For 1920, the two figures were 30 percent apart. After a few years, the gap between them started to narrow and by 1950, they were only 7 percent apart. Rates for the white group were affected by the same factors but not to the same extent.

**Birth rates by specified race**

Among the individual nonwhite races in the United States, the rates varied greatly (table 6.04). In 1950, the Indian and Chinese populations had birth rates in excess of 40. These were almost twice as large as the Japanese rate (24.5), and considerably higher than the Negro rate (33.1). The rates for all of these groups, except the Indian, were well above the figures for 1940. The most dramatic rise, however, occurred

in the Chinese group. During this period the rate increased threefold—from 14.5 in 1940 to 43.9 in 1950.

This increase is largely explained in terms of differences in the age-sex structure of the populations in these 2 years. In 1940, women in the most fertile ages, 20-29 years, comprised only 4.3 percent of all Chinese in this country. Fol-

Table 6.04. LIVE BIRTHS AND BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY SPECIFIED RACE: UNITED STATES, 1940 AND 1950

(Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE	NUMBER		RATE	
	1950	1940	1950	1940
ALL RACES-----	3,631,512	2,558,647	24.1	19.4
White-----	3,107,638	2,198,911	23.0	18.6
Nonwhite-----	523,874	359,736	33.3	26.7
Negro-----	497,503	341,577	33.1	26.5
Indian <sup>1</sup> -----	15,671	14,022	45.8	42.0
Chinese-----	5,139	1,123	43.9	14.5
Japanese-----	3,458	1,905	24.5	15.0
All other <sup>1</sup> -----	2,103	1,109	19.1	22.0

<sup>1</sup>For discussion of special problems relating to births and birth rates for "Indian" and "All other," see text in chapter 2.

lowing World War II, however, there was a relatively large immigration of war brides from China. While this group numbered a few thousand, it greatly increased the number of young Chinese women already here. By 1950, women 20-29 years of age formed 9.2 percent of the Chinese population in the United States.

Birth rates for Indians and "other nonwhite" races shown in table 6.04 for 1950 are not strictly comparable with the figures for 1940. This arises from the fact that certain "mixed race" groups located chiefly in Southeastern United States were classified as Indian in the 1940 census. Coding rules for births were unchanged between these 2 years.

It is estimated that the birth rates in 1950 for Indian and "other nonwhite" would be 41.9 and 27.0, respectively, if these "mixed race" groups were included with the Indian population in 1950. These figures suggest that there was virtually no change in the birth rate among Indians, between 1940 and 1950, and that a moderate increase occurred in the rate for the "other nonwhite."

Other problems of comparability between birth and population data exist for the Indian group. For example, Indians living off reservations are often not easily identified as such and it is believed that many of them are enumerated as members of one of the other race groups, principally white. It is not known to what extent births to these people are identified as Indian but the general impression is that a much higher proportion are so classified on the birth record than on the census schedule. In an attempt to increase comparability between birth statistics and counts of the Indian population, the 1950 population was estimated by the Bureau of Indian Affairs by adding the natural increase over the two decades to the 1930 enumerated figure. The resulting figure is 23 percent above the 1950 census count. The Indian birth rate based on the estimate, which includes the "mixed race" groups mentioned previously, was 37.2.

### Birth rates by month (registered births)

Birth rates by month (adjusted to an annual basis) in the 3 years 1948 to 1950 followed a fairly regular seasonal pattern (table 6.05). There was a minor peak in February of each year, a major peak in August or September, and troughs in the spring and at the end of each year. This resembles the bimodal distribution observed in the years prior to the war. However, in the earlier pattern, the lowest rate occurred in December, whereas in the more recent period the annual low was in April or May. Also, monthly fluctuations were previously more moderate.

In addition to indicating the seasonal pattern, monthly figures delineate more clearly changes in the birth rate. According to these data, the sharp postwar increase of births began in June 1946, and in a short span of 6 months (May to November) the monthly rate rose from 19.4 to 28.6, a gain of almost 50 percent. This was followed by a fairly marked decline until April 1947 and a rise during the summer months that was more moderate than usual. When seasonal variation is taken into account, no extensive changes in the monthly rates are found in the subsequent 3 years.

### Births by sex

In 1950, as in previous years, male births outnumbered female births (table 6.06). Table 6.07 shows that the number of males per 1,000 females over the 16-year period from 1935 through 1950 was fairly stable, the ratio falling within the limits of 1,058 and 1,051. The highest ratios in this

Table 6.05. BIRTH RATES BY RACE AND MONTH:  
UNITED STATES, 1945-50

(Rates, computed on an annual basis, based on registered live births per 1,000 population estimated as of July 1 for 1945-49, and enumerated as of April 1 for 1950)

RACE AND MONTH	1950	1949	1948	1947	1946	1945
ALL RACES-----	23.6	23.9	24.2	25.8	23.3	19.5
January-----	23.2	23.7	23.9	27.9	18.5	19.9
February-----	23.6	24.0	24.7	27.4	19.0	20.0
March-----	25.0	23.8	24.3	26.7	19.0	19.4
April-----	20.9	22.2	23.2	24.8	19.0	18.7
May-----	21.5	22.3	22.0	24.9	19.4	18.7
June-----	23.7	25.4	22.4	25.6	20.9	19.5
July-----	24.7	25.2	24.9	26.1	23.9	20.3
August-----	25.4	25.6	25.9	26.2	26.0	20.5
September-----	25.5	25.6	26.1	26.3	28.0	20.6
October-----	24.4	24.7	24.9	25.3	28.3	19.4
November-----	23.6	23.8	24.3	24.5	28.6	19.0
December-----	23.5	23.2	23.9	23.7	28.2	18.7
White-----	22.7	23.2	23.5	25.5	23.0	19.1
January-----	22.2	22.8	23.1	27.6	18.0	19.3
February-----	22.6	23.1	23.9	27.2	18.5	19.4
March-----	22.1	23.0	23.6	26.5	18.6	19.0
April-----	20.3	21.6	22.6	24.7	18.7	18.3
May-----	20.9	21.7	21.5	24.8	19.3	18.3
June-----	22.9	22.6	21.8	25.4	20.6	19.2
July-----	23.7	24.3	24.2	25.8	23.7	19.9
August-----	24.4	24.7	25.2	25.9	25.9	20.1
September-----	24.5	24.8	25.4	25.9	28.0	20.1
October-----	23.5	24.0	24.3	25.0	28.3	19.1
November-----	22.8	23.1	23.7	24.1	28.4	18.6
December-----	22.6	22.4	23.2	23.2	28.0	18.2
Nonwhite-----	31.1	30.6	29.8	28.3	25.3	23.2
January-----	31.8	31.3	30.2	30.8	23.4	24.8
February-----	32.3	31.5	31.1	29.8	23.6	24.9
March-----	30.5	30.3	29.7	28.7	22.7	23.5
April-----	26.4	27.1	28.0	25.9	21.2	22.3
May-----	27.4	27.6	26.7	25.7	21.1	21.7
June-----	30.6	29.5	26.9	27.1	22.7	22.4
July-----	32.7	32.9	31.1	28.6	24.9	23.7
August-----	34.0	33.1	32.1	29.5	27.0	23.9
September-----	33.8	32.7	32.4	29.7	28.3	24.1
October-----	31.4	30.7	29.6	28.0	28.5	22.1
November-----	31.0	30.2	29.4	27.9	29.8	22.5
December-----	31.7	30.3	30.1	28.1	30.4	22.5

NOTE.—Rates for 1945 and 1946 based on population including armed forces overseas.

series occurred during the war and immediate postwar years. This conforms with the popular idea that the sex ratio increases during war periods. However, it should be noted that the differences involved are very small. Furthermore, they may be traceable to variability in such demographic factors as race, birth order, and age of parents.

As indicated by the figures in table 6.07, the sex ratio in the nonwhite races has been consistently lower than in the white, and has varied considerably more. Accordingly, some of the changes noted above reflect combined variations in these race groups.<sup>3</sup> An interesting sidelight is that 2 of the years that produced the lowest nonwhite sex ratios (1940 and 1945), had comparatively high white ratios. The effect of other variables on the sex ratio may be examined on the basis of detailed tables in Volume II.

<sup>3</sup>See section on Sex ratio by gestation in chapter 7 for discussion of sex ratio differentials according to length of gestation for live births and fetal deaths.

Table 6.06. REGISTERED LIVE BIRTHS AND LIVE BIRTHS ADJUSTED FOR UNDERREGISTRATION, BY RACE AND SEX: UNITED STATES, 1935-50

RACE AND YEAR	REGISTERED BIRTHS		BIRTHS ADJUSTED FOR UNDERREGISTRATION	
	Male	Female	Male	Female
<b>ALL RACES</b>				
1950-----	1,823,555	1,730,594	1,863,000	1,768,000
1949-----	1,826,352	1,733,177	1,872,000	1,777,000
1948-----	1,813,852	1,721,216	1,866,000	1,771,000
1947-----	1,899,876	1,800,064	1,980,000	1,887,000
1946-----	1,691,220	1,597,452	1,754,000	1,657,000
1945-----	1,404,587	1,330,869	1,467,000	1,391,000
1944-----	1,435,301	1,359,499	1,509,000	1,430,000
1943-----	1,506,959	1,427,901	1,592,000	1,510,000
1942-----	1,444,365	1,364,631	1,537,000	1,452,000
1941-----	1,289,734	1,223,693	1,387,000	1,316,000
1940-----	1,211,684	1,148,715	1,313,000	1,246,000
1939-----	1,162,600	1,102,988	1,265,000	1,201,000
1938-----	1,172,541	1,114,421	1,280,000	1,217,000
1937-----	1,130,641	1,072,696	1,238,000	1,175,000
1936-----	1,099,465	1,045,325	1,207,000	1,148,000
1935-----	1,105,489	1,049,616	1,219,000	1,158,000
<b>WHITE</b>				
1950-----	1,575,309	1,498,318	1,598,000	1,510,000
1949-----	1,585,854	1,497,867	1,613,000	1,523,000
1948-----	1,583,344	1,486,972	1,615,000	1,527,000
1947-----	1,684,618	1,590,002	1,722,000	1,625,000
1946-----	1,501,498	1,412,147	1,541,000	1,449,000
1945-----	1,232,972	1,162,591	1,272,000	1,199,000
1944-----	1,263,345	1,191,355	1,310,000	1,235,000
1943-----	1,334,563	1,260,200	1,391,000	1,313,000
1942-----	1,280,711	1,206,223	1,341,000	1,263,000
1941-----	1,133,394	1,071,509	1,198,000	1,132,000
1940-----	1,064,067	1,003,886	1,131,000	1,067,000
1939-----	1,019,021	963,650	1,088,000	1,029,000
1938-----	1,030,388	975,557	1,104,000	1,045,000
1937-----	991,356	937,081	1,065,000	1,007,000
1936-----	966,332	915,551	1,041,000	986,000
1935-----	969,916	918,096	1,049,000	993,000
<b>NONWHITE</b>				
1950-----	249,246	242,276	265,000	259,000
1949-----	240,498	235,310	259,000	254,000
1948-----	250,508	224,244	251,000	244,000
1947-----	215,258	210,082	238,000	232,000
1946-----	189,722	185,305	213,000	208,000
1945-----	171,615	168,278	196,000	192,000
1944-----	171,956	168,144	199,000	195,000
1943-----	172,396	167,701	203,000	197,000
1942-----	163,654	158,408	195,000	189,000
1941-----	156,340	152,184	189,000	184,000
1940-----	147,617	144,829	182,000	178,000
1939-----	145,579	139,338	177,000	172,000
1938-----	142,143	138,864	176,000	172,000
1937-----	139,285	135,615	173,000	169,000
1936-----	133,133	129,774	166,000	162,000
1935-----	135,573	131,520	170,000	165,000

Fertility Trends

Birth rates by age of mother <sup>4</sup>

The upsurge in the crude birth rate between 1940 and 1950 involved substantial increases in fertility among women in all age groups except those nearing the end of the child-

<sup>4</sup>Births for which age of mother was 'not stated' were distributed proportionately according to the known age-of-mother frequencies, in all tables of data adjusted for underregistration. Age of mother 'not stated' represented only 0.2 percent of the total births.

Table 6.07. MALE BIRTHS PER 1,000 FEMALE BIRTHS, BY RACE: UNITED STATES, 1935-50

(Based on live births adjusted for underregistration)

YEAR	All races	White	
		White	Nonwhite
1950-----	1,054	1,058	1,025
1949-----	1,054	1,059	1,022
1948-----	1,054	1,058	1,028
1947-----	1,055	1,060	1,025
1946-----	1,058	1,063	1,024
1945-----	1,055	1,061	1,020
1944-----	1,055	1,060	1,023
1943-----	1,055	1,059	1,028
1942-----	1,058	1,062	1,033
1941-----	1,053	1,058	1,027
1940-----	1,054	1,060	1,019
1939-----	1,054	1,057	1,030
1938-----	1,052	1,056	1,024
1937-----	1,053	1,058	1,027
1936-----	1,051	1,055	1,026
1935-----	1,053	1,056	1,031

bearing age span. The greatest changes took place among young women (tables 6.08 and 6.09 and figure 6.B). In the case of the 15-19 year age group, the birth rate was 51 percent higher for 1950 than for 1940. For women 20-24 years of age, the corresponding increase was 45 percent. These gains resulted partly from the rise in the proportion of women who were married, as is indicated by the relatively small changes in rates for married women at these ages, given in table 6.10. The rise in fertility that occurred in most ages over 25 years was also influenced by increases in the proportion of women

FIGURE 6.B

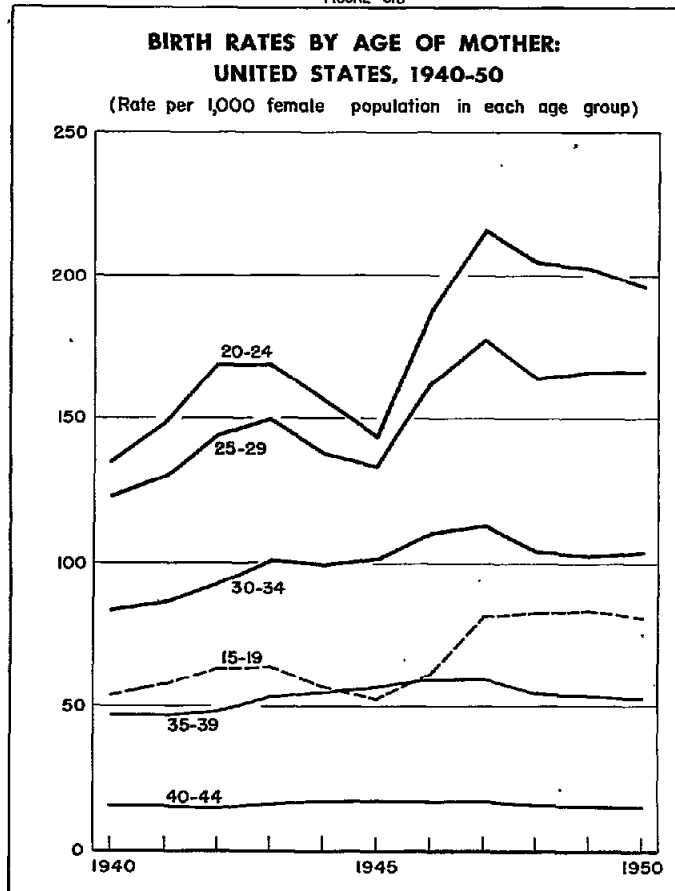


Table 6.08. BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY AGE OF MOTHER AND RACE: UNITED STATES, 1940-50  
(Rates based on live births per 1,000 female population in each specified group, enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1941-49. Figures for age of mother not stated are distributed)

RACE AND YEAR	AGE OF MOTHER								
	15-44 years <sup>1</sup>	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years <sup>2</sup>
ALL RACES									
1950-----	106.2	1.0	81.6	196.6	166.1	103.7	52.9	15.1	1.2
1949-----	107.4	1.0	83.8	201.9	165.9	102.3	53.5	15.3	1.3
1948-----	108.2	1.0	83.0	204.3	164.4	104.2	54.4	15.8	1.3
1947-----	114.8	0.9	81.2	215.7	177.3	112.9	58.8	16.8	1.5
1946-----	103.5	0.7	61.2	187.9	162.5	110.1	58.6	16.7	1.5
1945-----	87.4	0.7	53.0	143.9	133.5	101.4	56.9	16.8	1.6
1944-----	90.3	0.7	56.3	156.9	137.7	99.2	54.7	16.3	1.4
1943-----	95.7	0.8	63.5	168.5	149.0	100.5	52.8	15.8	1.5
1942-----	92.5	0.7	62.5	168.5	143.7	92.5	48.0	14.8	1.6
1941-----	84.0	0.7	57.6	147.2	129.4	85.8	46.2	15.1	1.7
1940-----	79.9	0.7	54.1	135.6	122.8	83.4	46.3	15.6	1.9
WHITE									
1950-----	102.3	0.4	70.0	190.4	165.1	102.6	51.4	14.5	1.0
1949-----	103.9	0.4	72.4	196.5	165.7	101.8	52.2	14.7	1.2
1948-----	105.2	0.4	72.1	199.8	165.0	104.3	53.5	15.3	1.2
1947-----	113.4	0.3	71.5	214.6	180.8	114.1	58.4	16.2	1.3
1946-----	102.1	0.3	52.2	186.6	165.5	111.4	58.4	16.1	1.3
1945-----	85.0	0.3	43.7	140.0	134.6	102.0	56.4	16.1	1.4
1944-----	88.0	0.3	46.9	153.4	139.1	99.4	54.2	15.7	1.2
1943-----	93.7	0.3	53.8	166.0	152.0	101.2	52.3	15.1	1.3
1942-----	90.6	0.3	53.1	166.6	146.8	93.0	47.3	14.1	1.3
1941-----	81.3	0.2	48.3	143.5	130.7	85.7	45.2	14.4	1.4
1940-----	77.1	0.2	45.3	131.4	123.6	83.4	45.3	15.0	1.6
NONWHITE									
1950-----	137.3	5.1	163.5	242.6	173.8	112.6	64.3	21.2	2.6
1949-----	135.3	5.1	164.5	241.5	168.8	107.0	63.9	21.1	2.5
1948-----	132.0	4.9	160.7	237.3	159.2	103.8	62.4	20.4	2.8
1947-----	126.4	4.6	151.3	223.9	150.0	102.0	62.5	21.4	3.1
1946-----	114.4	3.8	126.5	197.7	138.6	98.7	60.8	21.7	3.5
1945-----	106.6	3.9	121.8	172.6	125.0	96.8	61.2	22.2	3.8
1944-----	109.2	3.9	125.4	183.0	126.7	97.1	58.4	21.5	3.2
1943-----	111.6	4.1	136.6	187.9	125.1	93.9	57.0	21.6	3.7
1942-----	108.1	4.0	133.8	182.8	119.8	88.3	54.1	20.9	4.0
1941-----	105.7	4.0	129.3	175.4	118.3	86.4	54.2	21.5	4.2
1940-----	102.4	3.7	121.7	168.5	116.3	83.5	53.7	21.5	5.2

<sup>1</sup>Rates computed by relating total births, regardless of age of mother, to female population aged 15-44 years.

<sup>2</sup>Rates computed by relating births to mothers aged 45 years and over, to female population aged 45-49 years.

who were married, but to a lesser extent than in the young groups.

During the war and immediate postwar period (1941 to 1947), the fertility rates among women (married and unmarried combined) under 30 years of age fluctuated considerably. In the early part of the war, the birth rates in these age groups showed a marked upswing. The decline in the rates which came in 1944 and 1945 was associated with the prolonged absence of millions of men on overseas duty, while the sharp increases occurring in 1946 and 1947 followed the rapid demobilization of the armed forces at the end of 1945 and in 1946. In contrast to these sudden changes, the rates among women over 30, increased fairly steadily during the entire period from 1940 through 1947.

After 1947, the rate increased only for women 15-19 years of age. For each of the other age groups through age 39, 1947 was the peak year of the entire period 1940 through

1950. In no case, however, did the rate decline markedly during the following 3 years. Even for women 20-24 years old—a group whose fertility rate had risen very sharply in the immediate postwar years—there was a loss of only 9 percent.

The most fertile age group in 1950, as in previous years, was the 20-24 year group. In each of the years 1947 to 1950, about one out of five women in these ages bore a child. For women 25-29 years old—the second most fertile group—close to one in six gave birth during this period.

The relative status of fertility in the younger age group is heavily influenced, of course, by the major differences in the proportions of women that are married. Fertility among married women under 20 years of age has been far greater than at any other age. In 1950, more than two out of five women bore a child. Almost 30 percent of the women in the next higher age group, 20-24 years, had a child that year. The rate decreased rapidly with increasing age.



Table 6.09. PERCENT CHANGE IN BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY RACE AND AGE OF MOTHER: UNITED STATES, 1940, 1947, AND 1950

(Based on rates shown in table 6.08)

RACE AND AGE OF MOTHER	1940 to 1950	1940 to 1947	1947 to 1950
<b>ALL RACES</b>			
15-44 years-----	+32.9	+43.7	-7.5
15-19 years-----	+50.8	+50.1	+0.5
20-24 years-----	+45.0	+59.1	-8.9
25-29 years-----	+35.3	+44.4	-6.3
30-34 years-----	+24.3	+35.4	-8.1
35-39 years-----	+14.3	+27.0	-10.0
40-44 years-----	-3.2	+7.7	-10.1
<b>WHITE</b>			
15-44 years-----	+32.7	+47.1	-9.8
15-19 years-----	+54.5	+57.8	-2.1
20-24 years-----	+44.9	+63.3	-11.3
25-29 years-----	+33.6	+46.3	-8.7
30-34 years-----	+23.0	+36.8	-10.1
35-39 years-----	+13.5	+28.9	-12.0
40-44 years-----	-3.3	+9.0	-10.5
<b>NONWHITE</b>			
15-44 years-----	+34.1	+23.4	+8.6
15-19 years-----	+34.3	+24.3	+8.1
20-24 years-----	+44.0	+32.9	+8.4
25-29 years-----	+49.4	+29.0	+15.9
30-34 years-----	+34.9	+22.2	+10.4
35-39 years-----	+19.7	+16.4	+2.9
40-44 years-----	-1.4	-0.5	-0.9

In 1940, the fertility rate for nonwhite women 15-44 years of age (102.4) was about a third higher than that for the white (77.1). During the war and shortly thereafter, the rate increased more rapidly for the white group. As a result, the difference between them narrowed, and by 1947, the rate for the nonwhite women was only 11 percent higher. In the ensuing 3 years, the fertility rate in the white group declined while that in the nonwhite group continued to rise. In 1950, the rates for the two race groups—137.3 and 102.3—bore about the same relationship to each other as in 1940.

Throughout the period 1940 to 1950, fertility among young women aged 15-19 years was a much more important factor in the nonwhite races than in the white. Despite particularly heavy increases over this period, the rate for white women at ages 15-19 years never reached the level of the rates for any of the age groups between 20 and 34 years. In 1950, the fertility rate in this young age group was less than half the rates for women in their twenties.

Birth rates for nonwhite women decreased sharply with increasing age, after the rate reached its maximum for those aged 20-24 years. In the white group, the change in fertility rates for women between 20-24 and 25-29 years of age was relatively small, the major decline beginning with the 30-34 year age group (figure 6. C).

The fertility rates were consistently higher for nonwhite women than for white women in all age groups other than 25-29 and 30-34. The greatest difference occurred in the very young ages (15-19) where the rate for the nonwhite races was more than twice that for the white race. An important factor in this relationship was the higher proportion of young nonwhite women who were married. When comparison is limited to married women, race differences in fertility were greatly reduced at ages below 25.

Table 6.10. BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY AGE OF MOTHER AND RACE, FOR MARRIED WOMEN: UNITED STATES, 1940 AND 1950

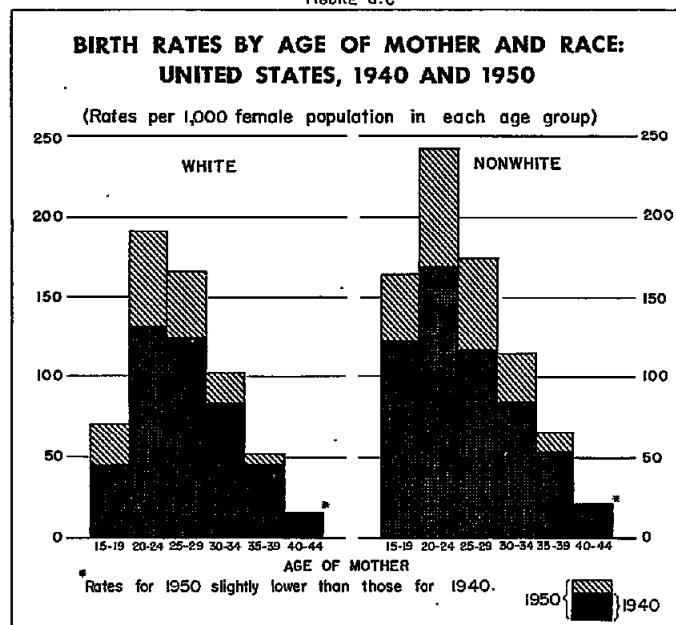
(Rates based on legitimate live births per 1,000 married female population in each specified group, enumerated as of April 1. Figures for age of mother not stated are distributed)

AGE OF MOTHER	ALL RACES		WHITE		NONWHITE	
	1950	1940	1950	1940	1950	1940
15-44 years <sup>1</sup> -----	143.9	125.9	141.3	124.0	166.5	140.8
15-19 years-----	421.5	400.8	405.7	392.9	508.5	436.7
20-24 years-----	287.9	254.0	284.8	255.5	310.6	244.5
25-29 years-----	195.0	162.8	195.5	165.3	191.0	142.8
30-34 years-----	118.0	102.4	117.5	102.7	122.0	99.6
35-39 years-----	60.7	55.8	59.5	54.7	70.9	65.3
40-44 years-----	17.9	19.1	17.1	16.2	24.8	27.7

<sup>1</sup>Rates computed by relating total legitimate births, regardless of age of mother, to married female population aged 15-44 years.

Source: U. S. Bureau of the Census, "United States Census of Population: 1950, Volume II, Characteristics of the Population," Part 1, U. S. Summary, U. S. Government Printing Office, Washington, D. C., 1953.

FIGURE 6. C



**Birth rates by birth order <sup>5</sup>**

In 1950, for the third consecutive year, births of first children declined, following the decrease in the number of marriages the previous year. The drop in first births, however, was nearly offset by increases in the numbers of

**Table 6.11. BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY BIRTH ORDER AND RACE: UNITED STATES, 1940-50**

(Birth order refers to number of children born alive to mother. Rates based on live births per 1,000 female population aged 15-44 years in each specified group. Population enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1941-49. Figures for births of order not stated are distributed, including births that occurred in Massachusetts which did not require the reporting of birth order)

RACE AND YEAR	Total	BIRTH ORDER						
		1st	2d	3d	4th	5th	6th and 7th	8th and over
<b>ALL RACES</b>								
1950-----	106.2	33.3	32.1	18.4	9.2	4.8	4.7	3.6
1949-----	107.4	36.4	32.2	17.2	9.6	4.7	4.7	3.7
1948-----	108.2	40.0	31.2	16.2	8.1	4.5	4.6	3.6
1947-----	114.8	47.3	30.6	15.8	8.0	4.6	4.7	3.8
1946-----	103.5	39.2	28.4	14.8	8.0	4.6	4.8	3.9
1945-----	87.4	29.4	23.3	13.6	7.6	4.5	4.9	4.0
1944-----	90.3	30.8	24.2	14.0	7.7	4.6	4.9	4.1
1943-----	95.7	35.2	25.9	13.7	7.5	4.5	4.9	4.1
1942-----	92.5	37.9	23.2	12.0	6.7	4.1	4.6	4.0
1941-----	84.0	32.5	20.9	11.2	6.5	4.1	4.7	4.1
1940-----	79.9	29.3	20.0	10.9	6.4	4.1	4.8	4.3
<b>WHITE</b>								
1950-----	102.3	33.3	32.3	17.9	8.4	4.1	3.7	2.5
1949-----	103.9	36.5	32.3	16.7	7.9	4.0	3.8	2.7
1948-----	105.2	40.3	31.4	15.8	7.5	3.9	3.7	2.6
1947-----	113.4	48.4	31.2	15.6	7.5	4.0	3.8	2.8
1946-----	102.1	40.2	29.0	14.6	7.5	4.1	4.0	2.9
1945-----	85.0	29.6	23.7	13.5	7.1	4.0	4.0	3.0
1944-----	86.0	31.0	24.6	13.8	7.2	4.1	4.1	3.1
1943-----	93.7	35.7	26.3	13.4	7.0	4.0	4.1	3.1
1942-----	90.6	38.7	23.4	11.6	6.2	3.6	3.9	3.1
1941-----	81.3	32.9	20.9	10.8	6.0	3.6	4.0	3.2
1940-----	77.1	29.4	20.0	10.5	5.9	3.6	4.1	3.5
<b>NONWHITE</b>								
1950-----	137.3	33.8	30.3	22.9	15.3	10.4	12.6	12.0
1949-----	135.3	35.5	30.8	21.2	14.0	9.8	12.2	11.8
1948-----	132.0	37.4	29.6	19.4	12.9	9.2	11.8	11.6
1947-----	126.4	38.8	26.3	17.3	12.1	8.9	11.5	11.7
1946-----	114.4	31.2	23.5	16.1	11.8	8.7	11.3	11.7
1945-----	106.6	28.1	20.3	14.8	11.4	8.7	11.4	12.0
1944-----	109.2	28.8	21.2	15.7	11.7	8.7	11.4	11.7
1943-----	111.6	31.1	22.3	15.6	11.4	8.5	11.0	11.7
1942-----	108.1	31.2	21.2	15.0	10.9	8.1	10.5	11.2
1941-----	105.7	29.9	20.6	14.6	10.6	8.1	10.6	11.4
1940-----	102.4	28.6	19.6	14.1	10.5	7.8	10.4	11.3

<sup>5</sup>Births occurring in Massachusetts, which did not report birth order, were distributed in all rate tables according to the distribution of birth order in Connecticut, taking into account differences in age of mother. The remaining cases of birth order 'not stated' were distributed according to the total distribution of birth order and age of mother in the United States.

**Table 6.12. PERCENT CHANGE IN BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY RACE AND BIRTH ORDER: UNITED STATES, 1940, 1947, AND 1950**

(Based on rates shown in table 6.11)

RACE AND BIRTH ORDER	1940 to 1950	1940 to 1947	1947 to 1950
<b>ALL RACES</b> -----	+32.9	+43.7	-7.5
First-----	+13.7	+61.4	-29.6
Second-----	+60.5	+53.0	+4.9
Third-----	+68.8	+45.0	+16.5
Fourth-----	+43.8	+25.0	+15.0
Fifth-----	+17.1	+12.2	+4.3
Sixth and Seventh-----	-2.1	-2.1	0
Eighth and over-----	-16.3	-11.6	-5.3
<b>WHITE</b> -----	+32.7	+47.1	-9.8
First-----	+13.3	+64.6	-31.2
Second-----	+61.5	+56.0	+3.5
Third-----	+70.5	+48.6	+14.7
Fourth-----	+42.4	+27.1	+12.0
Fifth-----	+13.9	+11.1	+2.5
Sixth and Seventh-----	-9.8	-7.5	-2.6
Eighth and over-----	-28.6	-20.0	-10.7
<b>NONWHITE</b> -----	+34.1	+23.4	+8.6
First-----	+18.2	+35.0	-12.4
Second-----	+54.6	+34.2	+15.2
Third-----	+62.4	+22.7	+32.4
Fourth-----	+45.7	+15.2	+26.4
Fifth-----	+33.3	+14.1	+16.9
Sixth and Seventh-----	+21.2	+10.6	+9.6
Eighth and over-----	+6.2	+3.5	+2.6

second, third, and fourth births. About 1.1 million families had a first child during the year; nearly as many had a second child; and 600,000 a third; while births after the third child occurred in almost 800,000 families.

Rates indicating the numbers of first, second, third, etc., births per 1,000 women aged 15-44 years, are given in table 3.11, for each year from 1940 through 1950. These figures show that the rates for all but those in the sixth order and above were greater in 1950 than in the last year before World War II (table 6.12). The steady increase in recent years in the rates of third and fourth births is particularly noteworthy since for many years previously there had been a continuous decline in the formation of medium-sized families.

The base populations used in computing the birth order rates shown in this report include segments of the female population in which the probability of having a child of a specified birth order is very low, or is zero. For example, in computing rates for first births in a given year, the population base includes all women aged 15-44 years, regardless of whether they were married or had had any previous children. At least part of the variation in the birth order rates in recent years is therefore attributable to the increase or decrease in the proportion of married women of the related parity.<sup>6</sup>

<sup>6</sup>Parity refers to the number of previous children borne by a woman.

Changes in the rate of first births, which closely followed the extreme fluctuations in the proportion of newly married couples (with a lag of 1 year), are clearly illustrative of this relationship. In the early postwar years, and after a sharp rise in marriages, the rate for first births increased rapidly. The substantial decline which occurred in this rate in 1948, and the more moderate drop in 1949 and 1950 can be associated with decreases in the marriage rate. The number of marriages per 1,000 population declined from 16.4 in 1946 to 13.9 in 1947, 12.4 in 1948, and 10.6 in 1949.

The rates for the second birth order and above are also dependent on the proportion of women with related parities. The addition of second children to many of the numerous families formed during the war period caused a rise in the rate for this birth order in 1946. Further increases took place in the following 3 years but these were much smaller, and in 1950 the rate dropped slightly. The gains in second births during 1948 and 1949 in what was already a high rate, were undoubtedly due to the great rise in first births in 1946 and 1947.

The rate for third births increased steadily after 1945, while for fourth births the more sizable additions occurred in 1949 and 1950. The more recent changes probably resulted mainly from the addition of children to families which began before the end of the war. The impact of the large numbers of first births in 1946 and later years, of course, cannot be fully reflected in birth orders above the second until sometime after 1950.

Birth order rates for first, second, third, and fourth children in 1950 were considerably above the level in 1940 for both race groups (figure 6.D). With respect to births after the fourth child, the rates for white women remained fairly stable during the decade or declined a little. Among the nonwhite, on the other hand, the rates for these birth orders

increased.

In each year from 1940 to 1950, the rates for first births were generally higher for white women than for nonwhite, and the second birth order rates were very nearly the same for both race groups. Beginning with the rates for third births, the experience in the two groups diverged rapidly, with the nonwhite race having the higher rate. Rates indicating a sixth, seventh, or higher birth order in the nonwhite group have been two to four times above the white for a long time.

**Birth order rates by age of mother and race (registered births)**

In spite of the marked changes in fertility that took place between 1940 and 1950, the average (median) age at which women had their first, second, third, etc., child altered only moderately (table 6.13). A partial explanation of this is the fact that practically all age groups of women shared in the increased fertility. In the white race, the largest differences between the 2 years were found in the third and fourth birth orders, and these represented about half year increases in average ages. The nonwhite race experienced a small rise in age at each of the first four birth orders.

The marked disparity in ages of white and nonwhite mothers at childbirth, discussed in the previous section, is also illustrated by these data. In all but the highest birth order group shown, the nonwhite mothers were younger by 3 to 4 years.

At all ages, low birth orders were more prominent in the over-all rates for white women than for nonwhite. Data in table 6.14 indicate that first, second, and third children were major components of the births among white women even in their late thirties. On the other hand, fertility rates among nonwhite women over 30 years of age were maintained to a large extent by the addition of a fifth or higher birth order child. For age groups near the end of the fertility cycle, sixth births and above almost completely dominated the picture.

FIGURE 6.D

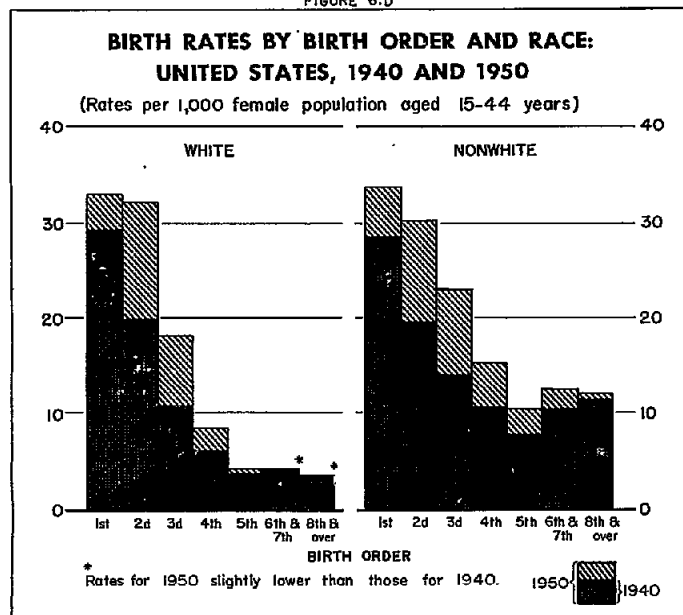


Table 6.13. MEDIAN AGE OF MOTHER BY BIRTH ORDER AND RACE: UNITED STATES, 1940 AND 1950

(Based on registered live births. Birth order refers to number of children born alive to mother)

BIRTH ORDER	ALL RACES		WHITE		NONWHITE	
	1950	1940	1950	1940	1950	1940
TOTAL-----	26.1	26.0	26.3	26.3	24.4	24.0
First-----	22.8	23.0	23.0	23.4	19.9	19.3
Second-----	25.6	25.3	26.0	25.8	22.5	21.9
Third-----	27.6	27.1	28.1	27.6	24.1	23.7
Fourth-----	29.1	28.7	29.8	29.3	26.0	25.7
Fifth-----	30.5	30.4	31.4	31.1	27.8	27.9
Sixth and seventh-----	32.3	32.8	33.1	33.3	30.0	30.5
Eighth and over-----	36.4	37.0	37.0	37.4	35.1	35.7

NOTE.—Medians computed from distributions of births by 5-year age groups of mothers. Births of order not stated are distributed, including births that occurred in Massachusetts which did not require the reporting of birth order.

## ANALYSIS

Table 6.14. BIRTH RATES BY AGE OF MOTHER, RACE, AND BIRTH ORDER: UNITED STATES, 1950

(Birth order refers to number of children born alive to mother. Rates based on registered live births per 1,000 female population in each specified group, enumerated as of April 1. Figures for births of order not stated are distributed, including births that occurred in Massachusetts which did not require the reporting of birth order)

RACE AND BIRTH ORDER	AGE OF MOTHER								
	15-44 years <sup>1</sup>	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years <sup>2</sup>
ALL RACES-----	103.9	0.9	79.1	192.5	163.0	101.5	51.2	14.6	1.1
First-----	32.9	0.9	56.3	79.4	36.8	14.4	5.6	1.2	0.1
Second-----	31.6	0.1	18.4	68.2	56.8	27.4	9.5	1.7	0.1
Third-----	18.1	0.0	3.7	29.7	34.8	23.4	9.8	1.9	0.1
Fourth-----	8.9	0.0	0.6	10.3	17.1	15.9	7.3	1.7	0.1
Fifth-----	4.6	0	0.1	3.4	8.6	8.1	5.0	1.4	0.1
Sixth-----	2.7	0	0.0	1.1	4.6	5.2	3.5	1.2	0.1
Seventh-----	1.7	0	0.0	0.3	2.4	3.6	2.8	1.0	0.1
Eighth-----	1.2	0	0.0	0.1	1.0	2.4	2.3	0.9	0.1
Ninth-----	0.8	0	0.0	0.0	0.4	1.5	1.8	0.8	0.1
Tenth-----	0.5	0	0.0	0.0	0.2	0.8	1.4	0.7	0.1
Eleventh-----	0.3	0	0	0.0	0.1	0.4	1.0	0.6	0.1
Twelfth-----	0.2	0	0	0.0	0.0	0.2	0.8	0.5	0.1
Thirteenth and over-----	0.3	0	0	0.0	0.0	0.2	0.7	0.8	0.1
WHITE-----	100.8	0.4	68.6	187.8	163.0	101.1	50.3	14.1	1.0
First-----	33.0	0.3	51.6	82.9	38.9	15.0	5.8	1.3	0.1
Second-----	32.0	0.0	14.5	68.3	60.2	29.1	10.1	1.8	0.1
Third-----	17.8	0.0	2.2	26.3	35.4	24.5	10.4	2.0	0.1
Fourth-----	8.2	0.0	0.2	7.6	15.8	14.0	7.6	1.8	0.1
Fifth-----	4.0	0	0.0	2.0	7.0	7.6	4.9	1.5	0.1
Sixth-----	2.2	0	0.0	0.5	3.5	4.5	3.3	1.1	0.1
Seventh-----	1.4	0	0.0	0.1	1.5	2.8	2.5	1.0	0.1
Eighth-----	0.9	0	0.0	0.0	0.6	1.7	1.9	0.8	0.1
Ninth-----	0.6	0	0.0	0.0	0.2	1.0	1.4	0.7	0.1
Tenth-----	0.4	0	0	0.0	0.1	0.5	1.0	0.6	0.1
Eleventh-----	0.2	0	0	0.0	0.0	0.2	0.7	0.5	0.1
Twelfth-----	0.1	0	0	0.0	0.0	0.1	0.4	0.4	0.1
Thirteenth and over-----	0.2	0	0	0.0	0.0	0.1	0.4	0.6	0.1
NONWHITE-----	128.6	4.7	152.5	227.6	163.1	104.6	58.3	19.0	2.1
First-----	32.2	4.5	89.0	53.5	20.7	9.2	3.6	0.7	0.1
Second-----	28.7	0.4	45.9	67.2	29.6	12.4	4.5	0.9	0.1
Third-----	21.4	0.0	14.0	55.3	30.5	13.9	5.2	1.0	0.1
Fourth-----	14.2	0.0	2.9	30.4	27.0	13.1	5.5	1.1	0.1
Fifth-----	9.6	0	0.5	13.6	21.7	12.4	5.2	1.3	0.1
Sixth-----	6.7	0	0.1	5.0	15.6	11.4	5.3	1.4	0.1
Seventh-----	4.9	0	0.0	1.7	9.4	10.4	5.8	1.5	0.1
Eighth-----	3.5	0	0.0	0.6	4.8	8.5	5.5	1.5	0.2
Ninth-----	2.5	0	0.0	0.2	2.2	5.9	5.1	1.7	0.2
Tenth-----	1.8	0	0.0	0.1	0.9	3.7	4.4	1.7	0.2
Eleventh-----	1.2	0	0	0.0	0.4	1.9	3.5	1.7	0.2
Twelfth-----	0.8	0	0	0.0	0.1	0.9	2.2	1.5	0.2
Thirteenth and over-----	1.1	0	0	0.0	0.1	0.9	2.8	2.8	0.5

<sup>1</sup>Rates computed by relating total births, regardless of age of mother, to female population aged 15-44 years. Figures for age of mother not stated are included in total, but not distributed among the specified age groups.

<sup>2</sup>Rates computed by relating births to mothers aged 45 years and over, to female population aged 45-49 years.

### General fertility and birth order rates for native white women

General fertility and birth order rates for native white women in the United States for 1920 to 1950 are given in table 6.15. For years prior to 1933, these data have been adjusted for States missing from the birth-registration area, as well as for underregistration. By limiting the series of rates for white women to the "native white," it is possible to study changes in fertility without the effect of the varying fertility patterns of the many foreign-born women who came to this country in the early 1900's.

Sharp declines occurred in all birth order rates for native white women during the 1920's and early 1930's (figure 6. E).

First and second birth order rates began to recover shortly after 1933. Third births did not do so until 1940, and fourth births not until 1943. The rate for fifth births remained virtually constant after 1935, while for births after the fifth child it has continued downward.

The rate indicating the birth of a first child not only responded quickly to changing conditions between 1933 and 1950, but its fluctuations were far greater than ever before. From 24 in 1933, the rate rose to 31 in 1938 and to 40 in 1942. After the end of World War II, the rate again shot upward, and within the next 2 years it reached a figure of 49. The rate in 1947 was over a third higher than in 1921, and twice as high as in 1933. By 1950, it had dropped back to 34—about the same level as in the early twenties.

Table 6.15. BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY BIRTH ORDER FOR NATIVE WHITE WOMEN: UNITED STATES, 1920-50

(Includes adjustments for States not in the birth-registration area prior to 1933. Birth order refers to number of children born alive to mother. Rates based on live births per 1,000 native white female population aged 15-44 years. Figures for births of order not stated are distributed, including births that occurred in Massachusetts which did not require the reporting of birth order)

YEAR	Total	BIRTH ORDER							
		1st	2d	3d	4th	5th	6th	7th	8th and over
1950-----	103	34	32	18	8	4	2	1	2
1949-----	105	37	33	17	8	4	2	2	3
1948-----	106	41	31	16	8	4	2	1	3
1947-----	114	49	31	16	8	4	2	2	3
1946-----	103	41	29	15	7	4		2	3
1945-----	86	30	24	13	7	4	3	2	3
1944-----	89	32	25	14	7	4	3	2	3
1943-----	95	37	27	14	7	4	3	2	3
1942-----	92	40	24	12	6	4	2	2	3
1941-----	83	34	21	11	6	4	3	2	3
1940-----	79	30	20	11	6	4	3	2	3
1939-----	76	30	19	10	6	4	2	2	3
1938-----	78	31	19	10	6	4	3	2	4
1937-----	75	29	18	10	6	4	3	2	4
1936-----	74	28	18	10	6	4	3	2	4
1935-----	75	28	17	10	7	4	3	2	4
1934-----	76	26	18	11	7	5	3	2	4
1933-----	74	24	17	11	7	5	3	2	4
1932-----	79	26	18	11	7	5	4	2	5
1931-----	82	27	19	12	8	5	4	3	5
1930-----	86	29	20	12	8	6	4	3	5
1929-----	86	28	20	13	8	6	4	3	5
1928-----	90	29	20	13	9	6	4	3	6
1927-----	95	30	21	14	9	6	5	3	6
1926-----	96	30	22	14	10	6	5	3	6
1925-----	100	31	22	15	10	7	5	3	7
1924-----	104	32	23	16	10	7	5	4	7
1923-----	103	31	24	15	10	7	5	4	7
1922-----	104	32	24	15	10	7	5	4	7
1921-----	112	36	23	16	11	8	6	4	8
1920-----	109	35	23	16	11	7	5	4	7

NOTES:

Estimates for 1920-39 prepared by P. K. Whelpton. For source, see "Births and Birth Rates in the Entire United States, 1909 to 1948," National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 33, No. 8, 1950.

Population bases for 1920-39, estimated as of July 1 by P. K. Whelpton; for 1940 and 1950, enumerated as of April 1; for 1941-49, estimated as of April 1 by the National Office of Vital Statistics.

The rates for the birth of a second child in the years since World War II were the highest in over 30 years. So also, was the rate for 1950 for third births. Despite some increase during the 1940's, the fourth birth order rate in 1950 was still below the level of the early and middle 1920's. The rates indicating large families were far below the 1920 levels.

Gross and net reproduction rates

A measure frequently used to summarize fertility conditions in an area or race group is the gross reproduction rate. This rate represents the number of daughters a hypothetical cohort of 1,000 women entering the childbearing period together would have during their lives (a) if they were subject to a given set of age-specific birth rates, and (b) if none of the cohort were to die between birth and completion

FIGURE 6.E

BIRTH RATES BY BIRTH ORDER FOR NATIVE WHITE WOMEN AGED 15-44 YEARS: UNITED STATES, 1920-50

(Rates per 1,000 native white female population aged 15-44 years)

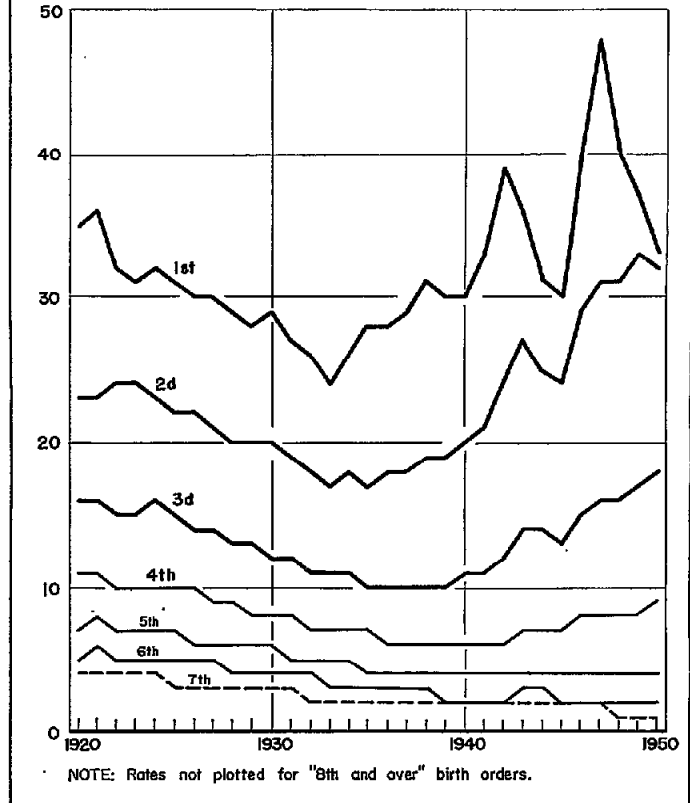


Table 6.16. GROSS AND NET REPRODUCTION RATES BY RACE: UNITED STATES, 1935-50

(Births corrected for underregistration. Figures for age of mother not stated are distributed)

YEAR	GROSS REPRODUCTION RATE			NET REPRODUCTION RATE		
	All races	White	Nonwhite	All races	White	Nonwhite
1950-----	1,505	1,446	1,940	1,435	1,387	1,780
1949-----	1,522	1,469	1,910	1,446	1,404	1,744
1948-----	1,530	1,486	1,853	1,451	1,417	1,686
1947-----	1,618	1,596	1,775	1,529	1,518	1,602
1946-----	1,456	1,434	1,609	1,368	1,357	1,444
1945-----	1,236	1,200	1,503	1,153	1,129	1,332
1944-----	1,273	1,238	1,531	1,185	1,162	1,344
1943-----	1,344	1,316	1,553	1,247	1,232	1,357
1942-----	1,293	1,267	1,495	1,201	1,187	1,500
1941-----	1,178	1,141	1,463	1,084	1,061	1,247
1940-----	1,121	1,082	1,422	1,027	1,002	1,209
1939-----	1,088	1,052	1,373	992	970	1,162
1938-----	1,113	1,078	1,361	1,011	990	1,161
1937-----	1,085	1,049	1,363	980	959	1,137
1936-----	1,071	1,039	1,317	962	945	1,090
1935-----	1,091	1,059	1,350	975	958	1,108

of the childbearing period.<sup>7</sup> Thus, a cohort of 1,000 women would bear 1,505 daughters in their lifetime if they experienced the 1950 age-specific birth rates and no deaths occurred before the end of the reproductive age span (table 6.16).

At no time in the history of this country has the rate been less than 1,000. However, it was very close to this level (1,071) in 1936. The marked increase in the birth rate in more recent years is reflected in gross reproduction rates that are well above 1,000. Gross reproduction rates for white and nonwhite women are also given in the table. The rate for nonwhite women has consistently been much higher than that for white women, and in 1950 it was about a third higher.

The net reproduction rate is based on the specific fertility and mortality conditions existing in a time period. A rate of 1,000 means that with the age-specific birth and death rates experienced in a certain year (or years) a cohort of 1,000 newly born girls would bear just enough daughters to replace themselves.<sup>8</sup> During the 1930's the net reproduction rate was almost continually below 1,000. If the rate had remained at that level, it would have resulted eventually in a decrease in the population unless migration offset the losses. The sharp rise in fertility following World War II resulted in net reproduction rates for 1947 through 1950, which, if continued, would lead to an eventual increase in the population of between 40 and 50 percent per generation. In the white race group, the net reproduction rate was well below replacement level throughout the 1930's and did not rise to 1,000 until 1940. In contrast, the annual net reproduction rate for nonwhite women was over 1,000 during the entire period.

It will be noted that in each year the difference between the gross reproduction rates for white and nonwhite women is greater than the difference between the net reproduction rates.

<sup>7</sup>The gross reproduction rate may be defined as the sum of the age-specific birth rates of female infants per 1,000 women of each single year of age. In computing the gross reproduction rates for this report, the age-specific rates for the 5-year age groups have been multiplied by 5, summed, and the total for all age groups multiplied by the proportion which female births formed of all births.

<sup>8</sup>To obtain the net reproduction rate, the birth rate for each specified 5-year age group was multiplied by 5 and by the probability (as determined from the life table for the year) of women surviving to that age group. The sum of those products was then multiplied by the proportion of births that were female.

This is due to the higher age-specific mortality rates found for nonwhite women. With the relatively large improvement in nonwhite mortality during the past decade, however, this difference has been diminishing.

The net reproduction rate, useful as it is in describing fertility and mortality conditions, is limited in a number of respects. For one thing, it does not take into account such factors as nuptiality, marital duration, and parity. In addition, in nations such as the United States, which experience major changes in marriage and fertility rates over short periods of time, the net reproduction rate, however refined, is a poor indicator of future population growth. Short run variations in this rate will tend to be deceptively large in the light of long-run movements of family formation.<sup>9</sup>

### Birth rates by age of father

Among men, as among women, the fertility rate varied with age, rising to a peak in the twenties and declining thereafter (table 6.17). Although 5-year age groupings are too broad for a close comparison between male and female fertility rates, they indicate, as would be expected, that the highest rates occur at a somewhat older age for men (25-29 years) than for women (20-24 years).

In 1950, the fertility rate for men aged 25-29 years (186.7) far exceeded the rate for any other age group. The next highest rates were recorded for men aged 20-24 and 30-34 years (about 142 in both age groups). In 1940, the rates for these groups were quite far apart, with the older men having the higher rate. The figures were brought closer together by an increase in fertility among younger men (56 percent) that was more than twice as great as for the older group (25 percent). In fact, throughout the entire age range the percentage change over the 1940 decade decreased with each successive age interval.

The differential effect of the war on the various age groups of men was evident in the course of the male fertility rates, particularly after 1942. Thus, for the 20-24 and 25-29 year old men, the groups most subject to military service in the early stages of World War II, the rates declined in each year, from 1943 through 1945. In the last year of the war, they were below those in 1940. For the age groups 15-19 and

<sup>9</sup>Detailed discussion of this point appears in "Population Index," Population Association of America, Inc., vol. 15, No. 2, April 1949.

Table 6.17. BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY AGE OF FATHER: UNITED STATES, 1940-50

(Rates based on live births per 1,000 male population in each specified group, enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1941-49. Figures for age of father not stated are distributed)

YEAR	AGE OF FATHER									
	15-54 years <sup>1</sup>	15-19 years <sup>2</sup>	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55 years and over
1950-----	87.0	14.2	142.0	186.7	141.9	87.2	45.1	19.6	7.5	1.4
1949-----	89.2	14.5	148.2	189.3	141.1	87.8	45.4	20.1	7.3	1.5
1948-----	88.8	13.9	149.8	188.7	143.4	89.4	46.7	20.5	7.7	1.5
1947-----	94.5	14.1	155.5	202.2	154.6	96.5	49.1	21.7	8.4	1.7
1946-----	83.7	13.0	116.8	174.3	145.5	95.9	49.1	22.3	8.7	1.8
1945-----	70.5	12.9	90.0	130.3	127.5	89.4	49.6	22.5	9.0	1.9
1944-----	72.7	12.1	99.8	143.6	127.1	86.4	48.6	20.9	8.9	1.8
1943-----	77.2	12.6	111.5	160.6	134.6	87.0	45.1	20.7	8.6	1.8
1942-----	74.8	9.8	112.5	163.0	126.4	79.9	41.2	19.7	8.1	1.8
1941-----	67.8	8.1	97.8	146.4	117.5	75.7	40.6	19.2	8.0	1.8
1940-----	64.7	7.5	91.2	138.2	113.2	74.4	40.9	19.7	8.2	1.9

<sup>1</sup>Rates computed by relating total births, regardless of age of father, to male population aged 15-54 years.

<sup>2</sup>Rates computed by relating children having fathers under 20 years of age to male population aged 15-19 years.

NOTE.—For 1941-46, rates based on population including armed forces overseas.

30-34 years, the rates decreased between 1943 and 1944 but rose again the next year. The rates for men over 35 years of age increased almost continuously during the whole war period.

Major increases occurred in the rates for men between 20 and 39 years of age in the first 2 postwar years. For the 20-24 year age group, the rise between 1945 and 1947 amounted to 73 percent. The rates for all groups between 20 and 39 years reached their peaks for the war and postwar period in 1947.

**Nativity for Geographic Areas**

**Birth rates by geographic division**

In 1950, the birth rate was highest (28.8) in the Mountain Division, and lowest (20.7) in the Middle Atlantic (table 6.18). The latter area had the lowest rates also during the preceding 10 years, but the Mountain Division has held first place only since the end of World War II. In each year prior to 1947, the rate was highest in the East South Central Division.

Rates for every division rose sharply between 1940 and 1947—the post World War II peak year in all areas—and declined moderately in the next 3 years. The increase between 1940 and 1950 varied from 8 percent in the East South Central to 42 percent in the Pacific Division.

The greatest relative increases since 1940 were in areas with low birth rates. As a result, differences in geographic divisions decreased appreciably. For example, in 1950, the rate for the East South Central Division exceeded the figure for the Middle Atlantic by 33 percent; in 1940, the corresponding difference was 63 percent. Similarly, for 1950, the rate for the Mountain Division was 39 percent higher than that for the Middle Atlantic, compared with a 54 percent difference in 1940.

In several of the geographic divisions there was considerable variation in the rates of the component States. In contrast to the high degree of homogeneity found in such divisions as the Middle Atlantic and the Pacific, the State rates in the Mountain Division ranged from 34.5 in New Mexico to 23.4 in Nevada. The rates in the Dakotas (27.7) were well above the rate in Missouri (22.2), and the rates were widely dispersed in the South Atlantic Division which covers a sub-

Table 6.19. BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY RACE: UNITED STATES AND EACH GEOGRAPHIC DIVISION, 1940 AND 1950, WITH PERCENT INCREASES

(By place of residence. Rates based on live births per 1,000 population in each specified area, enumerated as of April 1)

AREA	WHITE			NONWHITE		
	1950	1940	Percent increase	1950	1940	Percent Increase
UNITED STATES-----	23.0	18.6	23.7	33.3	26.7	24.7
GEOGRAPHIC DIVISIONS						
New England-----	20.8	15.9	30.8	27.4	18.7	46.5
Middle Atlantic-----	20.1	15.4	30.5	28.5	19.5	46.2
East North Central-----	23.2	17.6	31.8	30.7	19.6	56.6
West North Central-----	23.8	18.3	30.1	30.5	21.8	39.9
South Atlantic-----	23.8	22.1	7.7	34.3	29.8	15.1
East South Central-----	25.0	24.4	2.5	35.5	28.3	25.4
West South Central-----	25.7	22.8	12.7	34.6	28.0	23.6
Mountain-----	28.1	23.5	19.6	44.1	35.9	22.8
Pacific-----	23.0	16.5	39.4	31.1	17.4	78.7

stantial segment of the eastern seaboard.

For both race groups, the birth rate in each geographic division was higher in 1950 than in 1940, but the increases were much greater for the nonwhites (table 6.19). The largest changes for this group occurred in such areas as the East North Central and Pacific Divisions, where migration brought about major increases in the nonwhite population. Since most of these migrants came from sections of the country showing high birth rates, they undoubtedly had an important effect on the birth rate in the areas to which they moved.

As a result of these changes, in most divisions the birth

Table 6.20. FERTILITY RATES ADJUSTED FOR UNDERREGISTRATION, BY RACE: UNITED STATES AND EACH GEOGRAPHIC DIVISION, 1940 AND 1950, WITH PERCENT INCREASES

(By place of residence. Rates computed by relating total live births, regardless of age of mother, per 1,000 female population aged 15-44 years in each specified group, enumerated as of April 1)

AREA AND RACE	1950	1940	Percent increase
UNITED STATES-----	106.2	79.9	32.9
White-----	102.3	77.1	32.7
Nonwhite--	137.3	102.4	34.1
New England-----	93.5	66.2	41.2
White-----	93.2	66.1	41.0
Nonwhite--	112.9	76.9	46.8
Middle Atlantic-----	88.2	61.9	42.5
White-----	87.1	61.7	41.2
Nonwhite--	101.9	65.9	54.8
East North Central-----	105.3	73.4	43.5
White-----	104.4	73.5	42.0
Nonwhite--	117.4	71.1	65.1
West North Central-----	112.8	79.2	42.4
White-----	112.2	79.0	42.0
Nonwhite--	129.9	86.9	49.5
South Atlantic-----	112.3	97.0	15.8
White-----	101.9	90.1	15.1
Nonwhite--	144.4	115.1	25.5
East South Central-----	121.8	105.1	15.9
White-----	110.8	102.8	7.8
Nonwhite--	157.7	111.3	41.7
West South Central-----	120.1	96.2	24.8
White-----	113.4	93.2	21.7
Nonwhite--	152.2	107.9	41.1
Mountain-----	131.2	104.8	25.2
White-----	127.7	102.2	25.0
Nonwhite--	207.5	168.8	22.9
Pacific-----	104.4	70.1	48.9
White-----	103.1	69.8	47.7
Nonwhite--	124.8	78.7	58.6

Table 6.18. BIRTH RATES ADJUSTED FOR UNDERREGISTRATION: UNITED STATES AND EACH GEOGRAPHIC DIVISION, 1940, 1947, AND 1950, WITH PERCENT CHANGES

(By place of residence. Rates based on live births per 1,000 population in each specified area, enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1947)

AREA	RATE			PERCENT CHANGE		
	1950	1947	1940	1940 to 1950	1940 to 1947	1947 to 1950
UNITED STATES-----	24.1	26.6	19.4	+24.2	+37.1	-9.4
GEOGRAPHIC DIVISIONS						
New England-----	21.0	24.3	15.9	+32.1	+52.8	-13.6
Middle Atlantic-----	20.7	23.7	15.6	+32.7	+51.9	-12.7
East North Central-----	23.7	25.5	17.7	+33.9	+44.1	-7.1
West North Central-----	24.0	25.7	18.4	+30.4	+39.7	-6.6
South Atlantic-----	26.3	29.4	24.1	+9.1	+22.0	-10.5
East South Central-----	27.5	31.0	25.4	+8.3	+22.0	-11.3
West South Central-----	27.3	29.1	23.8	+14.7	+22.3	-6.2
Mountain-----	28.8	31.3	24.0	+20.0	+30.4	-8.0
Pacific-----	23.5	25.7	16.6	+41.6	+54.8	-8.6

groups, although the compositions of these rural populations differed. Farm residents were a more important component of the rural population in the nonmetropolitan counties than in the metropolitan. In the latter group of counties, many of the rural residents (over two-fifths) resided in urban fringe areas where the population was more heavily weighted by young adults than in farm areas.

Table 6.24. BIRTH RATES ADJUSTED FOR UNDERREGISTRATION, BY RACE AND POPULATION-SIZE GROUP IN METROPOLITAN AND NONMETROPOLITAN COUNTIES: UNITED STATES, 1950

(By place of residence. Includes provisional adjustments for misreporting of residence. Rates based on live births per 1,000 population in each specified group, enumerated as of April 1)

AREA	All races	White	Nonwhite
ALL COUNTIES-----	24.1	23.0	33.3
Urban-----	22.9	22.0	30.6
Places of 250,000 or more-----	21.6	20.3	29.6
Places of 100,000 to 250,000-----	23.4	22.4	31.2
Places of 50,000 to 100,000-----	23.1	22.3	31.2
Places of 25,000 to 50,000-----	23.1	22.6	29.7
Places of 10,000 to 25,000-----	24.2	23.6	32.1
Places of 2,500 to 10,000-----	24.6	23.9	33.2
Rural-----	25.8	24.5	37.1
Metropolitan counties-----	23.1	22.3	30.8
Urban-----	22.3	21.4	30.2
Places of 250,000 or more-----	21.6	20.3	29.6
Places of 100,000 to 250,000-----	23.4	22.4	31.2
Places of 50,000 to 100,000-----	23.1	22.3	31.2
Places of 25,000 to 50,000-----	22.2	21.9	30.7
Places of 10,000 to 25,000-----	23.3	22.9	32.9
Places of 2,500 to 10,000-----	23.5	23.3	32.4
Rural-----	25.9	25.3	35.0
Nonmetropolitan counties-----	25.4	24.1	35.9
Urban-----	24.7	24.0	31.8
Places of 25,000 to 50,000-----	23.9	23.2	29.3
Places of 10,000 to 25,000-----	24.9	24.2	31.8
Places of 2,500 to 10,000-----	25.1	24.2	33.3
Rural-----	25.8	24.1	37.5

NOTE.—For definitions of areas, see text in chapter 2.

**Plural Births**

The number of live births reported for any year is somewhat greater than the number of women having children since in some cases the confinement results in the delivery of more than one child. In 1950, there were 3,517,755 single live births registered and 38,116 plural sets in which at least one member was born alive. Of the latter group, twin sets accounted for 37,759; triplets, 352; and quadruplets, 5. For detailed data on these cases, as well as on cases in which all mates were born dead, see table 24, Volume II.

Table 6.25 shows data on cases of single and plural births with at least one liveborn infant, and the rate of occurrence of plural births for the United States since 1933. The rate is derived by relating the total number of plural sets with at least one infant born alive, to the sum of this figure and the number of single births. Thus, the base of the rate does not include single fetal deaths; neither does the numerator nor the base include plural cases in which all individuals were born dead. Until reporting of fetal deaths becomes more complete, this measure will probably remain the most meaningful of the various rates that might be used to express relative frequency of plural births.

The rate has differed only slightly from year to year. Since 1933, the variation has been from a high of 11.8 plural

Table 6.25. TOTAL REGISTERED LIVE BIRTHS, AND CASES OF PLURAL BIRTHS IN WHICH AT LEAST ONE CHILD WAS BORN ALIVE: UNITED STATES, 1933-50

(The term "cases" refers to confinements resulting in either single or plural issue and is synonymous with "sets" in figures for plural births. Total number of cases is necessarily less than total number of births for any given period)

YEAR	Total live births	Total cases (single and plural)	CASES OF PLURAL BIRTHS IN WHICH AT LEAST ONE CHILD WAS BORN ALIVE				Plural cases per 1,000 total cases
			Total	Twins	Trip-lets	Quad-ru-plets	
1950---	3,554,149	3,517,755	38,116	37,759	352	5	10.8
1949---	3,559,529	3,524,367	36,819	36,479	337	3	10.4
1948---	3,535,068	3,499,906	36,586	36,246	336	3	10.5
1947---	3,699,940	3,662,811	38,630	38,286	340	4	10.5
1946---	3,288,672	3,253,114	37,114	36,782	327	5	11.4
1945---	2,735,456	2,707,574	28,862	28,604	257	-	10.7
1944---	2,794,800	2,767,323	28,885	28,591	286	8	10.4
1943---	2,934,860	2,906,456	29,787	29,470	316	1	10.2
1942---	2,808,996	2,780,989	29,421	29,139	277	5	10.6
1941---	2,513,427	2,488,022	26,711	26,443	256	12	10.7
1940---	2,360,399	2,336,604	25,226	24,976	247	3	10.8
1939---	2,265,588	2,242,041	25,184	24,908	274	2	11.2
1938---	2,286,962	2,262,770	25,907	25,644	262	1	11.4
1937---	2,203,337	2,179,823	25,104	24,861	219	4	11.5
1936---	2,144,790	2,121,519	24,852	24,569	277	6	11.7
1935---	2,155,105	2,132,302	24,399	24,167	232	-	11.4
1934---	2,167,636	2,144,111	25,114	24,866	242	6	11.7
1933---	2,081,232	2,058,686	24,220	23,995	220	5	11.8

<sup>1</sup>Includes 1 case of quintuplets (2 males born alive, 3 females still-born) in Kentucky.

<sup>2</sup>Includes 1 case of quintuplets (4 females born alive, 1 female still-born) in the District of Columbia.

Table 6.26. RATIOS OF PLURAL CASES TO TOTAL CONFINEMENTS BY AGE OF MOTHER AND RACE: UNITED STATES, 1950

(Ratios are per 1,000 maternity cases in which at least one child was born alive)

AGE OF MOTHER	All races	White	Nonwhite
ALL AGES-----	10.8	10.4	13.4
Under 20 years-----	6.4	6.0	7.7
20-24 years-----	8.7	8.3	11.2
25-29 years-----	11.4	10.9	15.3
30-34 years-----	14.1	13.5	19.4
35-39 years-----	16.5	15.7	22.3
40-44 years-----	13.1	12.5	17.1
45 years and over-----	5.8	4.9	9.7

cases per 1,000 total cases to a low of 10.2.

In table 6.26, cases of plural births are related to total cases by race and age of mother. In 1950, as in previous years, the ratio was lowest in the youngest age group of mothers and rose with each successively older age group to a peak for 35-39 year old mothers. The proportion of plural births was higher among nonwhite than among white deliveries in every age group.

**Illegitimate Births**

Illegitimate birth data obtained from the live birth records in those States that require reporting on legitimacy are presented for each year from 1938 through 1950 in table 6.27. Estimates for the United States as a whole, which include an allowance for the States not reporting this item, are also given. These figures do not contain adjustments for mis-



statements on birth certificates concerning legitimacy status, or for illegitimate births not registered at all, because of the present lack of adequate knowledge about these two groups.<sup>13</sup> Nevertheless, the estimates serve the important function of indicating year-to-year changes in illegitimacy.

There was an estimated total of 141,600 children born out of wedlock in 1950. This number is 6.3 percent higher than that in 1949, and 58.2 percent above the figure in 1940, the last prewar year. Almost half of the change during the 1940 to 1950 period occurred since the end of World War II.

The increase over the decade was appreciable in both the white and nonwhite race groups. Until 1943, well after the war started, there was little variation in the number of illegitimate births among white women. Between 1943 and 1946, however, the number rose from 42,800 to 61,400. Although white births occurring out of wedlock declined during the next 3 years, they remained well above prewar levels. In both 1949 and 1950, there were 53,500 such births, 33 percent more than in 1940.

In contrast to this pattern, illegitimate births among nonwhite women rose in each of the years shown, with the more recent years being a period of rapid increase. The figure for 1950 was 11 percent higher than for 1949, and 79 percent higher than for 1940.

While the trend in the number of out-of-wedlock births is of considerable value, for many analytical purposes rates per 1,000 unmarried women aged 15-44 years form a better basis for measuring change in the illegitimate birth problem (table 6.28). In 1940, the estimated illegitimacy rate was 7.1; by 1950, it was twice as large (14.2). The increase

Table 6.28. ILLEGITIMACY RATES AND RATIOS: UNITED STATES, 1938-50

(Based on estimated illegitimate live births. For method of estimating, see table 6.27)

YEAR	Rate, all races <sup>1</sup>	RATIO <sup>2</sup>		
		All races	White	Nonwhite
1950-----	14.2	39.8	17.5	179.6
1949-----	13.4	37.4	17.3	167.5
1948-----	12.7	36.7	17.8	164.7
1947-----	12.1	35.7	18.5	166.0
1946-----	11.0	38.1	21.1	170.1
1945-----	10.0	42.9	23.6	179.3
1944-----	8.9	37.6	20.2	163.4
1943-----	8.2	33.4	16.5	162.8
1942-----	7.9	34.3	16.9	169.2
1941-----	7.7	38.1	19.0	174.5
1940-----	7.1	37.9	19.5	168.3
1939-----	7.0	39.0	20.4	169.9
1938-----	7.0	38.5	20.5	166.5

<sup>1</sup>Per 1,000 unmarried female population aged 15-44 years. For 1940 and 1950, population enumerated as of April 1; for other years, estimated as of July 1.

<sup>2</sup>Per 1,000 registered live births in each specified group.

reflects not only the rise in the number of illegitimate births but also the decrease in the unmarried female population during the war and postwar years.

Another valuable measure for certain types of comparison is the illegitimacy ratio; i.e., the number of illegitimate live births per 1,000 live births in a specified group. This measure is not a substitute for the illegitimacy rate, but it is useful in the administration of programs concerned with children born out of wedlock.

Over the 13 years from 1938 through 1950, the illegitimacy ratio fluctuated between 33.4 and 42.9, without conforming to any regular pattern. In fact, during some of the war and postwar years the proportion of children born out of wedlock was below prewar ratios. In 1950, the ratio was 39.8, only slightly higher than the figure of 37.9 in 1940.

Throughout this period, the ratio for the nonwhite group was at least eight times as large as for the white. It is gen-

Table 6.29. ESTIMATED NUMBER AND PERCENTAGE DISTRIBUTION OF ILLEGITIMATE LIVE BIRTHS, BY AGE OF MOTHER, BY RACE: UNITED STATES, 1950

(Estimates were rounded to the nearest hundred without being adjusted to group totals which were independently rounded. Percentage distributions based on unrounded numbers)

AGE OF MOTHER	NUMBER			PERCENT		
	All races	White	Non-white	All races	White	Non-white
TOTAL-----	141,600	53,500	88,100	100.0	100.0	100.0
Under 15 years-----	3,200	700	2,500	2.3	1.3	2.8
15-19 years-----	56,000	19,900	36,100	39.5	37.2	41.0
15 years-----	5,900	1,400	4,400	4.2	2.6	5.0
16 years-----	9,900	2,900	7,000	7.0	5.4	7.9
17 years-----	12,900	4,400	8,500	9.1	8.2	9.6
18 years-----	14,500	5,500	8,700	10.1	10.3	9.9
19 years-----	13,100	5,600	7,500	9.3	10.5	8.5
20-24 years-----	43,100	17,800	25,300	30.4	33.3	28.7
25-29 years-----	20,900	7,900	13,000	14.8	14.8	14.8
30-34 years-----	10,800	4,200	6,600	7.6	7.9	7.5
35-39 years-----	6,000	2,300	3,600	4.2	4.3	4.1
40 years and over---	1,700	700	1,000	1.2	1.3	1.1

NOTE.—For explanatory statement, see table 6.27, footnote 2.

Table 6.27. ILLEGITIMATE LIVE BIRTHS BY RACE: REPORTING AREA AND THE UNITED STATES, 1938-50

YEAR	REPORTING AREA <sup>1</sup>			UNITED STATES (ESTIMATES) <sup>2</sup>		
	All races	White	Nonwhite	All races	White	Nonwhite
1950-----	112,852	38,397	74,455	141,600	53,500	88,100
1949-----	97,648	33,734	63,914	133,200	53,500	79,700
1948-----	96,307	37,931	58,376	129,700	54,800	74,900
1947-----	98,677	42,161	56,516	131,900	60,500	71,500
1946-----	95,395	42,880	52,535	125,200	61,400	63,900
1945-----	95,047	40,056	54,991	117,400	56,400	60,900
1944-----	87,001	36,252	50,749	105,200	49,600	55,600
1943-----	82,586	31,755	50,831	98,100	42,800	55,400
1942-----	85,459	35,117	50,342	96,500	42,000	54,500
1941-----	83,067	33,220	49,847	95,700	41,900	53,800
1940-----	77,558	32,032	45,526	89,500	40,300	49,200
1939-----	74,941	31,350	43,611	88,400	40,400	48,100
1938-----	74,462	32,043	42,419	87,900	41,200	46,800

<sup>1</sup>Figures refer to births reported as illegitimate by States recording this information. The number of States not reporting legitimacy status increased from 4 to 16 between 1938 and 1948, and then decreased to 13 in 1949 and 1950. The following States have not required a statement concerning the legitimacy of birth in the years specified: California, Massachusetts, and New York for each year; Texas for 1938 and 1939; Maryland, Nebraska, and New Hampshire for 1940-50; Wyoming for 1940-48; Colorado, Connecticut, and New Mexico for 1943-50; Arizona and Idaho for 1945-50; Nevada for 1945-48; South Carolina for 1946-48; Arkansas for 1947-50; Oklahoma for 1948 and 1950. In addition, 1949 data for Pennsylvania are excluded because of lack of comparability with other years.

<sup>2</sup>Derived by adding an estimate of the number of illegitimate live births in States for which legitimacy data were not available, to the number of illegitimate live births tabulated for the reporting States. These estimates were rounded to the nearest hundred without being adjusted to group totals which were independently rounded. No estimates were included for misstatements on the birth record or for failures to register births.

<sup>13</sup>Shapiro, Sam, "Illegitimate Births, 1938-47," National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 33, No. 5, 1950.

Table 6.30. NUMBER AND RATIO OF ILLEGITIMATE LIVE BIRTHS, BY RACE: REPORTING STATES, 1948-50

(By place of residence. Ratios per 1,000 registered live births in each specified group)

AREA AND RACE	NUMBER			RATIO			AREA AND RACE	NUMBER			RATIO		
	1950	1949	1948	1950	1949	1948		1950	1949	1948	1950	1949	1948
TOTAL <sup>1</sup>	99,576	92,447	88,562	43.4	40.2	38.9	Nevada <sup>2</sup>	(84)	(80)	---	(22.9)	(21.8)	---
White	33,607	33,043	33,263	17.3	16.9	17.1	White	(47)	(41)	---	(13.9)	(12.1)	---
Nonwhite	65,969	59,404	55,099	184.5	171.4	166.5	Nonwhite	(37)	(39)	---	(127.1)	(134.9)	---
Alabama	7,462	6,980	6,572	90.3	82.7	77.0	New Jersey	2,306	2,362	2,186	23.6	24.2	22.4
White	642	663	632	12.9	12.7	11.7	White	1,082	1,097	1,041	12.3	12.4	11.7
Nonwhite	6,820	6,317	5,940	207.7	196.1	188.2	Nonwhite	1,224	1,265	1,145	128.8	137.3	131.8
Delaware	591	522	499	77.3	70.8	68.8	North Carolina	8,661	8,361	8,046	81.5	77.4	73.5
White	150	144	154	24.0	23.6	25.3	White	1,684	1,705	1,745	24.0	23.5	23.4
Nonwhite	441	378	345	318.4	298.6	295.6	Nonwhite	6,977	6,656	6,301	192.3	187.2	180.8
District of Columbia	2,256	1,935	2,082	113.8	97.7	100.0	North Dakota	352	359	317	20.7	21.3	19.1
White	352	337	399	31.7	29.0	31.3	White	284	303	261	17.1	18.4	16.1
Nonwhite	1,904	1,598	1,683	218.2	195.1	208.7	Nonwhite	68	56	56	158.1	150.9	153.0
Florida	5,147	4,450	4,048	79.6	72.1	67.9	Ohio	5,184	5,059	4,513	27.9	26.7	24.2
White	816	767	716	17.8	17.2	16.6	White	3,007	3,087	2,834	17.6	17.6	16.4
Nonwhite	4,331	3,683	3,332	230.8	213.5	203.9	Nonwhite	2,177	1,972	1,679	146.8	137.3	124.3
Georgia	7,294	6,586	6,052	79.8	70.6	65.3	Oregon	629	472	545	17.4	13.4	15.5
White	758	737	710	13.4	12.6	12.0	White	541	423	467	15.3	12.2	15.5
Nonwhite	6,536	5,849	5,342	188.1	168.4	159.7	Nonwhite	88	49	78	124.5	68.5	124.8
Illinois	6,987	6,193	5,722	36.8	32.7	31.0	Pennsylvania <sup>2</sup>	(7,680)	---	(7,945)	(34.6)	---	(35.0)
White	2,787	2,736	2,813	16.4	16.1	16.8	White	(4,034)	---	(4,668)	(19.8)	---	(22.1)
Nonwhite	4,200	3,457	2,909	211.1	182.6	168.8	Nonwhite	(3,628)	---	(3,277)	(207.7)	---	(199.3)
Indiana	2,241	2,028	1,926	24.0	21.5	20.8	Rhode Island	391	364	405	24.1	22.1	24.0
White	1,455	1,357	1,324	16.5	15.2	15.1	White	323	300	329	20.4	18.7	20.0
Nonwhite	786	671	602	152.5	134.7	129.4	Nonwhite	68	64	76	165.0	151.7	182.7
Iowa	1,033	1,062	1,006	16.5	17.2	16.6	South Carolina <sup>2</sup>	(5,437)	(5,041)	---	(94.6)	(86.1)	---
White	956	984	959	15.4	16.1	16.0	White	(634)	(588)	---	(20.6)	(18.6)	---
Nonwhite	77	78	47	123.0	138.5	92.0	Nonwhite	(4,803)	(4,453)	---	(178.9)	(165.7)	---
Kansas	813	796	711	18.5	18.2	16.6	South Dakota	347	319	205	19.5	18.5	12.5
White	530	552	504	12.6	13.2	12.3	White	206	221	144	12.2	13.4	9.2
Nonwhite	283	244	207	140.4	127.9	112.1	Nonwhite	141	98	61	162.3	135.2	86.5
Kentucky	2,523	2,435	1,865	33.6	32.0	24.2	Tennessee	4,743	4,250	4,176	58.3	51.3	50.8
White	1,497	1,504	1,154	21.5	21.1	15.9	White	1,420	1,447	1,424	21.8	21.4	21.1
Nonwhite	1,026	931	711	190.7	187.0	147.8	Nonwhite	3,323	2,803	2,752	205.8	183.4	188.9
Louisiana	6,014	5,573	5,418	78.8	73.8	73.9	Texas	6,872	6,115	5,879	33.7	30.2	29.7
White	560	557	498	12.4	12.3	11.1	White	2,583	2,374	2,370	14.6	13.5	13.8
Nonwhite	5,454	5,016	4,920	175.1	166.2	172.6	Nonwhite	4,289	3,741	3,509	156.0	140.7	136.3
Maine	609	603	708	28.9	27.5	32.1	Utah	204	189	175	9.6	8.9	8.4
White	603	599	705	28.7	27.3	32.0	White	192	180	169	9.2	8.6	8.3
Nonwhite	6	4	3	101.7	114.3	90.9	Nonwhite	12	9	6	34.7	32.6	18.2
Michigan	4,566	3,975	4,303	28.4	25.3	27.8	Vermont	197	239	268	21.9	25.7	28.6
White	2,646	2,389	2,741	18.0	16.6	19.2	White	195	239	267	21.7	25.7	28.5
Nonwhite	1,920	1,586	1,562	136.8	120.8	131.4	Nonwhite	2	-	1	400.0	0	333.3
Minnesota	1,618	1,579	1,678	21.5	21.4	23.1	Virginia	5,510	5,440	5,328	67.2	65.6	64.9
White	1,398	1,402	1,524	18.8	19.2	21.2	White	1,348	1,361	1,455	22.2	22.2	23.8
Nonwhite	220	177	154	215.5	218.5	205.3	Nonwhite	4,162	4,079	3,873	194.8	188.8	184.4
Mississippi	6,746	6,301	6,025	103.9	94.9	92.3	Washington	973	995	961	17.4	17.6	17.6
White	251	255	291	9.1	8.8	9.8	White	803	836	850	14.9	15.3	15.7
Nonwhite	6,495	6,046	5,734	173.4	162.0	161.6	Nonwhite	170	159	131	65.9	83.2	72.0
Missouri	3,076	2,833	2,446	35.8	33.2	28.7	West Virginia	2,434	2,306	2,408	48.2	43.9	46.0
White	1,187	1,193	1,234	15.3	15.4	15.8	White	1,896	1,825	1,940	40.0	36.7	39.1
Nonwhite	1,889	1,640	1,212	226.3	204.6	165.7	Nonwhite	538	481	468	171.3	165.7	167.9
Montana	324	285	273	20.6	18.5	18.2	Wisconsin	1,473	1,481	1,596	17.8	17.9	19.6
White	202	182	173	13.7	12.5	12.1	White	1,253	1,287	1,436	15.4	15.8	17.8
Nonwhite	122	103	100	145.4	127.2	126.1	Nonwhite	220	194	160	145.5	135.1	154.6
							Wyoming	(95)	(80)	---	12.5	(10.7)	---
							White	(75)	(62)	---	10.2	(8.5)	---
							Nonwhite	(20)	(18)	---	88.9	(100.0)	---

<sup>1</sup>Excludes 16 States not reporting legitimacy status on birth records in all 3 years. In addition, data for Pennsylvania are excluded because of lack of comparability of data for 1949 and 1950.

<sup>2</sup>To maintain a comparable area, figures in parentheses are not included in "Total."

erally believed that there is a relatively greater understatement of illegitimacy in the white race than in the nonwhite races. This understatement, however, is probably only partly responsible for the large differential between the illegitimacy ratios of these two groups.

In 1950, a substantial proportion (40 percent) of the out-of-wedlock births were to teen-age women, 30 percent were to those 20-24 years old, and much smaller proportions to each succeeding 5-year age group (table 6.29). A total of 31,900 of the illegitimate live births in 1950 was to very young girls, only 17 years of age or younger.

Data on illegitimate live births reported in 1948, 1949, and 1950 are given in table 6.30 for individual States reporting legitimacy. This table shows the number of such births re-allocated to the State of the mother's usual residence, by race, and the number of illegitimate births per 1,000 live births.

State comparisons based on the data are affected by differences among the States in such important factors as: (1) marital status and age composition of the female population, (2) birth registration completeness, and (3) amount of misstatements on the birth record to conceal the illegitimacy of the birth. The last point is undoubtedly by far the most serious source of error in legitimacy statistics, and may vary appreciably from State to State. The second factor (underregistration) is minimized when illegitimacy ratios are used, and considering the present level of registration completeness, it is probably significant in only a few areas.

Attendant at Birth

General trend

Since the mid-1930's, there has been a sharp rise in the proportion of births delivered in hospitals, and a smaller but nevertheless important increase in the proportion attended by physicians.<sup>14</sup> These advances have, without doubt, been important factors in the continuous decline in the infant and maternal mortality rates.

The striking increase in the utilization of hospital facilities since 1935 (the first year attendant data were tabulated by the National Office of Vital Statistics) may be seen in table 6.31. In 1950, 88 percent of the 3,554,149 registered live births were delivered in hospitals. Fifteen years earlier, in 1935, the comparable percentage was less than half as great. The trend between these 2 years is characterized by a rapid rise in the proportion through 1946, when it reached 82 percent. Since then, there has been a noticeable slackening in the annual increase. In terms of numbers, the proportion for 1950 represented more than 3 million births in hospitals. This is well over twice as many births as were delivered in hospitals in 1940 and almost four times the number in 1935.

During each of the 5 years from 1946 through 1950, the proportion of births delivered by physicians was 95 percent. The corresponding figure for 1935 was 87 percent. The increase in the percent of physician-attended births since 1935 although relatively small, meant a marked reduction in the proportion of births delivered by nonphysicians. In recent

<sup>14</sup>The term 'attended by physicians' as used in this publication, includes births attended by physicians out of hospitals and all births in hospitals or institutions. Births are classified as occurring 'in hospital or institution' on the basis of entries on the birth certificate. The classification is unrelated to American Medical Association (AMA) registered hospital listings. In comparing data from the NOV5 with those published by the AMA, it should also be borne in mind that the surveys on which the AMA figures are based cover a reporting period from October 1 to September 30, whereas the data of this Office are for the calendar year.

Table 6.31. NUMBER AND PERCENTAGE DISTRIBUTION OF REGISTERED LIVE BIRTHS, BY ATTENDANT FOR EACH RACE GROUP: UNITED STATES, 1935 AND 1940-50

RACE AND YEAR	Total	NUMBER ATTENDED BY—			PERCENT ATTENDED BY—		
		Physician in hospital <sup>1</sup>	Physician not in hospital	Mid-wife, other, and not specified	Physician in hospital <sup>1</sup>	Physician not in hospital	Mid-wife, other and not specified
ALL RACES							
1950--	3,554,149	3,125,975	251,539	176,635	88.0	7.1	5.0
1949--	3,559,529	3,087,090	289,981	182,468	86.7	8.1	5.1
1948--	3,535,068	3,025,206	323,434	186,428	85.6	9.1	5.3
1947--	3,699,940	3,136,930	375,407	187,603	84.8	10.1	5.1
1946--	3,288,672	2,708,223	402,759	177,690	82.4	12.2	5.4
1945--	2,735,456	2,155,594	402,890	176,972	78.8	14.7	6.5
1944--	2,794,800	2,112,963	493,463	188,374	75.6	17.7	6.7
1943--	2,934,860	2,115,582	615,754	203,524	72.1	21.0	6.9
1942--	2,808,996	1,906,833	693,921	208,242	67.9	24.7	7.4
1941--	2,513,427	1,537,719	759,986	215,722	61.2	30.2	8.6
1940--	2,360,939	1,316,768	825,271	218,360	55.8	35.0	9.3
1935--	2,155,105	795,629	1,089,832	269,644	36.9	50.6	12.5
WHITE							
1950--	3,063,627	2,841,930	181,279	40,418	92.8	5.9	1.3
1949--	3,083,721	2,825,078	214,198	44,445	91.6	6.9	1.4
1948--	3,080,318	2,784,865	248,093	47,358	90.4	8.1	1.5
1947--	3,274,620	2,925,374	300,198	49,048	89.3	9.2	1.5
1946--	2,913,645	2,538,882	327,585	47,178	87.1	11.2	1.6
1945--	2,395,563	2,018,929	329,147	47,487	84.3	13.7	2.0
1944--	2,454,700	1,987,082	414,895	52,723	81.0	16.9	2.1
1943--	2,594,763	2,002,313	534,177	58,273	77.2	20.6	2.2
1942--	2,436,934	1,808,121	616,503	62,310	72.7	24.8	2.5
1941--	2,204,903	1,448,132	688,188	68,583	65.7	31.2	3.1
1940--	2,067,953	1,238,677	754,746	74,530	59.9	36.5	3.6
1935--	1,888,012	746,974	1,019,271	121,767	39.6	54.0	6.4
NON-WHITE							
1950--	490,522	284,045	70,260	136,217	57.9	14.3	27.8
1949--	475,808	282,002	75,763	138,023	55.1	15.9	29.0
1948--	454,752	240,341	75,341	139,070	52.9	16.6	30.6
1947--	425,320	211,556	75,209	138,555	49.7	17.7	32.6
1946--	375,027	169,341	75,174	130,512	45.2	20.0	34.8
1945--	339,893	136,665	73,743	129,485	40.2	21.7	38.1
1944--	340,100	125,881	78,568	135,651	37.0	23.1	39.9
1943--	340,097	113,269	81,577	145,251	33.3	24.0	42.7
1942--	322,062	98,712	77,418	145,932	30.6	24.0	45.3
1941--	308,524	89,587	71,798	147,139	29.0	23.3	47.7
1940--	292,446	78,091	70,525	143,830	26.7	24.1	49.2
1935--	267,093	48,655	70,561	147,877	18.2	26.4	55.4

<sup>1</sup>It is assumed that all births in hospitals are attended by physicians.

years, only 5.0 percent of the births were not medically attended, as compared with 12.5 percent in 1935.

Attendant at birth by race

The percentage of births delivered in hospitals has increased greatly since 1935 in both the white and nonwhite races. The proportion for the white group (40 percent in 1935) rose rapidly in the earlier years and in 1942 close to three-fourths of the white births occurred in hospitals. Thereafter, this proportion increased more slowly but it passed the 90 percent mark in 1948. The proportion of hospital births among the nonwhite races more than tripled between 1935 and 1950 (from 18 to 58 percent), the largest increases occurring in the first 2 postwar years.

For the nonwhite group there have also been important increases since 1935 in the proportion of births attended by physicians (in and not in hospitals combined). Seventy-two

percent of the nonwhite births were medically attended in 1950 as compared with only 45 percent in 1935. The proportion of births in the white race attended by physicians has been close to 100 percent for a number of years, and the increase in hospital births since 1935 meant principally a shift within the medically attended group from place of birth "at home" to "in hospital."

On the other hand, during this period there have been considerable changes in the nonwhite group not only in the place of birth but also in the attendant for home deliveries. The rise in the proportion of hospital births for the nonwhites was accompanied by an appreciable decrease both in the percentage of births attended by physicians at home and in the proportion of nonphysician deliveries.

### Hospital births by geographic area

The major growth in hospital facilities over the past decade combined with their increased utilization at time of childbirth, affected all areas throughout the country and every race group in them. Over the relatively brief span of years, 1940 to 1950, the proportion of births to rural residents that occurred in hospitals more than doubled. Even among urban residents, who were extensively using hospitals for confinements in 1940, the proportion rose during the decade (table 6.32). In 1950, the percentages of urban and rural resident births delivered in hospitals were 95 and 78 percent, respectively.

The gains since 1940 in the proportions of births occurring in hospitals were large for white and nonwhite residents of both urban and rural areas. The outstanding change occurred in the rural white group, where the proportion rose from 37 to 86 percent. Although the increase among rural nonwhite residents was appreciable, the great majority of the births (70 percent) in this group were still being delivered at home in 1950.

"Urban" and "rural" classifications cover many varieties of population concentrations, and further delineation gives a clearer idea concerning the variability that exists in the utilization of hospital facilities. The extent to which the relative frequency of giving birth in a hospital is affected by

residence in areas which are integrated socially and economically with larger cities where extensive facilities exist, is illustrated by the data in table 6.33.

Percentages for nonmetropolitan counties were lower than those for the metropolitan even when the comparison was limited to cities of the same size. With respect to places of 2,500 to 10,000 population, for example, the proportions of births in hospitals were 97 percent for metropolitan county residents and 86 percent for those living in nonmetropolitan counties. The difference decreased for more populous cities. But, for residents of rural areas in these counties, the corresponding proportions were 92 and 72 percent. The latter figures no doubt reflect the fact that an important segment of the "rural" in metropolitan counties, as defined in vital statistics, includes unincorporated areas on the outskirts of large cities whose facilities are accessible to the rural residents. On the other hand, "rural" in nonmetropolitan counties frequently is far removed from any but the smallest cities.

Civil subdivision lines apparently meant little, if anything, to the expectant mother in the utilization of nearby hospital facilities. An indication of this, while limited to the net movement between different types of areas, is found in the data of table 6.34. Hospital deliveries in cities having populations of 250,000 or more outnumbered by 20 percent the number of hospital births to residents of these cities. The differential was even greater for cities of 50,000 to 250,000 population. The dependence of many residents of very small cities in metropolitan counties on hospitals in larger cities was fairly substantial. Rural residents of these counties, with relatively few exceptions, went to city hospitals for their deliveries. In nonmetropolitan counties, a large segment of the hospital births in cities (including the very small ones) was to residents of rural areas.

Table 6.32. PERCENTAGE DISTRIBUTION OF REGISTERED LIVE BIRTHS BY ATTENDANT, FOR EACH RACE GROUP AND URBAN AND RURAL AREAS: UNITED STATES, 1940 AND 1950

(By place of residence)

RACE AND ATTENDANT	TOTAL		URBAN		RURAL	
	1950	1940	1950	1940	1950	1940
ALL RACES-----	100.0	100.0	100.0	100.0	100.0	100.0
Physician in hospital <sup>1</sup> -----	88.0	55.8	94.6	76.0	77.7	32.3
Physician not in hospital--	7.1	35.0	3.2	20.9	13.0	51.3
Midwife, and other and not	5.0	9.3	2.2	3.1	9.3	16.4
specified-----						
White-----	100.0	100.0	100.0	100.0	100.0	100.0
Physician in hospital <sup>1</sup> -----	92.8	59.9	97.1	78.6	86.0	36.6
Physician not in hospital--	5.9	36.5	2.2	20.0	11.8	56.9
Midwife, and other and not	1.3	3.6	0.7	1.3	2.2	6.4
specified-----						
Nonwhite-----	100.0	100.0	100.0	100.0	100.0	100.0
Physician in hospital <sup>1</sup> -----	57.9	26.7	78.2	51.4	30.0	8.6
Physician not in hospital--	14.3	24.1	10.4	29.4	19.7	20.2
Midwife, and other and not	27.8	49.2	11.5	19.2	50.2	71.1
specified-----						

<sup>1</sup>It is assumed that all births in hospitals are attended by physicians.

NOTE.—For definitions of urban and rural areas, see text in chapter 2.

Table 6.33. PERCENT OF REGISTERED LIVE BIRTHS IN HOSPITALS, BY RACE AND POPULATION-SIZE GROUP IN METROPOLITAN AND NONMETROPOLITAN COUNTIES: UNITED STATES, 1950

(By place of residence)

RACE AND AREA	All counties	Metro-politan counties	Nonmetro-politan counties
ALL RACES-----	88.0	95.7	78.4
Urban-----	94.6	96.6	89.1
Places of 250,000 or more-----	96.7	96.7	...
Places of 100,000 to 250,000-----	95.7	95.7	...
Places of 50,000 to 100,000-----	95.4	95.4	...
Places of 25,000 to 50,000-----	95.0	98.2	92.7
Places of 10,000 to 25,000-----	93.9	98.2	91.0
Places of 2,500 to 10,000-----	89.0	96.8	85.6
Rural-----	77.7	91.9	72.4
WHITE-----	92.8	97.4	86.9
Urban-----	97.1	98.2	94.5
Places of 250,000 or more-----	98.1	98.1	...
Places of 100,000 to 250,000-----	96.1	90.1	...
Places of 50,000 to 100,000-----	97.9	97.9	...
Places of 25,000 to 50,000-----	98.0	99.0	97.3
Places of 10,000 to 25,000-----	97.0	98.9	95.7
Places of 2,500 to 10,000-----	93.4	97.5	91.5
Rural-----	86.0	94.5	82.4
NONWHITE-----	57.9	83.8	51.3
Urban-----	78.2	86.9	48.8
Places of 250,000 or more-----	90.6	90.6	...
Places of 100,000 to 250,000-----	81.7	81.7	...
Places of 50,000 to 100,000-----	75.8	75.8	...
Places of 25,000 to 50,000-----	65.9	85.5	59.6
Places of 10,000 to 25,000-----	59.4	84.1	51.6
Places of 2,500 to 10,000-----	45.2	80.1	40.3
Rural-----	30.0	60.9	24.9

NOTE.—For definitions of areas, see text in chapter 2.

Table 6.34. HOSPITAL BIRTHS BY POPULATION-SIZE GROUP IN METROPOLITAN AND NONMETROPOLITAN COUNTIES: UNITED STATES, 1950, WITH PERCENT DIFFERENCES

(Registered live births by place of residence and place of occurrence)

AREA	ALL COUNTIES			METROPOLITAN COUNTIES			NONMETROPOLITAN COUNTIES		
	Births to residents	Births in area	Percent difference <sup>1</sup>	Births to residents	Births in area	Percent difference <sup>1</sup>	Births to residents	Births in area	Percent difference <sup>1</sup>
TOTAL-----	3,125,975	3,125,975	...	1,875,027	1,940,763	+3.5	1,250,948	1,185,212	-5.3
Urban-----	2,058,704	2,797,512	+37.2	1,525,369	1,859,652	+21.9	513,335	937,860	+82.7
Places of 250,000 or more-----	759,771	911,027	+19.9	759,771	911,027	+19.9	...	...	...
Places of 100,000 to 250,000-----	230,901	338,097	+46.4	230,901	338,097	+46.4	...	...	...
Places of 50,000 to 100,000-----	212,794	309,684	+45.5	212,794	309,684	+45.5	...	...	...
Places of 25,000 to 50,000-----	223,150	331,820	+48.7	94,364	116,131	+23.1	128,786	215,689	+67.5
Places of 10,000 to 25,000-----	297,347	439,600	+47.8	124,274	119,312	-4.0	173,073	320,288	+85.1
Places of 2,500 to 10,000-----	314,741	467,284	+48.5	103,265	65,401	-36.7	211,476	401,883	+90.0
Rural-----	1,087,271	328,463	-69.8	349,658	81,111	-76.8	737,613	247,352	-66.5

<sup>1</sup>In computing percentages, resident births have been used as the base.

NOTE.—For definitions of areas, see text in chapter 2.

An interesting feature of the data is that with all of the movement that did take place, the number of hospital births to residents of nonmetropolitan counties exceeded by only 5.3 percent the number of such events occurring in these counties. Although the data are not sufficiently detailed to draw a definite conclusion on the point, they do suggest that the crossing from a nonmetropolitan county to a metropolitan county is relatively infrequent.

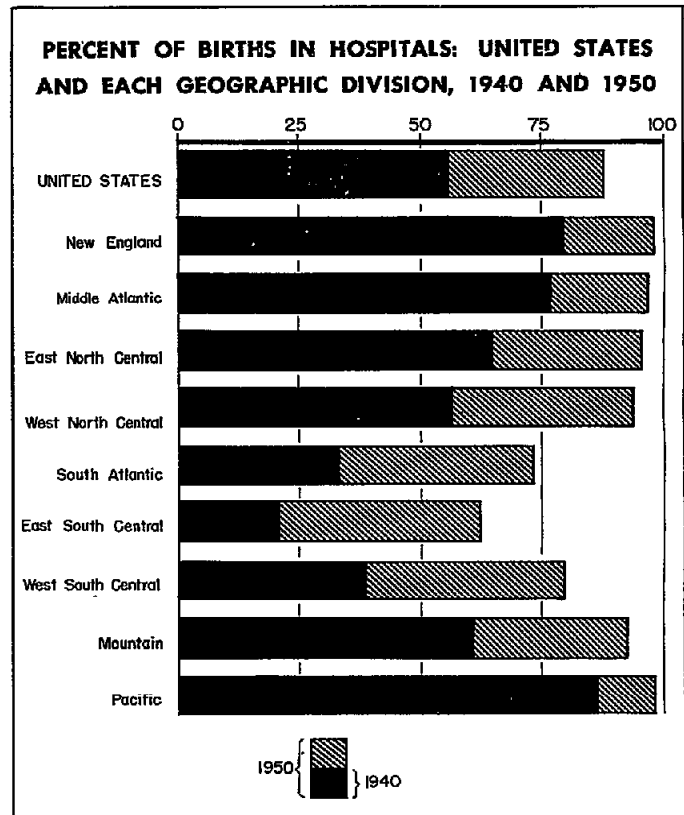
All geographic divisions have experienced significant changes since 1940, in the proportions of births occurring in hospitals (figure 6. F). But, there is still a broad range among the various population groups of the States in the proportion of women hospitalized at childbirth (table 6.35).

In all States the proportion of hospital births was greater among urban than rural residents, and among the white than the nonwhite group. Within each of these groups, the proportion varied appreciably from one part of the country to the other, except in the case of the urban white residents. The extent of variation in the percent of hospital births among the geographic divisions is summarized below:

	High	Low
Urban white-----	99.0	83.0
Rural white-----	97.5	65.0
Urban nonwhite-----	97.8	53.2
Rural nonwhite-----	95.2	17.4

NOTE.—The discussion in the preceding sections on person in attendance has been based on tabulated data for registered births. If allowance is made for underregistration, the proportion of births occurring in hospitals in 1950 is slightly reduced (from 88.0 to 86.6 percent). The effect of such adjustment on data for prior years (back to 1935) increases because of lower registration completeness. However, the change is relatively small even in the early years, and the over-all rate of increase in hospitalization at birth discussed above is not altered appreciably. Greater differences are found between the unadjusted and adjusted figures

FIGURE 6.F



in the case of the nonwhite group than in the white. In 1950, the figures for the two race groups, taking into account estimates of unregistered births, were 92 percent for the white, and 55 percent for the nonwhite.

Table 6.35. PERCENT OF REGISTERED LIVE BIRTHS IN HOSPITALS, BY RACE FOR URBAN AND RURAL AREAS: UNITED STATES, EACH DIVISION AND STATE, 1950

(By place of residence)

AREA	ALL RACES			WHITE			NONWHITE		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
UNITED STATES-----	88.0	94.6	77.7	92.8	97.1	86.0	57.9	78.2	30.0
GEOGRAPHIC DIVISIONS									
New England-----	98.0	99.0	95.2	98.0	99.0	95.3	97.5	97.8	93.3
Middle Atlantic-----	96.7	98.2	92.3	96.9	98.5	92.5	94.7	95.3	85.7
East North Central-----	95.6	97.0	92.6	96.5	98.3	92.8	85.7	86.3	73.9
West North Central-----	94.0	97.3	90.3	94.5	97.9	90.9	83.3	88.9	63.5
South Atlantic-----	73.0	87.6	61.2	86.9	96.9	78.7	41.4	65.6	22.8
East South Central-----	62.0	81.3	50.7	75.5	93.8	65.0	30.8	53.2	17.4
West South Central-----	79.7	86.5	69.6	85.2	89.0	79.0	58.2	74.7	40.3
Mountain-----	92.2	95.6	87.9	92.7	95.7	88.8	82.4	92.1	78.2
Pacific-----	98.3	98.8	97.4	98.4	98.9	97.5	96.9	97.4	95.2
NEW ENGLAND									
Maine-----	92.2	97.8	88.7	92.2	97.8	88.7	89.8	90.0	89.7
New Hampshire-----	98.7	99.5	97.5	98.7	99.5	97.5	100.0	100.0	100.0
Vermont-----	95.8	98.6	90.8	95.8	98.6	90.8	100.0	100.0	0
Massachusetts-----	98.8	98.9	98.5	98.9	98.9	98.6	96.6	97.1	90.3
Rhode Island-----	98.9	98.9	98.2	98.9	99.0	98.2	97.3	97.4	97.0
Connecticut-----	99.5	99.6	99.2	99.5	99.7	99.2	99.2	99.2	98.0
MIDDLE ATLANTIC									
New York-----	98.3	98.8	96.8	98.5	99.0	96.9	96.5	96.7	92.1
New Jersey-----	97.6	98.0	95.8	98.1	98.4	96.7	95.2	94.8	84.2
Pennsylvania-----	94.1	97.3	87.3	94.2	97.8	87.4	92.7	93.4	81.2
EAST NORTH CENTRAL									
Ohio-----	95.4	97.7	89.8	95.7	98.4	90.0	91.6	92.4	79.8
Indiana-----	93.2	95.3	89.7	94.4	97.3	89.8	74.0	74.5	56.7
Illinois-----	95.2	95.9	93.1	97.0	98.2	93.6	80.0	80.7	54.7
Michigan-----	96.9	97.8	94.8	97.4	98.6	95.2	91.0	92.0	73.3
Wisconsin-----	97.5	99.1	95.5	97.6	99.2	95.6	93.5	94.6	91.0
WEST NORTH CENTRAL									
Minnesota-----	98.1	99.2	96.8	98.1	99.2	96.8	95.0	97.7	92.1
Iowa-----	96.4	99.1	95.2	98.7	99.7	96.4	96.2	96.6	86.7
Missouri-----	88.0	94.4	72.7	86.6	95.3	74.3	79.9	88.3	26.8
North Dakota-----	95.5	99.3	93.8	95.7	99.4	94.1	87.4	97.0	86.6
South Dakota-----	96.8	98.9	95.2	97.3	98.9	96.2	85.1	94.7	81.7
Nebraska-----	98.8	98.3	95.2	96.9	98.5	95.3	94.3	95.1	89.5
Kansas-----	95.8	97.3	93.9	96.5	98.4	94.1	82.3	83.5	70.1
SOUTH ATLANTIC									
Delaware-----	91.0	96.2	86.0	96.1	98.8	93.4	68.3	85.1	51.0
Maryland-----	88.9	92.0	85.2	93.3	95.8	90.7	75.5	81.9	55.7
District of Columbia-----	98.1	...	...	99.4	99.4	...	96.5	...	...
Virginia-----	73.5	88.7	63.3	84.7	97.1	76.4	41.6	64.7	26.4
West Virginia-----	65.7	90.3	55.6	67.7	92.2	55.7	35.2	62.3	21.8
North Carolina-----	70.4	87.4	61.9	87.4	97.6	81.8	37.6	64.0	26.5
South Carolina-----	57.1	77.8	47.4	87.3	96.0	81.8	22.3	43.2	15.9
Georgia-----	69.5	84.2	56.5	80.8	97.5	84.4	34.7	60.0	14.9
Florida-----	78.6	84.5	69.0	93.8	97.8	87.1	41.5	51.9	24.3
EAST SOUTH CENTRAL									
Kentucky-----	65.0	88.3	51.7	65.8	91.7	52.4	54.1	65.8	32.6
Tennessee-----	74.2	86.2	66.1	80.0	94.4	72.0	50.9	66.1	28.7
Alabama-----	59.8	77.9	47.5	79.0	94.2	68.3	30.7	52.1	16.8
Mississippi-----	45.9	68.2	37.4	82.8	96.8	78.2	18.9	34.9	14.3
WEST SOUTH CENTRAL									
Arkansas-----	64.6	81.2	55.7	80.2	93.1	72.9	22.6	42.7	14.0
Louisiana-----	83.4	91.9	73.3	93.9	97.6	88.8	68.2	82.5	53.9
Oklahoma-----	86.5	94.0	77.1	89.2	96.3	80.0	66.0	74.3	57.2
Texas-----	80.0	85.9	71.4	82.9	85.3	77.5	61.2	74.6	57.1
MOUNTAIN									
Montana-----	97.6	99.1	95.9	98.0	99.1	96.8	89.2	97.5	87.8
Idaho-----	98.3	99.1	97.6	98.3	99.1	97.7	95.1	98.7	93.8
Wyoming-----	96.5	97.1	95.7	96.9	97.1	96.5	85.3	97.1	80.0
Colorado-----	94.1	96.9	89.4	94.1	96.9	89.4	95.0	95.6	91.7
New Mexico-----	73.9	85.6	61.9	74.1	85.4	61.1	71.7	89.9	67.4
Arizona-----	90.7	92.9	88.4	92.6	93.3	91.6	80.1	86.1	78.4
Utah-----	98.3	98.9	97.2	98.4	98.9	97.5	91.0	97.5	85.5
Nevada-----	97.8	98.7	96.8	98.8	99.1	98.4	86.6	91.6	82.5
PACIFIC									
Washington-----	98.9	99.4	98.0	99.0	99.4	98.1	98.3	99.5	94.8
Oregon-----	98.2	99.3	96.7	98.3	99.3	96.8	95.8	97.8	90.9
California-----	98.2	98.5	97.4	98.3	98.7	97.5	96.8	97.1	95.4

## NOTES:

Each percent is obtained from the ratio between (a) number of resident births in each specified race and urban-rural group occurring in hospitals and (b) the total number of births in each race and urban-rural group. Percents are not additive.

For definitions of urban and rural areas, see text in chapter 2.

Birth Weight

The possibility of obtaining national statistics on birth weight is only a recent development, dating from the 1949 Revision of the Standard Certificate of Live Birth. By 1950, the birth certificates in all but one State (Massachusetts) included an item on birth weight,<sup>15</sup> and national tabulations based on this item are being presented here for the first time.

With two-thirds of the neonatal deaths being assigned to "immaturity," it is evident that further significant reductions of mortality among the newborn will depend largely on measures directed at the problem of premature birth. This situation has focused attention on the need for intensified investigation of factors related to immaturity. Statistics on the distribution of births by weight for some of these factors, e. g., plurality, race, and sex, are available from the birth certificate. In addition, by matching death certificates with corresponding birth certificates, it is possible to obtain data on the mortality experience of infants according to these and other

birth record items.

Information on the number and proportion of children born at the various levels of maturity appears in this section and in Volume II. Data on neonatal mortality by weight obtained from a special study based on deaths among children born in the first 3 months of 1950 are also given in this section. More detailed information from this study will appear in other reports. In addition to the national tabulations, many State and local areas have developed similar statistical programs.<sup>16</sup> A number of these have been in existence for some time and have contributed greatly to the current knowledge about prematurity.

In practically all areas, birth weight is reported in terms of pounds and ounces rather than in grams. However, the metric system classification was used in tabulating and presenting the statistics to facilitate comparison with data published by other groups in the United States. The equivalents

<sup>16</sup>For a description of the guides for tabulating these data, see "Recommendations for Developing Comparable Statistics on Prematurely Born Infants and Neonatal Mortality" and "Suggested Tabulations of Statistics on Birth Weight and Related Characteristics for Live Births and Neonatal Deaths" published by the National Office of Vital Statistics in December 1950 and February 1952, respectively.

<sup>15</sup>Weight data for births in Connecticut were recorded in a section of the birth record which was not available for tabulation by the National Office of Vital Statistics for 1950.

Table 6.36. PERCENT COMPLETENESS OF BIRTH WEIGHT REPORTING FOR LIVE BIRTHS, BY RACE: UNITED STATES, EACH DIVISION AND STATE, 1950

(By place of residence)

AREA	All races	White	Nonwhite	AREA	All races	White	Nonwhite
UNITED STATES <sup>1</sup> -----	97.1	97.6	94.3	WEST NORTH CENTRAL--Continued			
GEOGRAPHIC DIVISIONS				Nebraska-----	97.7	97.8	97.4
New England <sup>1</sup> -----	95.4	95.4	95.1	Kansas-----	98.4	98.5	96.8
Middle Atlantic-----	98.9	99.0	98.4	SOUTH ATLANTIC			
East North Central-----	99.2	99.3	98.9	Delaware-----	97.6	98.2	94.5
West North Central-----	98.9	98.9	97.4	Maryland-----	94.1	94.9	91.1
South Atlantic-----	96.5	97.6	94.1	District of Columbia-----	96.9	96.8	97.1
East South Central-----	95.1	94.8	95.6	Virginia-----	98.0	98.6	96.5
West South Central-----	88.5	89.4	85.4	West Virginia-----	99.0	99.0	98.2
Mountain-----	98.4	98.9	89.5	North Carolina-----	97.6	98.5	95.8
Pacific-----	99.6	99.6	99.0	South Carolina-----	93.5	95.6	91.1
NEW ENGLAND				Georgia-----	93.8	96.0	90.3
Maine-----	94.7	94.7	93.2	Florida-----	99.5	99.6	99.3
New Hampshire-----	95.8	95.8	100.0	EAST SOUTH CENTRAL			
Vermont-----	97.3	97.3	100.0	Kentucky-----	89.5	89.5	89.2
Massachusetts-----	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	Tennessee-----	98.7	98.8	89.5
Rhode Island-----	95.1	95.1	95.1	Alabama-----	94.6	95.4	93.5
Connecticut-----	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	Mississippi-----	97.5	98.2	97.1
MIDDLE ATLANTIC				WEST SOUTH CENTRAL			
New York-----	98.8	98.9	97.9	Arkansas-----	89.9	91.1	86.6
New Jersey-----	98.9	99.0	98.1	Louisiana-----	96.3	98.1	93.7
Pennsylvania-----	99.1	99.0	99.3	Oklahoma-----	97.9	98.1	96.0
EAST NORTH CENTRAL				Texas-----	83.1	84.6	73.1
Ohio-----	99.2	99.2	98.6	MOUNTAIN			
Indiana-----	98.9	98.9	97.9	Montana-----	98.7	99.0	95.0
Illinois-----	99.8	99.8	99.9	Idaho-----	96.0	98.0	95.9
Michigan-----	99.0	99.1	98.2	Wyoming-----	99.1	99.3	94.2
Wisconsin-----	98.9	98.9	98.9	Colorado-----	99.4	99.4	99.4
WEST NORTH CENTRAL				New Mexico-----	97.2	98.6	79.1
Minnesota-----	99.3	99.3	96.3	Arizona-----	97.8	99.2	89.5
Iowa-----	99.1	99.1	99.5	Utah-----	98.3	98.5	89.0
Missouri-----	99.0	99.0	98.8	Nevada-----	99.3	99.7	94.2
North Dakota-----	99.4	99.6	94.2	PACIFIC			
South Dakota-----	98.3	98.9	86.0	Washington-----	99.1	99.1	98.9
				Oregon-----	99.4	99.5	96.7
				California-----	99.7	99.7	99.1

<sup>1</sup>Excludes births to residents of Connecticut and Massachusetts.

<sup>2</sup>Percent not computed since birth weight data were not available for births which occurred in this State.

in pounds and ounces of the gram intervals are as follows:

1,000 grams or less = 2 lb. 3 oz. or less  
 1,001-1,500 grams = 2 lb. 4 oz.-3 lb. 4 oz.  
 1,501-2,000 grams = 3 lb. 5 oz.-4 lb. 6 oz.  
 2,001-2,500 grams = 4 lb. 7 oz.-5 lb. 8 oz.  
 2,501-3,000 grams = 5 lb. 9 oz.-6 lb. 9 oz.  
 3,001-3,500 grams = 6 lb. 10 oz.-7 lb. 11 oz.  
 3,501-4,000 grams = 7 lb. 12 oz.-8 lb. 13 oz.  
 4,001-4,500 grams = 8 lb. 14 oz.-9 lb. 14 oz.  
 4,501 grams or more = 9 lb. 15 oz. or more

The 500-gram intervals have been introduced to reduce the effect of errors in weighing births, which are probably fairly sizable among occurrences out of hospitals.

For purposes of classification, the terms "immature" and "premature" as used in this section are defined as referring to infants weighing 2,500 grams or less at birth. This definition was recommended by the American Academy of Pediatrics in 1935, and later adopted in the Sixth Revision of the International Lists of Diseases and Causes of Death (1948). "Premature," although containing the concept of duration of pregnancy, has been used for many years in connection with the birth weight criterion. In terms of gestation age, it related to pregnancies of less than 37 completed weeks. It is recognized that there may be basic differences in physical development for some of the subgroupings of births discussed, which would affect the general applicability of the criteria for

classifying births as "immature" or "premature."

A small percentage of birth certificates in States requiring the reporting of birth weight lacked information on this item (table 6.36). In these States (excluding Connecticut and Massachusetts), 97.6 percent of the certificates for white births and 94.3 percent of those for nonwhite contained such entries. Birth weight was recorded on less than 95 percent of the certificates in 5 States for white births and in 17 States for nonwhite. This differential in the completeness of reporting reflects principally the greater proportion of nonwhite births not occurring in hospitals.

Although the "unknown" birth weight groups were relatively small for both white and nonwhite races, there is evidence that they were biased in the direction of failures to report weight for small babies. For this reason, the "not stated" weights have been distributed by utilizing information on period of gestation. This involved allocating the "not stated" weights in each gestation group according to the "stated" weights in that group.

### Birth weight distributions

A great majority of the children born in 1950 weighed over 2,500 grams (table 6.37). The balance, the premature births according to the weight criterion, amounted to only 7.6 percent of the total. This group, however, includes about two-thirds of all the children who die in the neonatal period and represents the infants requiring special care for some time after birth.

Table 6.37. BIRTH WEIGHT DISTRIBUTION OF LIVE BIRTHS, BY RACE, SEX, AND PLURALITY OF BIRTH: UNITED STATES, 1950

(Excludes births to residents of Connecticut and Massachusetts since birth weight data were not available for births in these States. Figures for birth weight not stated in other States are distributed)

RACE, SEX, AND PLURALITY	Number of births	Median weight (in grams) <sup>1</sup>	PERCENT IN WEIGHT GROUP <sup>2</sup>										
			1,000 grams or less	1,001-1,500 grams	1,501-2,000 grams	2,001-2,500 grams	2,500 grams or less	2,501-3,000 grams	3,001-3,500 grams	3,501-4,000 grams	4,001-4,500 grams	4,501 grams or more	
<b>TOTAL BIRTHS</b>													
All races-----	3,417,315	3,310	0.5	0.6	1.4	5.1	7.6	18.3	37.9	26.8	7.5	1.9	
White-----													
Male----	1,755,085	3,380	0.5	0.6	1.4	4.5	7.0	15.6	36.2	29.6	9.3	2.5	
Female--	1,664,230	3,250	0.5	0.6	1.5	5.7	8.3	21.2	39.6	23.9	5.6	1.3	
Nonwhite-----													
Male----	2,930,464	3,320	0.4	0.6	1.3	4.8	7.2	17.8	36.3	27.5	7.6	1.7	
Female--	1,506,693	3,390	0.4	0.6	1.3	4.2	6.8	15.0	36.4	30.3	9.5	2.2	
Male----	1,423,771	3,260	0.4	0.6	1.4	5.4	7.8	20.7	40.3	24.5	5.6	1.1	
Female--	486,851	3,250	0.6	0.9	2.0	6.8	10.4	21.4	35.3	22.7	6.9	3.3	
Male----	246,392	3,300	0.6	0.9	1.9	6.0	9.4	19.0	35.0	24.7	8.0	3.9	
Female--	240,459	3,200	0.6	1.0	2.1	7.7	11.3	23.9	35.7	20.7	5.7	2.7	
<b>SINGLE BIRTHS</b>													
All races-----	3,345,758	3,330	0.4	0.5	1.2	4.6	6.6	18.1	38.4	27.3	7.6	2.0	
White-----													
Male----	1,716,801	3,390	0.4	0.5	1.1	4.0	6.0	15.3	36.6	30.1	9.4	2.5	
Female--	1,628,957	3,270	0.4	0.5	1.2	5.2	7.2	21.0	40.2	24.4	5.7	1.4	
Nonwhite-----													
Male----	2,871,246	3,340	0.4	0.5	1.1	4.3	6.2	17.5	38.8	28.0	7.7	1.7	
Female--	1,476,654	3,400	0.4	0.5	1.1	3.8	5.7	14.7	36.8	30.9	9.8	2.3	
Male----	1,394,592	3,270	0.4	0.5	1.1	4.8	6.8	20.5	40.9	24.9	5.7	1.1	
Female--	474,512	3,270	0.5	0.8	1.6	6.2	9.2	21.3	35.9	23.2	7.0	3.4	
Male----	240,147	3,320	0.5	0.7	1.5	5.5	8.3	18.7	35.6	25.2	8.2	4.0	
Female--	234,365	3,220	0.5	0.8	1.7	7.0	10.1	23.8	36.3	21.2	5.8	2.7	
<b>BIRTHS IN PLURAL SETS</b>													
All races-----	71,557	2,440	4.0	5.9	14.1	30.0	54.1	29.0	13.8	2.7	0.3	0.1	
White-----													
Male----	36,284	2,490	4.1	5.7	12.8	28.3	51.0	29.4	15.8	3.3	0.4	0.1	
Female--	35,273	2,390	3.9	6.1	15.5	31.7	57.2	28.6	11.8	2.1	0.3	0.1	
Nonwhite-----													
Male----	59,218	2,450	3.9	5.6	14.0	30.1	53.6	29.6	14.0	2.5	0.3	0.0	
Female--	30,039	2,500	3.9	5.5	12.5	28.5	50.4	30.0	16.1	3.1	0.3	0.1	
Male----	29,179	2,400	3.9	5.8	15.4	31.7	56.9	29.3	11.8	1.8	0.2	0.0	
Female--	12,339	2,400	4.4	7.2	15.1	29.7	56.3	26.0	13.0	3.7	0.7	0.3	
Male----	6,245	2,440	4.7	7.0	14.2	27.8	53.8	26.7	14.2	4.1	0.8	0.4	
Female--	6,094	2,360	4.0	7.4	16.0	31.6	58.9	25.3	11.7	3.2	0.6	0.2	

<sup>1</sup>Computed on basis of original units of pounds and ounces and rounded to nearest 10 grams.

<sup>2</sup>For equivalents of gram weights in terms of pounds and ounces, see text.



The birth of a liveborn infant weighing 1,500 grams or less was an infrequent event (1.1 percent of all births). With increasing weight the proportion rose sharply, with the result that about two-thirds of the premature babies weighed between 2,001 and 2,500 grams. Of the remaining one-third, slightly more weighed 1,501-2,000 grams than 1,500 grams or less.

The area of peak concentration of births was at 2,501 through 4,000 grams. The first 500-gram group in this interval (2,501-3,000) contained 18 percent of all births, while almost two-thirds weighed between 3,001 and 4,000 grams.

Only a comparatively small proportion of births (1.9 percent) fell in the upper weight interval (4,501 grams or more).

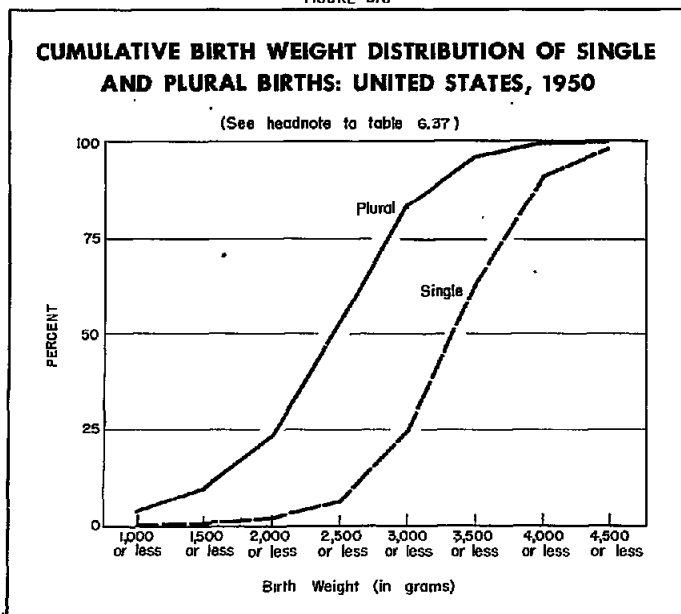
**Race.**—Nonwhite babies weighed, on the average, 70 grams less than white babies (table 6.37). Although this gap is small, there are some notable differences in the weight distributions of white and nonwhite births.

A greater proportion of the nonwhite group were born at the immature and very high weights where the major problems of obstetric and pediatric care exist. Infants weighing 2,500 grams or less represented 7.2 percent of all white live births as compared with 10.4 percent of nonwhite. At 4,501 grams or more, the percent of nonwhite births (3.3) was almost double that of white (1.7). Some of the elements which may give rise to these differences are discussed in the section on birth weight distributions in geographic divisions.

Comparison of the percentages of white and nonwhite births at weights around the modal groups for the distributions also reveals some variation. For both, the highest proportion of births occurred at 3,001-3,500 grams. Around this peak, however, there was somewhat greater symmetry in the nonwhite distribution with the percentages of babies weighing 2,501-3,000 and 3,501-4,000 grams being nearly equal. In contrast, the distribution of white births was weighted more heavily at 3,501-4,000 grams.

**Plurality.**—Members of plural sets represented only 2.1 percent of all live births but they accounted for 14.9 percent of the children weighing 2,500 grams or less at birth. Figure 6.G indicates the extreme difference in the weight distributions of children born in single and plural deliveries giving rise to this situation. In multiple deliveries, over half of the liveborn children (54.1 percent) weighed 2,500 grams or less at birth, while only 3.1 percent were over 3,500 grams. This is in sharp contrast with the situation among single births, where 6.5 percent were premature and over one-third (36.9 percent) weighed 3,501 grams or more.

FIGURE 6.G



In both single and plural births, the average weight for nonwhite children was slightly lower than that for white.

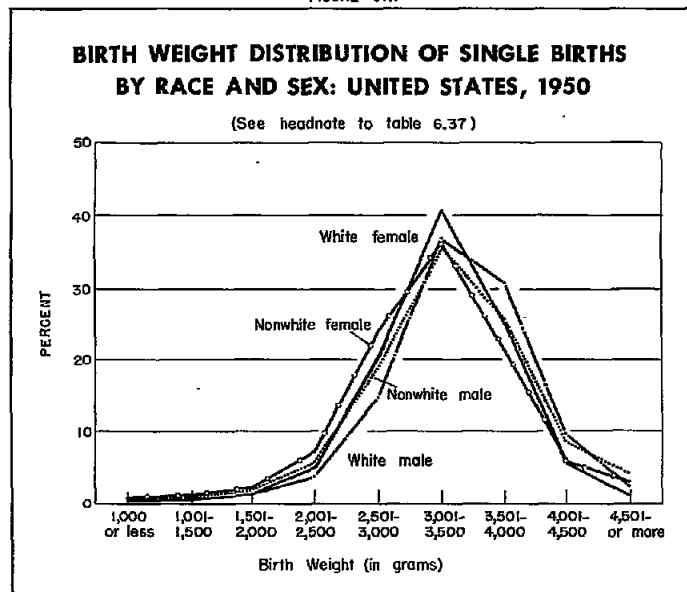
**Sex.**—Another characteristic showing important weight differentials at birth is sex. Females on the average weighed less than males. This was true in the case of both single and plural births in each race group (table 6.37).

For single births in the white and nonwhite groups there was very little difference in the proportions of male and female children weighing under 2,001 grams. At 2,001-2,500 grams, however, the proportion of female births turned up more sharply, and the total group prematurely born according to the weight criterion was a fifth higher than male births.

The peak frequency class for both male and female births in the two race groups was 3,001-3,500 grams (figure 6.H). Comparison of the percentages on each side of this weight interval demonstrates, as do the average weights, the tendency of males to reach appreciably heavier weights in utero than females. A white male child was more than twice as likely to weigh 3,501-4,000 as 2,501-3,000 grams. For females the percentages in these weight groups nearly balanced each other. A somewhat similar situation existed among nonwhite births.

Larger proportions of male than female infants were also found at the higher weights through 4,501 grams or more. For both male and female infants in the nonwhite group, the proportion weighing 4,501 grams or more was higher than for either sex of white infants.

FIGURE 6.H



Gestation and birth weight

Birth record information on length of gestation was seriously deficient in 1950. Some of the shortcomings are evident in the following distributions of white and nonwhite births by gestation:

GESTATION	PERCENT	
	White	Nonwhite
Under 20 weeks-----	0.0	0.0
20-27 weeks-----	0.5	0.8
28-31 weeks-----	0.8	1.4
32-35 weeks-----	2.0	2.1
36 weeks-----	7.0	11.5
37-39 weeks-----	8.8	6.7
40 weeks-----	77.1	75.9
41 weeks and over-----	3.7	1.5

ANALYSIS

Table 6.38. BIRTH WEIGHT DISTRIBUTION OF LIVE BIRTHS, BY RACE, PERIOD OF GESTATION, AND PLURALITY OF BIRTH: UNITED STATES, 1950

(Excludes births to residents of Connecticut and Massachusetts since birth weight data were not available for births in these States. Figures for birth weight not stated in other States are distributed. Births in Louisiana not included in data by period of gestation since this State did not require reporting on the item. Data for gestation reported as under 20 weeks or premature, and not stated are not shown separately, but are included in totals by race and plurality)

RACE, PERIOD OF GESTATION, <sup>1</sup> AND PLURALITY	Number of births	Median weight (in grams) <sup>2</sup>	PERCENT IN WEIGHT GROUP <sup>3</sup>								
			1,000 grams or less	1,001- 1,500 grams	1,501- 2,000 grams	2,001- 2,500 grams	2,500 grams or less	2,501- 3,000 grams	3,001- 3,500 grams	3,501 grams or more	
<b>TOTAL BIRTHS</b>											
All races-----	3,417,315	3,310	0.5	0.6	1.4	5.1	7.6	18.3	37.9	36.2	
20-27 weeks-----	18,118	920	58.0	26.8	7.4	2.2	94.4	1.4	2.0	2.1	
28-31 weeks-----	29,756	1,660	10.0	28.6	34.1	17.1	89.8	4.4	3.2	2.6	
32-35 weeks-----	63,746	2,270	0.9	6.6	24.0	34.9	66.4	18.0	10.5	5.1	
36 weeks-----	246,151	3,260	0.1	0.4	2.6	10.6	13.5	19.1	32.7	34.7	
37 weeks or more-----	2,858,506	3,340	0.0	0.1	0.4	3.8	4.3	18.5	39.6	37.5	
37-39 weeks-----	273,840	3,140	0.0	0.2	1.4	10.0	11.7	27.4	36.2	24.7	
40 weeks or more-----	2,584,666	3,360	0.0	0.0	0.3	3.2	3.6	17.6	40.0	38.9	
White-----	2,930,464	3,320	0.4	0.6	1.3	4.8	7.2	17.8	38.3	36.8	
20-27 weeks-----	14,689	910	59.4	26.9	6.8	2.0	95.1	1.3	1.8	1.8	
28-31 weeks-----	23,550	1,650	10.0	28.9	34.1	16.8	89.8	4.3	3.2	2.6	
32-35 weeks-----	54,489	2,280	0.8	6.3	23.7	34.9	65.8	18.6	10.6	5.0	
36 weeks-----	195,962	3,250	0.0	0.3	2.6	10.8	13.7	19.3	33.2	33.8	
37 weeks or more-----	2,491,878	3,350	0.0	0.0	0.4	3.6	4.1	17.9	38.9	38.1	
37-39 weeks-----	244,735	3,150	0.0	0.1	1.4	9.7	11.3	27.2	36.6	25.0	
40 weeks or more-----	2,247,143	3,370	0.0	0.0	0.3	2.9	3.2	16.9	40.3	39.6	
Nonwhite-----	486,851	3,250	0.6	0.9	2.0	6.8	10.4	21.4	35.3	32.9	
20-27 weeks-----	3,429	980	51.9	26.7	10.0	2.9	91.5	2.0	2.8	3.7	
28-31 weeks-----	6,166	1,680	9.6	27.4	34.4	18.9	89.8	4.8	3.0	2.4	
32-35 weeks-----	9,257	2,210	1.4	8.3	25.7	34.8	70.2	14.9	9.5	5.4	
36 weeks-----	50,189	3,300	0.1	0.4	2.5	9.8	12.9	18.3	30.8	38.0	
37 weeks or more-----	366,628	3,300	0.0	0.1	0.7	5.6	6.5	22.5	37.6	33.5	
37-39 weeks-----	29,105	3,080	0.1	0.3	1.8	13.1	15.2	29.2	33.2	22.3	
40 weeks or more-----	337,523	3,290	0.0	0.1	0.6	4.9	5.7	21.9	38.0	34.4	
<b>SINGLE BIRTHS</b>											
All races-----	3,345,758	3,330	0.4	0.5	1.2	4.6	6.6	18.1	38.4	36.9	
20-27 weeks-----	15,622	940	56.2	27.2	7.9	2.4	93.6	1.6	2.3	2.5	
28-31 weeks-----	26,077	1,700	8.9	27.0	34.3	18.4	88.6	4.9	3.6	2.9	
32-35 weeks-----	56,507	2,310	0.7	5.6	22.0	35.2	63.5	19.2	11.6	5.7	
36 weeks-----	236,260	3,290	0.1	0.2	2.0	9.6	11.9	18.9	35.5	35.7	
37 weeks or more-----	2,812,760	3,350	0.0	0.0	0.3	3.4	3.7	18.2	40.0	38.1	
37-39 weeks-----	263,881	3,160	0.0	0.1	1.1	9.0	10.2	27.1	37.1	25.6	
40 weeks or more-----	2,548,879	3,370	0.0	0.0	0.2	2.8	3.1	17.3	40.3	39.4	
White-----	2,871,246	3,340	0.4	0.5	1.1	4.3	6.2	17.5	38.8	37.5	
20-27 weeks-----	12,662	920	57.7	27.3	7.3	2.2	94.4	1.5	2.1	2.1	
28-31 weeks-----	20,583	1,690	8.9	27.2	34.4	18.1	88.6	4.8	3.7	3.0	
32-35 weeks-----	48,102	2,320	0.7	5.3	21.6	35.1	62.7	19.8	11.8	5.7	
36 weeks-----	189,448	3,270	0.0	0.2	2.0	9.7	12.0	19.1	34.0	34.9	
37 weeks or more-----	2,453,729	3,360	0.0	0.0	0.3	3.1	3.5	17.6	40.3	38.7	
37-39 weeks-----	235,771	3,170	0.0	0.1	1.0	8.6	9.8	26.8	37.5	25.9	
40 weeks or more-----	2,217,958	3,380	0.0	0.0	0.2	2.6	2.8	16.6	40.5	40.0	
Nonwhite-----	474,512	3,270	0.5	0.8	1.6	6.2	9.2	21.3	35.9	33.6	
20-27 weeks-----	2,960	1,010	49.8	26.7	10.7	3.1	90.3	2.2	3.3	4.2	
28-31 weeks-----	5,514	1,710	8.7	26.4	34.3	19.6	88.9	5.2	3.2	2.6	
32-35 weeks-----	8,405	2,250	1.2	7.0	24.3	35.8	68.2	15.7	10.2	6.0	
36 weeks-----	48,812	3,320	0.1	0.3	2.0	9.1	11.5	18.2	31.3	38.9	
37 weeks or more-----	359,031	3,290	0.0	0.1	0.5	5.0	5.6	22.3	38.0	34.0	
37-39 weeks-----	28,110	3,100	0.0	0.2	1.4	12.1	13.7	29.2	34.0	23.0	
40 weeks or more-----	330,921	3,300	0.0	0.1	0.4	4.4	5.0	21.7	38.4	35.0	

<sup>1</sup>Period of gestation reports in months allocated to gestation interval in weeks as follows: 5 and 6 months to "20-27 weeks"; 7 months to "28-31 weeks"; 8 months to "32-35 weeks"; 9 and 10 months to "40 weeks or more."

<sup>2</sup>Computed on basis of original units of pounds and ounces and rounded to nearest 10 grams. In computing the median weights for the gestation group 20-27 weeks, a further division was made in the lowest weight group shown in this table.

<sup>3</sup>For equivalents of gram weights in terms of pounds and ounces, see text.

Table 6.38. BIRTH WEIGHT DISTRIBUTION OF LIVE BIRTHS, BY RACE, PERIOD OF GESTATION, AND PLURALITY OF BIRTH: UNITED STATES, 1950—Continued

(Excludes births to residents of Connecticut and Massachusetts since birth weight data were not available for births in these States. Figures for birth weight not stated in other States are distributed. Births in Louisiana not included in data by period of gestation since this State did not require reporting on the item. Data for gestation reported as under 20 weeks or premature, and not stated are not shown separately, but are included in totals by race and plurality)

RACE, PERIOD OF GESTATION, <sup>1</sup> AND PLURALITY	Number of births	Median weight (in grams) <sup>2</sup>	PERCENT IN WEIGHT GROUP <sup>3</sup>							
			1,000 grams or less	1,001- 1,500 grams	1,501- 2,000 grams	2,001- 2,500 grams	2,500 grams or less	2,501- 3,000 grams	3,001- 3,500 grams	3,501 grams or more
BIRTHS IN PLURAL SETS										
All races-----	71,557	2,440	4.0	5.9	14.1	30.0	54.1	29.0	13.8	3.1
20-27 weeks-----	2,496	820	69.6	24.8	4.1	1.0	99.6	0.3	0.1	0.0
28-31 weeks-----	3,679	1,400	17.7	39.7	32.7	8.0	98.1	1.4	0.3	0.2
32-35 weeks-----	7,239	1,920	2.5	14.6	39.3	32.4	88.8	9.0	2.0	0.2
36 weeks-----	7,891	2,330	0.3	3.4	19.8	40.8	64.3	23.8	9.4	2.5
37 weeks or more-----	45,746	2,630	0.1	1.2	8.4	51.1	40.8	36.9	18.3	4.0
37-39 weeks-----	9,959	2,500	0.2	1.5	11.5	37.5	50.6	34.8	12.7	1.9
40 weeks or more-----	35,787	2,660	0.1	1.1	7.5	29.3	38.0	37.5	19.9	4.5
White-----	59,218	2,450	3.9	5.6	14.0	30.1	53.6	29.6	14.0	2.8
20-27 weeks-----	2,027	820	70.6	24.5	3.7	0.8	99.7	0.2	0.1	0
28-31 weeks-----	3,027	1,390	17.7	40.5	32.2	7.9	98.3	1.4	0.2	0.1
32-35 weeks-----	6,387	1,930	2.3	13.7	39.3	33.4	88.6	9.2	1.9	0.3
36 weeks-----	6,514	2,330	0.3	3.2	19.8	41.7	65.0	24.2	8.9	1.9
37 weeks or more-----	38,149	2,640	0.1	1.0	7.8	30.8	39.7	37.9	18.8	3.7
37-39 weeks-----	8,964	2,510	0.1	1.4	11.1	37.1	49.8	35.4	12.9	1.9
40 weeks or more-----	29,185	2,680	0.1	0.8	6.8	28.9	36.6	38.6	20.6	4.2
Nonwhite-----	12,339	2,400	4.4	7.2	15.1	29.7	56.3	26.0	13.0	4.7
20-27 weeks-----	469	850	65.5	26.4	5.5	1.7	99.1	0.6	0	0.2
28-31 weeks-----	652	1,440	17.9	35.9	35.1	8.4	97.4	1.4	0.8	0.5
32-35 weeks-----	852	1,800	4.0	21.8	39.7	24.8	90.3	7.2	2.3	0.2
36 weeks-----	1,377	2,360	0.5	4.7	19.5	36.1	60.8	21.8	11.8	5.7
37 weeks or more-----	7,597	2,570	0.2	2.5	11.0	32.5	46.2	32.3	16.1	5.4
37-39 weeks-----	995	2,410	0.3	2.4	14.7	40.8	58.2	28.6	11.5	1.7
40 weeks or more-----	6,602	2,590	0.2	2.5	10.4	31.3	44.4	32.8	16.8	5.9

<sup>1</sup>Period of gestation reports in months allocated to gestation interval in weeks as follows: 5 and 6 months to "20-27 weeks"; 7 months to "28-31 weeks"; 8 months to "32-35 weeks"; 9 and 10 months to "40 weeks or more."  
<sup>2</sup>Computed on basis of original units of pounds and ounces and rounded to nearest 10 grams. In computing the median weights for the gestation group 20-27 weeks, a further division was made in the lowest weight group shown in this table.  
<sup>3</sup>For equivalents of gram weights in terms of pounds and ounces, see text.

The comparatively large proportions at 36 weeks of gestation resulted principally from the erroneous conversion of 9-month gestations to 36 weeks. This type of error was also present at earlier gestations although the broad intervals into which the data are grouped reduce its effect. In addition, the heavy concentrations at 40 weeks are indicative in part of a failure to calculate period of gestation for the newborn infants who seem to be normally developed. Although the main result of this is to lessen the numbers in the adjacent gestation intervals, some understatement of gestations of less than 36 weeks may also occur as a consequence. In view of the major distortion in the data for 36 weeks, the tables here and in Volume II, show statistics for this gestation age separately.

While the gestation age data in table 6.38 for white and nonwhite births cannot be considered as being precise because of the errors in reporting gestation, it is believed that the distributions indicate many of the features of the actual situation. Comparison with data developed in other studies supports this belief.<sup>17</sup>

In the broad gestation intervals shown in table 6.38 there is considerable dispersion of births by weight. Many children who would be considered premature according to gestation

age weighed over 2,500 grams and conversely many of the low-weight infants were reported as born at or near full-term. For example, in about two-fifths of the single deliveries occurring at 32-35 weeks of gestation, the infants weighed 2,501 grams or more. Although the proportion of single births at gestations of 37 weeks or more that weighed 2,500 grams or less is small (3.7 percent), this group represented about half of the immature births—48.3 percent for the white group and 47.8 percent for the nonwhite.

At all gestations, there were high proportions of births in plural deliveries weighing 2,500 grams or less at birth. All but a small segment of the children in plural sets delivered before the completion of 36 weeks of gestation weighed less than 2,501 grams. At the same time, 40.8 percent of those born at gestations of 37 weeks or more also fell in this weight group. These births comprised close to half of all the infants in plural deliveries under 2,501 grams.

Although a wide range of birth weights is represented in each gestation-age group, the median weights by gestation follow a consistent pattern. Among single births, these medians are less than 2,501 grams in gestation groups below 36 weeks. For 37 weeks or more of gestation, the figures are well above the immaturity weight level.

**Birth weight by attendant**

The distribution of births in the United States in 1950 by birth weight is shown in table 6.39 for each attendant group by race. Several qualitative factors enter into the considera-

<sup>17</sup>McKeown, Thomas, and Gibson, J. R., "Observations on All Births (23,970) in Birmingham, 1947," British Medical Journal, pp. 513-517, September 1, 1951.  
 Taback, Matthew, "Birth Weight and Length of Gestation With Relation to Prematurity," The Journal of the American Medical Association, vol. 146, pp. 897-901, July 7, 1951.

Table 6.39. BIRTH WEIGHT DISTRIBUTION OF LIVE BIRTHS, BY RACE AND ATTENDANT: UNITED STATES, 1950

(Excludes births to residents of Connecticut and Massachusetts since birth weight data were not available for births in these States. Figures for birth weight not stated in other States are distributed)

RACE AND ATTENDANT	Number of births	Median weight (in grams) <sup>1</sup>	PERCENT IN WEIGHT GROUP <sup>2</sup>									
			1,000 grams or less	1,001-1,500 grams	1,501-2,000 grams	2,001-2,500 grams	2,500 grams or less	2,501-3,000 grams	3,001-3,500 grams	3,501-4,000 grams	4,001-4,500 grams	4,501 grams or more
ALL RACES-----	3,417,315	3,310	0.5	0.6	1.4	5.1	7.6	18.3	37.9	26.8	7.5	1.9
Physician in hospital <sup>3</sup> -----	2,991,770	3,300	0.5	0.6	1.4	5.2	7.7	18.9	38.8	26.4	6.9	1.3
Physician not in hospital-----	249,883	3,410	0.4	0.7	1.3	4.5	7.1	14.8	34.1	28.6	10.6	4.9
Midwife, other, and not specified-----	175,662	3,550	0.2	0.5	1.2	4.6	6.6	12.9	27.7	31.1	13.2	8.5
White-----	2,350,464	3,320	0.4	0.6	1.3	4.8	7.2	17.8	38.3	27.5	7.6	1.7
Physician in hospital <sup>3</sup> -----	2,710,431	3,310	0.4	0.6	1.3	4.9	7.2	18.2	38.8	27.3	7.2	1.3
Physician not in hospital-----	173,784	3,460	0.4	0.6	1.1	4.1	6.3	13.5	33.0	30.0	11.8	5.5
Midwife, other, and not specified-----	40,269	3,560	0.4	0.6	1.3	4.7	6.9	12.6	26.7	30.8	13.8	9.3
Nonwhite-----	486,851	3,250	0.6	0.9	2.0	6.8	10.4	21.4	35.3	22.7	6.9	3.3
Physician in hospital <sup>3</sup> -----	281,339	3,140	0.8	1.1	2.4	6.2	12.6	26.2	38.5	18.1	3.8	0.9
Physician not in hospital-----	70,119	3,300	0.5	1.0	1.7	5.8	9.0	18.4	36.9	25.0	7.4	3.3
Midwife, other, and not specified-----	135,393	3,540	0.2	0.5	1.2	4.6	6.5	13.0	28.0	31.2	13.0	8.3

<sup>1</sup>Computed on basis of original units of pounds and ounces and rounded to nearest 10 grams.

<sup>2</sup>For equivalents of gram weights in terms of pounds and ounces, see text.

<sup>3</sup>It is assumed that all births in hospitals or institutions are attended by physicians.

tion of birth weight statistics for the various attendant categories. In the first place, the data relating to births occurring in hospitals are unquestionably the most accurate. The lack of means in many cases for weighing babies delivered at home is reflected in the sizable proportion of "not stated" weights for this group (11.9 percent). In addition, many of the attendants, particularly midwives, who did weigh infants born at home used fairly crude scales graduated by quarter pounds.

Still another factor that may be operating differentially among births "at home" and "in hospital," is underreporting of infants who die shortly after birth. Many of these infants are small and therefore their omission would affect the distribution of births by weight. It is believed that this is most serious among deliveries by nonphysicians.

These qualifications impose heavy restrictions on the use of current statistics on deliveries out of hospitals. Nevertheless, a number of the relationships found are highly suggestive and valuable as the framework for more intensive investigations.

Babies born in hospitals generally weighed less at birth than did those delivered at home. Infants delivered by nonphysicians were on the average the heaviest, weighing about 140 grams more than the babies delivered by physicians at home and 250 more than the hospital births.

The divergence in the weight distributions among white births did not become large until the upper level of immaturity (2,500 grams) was passed. But, important differences from one attendant group to the other were observed starting with the lowest weight group for nonwhite births. Here the proportion of hospital births weighing 2,500 grams or less (12.6) was almost twice the figure for midwife deliveries (6.5).

At the other end of the birth weight scale, i. e., in the group weighing 4,501 grams or more, the proportions for midwife deliveries of both white and nonwhite babies were substantially higher than in the other attendant groups.

Although some of the biases mentioned previously could have produced the differences described, it is unlikely that they could account for the entire amount. In a full explanation of the differences, such things as birth order of the children involved and fetal loss from the earliest stage of pregnancy would have to be considered.

### Birth weight by geographic division

The distribution of white and nonwhite births by weight varied appreciably from area to area (table 6.40). Among the nonwhite, proportionately more children to residents of the Middle Atlantic and East North Central Divisions were born prematurely (2,500 grams or less) than in the other areas. The lowest percentages at these weights were found in the East and West South Central Divisions. In the white group, the proportion of babies weighing 2,500 grams or less was highest in the Mountain Division and lowest in the West North Central.

In all divisions, without exception, the percentages of prematures were greater among nonwhite births than among white. The differential between these proportions, however, varied considerably. In two of the divisions, the Middle Atlantic and East North Central, the nonwhite percentages were almost double the white. Although the relative differences in the southern divisions were not nearly as large, they were also substantial.

The geographic divisions also differed in the proportion of births that were in the high birth weights. Especially marked were the differences among the nonwhite at weights of 4,501 grams or more. Much higher proportions of the nonwhite births to residents of the southern divisions fell into these weight groups than was the case for the other areas.

Median weights for each division are also given in table 6.40. For the white births, these medians varied from a high of 3,380 grams in the East South Central to a low of 3,230 in the Mountain Division. Among the nonwhite, the high (3,340) also occurred in the East South Central, and the low (3,120) was found in the Middle Atlantic Division.

There are several factors which might give rise to the differences among the divisions and the race groups in the distributions of births by weight. For example, there are indications that the weight of the offspring varies somewhat with birth order. Thus, the differences among the divisions in the birth weight distributions may reflect, in part, the marked dissimilarities in the birth order distributions (table 6.22).

In addition, variations in completeness and accuracy of reporting would also affect the comparisons. As discussed in

Table 6.40. BIRTH WEIGHT DISTRIBUTION OF LIVE BIRTHS, BY RACE: UNITED STATES AND EACH GEOGRAPHIC DIVISION, 1950  
(By place of residence. Excludes births to residents of Connecticut and Massachusetts since birth weight data were not available for births in these States. Figures for birth weight not stated in other States are distributed)

AREA AND RACE	Number of births	Median weight (in grams) <sup>1</sup>	PERCENT IN WEIGHT GROUP <sup>2</sup>									
			1,000 grams or less	1,001-1,500 grams	1,501-2,000 grams	2,001-2,500 grams	2,500 grams or less	2,501-3,000 grams	3,001-3,500 grams	3,501-4,000 grams	4,001-4,500 grams	4,501 grams or more
UNITED STATES <sup>3</sup>	3,417,315	3,310	0.5	0.6	1.4	5.1	7.6	18.3	37.9	26.8	7.5	1.9
White	2,950,464	3,320	0.4	0.6	1.3	4.8	7.2	17.8	38.3	27.5	7.6	1.7
Nonwhite	486,851	3,250	0.6	0.9	2.0	6.8	10.4	21.4	35.3	22.7	6.9	3.3
New England <sup>3</sup>	57,791	3,310	0.4	0.5	1.3	5.2	7.4	18.1	38.6	27.0	7.5	1.4
White	57,301	3,320	0.4	0.5	1.3	5.1	7.4	18.0	38.6	27.1	7.5	1.4
Nonwhite	490	3,140	0.4	1.4	1.4	7.6	10.8	28.6	36.1	18.8	4.1	1.6
Middle Atlantic	620,480	3,280	0.5	0.6	1.5	5.3	7.9	19.8	39.5	25.3	6.3	1.2
White	566,277	3,290	0.5	0.6	1.3	5.0	7.4	19.1	39.6	26.0	6.6	1.2
Nonwhite	54,203	3,120	1.2	1.2	2.6	8.4	13.3	26.8	38.6	17.1	3.5	0.7
East North Central	712,871	3,320	0.5	0.6	1.4	4.8	7.3	17.9	38.3	27.4	7.5	1.6
White	657,440	3,340	0.5	0.6	1.3	4.5	6.8	17.2	38.3	28.2	7.8	1.6
Nonwhite	55,431	3,130	0.8	1.0	2.3	8.4	12.7	27.0	37.8	17.9	3.7	0.9
West North Central	354,464	3,360	0.4	0.5	1.2	4.3	6.4	16.1	37.5	29.3	8.7	1.9
White	320,371	3,370	0.4	0.5	1.2	4.1	6.3	15.8	37.5	29.7	8.8	1.9
Nonwhite	14,093	3,200	0.9	0.9	2.0	6.9	10.7	23.4	37.6	20.9	5.6	1.8
South Atlantic	534,194	3,310	0.5	0.7	1.6	5.6	8.4	18.5	36.4	26.4	7.7	2.6
White	371,148	3,310	0.4	0.6	1.5	5.3	7.8	18.3	37.7	26.8	7.5	1.9
Nonwhite	163,046	3,320	0.5	0.9	2.0	6.3	9.8	16.8	33.6	25.4	8.2	4.2
East South Central	303,922	3,370	0.4	0.7	1.4	5.0	7.5	16.6	35.0	27.8	9.4	3.8
White	212,100	3,380	0.4	0.6	1.3	4.6	6.9	15.8	35.6	29.1	9.4	3.1
Nonwhite	91,822	3,340	0.4	0.8	1.7	6.1	9.0	18.2	33.5	24.7	9.2	5.3
West South Central	375,915	3,340	0.4	0.6	1.3	5.0	7.4	17.8	36.8	27.4	8.1	2.5
White	299,045	3,340	0.4	0.6	1.2	4.7	6.9	17.1	37.4	28.2	8.2	2.1
Nonwhite	76,870	3,290	0.5	0.8	1.6	6.4	9.2	20.4	34.5	24.5	7.7	3.9
Mountain	140,911	3,230	0.4	0.7	1.6	6.4	9.1	22.3	39.6	23.0	5.1	0.9
White	133,255	3,230	0.4	0.7	1.6	6.3	9.1	22.2	39.6	23.1	5.1	0.9
Nonwhite	7,656	3,190	0.3	0.8	1.9	7.1	10.2	24.9	38.5	20.8	4.6	1.0
Pacific	356,767	3,300	0.5	0.5	1.4	4.9	7.4	18.5	39.2	26.8	6.8	1.2
White	313,527	3,310	0.5	0.6	1.4	4.8	7.2	18.0	39.1	27.3	7.1	1.3
Nonwhite	23,240	3,180	0.7	0.8	1.9	6.8	10.3	25.0	40.6	19.5	3.9	0.8

<sup>1</sup>Computed on basis of original units of pounds and ounces and rounded to nearest 10 grams.

<sup>2</sup>For equivalents of gram weights in terms of pounds and ounces, see text.

<sup>3</sup>Excludes births to residents of Connecticut and Massachusetts.

the preceding section, these two factors are principally related to the proportion of births occurring out of hospitals, which form a large segment of nonwhite births in the southern divisions.

### Mortality by birth weight

The risk of death among the newborn is closely related to the weight of infants at birth. As previously indicated, mortality statistics by birth weight are available from a special study based on matched birth and death records. This study covered neonatal mortality among children born in the first 3 months of 1950. Other data relating to mortality among the newborn based on information reported on death certificates alone, and to deaths occurring in the entire year of 1950, are discussed in the mortality section.<sup>18</sup>

Among infants weighing 2,500 grams or less at birth, 173.7 in 1,000 died within 4 weeks after birth (table 6.41). This rate is extremely high by comparison with the rate for all other infants, 7.8 per 1,000.

<sup>18</sup>Comparison of the annual rates appearing in table 8.21 with the 3-month data in table 6.41 indicates that neonatal mortality was slightly higher for the year as a whole.

Only a very small proportion of the children under 1,001 grams lived through the first 28 days. Chances of survival improved considerably with a moderate increase in weight but a little over half of those weighing 1,001-1,500 grams also died. Mortality continued to decline steeply with each added 500 grams of weight, and neonatal deaths in the highest group of the immature category (2,001-2,500 grams) amounted to 50.4 per 1,000 infants. Substantial decreases were recorded well into the mature weights and the optimum birth weight group for the survival of infants fell at 3,501-4,000 grams. Additional weight, particularly when it brought the weight above 4,500 grams, was on the average decidedly disadvantageous.

**Race.**—Neonatal mortality, without regard to weight, was about 40 percent higher among the nonwhite births than among the white. This excess was due, in part, to the differences in the weight distributions already described and, in part, to substantially greater mortality at weights of more than 2,500 grams (figure 6.1). Below 2,001 grams, the nonwhite infants had a better chance of survival than the white. The mortality rates for the two groups differed only slightly at 2,001-2,500 grams. At all higher weights, the mortality risk among nonwhite births was the greater, with the gap between the rates for the two race groups becoming relatively wider at each successive level through 3,501-4,000 grams and

## ANALYSIS

Table 6. 41. NEONATAL MORTALITY RATES BY BIRTH WEIGHT, RACE, SEX, AND PLURALITY OF BIRTH: UNITED STATES, JANUARY 1 TO MARCH 31, 1950

(Data refer to deaths under 28 days matched with births occurring between Jan. 1 and Mar. 31, 1950. Rates per 1,000 live births. Birth weight data for Massachusetts were not available. Figures for birth weight not stated in other States are distributed)

RACE AND SEX	Total		BIRTH WEIGHT <sup>1</sup>										
	Incl. Mass.	Excl. Mass.	1,000 grams or less	1,001-1,500 grams	1,501-2,000 grams	2,001-2,500 grams	2,500 grams or less	2,501-3,000 grams	3,001-3,500 grams	3,501-4,000 grams	4,001-4,500 grams	4,501 grams or more	2,501 grams or more
NEONATAL MORTALITY RATES FOR TOTAL BIRTHS													
ALL RACES-----	19.9	20.0	871.7	551.3	211.0	50.4	173.7	12.6	6.7	5.6	7.5	14.2	7.8
Male----	22.6	22.7	894.2	621.8	265.0	67.4	213.9	16.6	8.1	6.4	7.7	13.7	9.1
Female--	17.1	17.1	848.0	478.2	160.5	36.6	138.9	9.5	5.3	4.6	7.2	15.1	6.4
White-----	18.8	18.9	885.3	582.1	214.6	50.6	175.8	12.0	6.2	4.9	6.7	12.0	7.1
Male----	21.6	21.6	905.0	643.1	271.9	69.1	218.8	15.9	7.6	5.6	6.9	10.8	8.3
Female--	16.0	16.0	861.0	474.5	160.4	35.5	138.4	9.1	4.9	4.1	6.4	14.7	5.8
Nonwhite-----	26.6	26.7	821.4	507.0	195.7	49.5	164.7	15.4	9.7	10.5	12.5	20.2	11.9
Male----	29.3	29.4	849.9	524.7	235.1	60.0	192.8	19.9	10.9	12.2	13.1	23.1	13.9
Female--	23.8	23.9	789.0	491.6	161.1	41.2	141.3	11.8	8.4	8.4	11.4	16.0	9.7
NEONATAL MORTALITY RATES FOR SINGLE BIRTHS													
ALL RACES-----	---	18.3	871.7	562.3	228.9	52.8	173.4	12.6	6.7	5.6	7.4	14.2	7.7
Male----	---	20.9	895.1	629.1	281.1	71.1	215.6	16.7	8.1	6.4	7.6	13.7	9.0
Female--	---	15.6	848.7	489.6	178.3	38.3	137.1	9.5	5.3	4.6	7.2	15.1	6.3
White-----	---	17.3	880.2	575.0	238.4	53.5	176.7	12.2	6.2	4.9	6.7	12.1	7.1
Male----	---	20.0	903.8	648.5	294.5	73.2	222.1	16.1	7.6	5.6	6.8	10.8	8.3
Female--	---	14.5	855.2	489.9	182.2	37.7	137.1	9.2	4.9	4.0	6.5	14.7	5.8
Nonwhite-----	---	24.4	835.2	511.0	190.0	50.0	159.5	15.1	9.5	10.4	12.3	20.3	11.7
Male----	---	26.9	858.5	537.4	221.3	62.1	187.2	19.7	10.7	12.1	13.0	23.2	13.7
Female--	---	21.8	809.0	488.8	163.1	40.6	137.0	11.3	8.4	8.4	11.2	16.0	9.6
NEONATAL MORTALITY RATES FOR BIRTHS IN PLURAL SETS													
ALL RACES-----	---	96.6	871.5	503.7	145.4	32.9	175.6	11.3	10.4	18.7	38.1	0	11.8
White-----	---	94.4	898.0	507.1	129.5	30.2	171.0	8.5	8.0	16.6	28.6	0	9.0
Nonwhite-----	---	118.0	754.0	489.0	218.4	45.6	196.9	25.8	22.4	25.0	57.1	0	25.3

<sup>1</sup>For equivalents of gram weights in terms of pounds and ounces, see text.

then narrowing slightly.

For both white and nonwhite babies the risk of mortality was reduced markedly with increasing weight until well past the prematurity level. The sharpest relative reductions in mortality in each race group, however, occurred at weight intervals of 2,001-2,500 and 2,501-3,000 grams. At these weights, the addition of 500 grams meant cutting mortality by between 69 and 76 percent.

Among white children, the group weighing 3,501-4,000 grams had the lowest mortality. The neonatal rate at this optimum level, 4.9 per 1,000, was only a fourth the figure for all weights, 18.9. For the nonwhite races, children weighing somewhat less (3,001-3,500 grams) experienced the lowest mortality. While the rate for this optimum group (9.7) did not compare quite as favorably with the over-all rate as in the case of white births, it was also far below the neonatal rate for all weights combined (26.7).

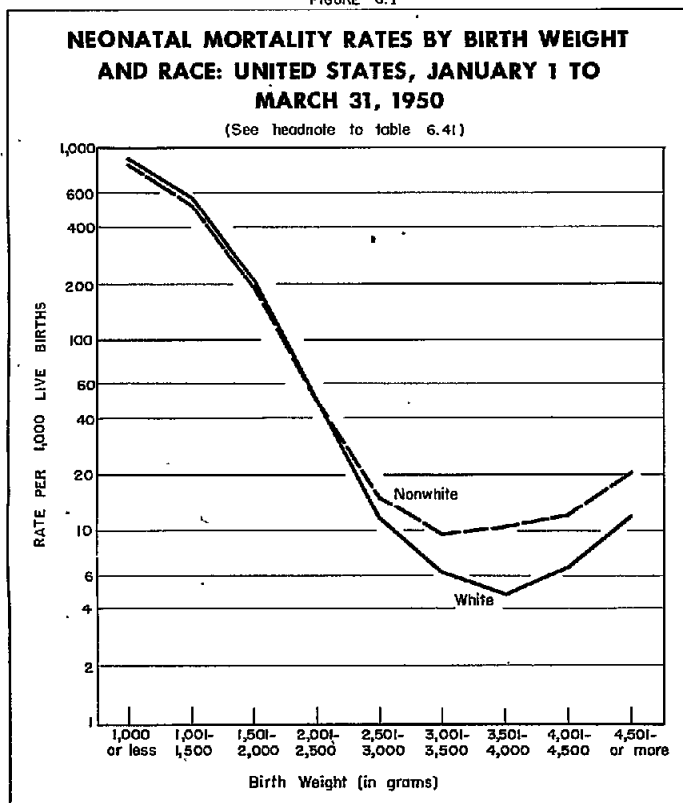
In evaluating the reliability of the mortality data, consideration should be given to the possibility that underreporting exists to an important extent among the very early infant

deaths. Failure to report these infants as either live births or deaths, would undoubtedly influence rates for the lowest weight groups to a greater degree than those for the other weights. In view of the much larger proportion of nonwhite births occurring out of hospitals and the greater likelihood of underregistration in this group, this is probably a more important factor in the nonwhite group.

**Plurality.**—Because of the heavy preponderance of plural births at the low weights, the neonatal mortality rate for babies born in multiple sets was five to six times the rate for single births. On a weight-specific basis, the mortality risk among plural births was actually lower than among single births between 1,001 and 3,000 grams (figure 6.J). Above this point, however, single births had a major advantage.

The relationships between rates for the white and nonwhite groups already discussed with regard to total births also hold for single events. Among plural births, however, the situation was not at all the same. White children at all weights above 1,500 grams experienced lower mortality than nonwhite children

FIGURE 6.I



at comparable weights. The differential was most marked at 2,501 through 3,500 grams, where the mortality risk among the white was about a third of that among the nonwhite.

**Sex.**—During the neonatal period the mortality risk for males and females differed greatly at almost every weight level (figure 6.K). The prognosis was considerably better for girls than for boys at most weights in both the white and nonwhite groups. In the white race, the neonatal mortality rates for females at weights between 1,001 and 4,000 grams were one-half to two-thirds of those for the males. Only in the highest weight group (4,501 grams or more) was the rate lower for males. Sex differences in mortality in the nonwhite races were relatively less pronounced than in the white at most premature weight levels and also at weights between 2,501 and 3,500 grams. At 4,001-4,500 grams, however, the gap between the rates was somewhat greater, and above this weight group the rate for the nonwhite female was less than that for the male.

Table 6.41 also gives mortality rates for single births by race and sex. Comparisons based on single births do not change the relationships discussed above. It will also be noted that race differentials at weights of 1,001 through 2,500 grams were larger among males than among females. In fact, for the entire group of single births under 2,501 grams, there was no difference between white and nonwhite female mortality, but the relative loss among white males was 19 percent above the rate for nonwhite. The data also suggest that whereas mortality was less favorable for white males than for nonwhite at all weights below 2,501 grams, white females had a slight advantage over the nonwhite group in the important weight interval of 2,001-2,500 grams. For the weights above 2,500 grams in both sexes, the differences by race were large, with the white groups having the lower rates.

FIGURE 6.J

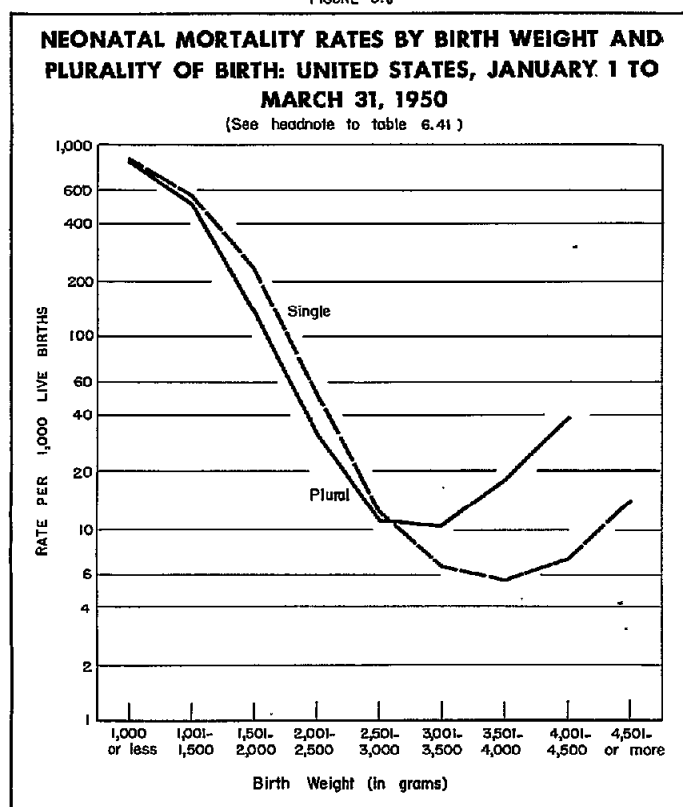
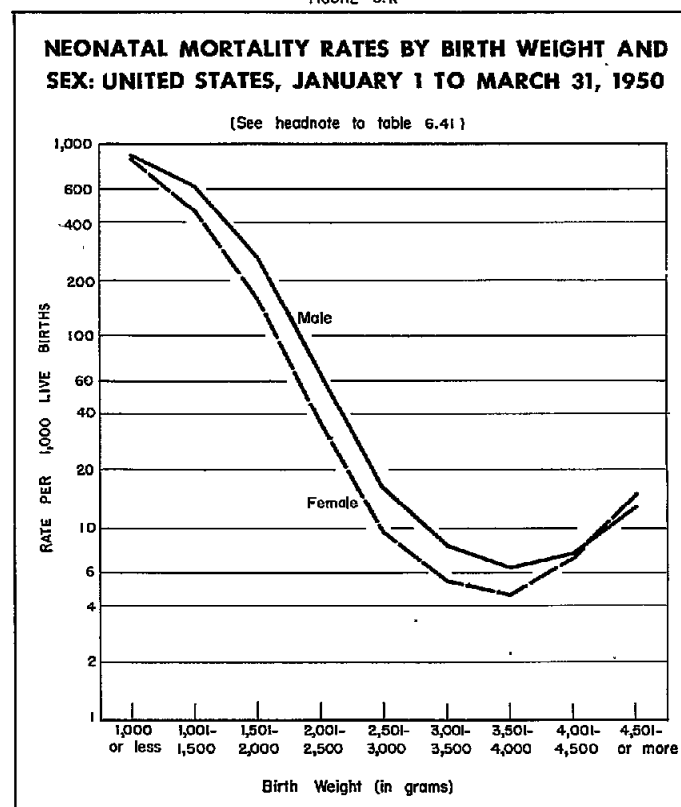


FIGURE 6.K



## TEST OF BIRTH REGISTRATION COMPLETENESS FOR 1950

## Introduction

In 1950, for the second time in the history of the United States, a nationwide test of birth registration completeness was conducted. Results of the test indicate that certificates are now filed by attendants and hospitals for about 98 percent of the live births. In more than half of the country, under-registration has been virtually eliminated and in nearly all other areas the situation has improved markedly since 1940, when the first nationwide test was held.

The project was carried out in connection with the Decennial Census of Population and Housing in April 1950 through the joint efforts of the Bureau of the Census; the National Office of Vital Statistics; and the State, Territorial, and independent city registration offices. Special forms (called infant cards) were filled out by enumerators for children born during the first 3 months of 1950. A check was then made to determine how many of these children had birth records on file. The results formed the basis of measuring birth registration completeness among various segments of the population in States and local areas. These figures are helping registrars to localize the few remaining problem areas for registration promotion and to establish why attendants fail to register births. They are also being used to adjust registered birth data, thereby increasing the usefulness of regularly tabulated statistics for over-all planning of school, maternal, and child health facilities, and for numerous analytical studies.

Records in the project have provided information for the Bureau of the Census to investigate the variation of completeness in infant enumeration among social and economic groups, and the reasons for failure to enumerate infants.

## Background and Methodology

## Tests prior to 1950

Measurement of birth registration completeness has received considerable attention over a long period of time in the United States. In the latter part of the 19th century and early in the 20th century, many local areas attempted to estimate the extent of underregistration by comparing lists of children in school, or records of infant deaths, with birth record files. These efforts were intensified during the period when the national birth-registration area was being built (1915 to 1933).

The most frequently used method called for the distribution of postal cards to every household in a State (or to a sample of households) via the postal delivery service. The family was requested to fill out the card if a child had been born during a specified time period, usually the preceding year. Although the response rate was fairly low and the results contained serious biases,<sup>19</sup> the method was more accurate than any other procedure then available. Tests made in the various States differed so greatly in time that it was never possible to combine the results to indicate even the general level of completeness for the entire country in any one year.

The inadequacy of the postal card technique led statisticians to concentrate on methods for estimating completeness which depend on comparisons of census counts for the popu-

lation under 1 year of age with registered birth data.<sup>20</sup> However, the need for local area measures and for information about the distribution of underregistration by detailed characteristics could not be met by this approach.

To obtain such measures of registration completeness, the first uniform nationwide test was conducted in 1940. Briefly, the procedure was as follows:<sup>21</sup> During the Population Census of 1940, enumerators were instructed to fill out special cards for all infants born during the period December 1, 1939, to March 31, 1940, who were alive on April 1, 1940. State offices of vital statistics provided the Bureau of the Census with copies of birth records for infants born during the same period and copies of death records for infants who were born and who had died during the test period. The death records (25,000) and infant cards (662,000) formed the population against which birth records were matched.

In the initial stages of matching, birth records were found for all but about 20 percent of the infant cards. The 125,000 families represented by this residual group were sent letters requesting data needed to clarify or complete the unmatched infant cards. With the aid of a follow-up letter to nonrespondents and hospitals, information was received for 75 percent of the group surveyed. Between one-quarter and one-third of the unmatched infant cards were eliminated from the test because replies from the parents clearly indicated that the children were not born during the test period.

Following the mail survey, a final check was made in State offices. Birth records were located for a third of the infant cards and death records that were still unmatched after the survey.

Registration completeness in each local area was determined by relating the number of matched records to the total number of infant cards and infant death records in the area. For the country as a whole, the figure was 92.5 percent.<sup>22</sup> In 14 States, though, only 80.0 to 89.9 percent of the births were registered and 2 States had even lower percentages (figure 6.L). More specific findings revealed that registration was especially poor among groups most likely to require public health services that depend on the birth record for case finding. Fully a fifth of the babies born to mothers with little or no education were not registered. While 98.5 percent of the births in hospitals were registered, certificates were filed for only 86.1 percent of the home deliveries.

Work pressures on the vital statistics offices caused by special war conditions diverted efforts to exploit fully these results for registration promotion. Nevertheless, it was generally believed that the situation improved markedly during this period and the postwar years as a result of increased use of hospital facilities for obstetrical care and greater awareness of the value of the birth record. However, an objective

<sup>20</sup>Whelpton, P. K., "The Completeness of Birth Registration in the United States," *Journal of the American Statistical Association*, vol. XXIX, No. 186, pp. 125-136, June 1934.

<sup>21</sup>Grove, Robert D., "Studies in Completeness of Birth Registration, Part I, Completeness of Birth Registration in the United States, December 1, 1939, to March 31, 1940," U. S. Bureau of the Census, *Vital Statistics—Special Reports*, vol. 17, No. 18, 1943.

Tuthill, Dorothy D., "Completeness of Registration of Births Occurring in Institutions and of Births Not Occurring in Institutions: United States, December 1, 1939, to March 31, 1940," *National Office of Vital Statistics, Vital Statistics—Special Reports*, vol. 23, No. 8, 1946.

<sup>19</sup>Hedrich, A. W., Collinson, John, and Rhoads, F. D., "Comparison of Birth Tests by Several Methods in Georgia and Maryland," U. S. Bureau of the Census, *Vital Statistics—Special Reports*, vol. 7, No. 60, 1939.

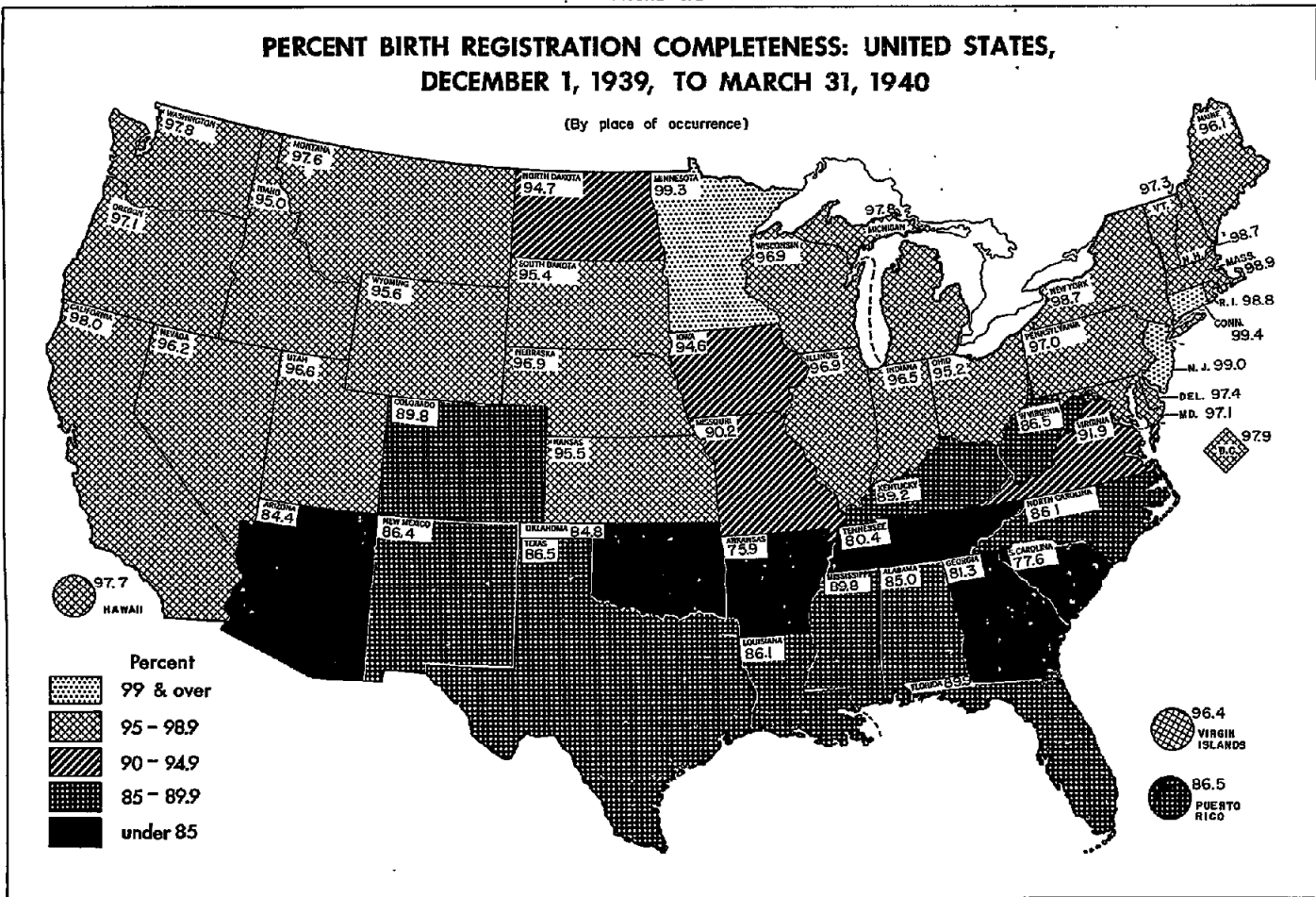
<sup>22</sup>92.5 percent of the infant cards and 93.6 percent of the death records were matched. Because of the relatively small number of death records, the over-all percentage was the same as the proportion of infant cards matched.



FIGURE 6.L

PERCENT BIRTH REGISTRATION COMPLETENESS: UNITED STATES,  
DECEMBER 1, 1939, TO MARCH 31, 1940

(By place of occurrence)



measure of the extent of which (and where) underregistration still remained a problem was needed to direct promotional activities.

Planning the 1950 test

Tentative plans for conducting the 1950 birth registration test were first discussed in 1947 by the Bureau of the Census and the National Office of Vital Statistics.<sup>23</sup> Evaluation of various biases in the 1940 test indicated that none were large enough to affect the usefulness of the results.<sup>24</sup> Accordingly, the same basic approach was adopted. However, the project was broadened to include the study of infant enumeration completeness.

Some thought was also given to covering completeness of registration of infant deaths. This would have required the census enumerator to ask for information on all children born during the test period, whether alive or dead at the time of enumeration. The proposal was dropped because of the large costs that would have been added to the enumeration process and the desire not to impede the completion of the general population enumeration.

It was decided to test completeness among births occurring between January 1 and March 31, 1950. Although this

<sup>23</sup>On July 16, 1946, the national "Vital Statistics Division" was transferred from the Bureau of the Census to the Public Health Service, and redesignated as the "National Office of Vital Statistics."

<sup>24</sup>Shapiro, Sam, "Development of Birth Registration and Birth Statistics in the United States," Population Studies, vol. IV, No. 1, June 1950.

was a shorter time period than in the previous nationwide test, the birth rate had risen considerably and the number of births was expected to be much greater in the new test. The 1940 experience suggested that limiting coverage to 3 months, all in the same year, would help reduce errors due to faulty memory, and would simplify the matching operation.

Possible savings in cost by carrying out the test on a sample basis for States with at least 95 percent registration completeness in 1940 were explored. However, one sample could not serve the two functions of the project, i. e., measuring birth registration and infant enumeration completeness. For the former, the matching of a sample of the enumerated infants in the selected States against the entire birth record file would have been adequate; for the latter, it would have been necessary to match an appropriate sample of birth records against all enumerated infants born during the test period. Sampling would have saved very little in this situation and greatly increased the complexity of the operation.

Preliminary forms and procedures for conducting the project were developed during census pretests in 1948 and 1949. Methods to ensure that infant cards would be filled out accurately and completely were tested. This led to the design of a distinctive form containing only items basic to the matching operation or needed to study important correlates of underregistration (figure 6.M). Instructions for handling the infant cards were incorporated in enumerators' manuals, and supervisory field checks on the enumerator's general performance also covered these cards.

Another principal function of the pretests was to provide a proving ground for alternate matching procedures. In the 1940 test the entire operation had been by hand and involved manual sortings of the infant cards and special transcripts

FIGURE 6.M

<p><b>CONFIDENTIAL</b></p>	This inquiry is authorized by Act of Congress (46 Stat. 21; 13 U. S. C. 201-218) which requires that a report be made. The information furnished is accorded confidential treatment. The Census report cannot be used for purposes of taxation, investigation, or regulation.	BUDGET BUREAU NO. 41-4861. APPROVAL EXPIRES Dec. 31, 1950.
<p><b>FORM P 3 U. S. DEPARTMENT OF COMMERCE</b>  <b>BUREAU OF THE CENSUS</b></p> <p><b>INFANT CARD</b></p> <p><b>1950 CENSUS OF POPULATION AND HOUSING</b>                  (For every child born in January, February, or March 1950)</p>		
1. Is residence on a farm? (Copy from Population schedule item 4 for "head of household.") Yes <input type="checkbox"/> <sup>1</sup> No <input type="checkbox"/> <sup>2</sup>		State _____ County _____ E. D. No. _____ Sheet No. _____ Line No. _____ Enumerated by _____ Date _____
2. NAME OF INFANT (Please print) _____ (Last) (First) (Initial)		ASK THESE ITEMS
3. RACE OF INFANT (Copy from schedule item 9.)      White <input type="checkbox"/> <sup>1</sup> Negro <input type="checkbox"/> <sup>2</sup> American Indian <input type="checkbox"/> <sup>3</sup> Other <input type="checkbox"/> <sup>4</sup>		10. DATE OF BIRTH _____, 1950 (Month) (Day)
4. SEX OF INFANT (Copy from schedule item 10.)      Male <input type="checkbox"/> <sup>1</sup> Female <input type="checkbox"/> <sup>2</sup>		11. POST OFFICE ADDRESS OF INFANT'S USUAL PLACE OF RESIDENCE House Number and Street or RFD No. _____ City or Town _____ State _____
5. Is father enumerated in this household? Yes <input type="checkbox"/> <sup>1</sup> No <input type="checkbox"/> <sup>2</sup>		12. INFANT'S PLACE OF BIRTH (ACTUAL PLACE—NOT USUAL RESIDENCE) City _____ (If outside city limits, write "RURAL.")
IF "YES" in item 5, copy the answers to items 6, 7, 8, and 9, from the Population schedule. If "NO" in item 5, skip to item 10.		13. NAME OF HOSPITAL _____ If "NONE" above, type of attendant at birth: Doctor <input type="checkbox"/> <sup>1</sup> Midwife <input type="checkbox"/> <sup>2</sup> Other (Specify) _____
6. NAME OF FATHER (Please print) (Copy from schedule item 7.) _____ (Last) (First) (Initial)		14. MAIDEN NAME OF MOTHER (Please print) _____ (Last) (First) (Initial)
7. AGE OF FATHER ON LAST BIRTHDAY (Copy from schedule item 11.) _____		15. AGE OF MOTHER ON LAST BIRTHDAY (Copy from schedule item 11, or ask question.) _____
8. OCCUPATION OF FATHER (Copy from schedule item 20a; if that item is blank, enter "None.") _____		16. EDUCATION OF MOTHER (Copy from schedule items 26 and 27 or ask questions.) a. What is the highest grade of school that she has attended? _____ b. Did she finish this grade?      Yes <input type="checkbox"/> <sup>1</sup> No <input type="checkbox"/> <sup>2</sup>
9. INDUSTRY OF FATHER (Copy from schedule item 20b; if that item is blank, enter "None.") _____		17. ORDER OF BIRTH Is this the 1st, 2d, etc., child the mother has ever borne? (Do not count stillbirths but count all live births, including children now deceased.) _____
LEAVE BLANK		LEAVE BLANK

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of births and deaths as preparatory steps to linking pairs of records for the same children.

Experimentation indicated that marked savings were possible through a procedure in which the bulk of the matching might be accomplished by means of punched cards representing birth records and infant cards. An important consideration was the eventual need for punched cards to tabulate test results. These could be derived directly from the cards used for matching. Other expected advantages were increased flexibility and control in matching the large volume of records in the test (1.7 million). However, many difficult problems of a technical nature had to be solved to make the machine operation efficient and accurate. In fact, the entire concept of punch card matching would have been abandoned had it not been for the availability of a highly trained and skilled processing staff.

A cut-off date (January 1, 1951) for acceptance of birth records in the matching operation was established. Theoretically, all birth records received by the State offices in time for tabulation in 1951 should have been counted. But, once the mail survey of unmatched infant cards got under way, it had to be assumed that some of the families would communicate with attendants to inquire about birth registration and they in turn would file a birth record that ordinarily would not have been submitted. Experience indicated that only a very small proportion of the January-March birth records would ordinarily be filed after January 1, 1951, the starting point for the mail survey. Another step taken to avoid biasing the test was to maintain registration activities in local areas and State contacts with attendants on a normal basis.

**Test methodology**

Nature of the criteria used in matching.—The great majority of the infant cards and birth records were matched in the National Office of Vital Statistics on the basis of alphabetical and statistical information appearing on punched cards prepared from these records. Detailed matching criteria were prescribed to systematize decisions, introduce objectivity, and eliminate mismatching as a practical problem. Because data on the source documents were collected at different times and in many instances from different people, variations in identifying information for the same child were expected. Accordingly, series of alternative combinations of data for establishing matches had to be developed.

Items common to the infant card and birth record were classified in the matching criteria as primary or secondary. The first group consisted of the first four letters of the child's last name and the mother's maiden name, date of birth, race, sex, and place of birth. The secondary items were the first four letters of the child's and mother's first names, the ages of both parents, birth order, and person in attendance at the birth.<sup>25</sup>

<sup>25</sup>Person in attendance was shown on the punched cards by a code indicating whether the child was born in a hospital, delivered by a physician at home, by a midwife, or by some other person.

Six sets of criteria were established, based on various combinations of the primary and secondary items. Set one required agreement on all six primary items, and only one first name. In sets two to six, conditions regarding primary items were relaxed, with compensating increases in the number of secondary items on which agreement was needed.

A seventh set of criteria utilized information appearing on the basic records. Considerable weight was given to the fact that the street address on the child's residence was the same on the infant card as on the birth record. Information on the full spelling of names, mother's usual residence, father's occupation and industry, and name and size of the hospital or community in which the birth occurred were also taken into account in determining whether a pair of records represented the same child. Agreement on items carried more weight if the information involved was unusual (e. g., an odd name or occupation).

Rules were established allowing for differences in spelling or other minor variations in several of the items. For example, Smith and Smythe, Carl and Charles were declared "similar" (i. e., equivalent) and a 1-day difference in the date of birth was not considered a true variation. These rules were particularly useful in conjunction with the first six sets of criteria.

Application of matching criteria.—Punched cards were compared and merged mechanically according to the combinations of primary items specified in the matching criteria. Pairs of cards were listed and secondary items compared visually. Primary items that had not matched by machine were also examined for similarity. Where data on the punched cards were inadequate to reach a conclusive decision but a match seemed likely, copies of the original records were reviewed for confirming evidence. To facilitate locating additional "probable" matches, cards remaining unmatched were sorted by several primary and secondary items and then listed. The listings were prepared separately for birth records and infant cards.

As a result of these steps, 94 percent of the infant cards were matched (table 6.42). About three-fourths of the matches corresponded exactly on all six of the primary items and the bulk of the remaining group was matched, using criteria requiring five of these six items to agree.

Reliability of matching criteria.—To establish the reliability of criteria applicable to punched card information, a

sample of pairs of records declared matched according to these criteria were carefully reviewed on the basis of data appearing on the original records. This test was repeated for different parts of the country, with special attention to areas containing high concentrations of population, where frequent occurrence of similar information might be expected. These checks indicated that virtually no mismatches had occurred.

Mail survey.—When the matching steps described in the preceding paragraphs had been completed for all States, about 45,000 infant cards remained without birth records. Of this group, 43,000 contained sufficient address information for inclusion in a mail survey to verify, correct, or complete information on the infant cards. The great majority of the survey letters were sent directly to parents; others went to welfare agencies identified on the infant cards as sources of data about the child's natural parents. Follow-up letters were used in cases of nonresponse. Hospitals were contacted when letters to parents were returned as undeliverable.

Nearly three-fifths of the letters in the first mailing were answered, and the second mailing brought the response rate to 76 percent. The new data indicated that 8,100 unmatched infant cards were duplicates or related to children born outside the test period; i. e., prior to 1950. In 7,700 cases, the responses helped locate matching birth records and by the end of the mail survey only 4 percent of the infant cards remained unmatched.

State searches.—About 29,100 infant cards still unmatched after the mail survey were sent to registration executives for searches against their indexes and birth record files. These infant cards related to: (1) Adoption cases requiring recourse to special State files; (2) duplicate records and others not belonging in the test which had thus far not come to light; (3) difficult name situations due to such factors as illegitimacy, changes in names, and enumeration of a child in the home of a grandparent, aunt, etc.; and (4) unregistered infants.

Birth indexes for the first 3 months of 1950 were important sources of information in locating matching birth records, while indexes for prior years helped eliminate infant cards for children not born during the test period. Registrars were authorized to use other sources of information within the limitations of census and State regulations, and many communicated with welfare agencies and local registration officials when necessary to clarify a problem. These methods were particularly effective in resolving questions created by the use of different names for the same child. At the conclusion of the test, all but a few of the States felt that they had exhausted all possibilities for locating matching birth records.

Records were found for 25 percent of the infant cards sent to the States. Another 11 percent were discovered to be duplicates, and 7 percent represented births occurring outside the test. All matches made by the States were carefully reviewed in the National Office to ensure comparability of test results.

Computation of measures and tabulation of data.—Measures of birth registration completeness were computed by dividing the total number of infant cards matched with birth records by the total number of infant cards, matched and unmatched.<sup>26</sup> To secure consistency between the numerator

Table 6.42. SUMMARY RESULTS OF PROCESSING STEPS IN THE 1950 BIRTH REGISTRATION TEST: CONTINENTAL UNITED STATES

(Figures are rounded to the nearest hundred without being adjusted to totals which are independently rounded)

OPERATION	Number of infant cards at start of operation	ACTION TAKEN			Number of infant cards remaining unmatched
		Matched	Out of test <sup>1</sup>	Duplicates	
1. Matching at NOV5 prior to mail survey-----	796,200	748,600		2,600	44,900
2. Matching at NOV5 following mail survey-----					
3. Matching by State offices-----	44,900	7,700	6,000	2,100	29,100
Total deleted from test-----	29,100	7,300	2,000	3,300	16,600
Total retained in test (for computing registration completeness)-----			8,000	8,000	
		765,600			16,600

<sup>1</sup>This group consists mainly of infant cards dropped from the test because they represented births that occurred prior to January 1, 1950. A small number were also dropped since they lacked certain minimum combinations of data which experience had demonstrated were required to establish matches.

<sup>26</sup>Thus, the measure is limited to registration of children born during the first 3 months of the year who survived to the date of the census enumeration. In the 1940 test, infant death records for children who were born during the test period and died before April 1, 1940, were also used in measuring birth registration completeness. To simplify the operation, death records were excluded in the more recent test. However, this has virtually no effect on the measures of completeness, in view of the relatively small number of death records involved (18,000). (See footnote 22 for effect of including infant death records in the 1940 test.)

and the denominator of these measures, the infant card was generally used as the source of information, both for the matched and unmatched records. However, in the case of the items on place of birth and person in attendance, data were taken from the birth records for the matched group, and from the infant cards for the unmatched. These exceptions were made because of the greater reliability of these items as reported on the birth record and the opportunity to confirm or correct the data on unmatched infant cards through the mail survey. Therefore, biases resulting from the use of different sets of records were considered minor.

**Test Results**

**Registration in 1950**

The 1950 birth registration test indicated that 97.9 percent of the infants born in the early part of that year had birth certificates on file in vital statistics offices. In 24 States and the District of Columbia, birth registration completeness was 99.0 percent or more and in only 7 States was it lower than 95.0 percent (figure 6.N and table 6.43).

Seven out of eight infants included in the test were born in hospitals, and all but a few of the hospital births were registered. For births delivered at home, however, registration was not nearly as complete. Nationally, only 88.2 percent of these births were registered, and in some States the proportion was considerably lower.

Because of the consistent pattern of higher registra-

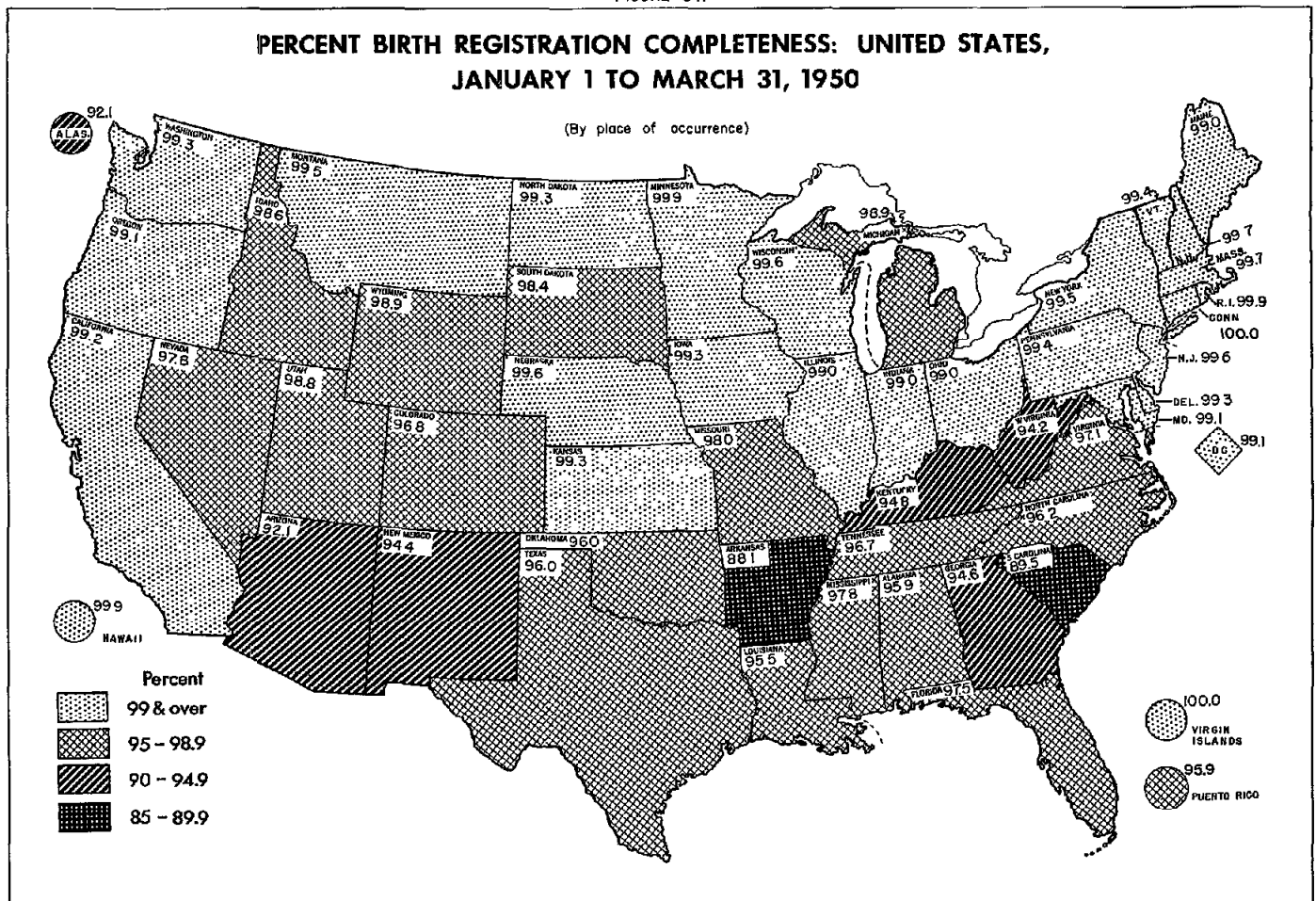
tion of hospital births throughout the country, the extent to which mothers used hospital facilities played an important part in determining the total registration completeness of a State. The proportion of births occurring in hospitals varied considerably from State to State and was lowest in the southern geographic divisions.

Hospitalization was also far more common among births that took place in urban areas than among those that occurred in rural areas. Chiefly as a result of this factor, there was a substantial difference in registration completeness between urban and rural births—99.0 percent as against 93.1 percent, respectively (table 6.44). Because of the large number of rural residents giving birth in urban hospitals, the gap between urban and rural registration completeness was smaller for data allocated by place of residence. As shown in one of the tables presented at the end of this chapter, registration completeness of births to urban residents was 98.9 percent, and of those to rural residents, it was 96.5 percent.

About two-fifths of the births in the test occurring at home were attended by midwives, relatives, or neighbors. These attendants registered 84.8 percent of the births they delivered as against 90.7 percent for physicians attending home deliveries (table 6.45). Nonphysicians (predominantly midwives) were used far more often in the South Atlantic, South Central, and Mountain Divisions than in other parts of the country. In a number of States these attendants took care of more births at home than did physicians, and in some areas they had a better record of registration.

By comparison, in the 24 States of the New England, Middle Atlantic, North Central, and Pacific Divisions, fewer than 5 births in every 1,000 were delivered by nonphysicians,

FIGURE 6.N



NATALITY

Table 6.43. BIRTH REGISTRATION COMPLETENESS FOR BIRTHS IN HOSPITALS AND NOT IN HOSPITALS, BY RACE: UNITED STATES, EACH DIVISION, STATE, AND TERRITORY, AND SPECIFIED POSSESSIONS, 1940 AND 1950 TEST PERIODS

(By place (area) of occurrence. Test periods cover live births from Dec. 1, 1939, to Mar. 31, 1940, and from Jan. 1 to Mar. 31, 1950. Percent completeness measured by percent of infant cards matched with birth records)

AREA AND RACE	PERCENT COMPLETENESS						TOTAL INFANT CARDS					
	1950			1940			1950			1940		
	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital
CONTINENTAL UNITED STATES-----	97.9	99.4	88.2	92.5	98.5	86.1	780,130	674,098	106,032	687,457	341,954	320,831
White-----	98.6	99.5	88.2	94.0	98.6	88.2	674,617	618,221	56,396	603,432	324,157	259,272
Nonwhite--	93.5	98.2	88.2	82.0	96.3	77.2	105,513	55,877	49,636	84,025	17,797	61,559
New England-----	99.7	99.9	93.7	98.6	99.5	95.7	42,673	41,676	997	36,013	27,018	7,978
White-----	99.7	99.9	93.9	98.6	99.5	95.8	41,754	40,775	979	35,523	26,671	7,858
Nonwhite--	99.3	99.7	83.3	96.9	99.1	90.8	919	901	18	490	347	120
Middle Atlantic-----	99.5	99.7	94.3	98.0	99.2	94.5	132,189	127,126	5,063	114,815	82,315	28,580
White-----	99.6	99.8	94.6	98.2	99.3	94.9	121,978	117,581	4,397	108,650	78,083	27,003
Nonwhite--	98.5	98.9	92.3	95.4	97.8	88.4	10,211	9,545	666	6,165	4,232	1,577
East North Central-----	99.0	99.6	89.6	96.6	98.7	93.6	155,734	147,489	8,245	130,203	75,983	49,844
White-----	99.2	99.6	89.6	96.8	98.8	93.8	144,643	138,332	6,311	124,706	73,236	47,450
Nonwhite--	97.1	98.6	89.8	92.8	96.4	88.7	11,091	9,157	1,934	5,497	2,747	2,494
West North Central-----	99.1	99.7	90.4	94.9	98.2	91.1	74,353	69,292	5,061	72,057	37,020	32,895
White-----	99.2	99.7	91.7	95.1	98.4	91.5	71,114	66,625	4,489	69,875	35,922	31,916
Nonwhite--	95.7	99.1	80.1	86.1	93.7	77.0	3,239	2,667	572	2,182	1,098	979
South Atlantic-----	95.7	98.7	88.5	86.8	96.7	82.4	119,470	83,874	35,596	109,010	30,454	73,654
White-----	97.2	99.0	87.5	89.0	96.8	84.4	84,048	70,917	13,131	77,087	26,772	47,362
Nonwhite--	92.1	97.4	89.1	81.4	95.8	78.7	35,422	12,957	22,465	31,923	3,682	26,292
East South Central-----	96.2	99.3	91.7	85.9	98.2	83.0	68,871	41,041	27,830	72,059	12,396	56,517
White-----	96.6	99.4	89.0	86.9	98.3	83.8	48,732	35,458	13,274	53,198	10,752	40,379
Nonwhite--	95.5	98.9	94.1	83.1	97.4	81.0	20,139	5,583	14,556	18,861	1,644	16,138
West South Central-----	94.8	98.7	82.2	84.5	96.4	78.5	81,104	62,122	18,982	80,780	25,464	52,295
White-----	96.6	98.9	84.7	87.1	96.6	81.7	63,821	53,397	10,424	65,241	22,936	40,066
Nonwhite--	88.3	97.3	79.1	73.3	94.3	68.1	17,283	8,725	8,558	15,539	2,528	12,229
Mountain-----	96.7	99.0	74.9	91.5	97.9	83.2	31,023	28,082	2,941	28,259	14,965	12,278
White-----	97.9	99.2	83.2	93.7	98.0	87.9	29,048	26,728	2,320	26,571	14,447	11,152
Nonwhite--	78.2	93.9	43.8	56.2	95.0	37.1	1,975	1,354	621	1,688	518	1,126
Pacific-----	99.2	99.5	78.7	97.8	99.1	91.4	74,713	73,396	1,317	44,261	36,339	6,690
White-----	99.2	99.6	78.5	98.0	99.2	91.4	69,479	68,408	1,071	42,581	35,338	6,086
Nonwhite--	98.3	99.2	79.7	94.9	97.1	91.7	5,234	4,988	246	1,680	1,001	604
NEW ENGLAND												
Maine-----	99.0	99.6	93.4	96.1	98.7	94.2	4,617	4,195	422	3,921	1,917	2,170
White-----	99.0	99.6	93.3	96.3	98.7	94.5	4,586	4,166	420	3,902	1,909	2,159
Nonwhite--	100.0	100.0	100.0	63.2	100.0	36.4	31	29	2	19	8	11
New Hampshire-----	99.7	99.8	96.9	98.7	99.4	96.3	2,569	2,537	32	2,519	1,586	682
White-----	99.7	99.8	96.9	98.6	99.4	96.3	2,562	2,530	32	2,515	1,584	680
Nonwhite--	100.0	100.0	-	100.0	100.0	100.0	7	7	-	4	2	2
Vermont-----	99.4	99.8	95.5	97.3	96.8	97.7	1,895	1,740	155	1,620	870	883
White-----	99.4	99.8	95.5	97.3	96.8	97.7	1,892	1,737	155	1,619	870	883
Nonwhite--	100.0	100.0	-	100.0	-	-	3	3	-	1	-	-
Massachusetts-----	99.7	99.9	92.0	98.9	99.6	95.5	21,136	20,823	313	17,909	14,544	2,807
White-----	99.8	99.9	92.7	98.9	99.6	95.5	20,688	20,388	300	17,704	14,400	2,755
Nonwhite--	98.7	99.3	76.9	98.0	98.6	96.2	448	435	13	205	144	52
Rhode Island-----	99.9	99.9	95.1	98.8	99.7	96.2	3,734	3,693	41	2,932	2,142	702
White-----	99.9	99.9	94.9	98.8	99.7	96.1	3,637	3,598	39	2,865	2,083	685
Nonwhite--	100.0	100.0	100.0	100.0	100.0	100.0	97	95	2	67	49	17
Connecticut-----	100.0	100.0	100.0	99.4	99.7	97.1	8,722	8,688	34	6,912	5,959	734
White-----	100.0	100.0	100.0	99.4	99.7	97.3	8,389	8,356	33	6,718	5,815	696
Nonwhite--	100.0	100.0	100.0	97.9	99.5	94.7	333	332	1	194	144	38
MIDDLE ATLANTIC												
New York-----	99.5	99.7	90.9	98.7	99.4	94.5	63,743	62,513	1,230	53,735	44,475	7,457
White-----	99.6	99.8	90.6	98.8	99.5	94.8	58,679	57,675	1,004	51,055	42,368	7,037
Nonwhite--	98.5	98.8	92.0	96.3	97.5	88.8	5,064	4,838	226	2,680	2,107	420
New Jersey-----	99.6	99.8	94.3	99.0	99.6	96.1	20,134	19,592	542	15,262	12,230	2,540
White-----	99.7	99.8	95.1	99.0	99.6	96.1	18,343	17,937	406	14,117	11,429	2,278
Nonwhite--	98.7	99.3	91.9	98.7	99.5	96.2	1,791	1,655	136	1,145	801	262
Pennsylvania-----	99.4	99.7	95.6	97.0	98.9	94.3	48,312	45,021	3,291	45,818	25,610	18,583
White-----	99.5	99.7	95.8	97.2	99.0	94.7	44,956	41,969	2,987	43,478	24,286	17,688
Nonwhite--	98.4	99.0	92.8	92.9	97.1	85.9	3,356	3,052	304	2,340	1,324	895
EAST NORTH CENTRAL												
Ohio-----	99.0	99.6	88.3	95.2	98.4	90.9	40,923	38,544	2,379	33,298	18,809	13,364
White-----	99.0	99.7	88.3	95.3	98.5	90.9	37,918	35,869	2,049	31,617	18,022	12,551
Nonwhite--	98.0	99.2	88.2	95.7	97.0	90.5	3,005	2,675	330	1,681	787	813
Indiana-----	99.0	99.3	94.6	96.5	97.9	95.4	20,769	19,151	1,618	17,900	8,372	8,954
White-----	99.0	99.4	93.9	96.6	98.0	95.5	19,723	18,418	1,305	17,284	8,182	8,561
Nonwhite--	98.5	98.9	97.4	94.0	96.3	92.6	1,046	733	313	616	190	393
Illinois-----	99.0	99.6	88.4	96.9	99.0	92.3	40,328	38,013	2,315	34,353	23,151	10,160
White-----	99.2	99.7	87.1	97.3	99.2	93.0	36,559	35,153	1,406	32,572	22,129	9,454
Nonwhite--	96.6	98.5	90.5	90.6	96.1	82.2	3,769	2,860	909	1,781	1,002	706

Table 6.43. BIRTH REGISTRATION COMPLETENESS FOR BIRTHS IN HOSPITALS AND NOT IN HOSPITALS, BY RACE: UNITED STATES, EACH DIVISION, STATE, AND TERRITORY, AND SPECIFIED POSSESSIONS, 1940 AND 1950 TEST PERIODS--Continued

(By place (area) of occurrence. Test periods cover live births from Dec. 1, 1939, to Mar. 31, 1940, and from Jan. 1 to Mar. 31, 1950. Percent completeness measured by percent of infant cards matched with birth records)

AREA AND RACE	PERCENT COMPLETENESS						TOTAL INFANT CARDS					
	1950			1940			1950			1940		
	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital
<b>EAST NORTH CENTRAL--Con.</b>												
Michigan-----	98.9	99.4	86.4	97.8	98.8	96.1	35,036	33,698	1,348	28,428	16,433	10,968
White-----	99.2	99.5	87.7	97.9	98.9	96.3	32,076	31,083	993	27,214	15,801	10,447
Nonwhite--	96.1	98.0	82.8	94.0	95.2	92.3	2,960	2,605	355	1,214	632	521
Wisconsin-----	99.6	99.8	93.7	96.9	98.8	94.3	18,678	18,093	585	16,224	9,238	6,498
White-----	99.6	99.8	93.9	96.9	98.9	94.4	18,567	17,809	558	16,019	9,102	6,437
Nonwhite--	98.7	99.6	88.9	93.2	96.3	85.2	311	284	27	205	136	61
<b>WEST NORTH CENTRAL</b>												
Minnesota-----	99.9	100.0	95.4	99.3	99.9	98.2	17,051	16,682	369	15,475	9,684	5,321
White-----	99.9	100.0	97.4	99.3	99.9	98.2	16,803	16,451	352	15,366	9,621	5,284
Nonwhite--	96.8	100.0	82.9	97.2	100.0	91.9	248	231	17	109	63	37
Iowa-----	99.3	99.5	93.6	94.7	97.6	91.0	14,343	13,766	577	13,984	7,568	6,007
White-----	99.3	99.5	93.8	94.7	97.7	91.0	14,189	13,620	569	13,893	7,505	5,960
Nonwhite--	98.1	99.3	75.0	90.1	88.9	92.6	154	146	8	91	63	27
Missouri-----	98.0	99.3	90.3	90.2	96.8	85.1	19,176	16,230	2,946	18,796	7,984	10,267
White-----	98.1	99.4	90.8	90.7	97.2	85.8	17,325	14,746	2,579	17,624	7,401	9,734
Nonwhite--	96.5	98.9	86.6	82.7	91.4	72.2	1,851	1,484	367	1,172	583	533
North Dakota-----	99.3	100.0	89.4	94.7	98.9	88.7	3,660	3,425	235	4,001	2,175	1,694
White-----	99.4	100.0	90.5	94.6	98.9	88.9	3,544	3,323	221	3,877	2,090	1,660
Nonwhite--	95.7	99.0	71.4	95.2	100.0	82.4	116	102	14	124	85	34
South Dakota-----	98.4	99.5	79.1	95.4	97.9	92.8	4,042	3,836	206	3,837	1,950	1,761
White-----	99.2	99.5	91.5	96.6	98.3	94.7	3,840	3,698	142	3,574	1,799	1,660
Nonwhite--	82.7	97.1	51.6	79.8	93.4	61.4	202	138	64	263	151	101
Nebraska-----	99.6	99.9	91.3	98.9	98.2	95.8	7,006	6,730	276	6,880	3,253	3,438
White-----	99.6	99.9	93.0	97.0	98.2	95.8	6,825	6,567	258	6,779	3,190	3,410
Nonwhite--	96.7	100.0	66.7	93.1	96.8	85.7	181	163	18	101	63	28
Kansas-----	99.3	99.9	87.8	95.5	98.0	93.1	9,075	8,623	452	9,084	4,406	4,407
White-----	99.4	99.9	88.9	95.6	97.9	93.3	8,588	8,220	368	8,762	4,316	4,188
Nonwhite--	96.7	99.5	83.3	92.9	100.0	89.5	487	403	84	322	90	219
<b>SOUTH ATLANTIC</b>												
Delaware-----	99.3	99.9	93.9	97.4	99.6	93.4	1,581	1,434	147	1,411	896	472
White-----	99.5	99.9	91.9	97.2	99.5	91.8	1,333	1,271	62	1,189	818	341
Nonwhite--	98.0	99.4	95.3	98.6	100.0	97.7	248	163	85	222	78	131
Maryland-----	99.1	99.8	94.7	97.1	99.1	94.2	10,807	9,457	1,350	8,009	4,387	3,292
White-----	99.3	99.8	93.8	97.8	99.3	95.1	8,612	7,938	674	6,457	3,842	2,370
Nonwhite--	98.2	99.4	95.6	94.1	97.2	92.0	2,195	1,519	676	1,552	545	922
District of Columbia-----	99.1	99.4	79.8	97.9	99.0	88.6	5,959	5,870	89	4,077	3,547	368
White-----	99.8	99.9	89.2	98.5	99.2	77.8	4,132	4,119	13	2,915	2,742	90
Nonwhite--	97.4	98.1	81.6	96.6	98.6	92.1	1,827	1,751	76	1,162	805	278
Virginia-----	97.1	99.5	91.5	91.9	98.7	89.1	17,299	12,137	5,162	15,269	4,001	10,492
White-----	97.8	99.6	90.1	92.5	98.9	89.0	12,967	10,554	2,413	11,081	3,652	6,941
Nonwhite--	95.0	99.0	92.8	90.2	97.1	89.3	4,332	1,583	2,749	4,188	349	3,551
West Virginia-----	94.2	98.5	87.6	86.5	95.7	84.7	11,756	7,151	4,625	12,654	2,063	10,054
White-----	94.5	98.6	87.5	86.7	95.9	84.9	10,984	6,922	4,062	12,011	2,015	9,495
Nonwhite--	90.9	98.1	88.3	81.3	87.5	81.0	772	209	563	643	48	559
North Carolina-----	96.2	98.4	91.4	86.1	96.1	83.0	23,907	16,328	7,579	23,710	5,030	17,670
White-----	97.6	98.7	91.1	88.4	96.4	85.0	16,043	13,687	2,356	16,349	4,457	11,288
Nonwhite--	93.4	97.0	91.6	81.0	94.1	79.4	7,864	2,641	5,223	7,361	573	6,382
South Carolina-----	89.5	96.8	81.6	77.6	92.9	74.4	13,680	7,121	6,559	13,082	1,920	10,452
White-----	93.5	97.1	76.6	82.7	93.9	78.9	7,238	5,948	1,290	6,948	1,682	4,963
Nonwhite--	85.1	95.0	82.9	71.8	85.3	70.3	6,442	1,173	5,269	6,134	238	5,489
Georgia-----	94.6	98.1	87.5	81.3	96.3	76.2	20,836	13,961	6,975	20,844	4,666	15,286
White-----	96.7	98.7	82.3	83.6	96.5	77.4	12,983	11,469	1,514	13,028	3,940	8,648
Nonwhite--	91.0	95.7	88.9	77.6	95.2	74.5	7,953	2,492	5,461	7,816	726	6,638
Florida-----	97.5	99.2	91.8	89.9	92.5	87.4	13,545	10,435	3,110	9,954	3,944	5,568
White-----	98.8	99.4	91.8	91.3	92.1	89.9	9,756	9,009	747	7,109	3,624	3,226
Nonwhite--	94.1	98.1	91.7	86.4	97.5	84.1	3,789	1,426	2,363	2,845	320	2,342
<b>EAST SOUTH CENTRAL</b>												
Kentucky-----	94.8	98.6	88.5	89.2	97.7	87.6	17,205	10,720	6,485	18,740	2,856	15,083
White-----	94.7	98.6	88.2	89.2	97.6	87.7	16,049	10,139	5,910	17,767	2,674	14,339
Nonwhite--	95.0	98.5	91.5	87.6	98.4	85.3	1,156	581	575	973	182	744
Tennessee-----	96.7	99.5	89.5	80.4	97.8	74.2	18,475	13,206	5,269	18,659	4,496	13,490
White-----	97.2	99.6	89.1	81.4	97.8	75.6	14,917	11,535	3,382	15,621	3,788	11,299
Nonwhite--	94.4	99.0	90.4	75.1	97.5	66.9	3,558	1,671	1,887	3,038	708	2,191
Alabama-----	95.9	99.6	91.0	85.0	98.6	81.9	18,755	10,720	8,035	19,747	3,210	15,477
White-----	97.1	99.7	88.9	86.4	98.8	82.9	11,499	8,730	2,769	12,609	2,671	9,407
Nonwhite--	94.0	99.1	92.1	82.4	97.4	80.3	7,256	1,990	5,266	7,138	539	6,070
Mississippi-----	97.8	99.7	96.4	89.8	99.3	88.2	14,436	6,395	8,041	14,913	1,834	12,467
White-----	98.6	99.9	93.5	93.8	99.7	92.0	6,267	5,054	1,213	7,201	1,619	5,334
Nonwhite--	97.2	98.9	96.9	86.2	96.7	85.3	8,169	1,341	6,828	7,712	215	7,133

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**Table 6.43. BIRTH REGISTRATION COMPLETENESS FOR BIRTHS IN HOSPITALS AND NOT IN HOSPITALS, BY RACE: UNITED STATES, EACH DIVISION, STATE, AND TERRITORY, AND SPECIFIED POSSESSIONS, 1940 AND 1950 TEST PERIODS—Continued**

(By place (area) of occurrence. Test periods cover live births from Dec. 1, 1939, to Mar. 31, 1940, and from Jan. 1 to Mar. 31, 1950. Percent completeness measured by percent of infant cards matched with birth records)

AREA AND RACE	PERCENT COMPLETENESS						TOTAL INFANT CARDS					
	1950			1940			1950			1940		
	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital
<b>WEST SOUTH CENTRAL</b>												
Arkansas-----	88.1	97.2	75.0	75.9	95.0	72.9	11,115	6,560	4,555	12,487	1,542	10,633
White-----	92.3	97.8	75.5	79.6	95.0	76.6	7,916	5,973	1,943	9,667	1,483	7,936
Nonwhite---	77.9	91.7	74.8	65.2	94.9	62.1	3,197	587	2,610	2,820	59	2,697
Louisiana-----	95.5	98.4	84.2	86.1	97.3	79.4	16,180	12,898	3,282	15,151	5,355	9,110
White-----	97.0	98.7	79.4	87.7	97.8	79.8	9,768	8,925	843	9,156	3,938	4,910
Nonwhite---	83.3	98.0	85.8	83.7	96.0	78.9	6,412	3,973	2,439	5,995	1,417	4,200
Oklahoma-----	96.0	99.1	81.1	84.8	95.8	79.6	11,186	9,243	1,943	14,871	4,646	9,732
White-----	97.3	99.2	85.6	87.0	95.9	82.4	9,803	8,495	1,310	13,307	4,354	8,529
Nonwhite---	86.3	98.4	71.9	66.9	95.2	59.4	1,383	750	633	1,564	292	1,203
Texas-----	96.0	98.9	85.2	86.5	96.3	80.3	42,625	33,421	9,204	38,271	13,921	22,820
White-----	97.2	99.1	88.1	89.3	96.7	84.0	36,334	30,006	6,328	33,111	13,161	18,691
Nonwhite---	88.9	97.3	78.8	68.7	90.8	63.5	6,291	3,415	2,876	5,160	760	4,129
<b>MOUNTAIN</b>												
Montana-----	89.5	99.8	89.1	97.6	98.8	93.4	3,387	3,286	101	3,281	2,428	747
White-----	89.5	99.8	86.8	98.0	98.8	94.9	3,209	3,153	76	3,089	2,296	693
Nonwhite---	96.9	99.3	96.0	91.1	97.7	74.1	178	153	25	192	132	54
Idaho-----	98.6	99.2	80.6	95.0	97.5	91.4	3,620	3,512	108	3,591	2,019	1,460
White-----	98.6	99.2	80.8	95.1	97.6	91.6	3,570	3,466	104	3,562	2,004	1,448
Nonwhite---	96.0	100.0	75.0	79.3	86.7	66.7	50	46	4	29	15	12
Wyoming-----	98.9	99.4	86.8	95.6	98.8	88.3	1,624	1,556	68	1,453	1,006	410
White-----	98.8	99.4	85.5	95.9	98.9	89.2	1,564	1,502	62	1,412	980	397
Nonwhite---	100.0	100.0	100.0	85.4	96.2	61.5	60	54	6	41	26	13
Colorado-----	96.8	99.0	70.6	89.8	98.0	79.6	7,528	6,922	606	6,887	3,591	3,049
White-----	96.7	99.1	69.9	89.8	98.0	79.6	7,308	6,721	585	6,793	3,545	3,006
Nonwhite---	97.7	98.5	90.5	90.4	95.7	83.7	222	201	21	94	46	43
New Mexico-----	94.4	97.7	85.8	86.4	93.8	83.5	4,492	3,236	1,256	4,685	1,056	3,419
White-----	96.9	98.9	91.3	91.2	94.7	89.7	4,093	3,014	1,079	4,248	978	3,060
Nonwhite---	68.7	81.5	52.5	40.3	83.3	30.9	399	222	177	437	78	359
Arizona-----	92.1	98.5	53.3	84.4	97.7	68.3	4,707	4,045	662	3,858	1,991	1,715
White-----	97.5	99.1	80.0	93.8	97.6	87.6	3,807	3,492	315	3,057	1,823	1,111
Nonwhite---	69.6	94.9	29.1	48.4	98.8	32.9	900	553	347	601	168	604
Utah-----	98.8	99.4	74.0	96.6	98.6	93.0	4,937	4,814	123	3,899	2,425	1,345
White-----	99.1	99.4	81.7	97.1	98.6	94.2	4,841	4,748	93	3,852	2,401	1,322
Nonwhite---	83.3	98.5	50.0	59.6	91.7	26.1	96	66	30	47	24	25
Nevada-----	97.8	97.9	94.1	96.2	98.2	90.2	728	711	17	605	449	133
White-----	98.8	98.9	83.3	97.5	98.3	95.7	658	652	6	558	420	115
Nonwhite---	88.6	86.4	100.0	80.9	96.6	55.6	70	59	11	47	29	18
<b>PACIFIC</b>												
Washington-----	99.3	99.7	73.4	97.8	98.9	91.1	15,121	12,952	169	8,316	6,846	1,254
White-----	99.4	99.7	78.7	98.0	99.1	91.6	12,629	12,438	141	8,085	6,702	1,185
Nonwhite---	97.0	100.0	46.4	88.7	89.6	84.1	492	464	28	231	144	69
Oregon-----	99.1	99.3	84.7	97.1	98.7	90.9	8,168	8,037	131	5,294	4,185	968
White-----	99.1	99.3	83.6	97.3	98.7	91.6	7,997	7,875	122	5,225	4,137	950
Nonwhite---	99.4	99.4	100.0	84.1	95.8	55.6	171	162	9	69	48	18
California-----	99.2	99.5	78.9	98.0	99.2	91.6	53,424	52,407	1,017	30,651	25,308	4,468
White-----	99.2	99.6	77.7	98.1	99.2	91.3	48,853	48,045	808	29,271	24,499	3,951
Nonwhite---	98.4	99.1	83.3	96.5	98.5	94.0	4,571	4,362	209	1,380	809	517
<b>OTHER AREAS</b>												
Alaska-----	92.1	98.3	76.6	---	---	---	1,010	720	230	---	---	---
White-----	98.4	98.9	76.9	---	---	---	567	554	13	---	---	---
Nonwhite---	84.0	96.4	76.5	---	---	---	443	166	277	---	---	---
Hawaii-----	99.9	100.0	98.0	97.7	---	---	3,218	3,120	98	2,865	---	---
White-----	99.8	99.9	98.5	97.9	---	---	814	746	68	629	---	---
Nonwhite---	100.0	100.0	96.7	97.6	---	---	2,404	2,374	30	2,236	---	---
Puerto Rico-----	95.9	---	---	86.5	---	---	19,022	---	---	20,127	---	---
White-----	---	---	---	---	---	---	---	---	---	---	---	---
Nonwhite---	---	---	---	---	---	---	---	---	---	---	---	---
Virgin Islands-----	100.0	100.0	100.0	96.4	---	---	202	140	62	197	---	---
White-----	100.0	100.0	100.0	100.0	---	---	16	12	4	15	---	---
Nonwhite---	100.0	100.0	100.0	96.2	---	---	186	128	58	182	---	---

NOTE.—All figures in total column for 1940 include all infant cards and death records in the test. All other figures for 1940 are inflated from sample consisting of 100 percent of the unmatched infant cards, 20 percent of the matched cards for white infants, and 50 percent of the matched cards for the nonwhite. Figures for 1950 are based on total number of infant cards in each category.

## ANALYSIS

Table 6.44. BIRTH REGISTRATION COMPLETENESS FOR BIRTHS IN HOSPITALS AND NOT IN HOSPITALS, BY RACE, FOR URBAN AND RURAL AREAS: UNITED STATES AND EACH GEOGRAPHIC DIVISION, 1940 AND 1950 TEST PERIODS

(By place (area) of occurrence. Test periods cover live births from Dec. 1, 1939, to Mar. 31, 1940, and from Jan. 1 to Mar. 31, 1950. Percent completeness measured by percent of infant cards matched with birth records)

AREA AND RACE	PERCENT COMPLETENESS						TOTAL INFANT CARDS					
	1950			1940			1950			1940		
	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital
UNITED STATES												
Urban-----	99.0	99.5	89.5	96.0	98.6	88.0	628,462	600,456	28,006	417,527	313,663	103,864
White-----	99.3	99.6	89.1	96.7	98.7	89.5	563,494	550,109	13,375	361,635	297,399	64,236
Nonwhite--	96.5	98.4	89.9	88.4	96.6	81.6	64,978	50,347	14,631	55,892	16,264	19,628
Rural-----	95.1	98.8	87.8	86.5	96.6	85.2	151,668	73,642	78,026	245,258	28,291	216,967
White-----	94.8	99.0	88.0	88.9	96.8	87.6	111,133	68,112	43,021	201,794	26,758	175,036
Nonwhite--	88.7	96.4	87.5	75.8	93.3	75.1	40,535	5,530	35,005	43,464	1,533	41,931
NEW ENGLAND												
Urban-----	99.8	99.9	93.3	99.0	99.5	96.0	38,506	38,134	372	29,967	25,330	4,637
White-----	99.8	99.9	93.3	99.0	99.6	96.0	37,650	37,271	379	29,561	25,002	4,559
Nonwhite--	98.5	99.7	92.3	98.8	99.1	97.4	876	863	13	406	328	78
Rural-----	98.6	99.5	93.9	96.3	98.3	95.3	4,167	3,542	625	5,029	1,688	3,341
White-----	98.7	99.5	94.2	96.4	98.3	95.5	4,124	3,504	620	4,968	1,669	3,299
Nonwhite--	95.3	100.0	60.0	85.2	100.0	78.6	43	38	5	61	19	42
MIDDLE ATLANTIC												
Urban-----	99.6	99.7	91.7	98.3	99.2	93.1	121,253	119,061	2,192	92,324	78,062	14,262
White-----	99.6	99.8	91.5	98.5	99.3	93.7	111,423	109,767	1,656	86,905	73,922	12,983
Nonwhite--	98.5	98.9	92.2	95.2	97.7	87.1	9,830	9,294	536	5,419	4,140	1,279
Rural-----	98.9	99.9	96.3	96.7	99.3	95.9	10,936	8,065	2,871	18,571	4,253	14,318
White-----	99.0	99.9	96.4	96.7	99.3	95.9	10,555	7,814	2,741	18,181	4,161	14,020
Nonwhite--	97.4	99.6	95.1	95.4	100.0	94.0	381	251	130	390	92	298
EAST NORTH CENTRAL												
Urban-----	99.3	99.6	89.6	97.3	98.7	92.8	143,847	140,047	3,800	94,102	71,897	22,205
White-----	99.5	99.6	88.7	97.5	98.8	93.0	133,186	131,119	2,067	89,349	68,270	20,079
Nonwhite--	97.4	98.6	90.8	93.5	96.3	90.1	10,661	8,928	1,733	4,753	2,627	2,126
Rural-----	95.6	99.2	89.6	94.7	98.3	94.2	11,887	7,442	4,445	31,825	4,086	27,739
White-----	95.8	99.2	90.0	94.9	98.3	94.4	11,457	7,213	4,244	31,337	3,966	27,371
Nonwhite--	90.2	97.8	81.6	85.0	98.3	80.7	430	229	201	488	120	368
WEST NORTH CENTRAL												
Urban-----	99.6	99.8	90.9	96.8	98.3	90.8	60,320	59,078	1,242	39,559	31,743	7,816
White-----	99.6	99.8	91.8	97.1	98.5	91.3	57,733	56,778	955	38,267	30,932	7,335
Nonwhite--	98.0	99.2	87.8	89.6	93.3	83.4	2,587	2,300	287	1,292	811	481
Rural-----	96.9	99.3	90.2	92.3	97.5	91.2	14,033	10,214	3,819	30,356	5,277	25,079
White-----	97.3	99.4	91.7	92.6	97.7	91.6	13,381	9,847	3,534	29,571	4,990	24,581
Nonwhite--	87.0	98.4	72.3	79.6	94.8	70.9	652	367	285	785	287	498
SOUTH ATLANTIC												
Urban-----	97.9	98.8	88.9	91.5	97.5	82.7	77,789	70,677	7,112	46,051	27,492	18,559
White-----	98.8	99.1	86.5	93.1	97.7	83.3	60,576	59,122	1,454	35,146	24,020	11,126
Nonwhite--	94.9	97.6	89.5	86.4	96.1	81.9	17,213	11,555	5,658	10,905	3,472	7,433
Rural-----	91.5	98.3	88.4	82.6	89.0	82.3	41,881	13,197	28,484	58,057	2,962	55,095
White-----	93.1	98.6	87.7	85.0	88.8	84.8	23,472	11,795	11,677	38,988	2,752	36,236
Nonwhite--	89.5	96.1	88.9	77.6	90.5	77.5	18,209	1,402	16,807	19,069	210	18,859
EAST SOUTH CENTRAL												
Urban-----	98.6	99.4	93.3	91.2	98.5	84.2	38,187	33,385	4,802	22,992	11,325	11,667
White-----	99.0	99.4	89.2	92.6	98.6	85.0	29,957	28,772	1,185	17,403	9,805	7,598
Nonwhite--	97.1	99.1	94.6	86.9	97.8	82.8	8,230	4,613	3,617	5,589	1,520	4,069
Rural-----	93.3	99.1	91.4	82.9	95.3	82.6	30,684	7,656	23,028	45,921	1,071	44,850
White-----	92.7	99.2	89.0	83.8	95.6	83.5	18,775	6,686	12,089	33,728	947	32,781
Nonwhite--	94.3	98.4	94.0	80.5	93.5	80.3	11,909	970	10,939	12,193	124	12,069
WEST SOUTH CENTRAL												
Urban-----	97.6	98.9	87.5	90.1	96.7	80.7	61,630	54,681	6,949	39,546	23,171	16,375
White-----	98.4	99.2	89.9	91.8	96.9	83.5	51,262	46,896	4,366	33,569	20,799	12,770
Nonwhite--	94.1	97.6	83.5	80.2	94.7	70.7	10,368	7,785	2,583	5,977	2,372	3,605
Rural-----	85.9	96.9	79.1	78.4	93.0	77.5	19,474	7,441	12,033	38,213	2,293	35,920
White-----	89.4	97.1	81.0	81.7	93.4	80.8	12,559	6,501	6,058	29,433	2,137	27,296
Nonwhite--	79.6	85.2	77.1	67.4	88.5	67.0	6,915	940	5,975	8,780	156	8,624
MOUNTAIN												
Urban-----	98.8	99.3	86.3	95.6	98.1	89.1	22,961	22,101	860	16,546	12,050	4,496
White-----	98.8	99.3	86.3	95.8	98.1	89.5	22,234	21,432	802	16,279	11,904	4,375
Nonwhite--	96.8	97.8	86.2	85.8	93.8	76.0	727	669	58	267	146	121



# NATALITY

**Table 6.44. BIRTH REGISTRATION COMPLETENESS FOR BIRTHS IN HOSPITALS AND NOT IN HOSPITALS, BY RACE, FOR URBAN AND RURAL AREAS: UNITED STATES AND EACH GEOGRAPHIC DIVISION, 1940 AND 1950 TEST PERIODS—Continued**

(By place (area) of occurrence. Test periods cover live births from Dec. 1, 1939, to Mar. 31, 1940, and from Jan. 1 to Mar. 31, 1950. Percent completeness measured by percent of infant cards matched with birth records)

AREA AND RACE	PERCENT COMPLETENESS						TOTAL INFANT CARDS					
	1950			1940			1950			1940		
	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital	Total	In hospital	Not in hospital
<b>MOUNTAIN—Continued</b>												
Rural-----	90.7	97.9	70.2	84.5	97.0	79.9	8,062	5,981	2,081	10,697	2,915	7,782
White-----	95.0	98.8	81.6	89.7	97.2	86.9	6,814	5,296	1,518	9,520	2,543	6,777
Nonwhite--	67.3	90.2	39.4	49.5	95.4	32.4	1,248	685	563	1,377	372	1,005
<b>PACIFIC</b>												
Urban-----	98.4	99.6	80.4	98.5	99.2	92.3	63,969	63,292	677	36,440	32,593	3,847
White-----	99.4	99.6	78.9	98.5	99.2	91.9	59,483	58,952	531	35,156	31,745	3,411
Nonwhite--	98.8	99.2	85.6	98.1	99.2	95.9	4,486	4,340	146	1,284	848	436
Rural-----	98.2	99.5	77.0	94.5	98.0	90.2	10,744	10,104	640	6,589	3,745	2,843
White-----	98.4	99.5	78.1	95.2	98.6	90.7	9,996	9,456	540	6,268	3,593	2,675
Nonwhite--	95.3	99.1	71.0	83.2	85.6	81.0	748	648	100	321	153	168

**NOTES:**  
 Figures for 1940 are inflated from sample consisting of 100 percent of the unmatched infant cards, 20 percent of the matched cards for white infants, and 50 percent of the matched cards for the nonwhite. Figures for 1950 are based on total number of infant cards in each category.  
 For definitions of urban and rural areas, see text in chapter 2.

**Table 6.45. BIRTH REGISTRATION COMPLETENESS FOR BIRTHS NOT IN HOSPITALS, BY ATTENDANT AND RACE: UNITED STATES, EACH DIVISION, AND SELECTED STATES, JANUARY 1 TO MARCH 31, 1950**

(By place (area) of occurrence. States selected had less than 90 percent of registered live births in hospitals in 1950. Percent completeness measured by percent of infant cards matched with birth records)

AREA	PERCENT COMPLETENESS						TOTAL INFANT CARDS					
	Physician			Midwife, other, and not specified			Physician			Midwife, other, and not specified		
	All races	White	Non-white	All races	White	Non-white	All races	White	Non-white	All races	White	Non-white
<b>UNITED STATES-----</b>	90.7	91.8	87.8	84.8	74.4	88.4	61,835	44,961	16,874	44,197	11,435	32,762
<b>GEOGRAPHIC DIVISIONS</b>												
New England-----	95.0	94.9	100.0	59.5	64.7	0	960	945	15	37	34	3
Middle Atlantic-----	97.3	97.6	95.3	57.4	55.9	64.6	4,678	4,077	601	385	320	65
East North Central-----	93.0	93.2	92.4	52.8	47.4	86.8	7,554	5,813	1,741	691	498	193
West North Central-----	93.6	93.9	90.6	68.6	70.6	64.8	4,409	4,070	339	652	419	233
South Atlantic-----	89.1	90.4	87.2	87.9	74.7	90.0	17,978	10,756	7,222	17,618	2,375	15,243
East South Central-----	91.6	91.7	91.1	91.9	79.0	95.4	14,702	10,459	4,243	13,128	2,815	10,313
West South Central-----	85.2	87.7	78.3	79.3	79.1	79.4	9,282	6,799	2,483	9,700	3,625	6,075
Mountain-----	89.8	89.9	87.8	60.4	75.4	37.8	1,446	1,372	74	1,495	948	547
Pacific-----	93.6	94.3	91.7	53.4	52.1	53.9	826	670	156	491	401	90
<b>SELECTED STATES</b>												
Alabama-----	89.1	90.0	87.3	92.6	83.5	93.7	3,581	2,297	1,284	4,454	472	3,982
Arkansas-----	78.0	81.4	71.1	71.9	50.1	76.3	2,332	1,572	760	2,221	371	1,850
Florida-----	92.4	94.4	90.4	91.4	85.6	92.1	1,043	531	512	2,067	216	1,851
Georgia-----	81.6	83.8	79.5	90.2	78.3	91.4	2,214	1,103	1,111	4,761	411	4,350
Kentucky-----	91.2	91.0	92.1	79.4	79.0	87.3	5,008	4,502	504	1,479	1,408	71
Louisiana-----	83.4	84.3	82.2	84.5	68.7	86.6	1,004	578	426	2,278	265	2,013
Maryland-----	97.1	97.7	96.1	89.5	75.0	94.9	921	558	363	429	116	313
Mississippi-----	95.2	94.4	95.8	97.0	88.6	97.3	2,644	1,020	1,624	5,397	193	5,204
Missouri-----	93.0	93.0	92.7	70.6	67.3	75.9	2,596	2,362	234	350	217	133
New Mexico-----	92.2	92.2	92.3	80.6	90.3	49.4	566	553	13	690	526	164
North Carolina-----	92.1	92.4	92.0	90.5	85.0	91.3	4,273	1,949	2,324	3,306	407	2,899
Oklahoma-----	87.0	89.7	75.5	64.7	55.3	68.9	1,433	1,151	282	510	159	351
South Carolina-----	79.5	79.5	79.5	82.9	62.7	64.1	2,536	1,065	1,471	4,023	225	3,798
Tennessee-----	91.9	93.4	87.4	84.9	73.7	92.7	3,471	2,640	831	1,798	742	1,056
Texas-----	88.7	90.5	82.8	81.9	85.3	76.7	4,513	3,498	1,015	4,691	2,850	1,841
Virginia-----	91.8	92.5	90.2	91.2	79.3	93.9	2,812	1,979	833	2,550	434	1,916
West Virginia-----	91.3	91.6	89.1	62.4	61.3	76.9	4,035	3,511	524	590	551	39

with about two-fifths of them unregistered. The large under-registration in this group is explained in part by the fact that the attendant was often a neighbor or relative with little or no knowledge of the responsibility for filing a birth certificate.

Of the white births in the test, 98.6 percent were registered as against 93.5 percent of the nonwhite. A closer examination of the situation indicates that there was no difference between the two race groups in registration completeness of births "at home" and only a slight difference with respect to the "in hospital" births. However, when hospital and non-hospital births are combined, registration is found to be more complete in the white group than in the nonwhite because of the more frequent occurrence of white births in hospitals.

More than nine-tenths of the nonwhites were Negro, the remainder being about evenly divided into Indian and "All other." The last group consists mainly of births to parents of Chinese or Japanese extraction. Of the nonwhite group, the Indian had the poorest record of registration completeness (85.1 percent). Nonphysicians attended over one-fifth of the Indian births and filed certificates for less than half (44.6 percent) of the infants they delivered (table 6.46). In the "All other" category, registration completeness was 97.4 percent. Most of these births occurred in areas where extensive use is made of hospital facilities for maternity care.

### National changes since 1940

A comparison of results from the 1940 and 1950 registration tests shows that substantial gains were made during the intervening years. For the United States as a whole, the relative improvement was 5.8 percent—registration completeness rising from 92.5 percent in 1940 to 97.9 percent in 1950.

About four-fifths of the increase is explained by the trend toward use of hospital facilities for obstetrical care. In 1940, about half of the infants in the birth registration test were born in hospitals; by 1950, this proportion had increased to seven-eighths of the total. If the continuing efforts of State and local registrars to obtain complete registration among hospitals and among home attendants had succeeded only in maintaining the 1940 levels in each group, registration completeness for the country would have risen to 96.8 percent

because of the change in the proportion of hospital births.

The remaining portion of the improvement was due to moderate increases in registration of births that occurred in hospitals as well as at home. During the period of the 1940 test, birth registration completeness of hospital births was already high—98.5 percent. Hence, although States with near perfect registration of such births retained their high standards and other States were able to approach close to the 100 percent mark, the total improvement was necessarily modest.

With respect to deliveries at home, registration completeness in 1940 was only 86.1 percent but here, too, the increase was small—2.4 percent. To some extent, this limited improvement is explained by the change in composition of attendants delivering babies in the home. Doctors, whose registration practices are generally better than those of the nonphysician group, took care of about three-fifths of the home deliveries in 1950 as against four-fifths in 1940.

### Improvement among the States

Birth registration improved in virtually every State during the 1940's. States varied in completeness from 75.9 percent to 99.4 percent in 1940, but by 1950 the range was cut in half. To the ranks of the 3 States that had 99.0 percent or higher registration completeness in the earlier period were added 21 States and the District of Columbia.

Large gains were made in most of the Southern States, nearly all of which were well below the 90 percent point in 1940. Tennessee, with only 80.4 percent in that year, improved relatively by 20 percent; Arkansas, Georgia, and South Carolina, by 15 to 16 percent; and Alabama, Louisiana, North Carolina, Oklahoma, and Texas, by at least 10 percent.

In all States, the increase in the proportion of births occurring in hospitals was an important factor in the change. However, for some States, particularly those in the South, this by no means tells the whole story. In a few, registration of hospital births during 1940 lagged substantially behind the national average. The improvement that followed brought these areas much closer to the United States figure.

Promotional efforts among midwives and prospective

Table 6.46. BIRTH REGISTRATION COMPLETENESS, BY SPECIFIED RACE AND ATTENDANT: UNITED STATES, 1940 AND 1950 TEST PERIODS

(Test periods cover live births from Dec. 1, 1939, to Mar. 31, 1940, and from Jan. 1 to Mar. 31, 1950. Percent completeness measured by percent of infant cards matched with birth records)

RACE	PERCENT COMPLETENESS							TOTAL INFANT CARDS						
	1950				1940			1950			1940			
	Total	Attended by—			Total	In hos- pital	Not in hos- pital	Total	Attended by—			Total	In hos- pital	Not in hospital
		Physi- cian in hos- pital <sup>1</sup>	Physi- cian not in hos- pital	Mid- wife, other, and not speci- fied					Physi- cian in hos- pital <sup>1</sup>	Physi- cian not in hos- pital	Mid- wife, other, and not speci- fied			
ALL RACES----	97.9	99.4	90.7	84.8	92.5	96.5	86.1	780,130	674,098	61,835	44,197	687,457	341,954	320,831
White-----	98.6	99.5	91.8	74.4	94.0	96.6	88.2	674,617	618,221	44,961	11,435	603,432	324,157	259,272
Nonwhite-----	93.5	98.2	87.8	88.4	82.0	96.3	77.2	105,513	55,877	16,874	32,762	84,025	17,797	61,559
Negro-----	93.7	98.2	87.7	89.6	81.9	96.3	78.0	98,121	49,991	16,299	31,831	75,054	15,900	59,154
Indian-----	85.1	96.6	90.9	44.6	68.3	94.6	50.9	3,869	2,714	339	816	3,541	1,329	2,012
All other-----	97.4	99.1	88.6	70.4	97.8	98.9	96.2	3,523	3,172	236	115	961	568	393

<sup>1</sup>It is assumed that all births in hospitals or institutions are attended by physicians.

NOTE.—Figures for 1940 for "All races," "White," and "Nonwhite" in total column include all infant cards and death records in the test. All other figures for 1940 are inflated from sample consisting of 100 percent of the unmatched infant cards, 20 percent of the matched cards for white infants, and 50 percent of the matched cards for the nonwhite. Figures for 1950 are based on total number of infant cards in each category.

parents also played a large role in the advance made in registration completeness in the Southern States. These took varied forms, but in most cases they were linked to public health programs. For example, training sessions organized in a number of States under the direction of public health nurses to teach midwives maternity care were used to instruct them in the preparation of certificates.

In Alabama, Louisiana, Mississippi, and South Carolina, attendance at prenatal clinics served as a point of contact with expectant mothers to establish a check on the filing of a birth record. Postal cards were given to these women with the request that they be completed and returned to the health department as soon as possible after the birth of the child. Information received in this way was then used to find out whether the attendant had registered the birth, and follow-up action was taken to remedy omissions of registration. Among the other steps taken by States was the adoption of a dual registration system in Georgia which requires both the parent and the attendant to report the birth.

While registration completeness of births at home increased throughout the South, decreases occurred in almost all other parts of the country. Some of the decreases were small and could be ascribed to random factors. In several States the test figures indicate a substantial decline, but a much higher proportion of the home deliveries in these areas were attended by nonphysicians in 1950 than 10 years earlier. As previously mentioned, nonphysicians in most of the areas outside the South have infrequent contact with the registration system and generally know very little about filing a birth record.

#### Improvement by race

Registration in the nonwhite races improved considerably during the 1940-50 decade. As a result, the wide difference in registration completeness between the white and the nonwhite groups that existed in 1940 was substantially reduced. From 82.0 percent in that year, the proportion of nonwhite infants for whom certificates were being filed rose to 93.5 percent in 1950. The corresponding change for the white group was from 94.0 to 98.6 percent.

In the white group, the improvement in registration was related to the more frequent use of hospital facilities in 1950. Registration of hospital births, already very high in 1940, approached even closer to 100 percent. There was practically no change in the completeness of registration of births out of hospitals. But, in the 1950 test, 92 percent of the white births occurred in hospitals as against 54 percent in the earlier test.

On the other hand, nonwhite registration improved by 2.0 percent for hospital births and by 14.2 percent for births delivered at home. The importance of the latter change is indicated by the fact that even in 1950, nearly half of the nonwhite births occurred at home. Promotional efforts of many of the Southern States were directed primarily toward this group.

The figures on registration of Negro births and the reasons for the improvement between 1940 and 1950 are practically identical with those for the total nonwhite group. Among the Indian births, registration completeness advanced from the very low point of 68.3 to 85.1 percent. The more frequent oc-

currence of births in hospitals in 1950 was, of course, partly responsible. A number of special administrative and procedural actions taken by the States during the decade to reduce underregistration in this race group also contributed to the change.

#### Measures of registration completeness for adjusting registered birth statistics

Data for test years.—In addition to the tables on registration completeness by place of birth presented in the preceding pages, this report contains completeness factors on a residence basis by State (table 6.47), urban-rural area (table 6.48), and population-size group in metropolitan and nonmetropolitan counties (table 6.49). Residence data are needed for most statistical and health purposes, while measures by place of occurrence are used primarily in registration promotion.

Other variables of registration completeness for which data are shown include: age of mother (tables 6.50 and 6.51), birth order (table 6.52), age of mother by birth order (table 6.53), and age of father (table 6.54). Although not shown in this report, measures on registration completeness for 1940 and 1950 have been prepared for individual counties and cities of 10,000 population or more, by place of occurrence. Comparable data on a residence basis are available for 1950, but for 1940 the residence data are limited to county measures.

Data for nontest years.—Estimates of registration completeness for periods other than those covered in the 1940 and 1950 tests have been made in preparing table 6.55, and in adjusting registered birth data for presentation earlier in this chapter. These estimates were generally derived by interpolation between the 1940 and 1950 test results for specific characteristics. In connection with the tables giving State data adjusted for underregistration, it was assumed that the change in registration completeness followed a linear trend between the decennial years with respect to hospital and nonhospital births for the white and nonwhite groups, separately. Thus, four measures for each year were derived for each State. These were then applied to the corresponding numbers of registered live births to yield corrected figures. The United States aggregate for each year was established as a control total, and estimates involving other variables were adjusted to these over-all totals.

In estimating the number of births by sex the adjustment for underregistration was made using separate factors for the white and nonwhite groups. It was assumed that, within each race, there was no variation in registration completeness by sex.

Completeness measures by age of mother and race for intercensal years were obtained by interpolation between the 1940 and 1950 factors and adjustment to predetermined totals for each year. Completeness percentages by birth order and race for each year from 1940 through 1949 were estimated on the basis of age of mother and birth order relationships tabulated in the 1950 test. A similar procedure was used in adjusting age-of-father data since here too, no factors had been tabulated from the 1940 test to permit interpolation between these values and those from the 1950 test.

## ANALYSIS

Table 6.47. PERCENT REGISTRATION COMPLETENESS FOR BIRTHS IN HOSPITALS AND NOT IN HOSPITALS, BY RACE: UNITED STATES, EACH DIVISION AND STATE, JANUARY 1 TO MARCH 31, 1950

(By place of residence. Percent completeness measured by percent of infant cards matched with birth records)

AREA	TOTAL			IN HOSPITAL			NOT IN HOSPITAL		
	All races	White	Non-white	All races	White	Non-white	All races	White	Non-white
UNITED STATES-----	97.9	98.6	93.5	99.4	99.5	98.2	88.2	88.2	88.2
GEOGRAPHIC DIVISIONS									
New England-----	99.7	99.7	99.3	99.8	99.8	99.7	93.8	94.0	85.0
Middle Atlantic-----	99.5	99.6	98.6	99.7	99.8	99.0	94.3	94.6	92.8
East North Central-----	99.0	99.2	97.1	99.6	99.6	98.7	89.6	89.6	89.8
West North Central-----	99.1	99.2	95.4	99.7	99.7	99.0	90.4	91.8	79.8
South Atlantic-----	95.7	97.2	92.1	98.7	99.0	97.4	88.5	87.5	89.1
East South Central-----	96.2	96.5	95.5	99.3	99.4	99.0	91.7	89.0	94.1
West South Central-----	94.8	96.6	88.3	98.7	98.9	97.3	82.2	84.7	79.1
Mountain-----	96.7	97.9	78.3	99.0	99.2	93.9	75.1	83.2	44.6
Pacific-----	99.2	99.2	98.2	99.6	99.6	99.2	79.0	78.8	79.7
NEW ENGLAND									
Maine-----	99.0	99.0	100.0	99.6	99.6	100.0	93.4	93.4	100.0
New Hampshire-----	99.8	99.8	100.0	99.8	99.8	100.0	97.1	97.1	-
Vermont-----	99.5	99.5	100.0	99.7	99.7	100.0	97.3	97.3	-
Massachusetts-----	99.7	99.7	98.7	99.8	99.9	99.3	91.6	92.2	78.6
Rhode Island-----	99.9	99.9	100.0	99.9	99.9	100.0	95.2	95.0	100.0
Connecticut-----	99.9	99.9	100.0	100.0	100.0	100.0	97.4	97.3	100.0
MIDDLE ATLANTIC									
New York-----	99.6	99.6	98.6	99.7	99.8	98.9	91.4	91.0	93.0
New Jersey-----	99.6	99.7	98.7	99.8	99.8	99.2	94.0	94.4	92.9
Pennsylvania-----	99.4	99.5	98.4	99.7	99.7	99.0	95.5	95.8	92.6
EAST NORTH CENTRAL									
Ohio-----	99.0	99.0	98.1	99.6	99.6	99.3	88.5	88.5	88.5
Indiana-----	98.9	99.0	98.5	99.3	99.4	98.9	94.2	93.4	97.5
Illinois-----	99.0	99.2	96.6	99.6	99.7	98.5	88.6	87.3	90.5
Michigan-----	98.9	99.1	96.1	99.4	99.5	98.0	86.4	87.8	82.6
Wisconsin-----	99.6	99.6	99.0	99.8	99.8	100.0	93.6	93.9	88.5
WEST NORTH CENTRAL									
Minnesota-----	99.9	99.9	96.5	100.0	100.0	100.0	95.0	97.2	52.6
Iowa-----	99.3	99.3	98.7	99.6	99.6	100.0	93.6	93.9	75.0
Missouri-----	98.0	98.2	96.1	99.4	99.4	98.7	90.4	90.9	86.5
North Dakota-----	99.3	99.4	95.6	99.9	100.0	99.0	89.2	90.3	71.4
South Dakota-----	98.5	99.3	83.4	99.5	99.6	97.2	79.6	91.6	52.4
Nebraska-----	99.5	99.6	95.7	99.9	99.9	99.4	90.2	92.2	63.2
Kansas-----	99.2	99.4	96.2	99.8	99.8	99.7	88.0	89.4	82.4
SOUTH ATLANTIC									
Delaware-----	99.4	99.5	98.8	99.8	99.8	99.4	95.8	93.8	97.5
Maryland-----	99.1	99.3	98.0	99.7	99.8	99.0	94.5	93.5	95.4
District of Columbia-----	98.8	99.7	97.5	99.2	99.9	98.2	83.3	76.9	84.4
Virginia-----	97.3	98.0	95.1	99.5	99.6	98.9	91.5	90.1	92.7
West Virginia-----	94.3	94.5	91.0	98.7	98.7	98.1	87.6	87.5	88.3
North Carolina-----	96.2	97.6	93.3	98.4	98.7	97.0	91.3	91.2	91.4
South Carolina-----	89.6	93.4	85.2	96.7	97.1	94.9	81.7	76.7	85.0
Georgia-----	94.6	96.8	91.0	98.2	98.8	95.6	87.6	82.5	89.0
Florida-----	97.5	98.8	94.0	99.2	99.4	98.0	91.6	91.5	91.6
EAST SOUTH CENTRAL									
Kentucky-----	94.8	94.8	94.9	98.6	98.6	98.3	88.5	88.2	91.5
Tennessee-----	96.6	97.2	94.4	99.5	99.6	99.0	89.5	89.0	90.4
Alabama-----	95.9	97.1	94.1	99.5	99.6	99.2	91.0	88.8	92.2
Mississippi-----	97.8	98.6	97.2	99.7	99.6	99.1	96.3	93.4	96.8
WEST SOUTH CENTRAL									
Arkansas-----	88.1	92.2	78.0	97.3	97.8	92.0	74.9	75.1	74.8
Louisiana-----	95.5	97.0	93.3	98.4	98.6	97.9	84.2	79.6	85.8
Oklahoma-----	96.1	97.4	86.4	99.1	99.2	98.3	81.1	85.5	72.1
Texas-----	96.0	97.2	88.8	98.9	99.1	97.3	85.3	88.2	78.8
MOUNTAIN									
Montana-----	99.4	99.4	98.9	99.8	99.8	99.4	89.7	87.2	96.7
Idaho-----	98.6	98.7	94.7	99.2	99.3	96.2	79.1	79.2	75.0
Wyoming-----	98.7	98.7	100.0	99.3	99.3	100.0	86.1	84.6	100.0
Colorado-----	96.9	96.9	97.8	99.1	99.1	98.5	71.7	71.0	90.5
New Mexico-----	94.3	96.7	70.5	97.7	98.8	83.1	85.5	90.7	53.9
Arizona-----	92.0	97.4	68.6	98.4	99.0	94.5	53.4	80.3	28.9
Utah-----	98.7	99.1	83.2	99.4	99.4	98.6	74.2	82.6	50.0
Nevada-----	98.0	98.8	90.5	98.3	99.1	88.7	89.5	77.8	100.0
PACIFIC									
Washington-----	99.3	99.4	97.0	99.7	99.6	100.0	75.1	80.0	51.6
Oregon-----	99.1	99.1	99.4	99.3	99.3	99.4	85.8	84.8	100.0
California-----	99.2	99.2	98.3	99.6	99.6	99.1	78.8	77.7	82.9

NOTE.—For an approximation of the number of total infant cards in each group, see table 6.43, which shows same data by place (area) of occurrence.

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**Table 6.48. BIRTH REGISTRATION COMPLETENESS FOR BIRTHS IN HOSPITALS AND NOT IN HOSPITALS, BY RACE, FOR URBAN AND RURAL AREAS: UNITED STATES AND EACH GEOGRAPHIC DIVISION, 1940 AND 1950 TEST PERIODS**

(By place of residence. Test periods cover live births from Dec. 1, 1939, to Mar. 31, 1940, and from Jan. 1 to Mar. 31, 1950. Percent completeness measured by percent of infant cards matched with birth records)

AREA AND RACE	PERCENT COMPLETENESS				TOTAL INFANT CARDS			
	1950			1940	1950			1940
	Total	In hospital	Not in hospital		Total	In hospital	Not in hospital	
UNITED STATES-----	97.9	99.4	88.2	92.5	780,130	674,098	106,032	687,457
White-----	98.6	99.5	88.2	94.0	674,617	618,221	56,396	603,432
Nonwhite--	95.5	98.2	88.2	82.0	105,513	55,877	49,636	84,025
Urban-----	98.9	99.5	89.8	96.2	436,566	409,281	27,285	346,317
White-----	99.3	99.6	89.5	96.9	379,997	367,459	12,538	313,775
Nonwhite--	96.4	98.6	90.1	89.8	56,569	41,822	14,747	32,542
Rural-----	96.5	99.2	87.7	88.4	343,564	264,817	78,747	316,468
White-----	97.6	99.3	87.9	90.6	294,620	250,762	43,858	269,654
Nonwhite--	90.1	97.0	87.4	75.7	48,944	14,055	34,889	46,814
New England-----	99.7	99.8	93.8	98.6	42,661	41,665	996	34,889
White-----	99.7	99.8	94.0	98.6	41,742	40,766	976	34,395
Nonwhite--	99.3	99.7	85.0	96.8	919	899	20	494
Urban-----	99.8	99.9	92.9	98.9	30,380	30,040	340	25,592
White-----	99.8	99.9	92.9	98.9	29,549	29,224	325	25,184
Nonwhite--	99.5	99.6	93.3	98.0	831	816	15	408
Rural-----	99.5	99.8	94.2	97.8	12,281	11,625	656	9,297
White-----	99.5	99.8	94.5	97.8	12,193	11,542	651	9,211
Nonwhite--	97.7	100.0	60.0	90.7	88	85	5	86
Middle Atlantic-----	99.5	99.7	94.3	98.0	132,112	127,042	5,070	110,873
White-----	99.6	99.8	94.6	98.2	121,925	117,535	4,390	105,099
Nonwhite--	98.6	98.0	92.8	95.0	10,187	9,507	680	5,774
Urban-----	99.5	99.7	92.4	98.2	95,788	93,625	2,163	81,919
White-----	99.6	99.8	92.3	98.4	86,467	84,849	1,618	76,713
Nonwhite--	98.6	98.9	92.8	95.1	9,321	8,776	545	5,206
Rural-----	99.5	99.8	95.7	97.4	36,324	33,417	2,907	28,954
White-----	99.5	99.8	95.9	97.4	35,458	32,686	2,772	28,386
Nonwhite--	98.4	99.5	92.6	94.7	866	731	135	568
East North Central-----	99.0	99.6	89.6	96.6	156,605	148,182	8,423	126,073
White-----	99.2	99.6	89.6	96.8	145,315	138,868	6,447	120,936
Nonwhite--	97.1	98.7	89.8	92.6	11,290	9,314	1,976	5,137
Urban-----	99.2	99.6	89.9	97.3	100,157	96,377	3,780	80,616
White-----	99.4	99.7	89.2	97.5	89,708	87,707	2,001	75,999
Nonwhite--	97.4	98.7	90.8	93.5	10,449	8,670	1,779	4,617
Rural-----	98.7	99.5	89.4	95.4	56,448	51,805	4,643	45,457
White-----	98.8	99.5	89.8	95.5	55,607	51,161	4,446	44,937
Nonwhite--	94.1	98.0	81.2	84.6	841	644	197	520
West North Central-----	99.1	99.7	90.4	94.9	73,851	68,809	5,042	69,626
White-----	99.2	99.7	91.8	95.2	70,753	66,296	4,457	67,555
Nonwhite--	95.4	99.0	79.8	86.2	3,098	2,513	585	2,071
Urban-----	99.5	99.8	91.1	96.9	36,983	35,839	1,144	29,710
White-----	99.7	99.8	92.4	97.1	34,663	33,799	864	28,456
Nonwhite--	97.7	99.2	87.1	90.6	2,320	2,040	280	1,254
Rural-----	98.6	99.6	90.2	93.4	36,868	32,970	3,898	39,916
White-----	98.8	99.6	91.6	93.7	36,090	32,497	3,593	39,099
Nonwhite--	88.4	98.3	73.1	79.6	778	473	305	817
South Atlantic-----	95.7	98.7	88.5	86.6	119,460	83,882	35,578	104,143
White-----	97.2	99.0	87.5	88.9	84,042	70,914	13,128	74,188
Nonwhite--	92.1	97.4	89.1	80.9	35,418	12,968	22,450	29,955
Urban-----	97.5	99.0	89.3	92.1	46,230	39,208	7,022	37,167
White-----	98.8	99.3	87.4	93.5	32,156	30,787	1,369	27,532
Nonwhite--	94.7	98.0	89.7	88.2	14,074	8,421	5,653	9,635
Rural-----	94.6	98.5	88.3	83.6	73,230	44,674	28,556	66,976
White-----	96.3	98.8	87.6	86.3	51,886	40,127	11,759	46,856
Nonwhite--	90.4	96.2	88.9	77.4	21,344	4,547	16,797	20,320
East South Central-----	96.2	99.3	91.7	85.8	68,483	40,804	27,679	68,936
White-----	96.5	99.4	89.0	86.9	48,375	35,206	13,169	51,009
Nonwhite--	95.5	99.0	94.1	82.6	20,108	5,598	14,510	17,927
Urban-----	98.2	99.4	93.7	92.5	22,949	18,061	4,888	19,109
White-----	98.8	99.5	90.6	93.9	15,770	14,573	1,197	13,915
Nonwhite--	96.9	99.1	94.7	88.7	7,179	3,488	3,691	5,194
Rural-----	95.2	99.2	91.2	85.2	45,534	22,743	22,791	49,827
White-----	95.4	99.2	88.9	84.3	32,605	20,633	11,972	37,094
Nonwhite--	94.7	98.8	93.9	80.1	12,929	2,110	10,819	12,733

## ANALYSIS

Table 6.48. BIRTH REGISTRATION COMPLETENESS FOR BIRTHS IN HOSPITALS AND NOT IN HOSPITALS, BY RACE, FOR URBAN AND RURAL AREAS: UNITED STATES AND EACH GEOGRAPHIC DIVISION, 1940 AND 1950 TEST PERIODS—Continued

(By place of residence. Test periods cover live births from Dec. 1, 1939, to Mar. 31, 1940, and from Jan. 1 to Mar. 31, 1950. Percent completeness measured by percent of infant cards matched with birth records)

AREA AND RACE	PERCENT COMPLETENESS				TOTAL INFANT CARDS			
	1950			1940	1950			1940
	Total	In hospital	Not in hospital		Total	In hospital	Not in hospital	
West South Central-----	94.8	96.7	82.2	84.5	81,074	62,175	18,899	77,805
White-----	96.6	98.9	84.7	87.1	63,803	53,440	10,363	63,055
Nonwhite--	88.3	97.3	79.1	72.5	17,271	8,735	8,536	14,750
Urban-----	97.3	99.1	87.3	90.7	44,028	37,380	6,648	30,888
White-----	98.5	99.3	89.7	92.5	35,942	31,890	4,052	25,982
Nonwhite--	95.2	97.8	85.6	82.4	8,086	5,490	2,596	4,906
Rural-----	91.9	98.0	79.4	80.1	37,046	24,795	12,251	46,917
White-----	94.5	98.3	81.5	83.4	27,861	21,550	6,311	37,073
Nonwhite--	83.9	96.5	77.1	67.6	9,185	3,245	5,940	9,844
Mountain-----	96.7	99.0	75.1	91.3	31,201	28,212	2,989	27,294
White-----	97.9	99.2	83.2	93.6	29,218	26,857	2,361	25,641
Nonwhite--	78.3	93.9	44.6	55.2	1,983	1,355	628	1,653
Urban-----	98.8	99.4	86.4	95.3	14,794	14,125	669	12,167
White-----	98.8	99.4	86.5	95.5	14,284	13,661	623	11,962
Nonwhite--	97.5	98.7	84.8	82.0	510	464	46	205
Rural-----	94.8	98.6	71.8	88.0	16,407	14,087	2,320	15,127
White-----	97.0	99.0	82.0	91.9	14,934	13,196	1,738	13,679
Nonwhite--	71.7	91.5	41.4	51.4	1,473	891	582	1,448
Pacific-----	99.2	99.6	79.0	97.8	74,883	73,327	1,356	43,146
White-----	99.2	99.6	78.8	98.0	69,444	68,339	1,105	41,551
Nonwhite--	98.2	99.2	79.7	94.9	5,239	4,988	251	1,595
Urban-----	99.4	99.6	82.3	98.4	45,257	44,626	631	29,149
White-----	99.4	99.6	80.8	98.4	41,458	40,969	489	28,032
Nonwhite--	98.7	99.1	87.3	98.1	3,799	3,657	142	1,117
Rural-----	98.9	99.5	76.1	96.8	29,426	28,701	725	13,997
White-----	99.0	99.5	77.3	97.1	27,986	27,370	616	13,519
Nonwhite--	97.1	99.3	69.7	87.4	1,440	1,331	109	478

## NOTES:

Figures for 1940 for "White" and "Nonwhite" for the United States only include all infant cards and death records in the test. All other figures for 1940 are inflated from sample consisting of 100 percent of the unmatched infant cards, 20 percent of the matched cards for white infants, and 50 percent of the matched cards for the nonwhite. Figures for 1950 are based on total number of infant cards in each category.

For definitions of urban and rural areas, see text in chapter 2.

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**Table 6.49. BIRTH REGISTRATION COMPLETENESS FOR BIRTHS IN HOSPITALS AND NOT IN HOSPITALS, BY RACE AND POPULATION-SIZE GROUP IN METROPOLITAN AND NONMETROPOLITAN COUNTIES: UNITED STATES, JANUARY 1 TO MARCH 31, 1950**

(By place of residence. Percent completeness measured by percent of infant cards matched with birth records)

AREA	PERCENT COMPLETENESS									TOTAL INFANT CARDS					
	Total			In hospital			Not in hospital			Total		In hospital		Not in hospital	
	All races	White	Non-white	All races	White	Non-white	All races	White	Non-white	White	Non-white	White	Non-white	White	Non-white
ALL COUNTIES-----	97.9	98.6	93.5	99.4	99.5	98.2	88.2	88.2	88.2	674,617	105,513	618,221	55,877	56,396	49,636
Urban-----	98.9	99.3	96.4	99.5	99.6	98.6	89.8	89.5	90.1	379,997	56,569	367,459	41,822	12,538	14,747
Places of--															
250,000 or more-----	99.2	99.5	98.1	99.5	99.7	98.8	91.4	89.8	92.9	131,664	27,516	128,745	24,279	2,919	3,237
100,000 to 250,000-----	99.2	99.6	97.1	99.6	99.7	98.8	90.9	90.7	91.0	40,803	6,992	39,934	5,483	869	1,509
50,000 to 100,000-----	99.2	99.5	96.4	99.6	99.7	98.5	90.4	89.2	91.2	39,749	4,984	38,779	3,549	970	1,435
25,000 to 50,000-----	99.1	99.4	96.2	99.6	99.7	98.8	90.7	88.0	92.2	42,986	4,397	42,018	2,687	978	1,710
10,000 to 25,000-----	98.8	99.3	95.6	99.5	99.6	98.0	88.6	88.3	88.7	59,900	5,852	57,933	3,089	1,367	2,763
2,500 to 10,000-----	98.0	98.7	91.0	99.3	99.4	96.8	88.7	90.1	87.1	64,885	6,828	60,050	2,735	4,835	4,093
Rural-----	96.5	97.6	90.1	99.2	99.3	97.0	87.7	87.9	87.4	294,620	48,944	250,762	14,055	43,858	34,889
Farm-----	95.2	96.7	89.5	99.0	99.2	96.5	87.7	87.4	87.9	104,026	26,986	82,099	5,034	21,927	21,952
Nonfarm-----	97.5	98.2	91.3	99.3	99.4	97.4	88.0	88.7	86.9	181,078	20,186	160,674	8,468	20,404	11,718
Not stated-----	95.1	96.6	87.1	99.0	99.2	96.0	83.0	82.9	83.1	9,516	1,772	7,989	553	1,527	1,219
Metropolitan Counties-----	99.2	99.4	97.3	99.6	99.7	98.8	90.1	89.2	91.2	370,697	49,987	359,513	40,380	11,184	9,607
Urban-----	99.3	99.5	97.7	99.6	99.7	98.8	90.9	89.8	91.9	278,284	42,667	272,234	35,849	6,050	6,818
Places of--															
250,000 or more-----	99.2	99.5	98.1	99.5	99.7	98.8	91.4	89.8	92.9	131,664	27,516	128,745	24,279	2,919	3,237
100,000 to 250,000-----	99.2	99.6	97.1	99.6	99.7	98.8	90.9	90.7	91.0	40,803	6,992	39,934	5,483	869	1,509
50,000 to 100,000-----	99.2	99.5	96.4	99.6	99.7	98.5	90.4	89.2	91.2	39,749	4,984	38,779	3,549	970	1,435
25,000 to 50,000-----	99.5	99.6	98.0	99.8	99.8	98.3	89.7	88.0	92.0	19,707	1,085	19,432	886	275	199
10,000 to 25,000-----	99.5	99.6	97.2	99.8	99.8	98.8	88.3	86.7	90.7	25,357	1,302	24,996	1,045	361	257
2,500 to 10,000-----	99.4	99.5	96.4	99.8	99.8	98.5	91.5	91.8	89.5	21,004	788	20,348	607	656	181
Rural-----	98.8	99.1	95.1	99.6	99.7	98.6	88.8	88.4	89.4	92,413	7,320	87,279	4,531	5,134	2,789
Farm-----	97.8	98.5	92.5	99.6	99.6	98.5	88.5	88.9	88.0	13,643	1,686	12,153	728	1,490	958
Nonfarm-----	99.0	99.2	96.0	99.7	99.7	98.6	89.3	88.8	90.4	75,667	5,312	72,211	3,607	3,456	1,705
Not stated-----	97.8	98.3	93.2	99.4	99.5	98.0	81.8	79.3	85.7	3,103	322	2,915	196	188	126
Nonmetropolitan Counties-----	96.4	97.5	90.0	99.1	99.2	96.7	87.8	88.0	87.5	303,920	55,526	258,708	15,497	45,212	40,029
Urban-----	98.0	98.8	92.3	99.3	99.4	97.5	88.9	89.3	88.5	101,713	13,902	95,225	5,973	6,488	7,929
Places of--															
25,000 to 50,000-----	98.8	99.2	95.7	99.5	99.6	98.6	90.9	88.1	92.3	23,289	3,312	22,586	1,801	703	1,511
10,000 to 25,000-----	98.3	99.0	92.6	99.4	99.5	97.7	88.6	88.7	88.5	34,543	4,550	32,937	2,044	1,606	2,506
2,500 to 10,000-----	97.3	98.3	90.2	99.1	99.2	96.3	88.4	89.8	86.9	45,881	6,040	39,702	2,128	4,179	3,912
Rural-----	95.6	96.9	89.3	99.0	99.1	96.3	87.5	87.8	87.2	202,207	41,624	163,483	9,524	38,724	32,100
Farm-----	94.9	96.5	89.3	98.9	99.1	96.1	87.6	87.3	87.9	90,383	25,300	69,946	4,306	20,437	20,994
Nonfarm-----	96.5	97.4	89.6	99.0	99.1	96.5	87.8	88.7	86.3	105,411	14,874	88,463	4,861	16,948	10,013
Not stated-----	94.0	95.8	85.8	98.8	99.1	95.0	83.1	83.4	82.8	6,413	1,450	5,074	357	1,339	1,093

NOTE.—For definitions of areas, see text in chapter 2.

ANALYSIS

Table 6.50. BIRTH REGISTRATION COMPLETENESS, BY AGE OF MOTHER AND RACE: UNITED STATES AND EACH GEOGRAPHIC DIVISION, JANUARY 1 TO MARCH 31, 1950

(By place of residence. Percent completeness measured by percent of infant cards matched with birth records)

AREA AND RACE	PERCENT COMPLETENESS							TOTAL INFANT CARDS							
	Total <sup>1</sup>	Age of mother						Age of mother							
		Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45 and over	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45 and over
UNITED STATES----	97.9	97.1	98.1	98.3	98.1	97.1	96.5	90.9	60,521	239,422	225,647	135,607	68,280	18,419	1,615
White-----	98.6	98.3	98.8	98.8	98.7	98.0	97.5	93.8	60,760	205,047	200,899	121,172	59,635	16,011	1,255
Nonwhite--	93.5	95.6	94.2	94.3	93.3	91.2	89.9	80.7	19,761	33,375	24,748	14,435	8,645	2,408	358
New England-----	99.7	99.6	99.7	99.8	99.7	99.6	99.5	98.5	2,254	11,814	13,900	8,889	4,191	1,040	68
White-----	99.7	99.5	99.7	99.8	99.7	99.6	99.5	98.5	2,147	11,509	13,524	8,744	4,137	1,027	66
Nonwhite--	99.3	100.0	99.3	99.6	98.6	100.0	100.0	100.0	107	305	276	145	54	13	2
Middle Atlantic----	99.5	99.5	99.6	99.7	99.6	99.3	99.1	96.0	7,862	36,938	42,844	26,756	12,514	3,043	227
White-----	99.6	99.6	99.6	99.7	99.7	99.4	99.3	97.1	6,280	33,540	40,166	25,281	11,804	2,891	204
Nonwhite--	96.6	99.1	98.7	98.9	98.4	97.7	95.4	87.0	1,582	3,398	2,678	1,475	710	152	23
East North Central----	99.0	98.9	99.3	99.2	99.0	98.7	98.5	96.5	13,201	48,835	47,322	28,084	13,354	3,299	256
White-----	99.2	99.1	99.4	99.3	99.1	98.9	98.7	97.0	11,259	45,009	44,465	26,553	12,652	3,119	230
Nonwhite--	97.1	97.7	97.9	97.1	97.5	93.9	94.4	92.3	1,942	3,826	2,857	1,511	702	180	26
West North Central----	99.1	98.5	99.2	99.2	99.1	98.7	98.2	97.6	6,561	23,290	21,038	13,040	6,653	2,036	164
White-----	99.2	98.9	99.4	99.3	99.3	98.9	98.5	98.1	5,990	22,325	20,335	12,585	6,391	1,961	155
Nonwhite--	95.4	94.9	96.2	96.2	94.7	93.9	90.7	88.9	571	965	703	455	262	75	9
South Atlantic-----	95.7	95.1	96.1	96.4	95.8	94.1	94.3	87.2	17,089	36,987	31,574	18,761	10,056	2,770	304
White-----	97.2	97.0	97.6	97.6	97.1	95.9	96.2	92.0	10,031	25,926	23,453	14,084	7,055	1,982	176
Nonwhite--	92.1	92.3	92.7	92.9	91.8	89.7	89.5	80.5	7,058	11,061	8,121	4,677	3,001	788	128
East South Central----	96.2	96.7	96.7	96.5	96.0	94.7	94.1	87.3	10,943	21,361	16,748	10,059	6,140	2,047	212
White-----	96.5	97.2	97.1	96.6	96.4	95.0	94.4	85.6	6,752	15,137	12,481	7,369	4,357	1,480	132
Nonwhite--	95.5	95.9	95.8	96.1	95.1	93.9	93.5	90.0	4,191	6,224	4,267	2,690	1,783	567	80
West South Central----	94.8	94.3	95.8	95.5	94.7	92.8	90.7	80.1	11,846	26,238	20,892	11,856	6,805	2,002	186
White-----	96.8	96.8	97.3	97.0	96.4	94.8	93.0	88.2	8,427	20,936	17,058	9,521	5,224	1,525	127
Nonwhite--	88.3	88.3	89.9	88.7	88.0	86.2	83.4	62.7	3,419	5,302	3,834	2,335	1,581	477	59
Mountain-----	96.7	96.9	97.0	97.4	96.7	95.6	93.5	81.8	3,446	9,929	8,521	5,251	2,718	771	88
White-----	97.9	98.5	98.3	98.2	97.9	97.0	95.3	85.1	3,190	9,344	8,044	4,919	2,510	698	74
Nonwhite--	78.3	77.0	76.2	83.9	78.0	78.8	76.7	64.3	256	585	477	332	208	73	14
Pacific-----	99.2	99.3	99.3	99.3	99.2	99.1	98.8	95.4	7,319	23,030	22,908	12,931	5,849	1,411	103
White-----	99.2	99.3	99.4	99.4	99.3	99.3	98.9	97.8	6,884	21,321	21,373	12,116	5,505	1,328	91
Nonwhite--	98.2	99.4	98.6	98.0	98.5	96.8	96.4	82.4	635	1,709	1,535	815	344	83	17

<sup>1</sup>Figures for age of mother not stated included in "Total," but not distributed among the specified age groups.



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**Table 6.51. BIRTH REGISTRATION COMPLETENESS, BY AGE OF MOTHER AND RACE: UNITED STATES AND EACH GEOGRAPHIC DIVISION, DECEMBER 1, 1939, TO MARCH 31, 1940**

(By place of residence. Percent completeness measured by percent of infant cards matched with birth records)

AREA AND RACE	PERCENT COMPLETENESS								TOTAL INFANT CARDS						
	Total	Age of mother							Age of mother						
		Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45 and over	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45 and over
UNITED STATES----	92.5	90.9	92.8	93.5	93.1	91.0	89.7	75.7	79,146	202,788	182,778	116,474	60,786	18,633	2,180
White-----	94.0	93.1	94.3	94.7	94.3	92.5	91.5	82.5	61,556	178,434	165,402	105,863	53,796	16,553	1,775
Nonwhite--	82.0	83.5	81.9	82.0	81.0	78.7	75.8	45.9	17,590	24,304	17,376	10,611	6,990	2,080	405
New England-----	98.6	98.3	98.6	98.7	98.8	98.5	97.3	90.9	2,373	9,524	10,365	7,583	3,865	1,058	121
White-----	98.6	98.2	98.6	98.7	98.9	98.6	97.4	90.9	2,281	9,380	10,236	7,511	3,814	1,052	121
Nonwhite--	96.8	100.0	97.2	96.1	97.2	94.1	66.7	-	92	144	129	72	51	6	-
Middle Atlantic-----	98.0	97.7	98.2	98.2	98.1	97.5	96.3	93.3	8,047	31,601	34,946	22,730	10,201	3,094	254
White-----	98.2	97.9	98.3	98.3	98.2	97.7	96.6	94.1	6,935	29,716	33,645	21,909	9,700	2,955	239
Nonwhite--	95.0	96.4	96.2	94.4	93.3	93.8	90.6	80.0	1,112	1,885	1,301	821	501	139	15
East North Central-----	96.5	96.3	96.7	97.0	96.8	95.7	95.2	88.2	12,572	39,370	36,848	22,459	11,185	3,335	304
White-----	96.8	96.5	96.8	97.1	97.0	95.9	95.6	90.0	11,378	37,725	35,801	21,754	10,766	3,223	289
Nonwhite--	92.6	94.5	93.6	92.6	89.9	91.2	85.9	53.3	1,194	1,645	1,047	705	419	112	15
West North Central-----	94.9	94.2	95.5	95.4	94.8	93.8	92.7	88.4	6,902	21,206	19,011	12,828	7,044	2,567	268
White-----	95.2	94.7	95.7	95.6	95.0	94.1	93.3	88.7	6,423	20,609	18,549	12,574	6,841	2,294	285
Nonwhite--	86.2	87.5	88.9	84.8	85.0	84.7	74.0	66.7	479	597	462	254	203	73	3
South Atlantic-----	86.6	86.4	86.9	87.3	87.4	85.3	82.2	65.6	16,929	33,450	25,274	15,696	9,499	2,833	462
White-----	88.9	88.7	89.5	89.3	89.3	87.8	84.2	75.4	10,077	23,973	18,942	11,839	7,004	2,068	285
Nonwhite--	80.9	83.0	80.3	81.3	81.6	78.5	76.9	49.7	6,852	9,477	6,332	3,857	2,495	765	177
East South Central-----	85.8	86.6	86.8	86.2	85.1	83.4	82.2	61.6	11,840	20,754	16,672	10,808	6,488	2,090	284
White-----	86.9	88.2	88.1	87.1	86.0	84.0	84.2	70.7	7,582	15,554	12,713	8,437	4,902	1,630	191
Nonwhite--	82.6	83.8	83.0	83.4	81.7	81.6	75.2	43.0	4,258	5,200	3,959	2,371	1,586	460	95
West South Central-----	84.3	85.1	85.2	85.4	84.1	79.6	78.6	57.4	12,558	23,826	19,758	12,485	6,856	2,031	291
White-----	87.1	88.5	88.0	87.9	86.5	82.6	81.0	67.1	9,351	19,453	16,456	10,452	5,493	1,634	216
Nonwhite--	72.5	75.3	72.9	73.2	72.0	67.4	68.5	29.3	3,207	4,373	3,302	2,033	1,363	397	75
Mountain-----	91.3	92.4	91.8	92.2	90.6	87.9	88.8	80.3	3,199	8,639	7,422	4,556	2,490	841	147
White-----	93.6	94.9	93.8	94.2	93.1	91.2	91.8	85.9	3,004	8,149	7,026	4,292	2,285	757	128
Nonwhite--	55.2	54.4	57.6	57.1	50.8	50.7	61.9	42.1	195	490	396	264	205	84	19
Pacific-----	97.8	98.4	98.0	98.0	97.8	96.8	96.5	73.5	4,726	14,418	12,482	7,329	3,158	964	49
White-----	98.0	98.6	98.1	98.0	98.0	97.0	96.8	73.2	4,525	13,925	12,034	7,095	2,991	940	41
Nonwhite--	94.9	94.5	95.3	96.4	94.0	93.4	90.9	75.0	201	493	448	234	167	44	8

**NOTES:**

The first three percentages in the total column are based on all infant cards and death records in the test. All other percentages in the table are based on an inflated sample consisting of 100 percent of the unmatched infant cards, 20 percent of the matched cards for white infants, and 50 percent of the matched cards for the nonwhite.

Figures for age of mother not stated have been distributed.

ANALYSIS

Table 6.52. BIRTH REGISTRATION COMPLETENESS, BY BIRTH ORDER AND RACE: UNITED STATES AND EACH GEOGRAPHIC DIVISION, JANUARY 1 TO MARCH 31, 1950

(By place of residence. Percent completeness measured by percent of infant cards matched with birth records. Birth order refers to number of children born alive to mother)

AREA AND RACE	PERCENT COMPLETENESS								TOTAL INFANT CARDS							
	Total <sup>1</sup>	Birth order							Birth order							
		1st	2d	3d	4th	5th	6th and 7th	8th and over	1st	2d	3d	4th	5th	6th and 7th	8th and over	
UNITED STATES-----	97.9	98.9	98.7	98.2	97.2	95.9	94.5	92.6	240,399	236,504	131,631	65,613	34,822	34,556	24,700	
White-----	98.6	99.3	99.1	98.8	98.0	97.0	95.6	93.9	215,679	213,133	114,443	54,195	27,033	24,564	15,791	
Nonwhite--	95.5	95.0	94.8	94.1	93.1	92.4	91.9	90.3	24,720	23,371	17,188	11,418	7,789	9,994	8,909	
New England-----	99.7	99.8	99.7	99.8	99.6	99.7	99.4	98.1	13,931	14,028	7,586	3,329	1,560	1,229	632	
White-----	99.7	99.8	99.7	98.8	99.7	99.7	99.5	98.0	13,693	13,768	7,218	3,239	1,511	1,170	593	
Nonwhite--	99.3	100.0	99.2	100.0	98.9	100.0	98.3	100.0	238	260	168	90	49	59	39	
Middle Atlantic-----	99.5	99.7	99.7	99.6	99.5	99.2	98.9	98.4	46,503	44,090	21,145	9,207	4,090	3,362	1,966	
White-----	99.6	99.7	99.7	99.7	99.6	99.1	99.0	98.4	43,439	41,363	19,369	8,254	3,832	2,827	1,589	
Nonwhite--	98.6	99.0	98.6	98.9	98.3	97.8	98.1	98.4	3,064	2,727	1,776	953	558	535	377	
East North Central-----	99.0	99.4	99.4	99.2	98.8	98.3	97.7	96.5	49,390	49,390	27,310	13,158	6,447	5,488	3,127	
White-----	99.2	99.5	99.5	99.4	99.0	98.5	98.0	96.6	46,442	46,527	25,391	11,988	5,736	4,701	2,596	
Nonwhite--	97.1	97.9	98.1	97.1	96.9	96.2	96.3	95.7	3,073	2,863	1,919	1,170	711	787	531	
West North Central-----	99.1	99.4	99.4	99.1	98.8	97.9	97.5	95.9	21,953	22,675	13,207	6,591	3,479	2,978	1,838	
White-----	99.2	99.5	99.5	99.3	99.0	98.1	97.8	96.7	21,169	21,944	12,688	6,278	3,268	2,725	1,624	
Nonwhite--	95.4	96.8	95.6	96.0	94.9	95.7	94.1	89.7	784	731	519	313	211	253	214	
South Atlantic-----	95.7	97.4	97.0	96.1	94.5	93.3	92.1	90.2	34,643	32,516	19,164	10,785	6,544	7,580	6,274	
White-----	97.2	96.5	98.1	97.5	96.3	94.7	92.8	91.1	28,699	25,152	13,614	6,833	3,793	3,817	2,872	
Nonwhite--	92.1	93.5	93.2	92.9	91.5	91.3	91.4	89.4	7,944	7,364	5,550	3,952	2,751	3,763	3,402	
East South Central-----	96.2	98.0	97.3	96.5	95.1	94.4	93.9	92.5	18,141	17,432	10,864	6,415	4,268	5,417	4,815	
White-----	96.5	98.5	97.8	96.8	95.0	94.1	92.5	91.2	14,024	13,325	7,715	4,229	2,633	3,163	2,582	
Nonwhite--	95.5	96.4	96.0	95.6	95.2	94.9	95.8	94.1	4,117	4,107	3,149	2,186	1,635	2,254	2,233	
West South Central-----	94.8	97.2	96.7	95.3	93.2	91.2	89.1	87.7	23,051	22,393	13,406	7,362	4,459	5,091	3,960	
White-----	96.6	98.5	97.8	96.9	94.9	93.1	91.2	90.4	19,334	18,922	10,616	5,384	3,046	3,252	2,208	
Nonwhite--	88.3	90.6	90.7	89.4	88.5	87.1	85.4	84.4	3,717	3,471	2,790	1,978	1,413	1,839	1,752	
Mountain-----	96.7	98.3	98.1	97.0	96.5	94.2	91.8	88.9	8,685	9,023	5,655	3,081	1,630	1,578	1,053	
White-----	97.9	99.2	98.9	98.2	97.7	96.2	94.9	91.5	8,291	8,623	5,308	2,860	1,453	1,358	869	
Nonwhite--	78.3	80.2	85.0	78.1	80.5	78.0	72.7	76.6	394	400	347	221	177	220	184	
Pacific-----	99.2	99.6	99.5	98.4	99.1	98.6	98.0	97.1	23,977	24,957	13,494	5,685	2,345	1,835	1,035	
White-----	99.2	99.6	99.6	99.5	99.1	98.5	98.2	97.7	22,588	23,509	12,524	5,130	2,061	1,551	858	
Nonwhite--	98.2	98.9	98.9	98.2	99.1	98.6	97.2	94.4	1,389	1,448	970	555	284	284	177	

<sup>1</sup>Figures for births of order not stated included in the "Total," but not distributed.

# NATALITY

**Table 6.53. BIRTH REGISTRATION COMPLETENESS, BY AGE OF MOTHER, RACE, AND BIRTH ORDER: UNITED STATES, JANUARY 1 TO MARCH 31, 1950**

(Percent completeness measured by percent of infant cards matched with birth records. Birth order refers to number of children born alive to mother)

RACE AND AGE OF MOTHER	PERCENT COMPLETENESS								TOTAL INFANT CARDS									
	Total <sup>1</sup>	Birth order							Birth order									
		1st	2d	3d	4th	5th	6th and 7th	8th and over	1st	2d	3d	4th	5th	6th and 7th	8th and over			
<b>ALL RACES</b>																		
<b>ALL AGES<sup>2</sup></b> -----	97.9	98.9	98.7	98.2	97.2	95.9	94.5	92.6	240,399	236,504	131,631	65,613	34,822	34,558	24,700			
Under 15 years-----	93.1	93.0	95.7	100.0	100.0	-	-	-	731	23	2	2	-	-	-	-	-	-
15-19 years-----	97.2	97.7	96.2	94.9	94.6	84.1	88.2	-	57,246	17,811	3,185	409	44	17	-	-	-	-
20-24 years-----	98.1	99.2	98.3	96.9	95.0	93.5	91.9	90.7	99,959	84,997	34,546	11,472	3,632	1,303	118			
25-29 years-----	98.3	99.4	99.3	98.5	96.9	95.3	93.8	93.0	51,913	79,346	46,756	22,870	11,508	9,074	1,970			
30-34 years-----	98.1	99.2	99.4	99.1	98.2	96.7	94.5	92.5	19,230	37,058	30,524	18,170	10,614	11,898	6,678			
35-39 years-----	97.1	98.8	99.2	98.9	98.3	96.9	95.3	92.4	7,325	12,486	12,714	9,653	6,614	8,784	9,848			
40-44 years-----	96.5	98.6	98.8	98.2	98.4	97.2	96.4	95.3	1,501	2,158	2,364	2,191	1,871	2,895	5,143			
45 years and over-----	90.9	94.4	94.3	93.1	92.3	91.2	89.9	90.7	126	140	131	142	136	227	645			
<b>WHITE</b>																		
<b>All ages<sup>2</sup></b> -----	98.6	99.3	99.1	98.8	98.0	97.0	95.6	95.9	215,679	215,133	114,443	54,195	27,033	24,564	15,791			
Under 15 years-----	94.6	94.2	100.0	100.0	100.0	-	-	-	243	9	1	2	-	-	-	-	-	-
15-19 years-----	98.3	98.7	97.4	96.8	98.1	83.3	100.0	-	45,770	12,132	1,652	157	18	6	-	-	-	-
20-24 years-----	98.8	99.5	98.8	97.9	96.1	94.5	93.0	90.6	92,198	74,704	26,478	7,304	1,856	540	32			
25-29 years-----	98.8	99.6	99.5	98.9	97.7	96.2	94.4	94.2	48,882	74,725	42,113	18,808	8,282	5,344	862			
30-34 years-----	98.7	99.4	99.6	99.4	98.6	97.6	95.5	93.3	18,093	35,301	28,691	16,366	8,922	8,634	3,916			
35-39 years-----	98.0	99.2	99.4	99.2	98.8	97.6	96.3	93.9	6,856	11,857	11,937	8,835	5,822	7,096	6,501			
40-44 years-----	97.5	99.0	99.3	99.4	99.1	97.9	97.1	94.6	1,416	2,035	2,242	2,023	1,724	2,489	3,843			
45 years and over-----	93.8	99.0	96.7	95.2	95.8	93.0	94.0	93.2	102	121	105	118	114	183	457			
<b>NONWHITE</b>																		
<b>All ages<sup>2</sup></b> -----	93.5	95.0	94.8	94.1	93.1	92.4	91.9	90.3	24,720	23,371	17,188	11,418	7,789	9,994	8,909			
Under 15 years-----	92.3	92.4	92.9	100.0	-	-	-	-	488	14	1	-	-	-	-	-	-	-
15-19 years-----	93.6	94.0	93.6	92.8	92.5	84.6	81.8	-	11,476	5,679	1,533	252	26	11	-	-	-	-
20-24 years-----	94.2	96.0	94.7	93.8	93.0	92.5	91.2	90.7	7,761	10,293	8,068	4,168	1,776	763	86			
25-29 years-----	94.3	97.2	96.0	94.9	93.0	92.8	93.0	92.1	3,031	4,621	4,643	4,062	3,226	3,730	1,108			
30-34 years-----	93.3	96.2	96.5	95.0	94.3	92.3	91.8	91.3	1,137	1,737	1,833	1,804	1,692	3,264	2,762			
35-39 years-----	91.2	95.0	95.6	93.2	93.3	91.7	90.8	89.5	469	639	777	818	792	1,668	3,347			
40-44 years-----	89.9	91.8	90.9	95.1	89.9	89.8	92.4	89.5	85	121	122	168	147	406	1,300			
45 years and over-----	80.7	75.0	78.9	84.6	75.0	81.8	72.7	84.6	24	19	26	24	22	44	188			

<sup>1</sup>Figures for births of order not stated included in the "Total," but not distributed.  
<sup>2</sup>Figures for age of mother not stated included in "All ages," but not distributed.

**Table 6.54. BIRTH REGISTRATION COMPLETENESS, BY AGE OF FATHER AND RACE: UNITED STATES, JANUARY 1 TO MARCH 31, 1950**

(Percent completeness measured by percent of infant cards matched with birth records)

AGE OF FATHER	PERCENT COMPLETENESS			TOTAL INFANT CARDS		
	All races	White	Non-white	All races	White	Non-white
<b>TOTAL</b> -----	97.9	98.6	93.5	780,130	674,617	105,513
Under 20 years-----	97.4	98.4	94.3	11,138	8,496	2,642
20-24 years-----	98.2	98.8	94.5	144,712	125,265	19,447
25-29 years-----	98.5	99.0	94.5	225,217	202,020	23,197
30-34 years-----	98.4	98.8	94.1	167,968	152,462	15,506
35-39 years-----	97.8	98.4	93.1	103,216	91,365	11,851
40-44 years-----	97.1	97.9	92.2	49,740	43,150	6,590
45-49 years-----	96.1	97.0	91.7	19,787	16,247	3,540
50 years and over-----	94.8	96.2	89.4	11,035	8,663	2,372
Not stated-----	94.7	96.6	92.3	47,317	26,949	20,368

**Table 6.55. ESTIMATED PERCENT BIRTH REGISTRATION COMPLETENESS, BY RACE: UNITED STATES, 1935-50**

YEAR	All races	White	Non-white	YEAR	All races	White	Non-white
1950-----	97.9	98.6	93.6	1942-----	94.0	95.5	83.8
1949-----	97.6	98.3	92.8	1941-----	93.0	94.6	82.6
1948-----	97.2	98.1	91.8	1940-----	92.5	94.0	81.3
1947-----	96.9	97.8	90.6	1939-----	91.9	93.6	81.1
1946-----	96.4	97.4	89.2	1938-----	91.6	93.4	80.8
1945-----	95.7	97.0	87.6	1937-----	91.3	93.1	80.4
1944-----	95.1	96.5	86.3	1936-----	91.1	92.8	80.2
1943-----	94.6	96.0	85.0	1935-----	90.7	92.4	79.9

Table 6.56. Crude Birth Rates by Place of Occurrence:

(Rates based on registered live births per 1,000 population, estimated as of July 1 for 1915-39 and 1941-49, and enumerated as of April 1 for 1940 and 1950. division, as a whole,

AREA	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936
1 UNITED STATES-----	23.6	23.9	24.2	25.8	23.3	19.5	20.2	21.5	20.8	18.8	17.9	17.5	17.6	17.1	16.7
GEOGRAPHIC DIVISIONS															
2 New England-----	20.9	20.9	21.5	24.1	21.8	19.2	19.7	21.5	20.0	16.7	15.7	15.0	14.8	14.7	14.7
3 Middle Atlantic-----	20.5	20.6	21.1	23.5	21.7	19.0	18.9	20.4	19.5	16.5	15.3	14.7	15.0	14.7	14.6
4 East North Central-----	23.3	23.4	23.3	25.1	22.6	19.5	19.9	21.6	20.8	18.2	17.1	16.4	17.0	16.3	15.8
5 West North Central-----	23.9	24.0	24.1	25.4	23.1	20.5	21.2	21.5	20.3	18.5	17.5	17.0	17.1	16.6	16.8
6 South Atlantic-----	25.3	26.2	26.7	27.8	25.8	24.5	25.4	25.9	23.8	22.2	20.8	20.4	20.6	20.5	19.9
7 East South Central-----	26.6	27.9	28.1	29.3	27.4	25.1	26.6	27.0	24.4	22.5	21.8	21.2	21.9	21.2	20.8
8 West South Central-----	25.9	26.2	26.0	26.8	25.6	24.1	25.8	25.5	22.4	21.2	19.9	19.2	19.6	18.7	18.2
9 Mountain-----	27.7	28.3	28.9	30.0	27.3	25.7	26.9	26.9	24.8	22.8	22.1	21.4	21.8	21.0	20.4
10 Pacific-----	23.2	24.0	24.3	25.5	23.5	21.4	21.9	23.0	21.1	17.7	16.2	15.3	15.4	14.6	13.8
NEW ENGLAND															
11 Maine-----	22.8	23.9	24.7	27.6	24.2	21.0	22.4	23.7	21.0	18.7	17.8	17.8	16.2	16.3	16.5
12 New Hampshire-----	21.9	22.9	24.6	26.9	23.4	18.9	19.6	21.6	20.2	18.0	17.3	16.2	16.3	16.0	16.1
13 Vermont-----	23.0	24.1	25.1	26.3	23.3	20.9	20.8	22.1	20.2	19.7	18.6	17.8	17.7	17.8	18.1
14 Massachusetts-----	20.6	20.3	21.0	23.7	21.3	18.9	19.2	21.0	19.6	16.2	15.3	14.5	13.8	14.0	14.0
15 Rhode Island-----	21.5	21.5	21.9	23.8	22.2	19.8	20.0	21.2	19.6	16.1	15.1	14.9	15.2	14.8	14.8
16 Connecticut-----	19.8	19.7	20.5	22.7	21.4	18.9	19.2	21.8	20.5	16.4	14.7	13.9	14.2	13.7	13.5
MIDDLE ATLANTIC															
17 New York-----	20.4	20.3	20.9	23.2	21.6	19.2	18.7	19.8	19.1	16.0	14.6	13.9	14.1	13.8	13.8
18 New Jersey-----	19.5	19.4	19.8	22.3	21.0	18.6	18.2	19.8	18.9	15.7	14.1	13.6	13.7	13.3	13.2
19 Pennsylvania-----	21.2	21.6	22.1	24.4	22.2	19.0	19.5	21.4	20.5	17.7	16.7	16.4	16.8	16.6	16.4
EAST NORTH CENTRAL															
20 Ohio-----	23.4	23.8	23.6	25.6	22.6	19.2	19.3	21.1	20.8	18.1	16.6	15.8	16.4	15.7	15.1
21 Indiana-----	23.9	24.0	24.0	25.6	23.3	20.3	21.1	22.1	21.2	19.0	18.1	17.1	17.7	16.5	16.0
22 Illinois-----	21.4	21.4	21.2	23.1	21.2	18.2	18.6	20.2	19.3	16.9	15.6	15.0	15.6	14.7	14.4
23 Michigan-----	25.2	24.7	24.8	26.5	23.7	20.6	21.0	23.5	22.4	19.7	18.9	18.3	19.2	18.4	18.1
24 Wisconsin-----	23.9	24.3	24.4	25.6	23.5	20.7	20.8	21.8	21.0	18.2	17.5	17.4	17.6	17.4	17.2
WEST NORTH CENTRAL															
25 Minnesota-----	25.3	25.2	25.3	27.0	24.6	21.5	22.2	22.8	22.2	20.1	19.0	18.2	18.3	17.7	17.6
26 Iowa-----	24.3	24.4	24.2	25.9	23.2	19.8	20.7	20.9	20.2	18.8	17.9	17.4	17.4	17.0	17.1
27 Missouri-----	22.3	22.9	22.6	24.0	22.1	19.6	20.2	20.9	19.3	17.5	16.4	15.6	15.7	15.2	15.0
28 North Dakota-----	27.4	28.3	28.9	30.0	27.2	24.4	25.6	24.4	23.1	21.9	20.8	20.5	20.4	19.6	20.8
29 South Dakota-----	27.7	27.5	26.7	27.1	24.2	21.9	23.0	22.6	20.5	19.1	18.1	18.0	18.2	18.1	19.3
30 Nebraska-----	23.9	24.1	24.6	25.3	22.4	20.8	21.2	21.0	19.4	17.5	16.8	17.0	17.0	16.8	17.7
31 Kansas-----	22.3	22.1	22.1	23.3	21.8	20.1	20.7	20.7	19.3	17.3	15.9	16.0	16.1	15.6	16.1
SOUTH ATLANTIC															
32 Delaware-----	24.5	23.9	23.8	25.9	23.3	21.8	21.9	23.3	20.5	18.8	17.2	16.7	17.2	17.2	15.5
33 Maryland-----	21.4	21.9	22.6	24.4	22.5	20.5	20.7	22.2	21.3	19.4	18.6	18.8	16.4	15.8	15.3
34 District of Columbia-----	36.1	34.3	32.7	32.1	29.9	28.2	28.0	27.8	26.1	24.2	23.1	21.3	20.3	20.0	16.6
35 Virginia-----	23.4	24.0	24.7	25.7	23.5	22.7	23.9	24.7	23.3	21.3	20.6	19.6	19.9	19.6	19.5
36 West Virginia-----	25.4	27.5	27.9	29.5	26.8	22.9	24.2	24.8	24.0	23.3	22.1	22.0	22.7	22.7	21.9
37 North Carolina-----	26.3	27.7	28.6	30.2	27.8	26.4	27.4	28.0	26.0	24.1	22.5	22.4	23.0	23.0	22.4
38 South Carolina-----	27.1	29.0	29.1	28.7	28.2	27.1	28.6	29.8	25.9	25.0	23.4	22.6	22.0	21.9	21.3
39 Georgia-----	26.7	28.2	28.4	29.2	27.0	25.7	26.4	26.5	24.0	22.1	20.8	20.7	20.7	20.9	20.4
40 Florida-----	23.1	23.0	23.6	24.4	23.3	24.1	25.2	23.7	20.6	19.3	17.8	17.6	17.6	17.3	17.0
EAST SOUTH CENTRAL															
41 Kentucky-----	25.6	26.8	27.4	28.5	26.7	23.8	25.3	25.6	24.2	22.5	22.3	21.5	22.3	20.5	20.5
42 Tennessee-----	25.0	25.9	26.2	28.1	26.0	23.6	25.2	25.4	22.8	20.5	19.1	18.6	19.0	18.6	18.2
43 Alabama-----	26.9	28.0	28.5	29.6	27.4	26.5	27.5	28.0	24.6	22.4	22.2	21.7	22.0	22.0	21.5
44 Mississippi-----	30.2	32.2	31.7	31.7	30.2	27.1	29.0	29.4	26.8	25.6	24.1	23.8	25.0	24.7	23.5
WEST SOUTH CENTRAL															
45 Arkansas-----	24.0	24.8	26.4	26.8	25.4	23.4	24.5	24.3	22.0	20.8	19.7	18.2	19.2	18.4	17.6
46 Louisiana-----	28.3	28.6	28.1	29.9	27.4	25.0	26.8	26.7	24.1	22.6	21.5	20.8	21.2	20.1	19.2
47 Oklahoma-----	22.4	23.5	23.8	24.8	23.4	22.2	24.2	23.6	21.1	20.3	19.1	18.6	19.0	17.8	17.7
48 Texas-----	26.5	26.5	25.7	26.7	25.6	24.5	26.3	26.0	22.3	21.2	19.7	19.1	19.3	18.7	18.1
MOUNTAIN															
49 Montana-----	26.1	26.6	27.3	27.8	24.7	22.1	23.1	23.7	22.5	21.1	20.5	19.7	19.6	18.8	19.1
50 Idaho-----	26.7	27.6	28.4	30.4	26.7	24.8	26.8	26.6	24.5	23.4	22.3	21.5	22.4	21.0	21.2
51 Wyoming-----	25.9	26.6	27.1	27.8	23.6	23.6	25.8	25.4	23.5	21.8	20.1	19.8	20.2	18.7	20.0
52 Colorado-----	28.9	28.8	26.6	26.9	26.6	22.9	23.4	23.6	21.7	19.2	18.8	18.6	18.9	18.1	17.1
53 New Mexico-----	31.9	33.1	34.2	35.3	32.1	32.2	33.9	32.1	29.0	29.3	27.7	27.2	27.8	27.5	26.3
54 Arizona-----	27.9	28.7	28.7	29.8	27.6	26.8	28.9	29.0	27.9	25.0	23.5	22.2	22.4	21.9	20.1
55 Utah-----	31.0	31.8	32.1	34.5	29.6	28.5	29.0	31.0	28.7	25.1	24.6	24.0	24.8	24.0	23.8
56 Nevada-----	23.8	24.2	24.1	26.1	23.9	22.2	23.4	23.4	20.8	18.3	18.7	18.0	17.9	16.8	13.9
PACIFIC															
57 Washington-----	24.0	25.1	25.3	26.9	24.0	21.9	22.8	24.0	21.8	17.7	16.2	15.6	15.9	15.1	14.4
58 Oregon-----	23.7	24.6	25.0	26.7	22.7	19.7	20.4	22.6	20.7	18.0	16.4	15.5	15.3	14.8	13.6
59 California-----	25.0	23.6	23.9	25.0	23.4	21.5	21.9	22.8	21.1	17.7	16.2	15.3	15.3	14.5	13.3

NOTE.—For 1915-40 and 1947-50, rates based on total population in each specified area. For 1941-46, rates for the United States based on population including armed forces overseas, and rates for geographic divisions and States based on civilian population in each area. United States rates based on civilian population were: 23.8 (1946); 21.4 (1945); 22.1 (1944); 23.0 (1943); 21.5 (1942); 19.1 (1941). For further discussion of population bases, see text in chapter 2.

NATALITY RATES

United States, Each Division and State, 1915-50

For each State, rates are shown from the year of its admission to the birth-registration area; for each geographic division, rates are shown from the year when the became a part of the area)

1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	
16.9	17.2	16.6	17.4	18.0	18.9	18.8	19.7	20.5	20.5	21.3	22.2	22.1	22.3	24.2	23.7	22.4	24.7	24.5	24.9	25.0	1
15.0	15.3	15.2	16.3	18.8	17.8	17.8	18.8	19.4	19.8	20.7	22.2	21.7	21.9	23.3	---	---	25.4	25.1	24.1	24.3	2
14.8	14.8	14.9	16.0	16.8	16.0	16.4	16.5	16.8	16.8	16.8	16.8	16.8	16.8	16.8	---	---	---	---	---	---	3
15.7	15.5	15.0	15.9	16.8	16.2	16.2	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	---	---	---	---	---	---	4
16.7	17.3	16.5	17.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5
20.5	21.0	20.1	21.3	21.0	21.8	21.6	22.9	---	---	---	---	---	---	---	---	---	---	---	---	---	6
21.4	21.8	20.6	22.0	21.8	22.6	21.9	22.6	24.0	---	---	---	---	---	---	---	---	---	---	---	---	7
18.7	19.5	18.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8
20.5	20.1	19.1	19.6	20.4	21.3	20.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9
15.2	15.2	12.7	13.3	14.0	14.7	14.6	15.4	16.1	16.6	17.6	18.7	18.4	18.8	19.2	19.1	17.5	---	---	---	---	10
19.1	19.3	18.6	20.0	20.3	20.3	19.9	20.7	20.5	20.7	22.0	23.5	22.5	22.6	22.9	22.5	20.3	22.1	21.4	20.7	20.9	11
16.3	16.6	15.6	16.6	16.8	17.9	17.5	18.5	18.9	18.9	20.5	22.1	20.5	21.7	22.6	22.4	19.8	21.9	21.4	21.7	22.6	12
18.5	18.5	17.2	16.9	18.6	19.3	18.7	19.7	19.7	20.1	21.1	20.9	20.7	21.2	22.3	21.0	20.0	21.3	20.3	21.6	21.8	13
14.4	14.8	14.8	16.1	16.4	17.3	17.5	18.7	19.5	19.9	20.7	22.3	22.0	21.9	23.3	23.6	23.2	25.9	25.6	25.1	25.2	14
15.1	15.3	15.3	16.5	16.6	17.8	18.0	19.2	20.3	20.0	21.2	22.4	22.0	22.2	23.0	---	---	---	---	---	---	15
13.5	13.6	13.8	14.6	15.8	17.2	17.1	17.9	18.6	19.1	19.7	21.4	21.1	21.8	24.1	24.5	24.9	27.8	28.2	27.3	25.9	16
13.9	14.1	14.4	15.4	16.1	17.1	17.6	19.2	20.4	19.8	20.5	21.3	21.4	21.9	23.0	22.9	22.1	24.4	24.6	24.5	24.9	17
13.3	13.3	13.6	14.9	15.5	16.8	17.1	17.7	18.7	19.3	20.2	21.5	21.5	22.1	23.7	---	---	---	---	---	---	18
16.5	16.4	16.1	17.2	18.4	19.5	19.5	20.5	21.5	21.6	22.7	23.8	23.7	23.9	25.8	25.2	24.0	25.8	25.9	25.7	26.1	19
14.8	14.7	14.1	15.1	16.1	17.7	17.6	18.2	18.8	19.0	19.7	20.9	20.8	20.3	21.4	21.3	19.9	22.5	22.0	---	---	20
15.8	15.7	15.2	16.1	17.1	18.3	18.2	18.8	19.5	19.9	20.6	22.0	21.5	21.6	22.9	22.0	20.4	22.4	21.7	---	---	21
14.4	14.3	14.0	14.5	15.5	16.8	16.9	17.1	17.8	18.1	18.5	19.0	18.7	19.3	---	---	---	---	---	---	---	22
18.1	17.5	16.9	17.9	19.0	20.5	20.7	21.0	21.8	22.2	22.9	23.3	22.9	24.9	24.9	23.4	26.0	25.8	25.9	24.7	23	
17.2	17.0	16.7	17.7	18.3	19.3	18.9	19.6	19.7	19.2	20.0	21.6	21.0	21.0	22.7	21.9	21.1	23.4	22.9	---	---	24
17.1	17.2	16.8	17.7	18.0	18.4	18.2	19.1	19.7	20.5	21.2	22.1	22.6	23.3	23.6	23.3	22.1	24.4	23.5	24.0	24.2	25
16.4	17.0	16.0	16.3	17.0	17.3	17.1	17.7	18.3	18.8	19.7	20.3	---	---	---	---	---	---	---	---	---	26
15.4	15.9	15.4	16.2	16.5	17.1	16.9	17.6	18.6	---	---	---	---	---	---	---	---	---	---	---	---	27
20.8	22.0	19.9	21.1	21.3	21.7	21.7	22.5	22.4	22.9	22.5	22.2	---	---	---	---	---	---	---	---	---	28
19.1	19.3	18.6	19.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29
17.1	18.3	17.6	18.3	19.3	19.6	19.3	20.4	20.4	20.9	21.8	22.6	22.9	23.7	24.6	23.8	---	---	---	---	---	30
16.3	17.4	16.4	16.8	17.4	17.9	17.5	18.3	18.9	19.1	20.1	21.0	21.7	21.5	23.4	22.4	20.7	22.6	22.1	---	---	31
16.1	16.0	15.8	17.5	17.5	18.7	18.1	18.5	18.6	18.7	21.1	20.2	21.2	22.0	23.4	---	---	---	---	---	---	32
15.8	16.0	16.2	17.2	17.4	18.5	18.5	19.8	20.3	20.9	21.8	22.5	22.8	22.9	24.8	24.7	23.5	23.2	23.8	23.8	---	33
17.8	17.9	18.8	19.8	18.5	19.2	18.4	18.7	19.0	19.7	20.3	19.9	20.2	20.1	20.0	18.4	19.5	19.4	20.0	---	---	34
19.9	20.5	20.3	21.8	21.3	22.5	22.3	23.2	23.9	23.9	25.3	26.5	26.5	26.9	29.3	28.0	26.2	26.7	26.3	---	---	35
22.5	22.7	20.1	21.7	22.3	24.0	23.7	25.6	26.8	27.1	28.4	---	---	---	---	---	---	---	---	---	---	36
23.3	23.7	22.7	23.9	23.3	24.2	24.6	26.2	27.5	27.8	28.9	30.9	30.5	30.3	33.4	31.5	29.1	28.9	30.0	---	---	37
22.1	24.3	22.3	23.2	22.2	23.1	22.7	24.9	---	---	---	---	---	---	---	---	---	---	---	---	---	38
21.1	21.5	20.4	21.5	21.0	20.8	20.2	20.4	---	---	---	---	---	---	---	---	---	---	---	---	---	39
17.4	16.9	16.5	18.0	18.1	18.4	18.6	20.8	24.1	25.4	23.3	23.1	---	---	---	---	---	---	---	---	---	40
21.4	22.4	20.8	22.5	21.7	22.6	21.7	23.2	24.4	23.8	25.2	26.3	26.1	25.4	27.6	26.0	23.9	25.7	25.5	---	---	41
19.1	18.9	18.3	19.4	19.7	20.1	19.4	19.2	21.0	---	---	---	---	---	---	---	---	---	---	---	---	42
22.4	23.2	21.9	23.4	23.5	24.0	23.8	24.1	25.9	---	---	---	---	---	---	---	---	---	---	---	---	43
23.1	23.0	21.5	22.9	22.5	24.0	22.8	24.3	25.1	26.3	23.6	23.1	23.1	23.7	25.3	---	---	---	---	---	---	44
18.7	19.8	19.4	20.3	22.1	22.1	20.2	20.7	21.9	---	---	---	---	---	---	---	---	---	---	---	---	45
18.7	19.2	18.0	19.9	20.3	20.4	20.2	20.3	22.7	---	---	---	---	---	---	---	---	---	---	---	---	46
18.3	19.8	18.2	17.1	18.0	17.7	16.8	18.3	---	---	---	---	---	---	---	---	---	---	---	---	---	47
18.9	19.4	18.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	48
18.6	18.6	16.8	17.0	18.0	18.5	19.2	18.4	18.8	18.5	19.1	19.0	19.5	20.0	---	---	---	---	---	---	---	49
20.2	20.4	18.9	19.4	20.2	20.6	19.7	20.2	20.5	21.1	---	---	---	---	---	---	---	---	---	---	---	50
18.6	19.8	18.4	18.6	19.8	19.8	19.8	20.4	20.4	20.4	22.4	24.3	23.4	25.0	---	---	---	---	---	---	---	51
17.9	17.0	16.3	16.8	17.7	18.1	17.8	18.9	---	---	---	---	---	---	---	---	---	---	---	---	---	52
27.7	27.6	27.3	28.0	28.2	28.4	27.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	53
19.5	18.4	17.8	18.9	21.1	23.7	22.3	21.2	20.6	20.8	---	---	---	---	---	---	---	---	---	---	---	54
24.1	24.1	22.8	23.1	23.4	25.4	24.4	25.7	26.6	26.6	28.2	29.1	28.8	29.7	31.9	31.2	29.2	33.1	30.7	---	---	55
14.1	14.5	14.0	13.1	12.9	14.5	14.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	56
14.0	14.2	13.3	13.7	14.0	14.7	14.6	14.9	15.2	15.8	16.6	17.3	17.6	17.9	19.4	19.7	18.8	19.2	18.2	---	---	57
13.2	13.3	12.5	13.2	13.7	14.1	14.0	15.0	15.8	16.3	17.5	18.3	18.0	18.4	19.4	19.0	17.5	---	---	---	---	58
13.0	12.9	12.6	13.3	14.0	14.8	14.7	15.8	16.4	16.8	18.0	19.2	18.8	18.4	19.1	18.9	---	---	---	---	---	59

## SUMMARY TABLES

Table 6.57. Crude Birth Rates by Place of Residence: United States, Each Division and State, 1935-50

(Rates based on registered live births per 1,000 population estimated as of July 1 for 1935-39 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

AREA	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935
UNITED STATES-----	25.6	25.9	24.2	25.6	25.3	19.5	20.2	21.5	20.8	19.9	17.9	17.3	17.6	17.1	16.7	16.9
GEOGRAPHIC DIVISIONS																
New England-----	20.9	20.9	21.7	24.2	21.9	19.4	19.8	21.6	20.0	16.7	15.7	15.0	14.8	14.7	14.7	15.0
Middle Atlantic-----	20.6	20.6	21.2	23.5	21.8	19.2	19.0	20.4	19.5	16.5	15.3	14.7	15.0	14.7	14.6	14.8
East North Central-----	23.5	23.5	23.5	26.2	22.8	19.7	20.1	21.7	20.8	18.3	17.1	16.4	17.1	16.3	15.8	15.7
West North Central-----	23.8	23.9	23.9	25.3	23.0	20.5	21.1	21.4	20.2	18.4	17.4	16.8	17.0	16.6	16.8	16.6
South Atlantic-----	25.2	26.1	26.5	27.6	25.6	24.2	25.1	25.8	23.8	22.1	20.8	20.4	20.6	20.5	19.9	20.5
East South Central-----	26.5	27.7	28.0	29.1	27.2	24.9	26.5	26.9	24.4	22.5	21.8	21.2	21.9	21.2	20.8	21.4
West South Central-----	25.9	26.2	26.1	27.0	25.7	24.2	25.9	25.6	22.5	21.3	20.0	19.2	19.6	18.7	18.2	16.7
Mountain-----	27.8	29.3	29.7	29.9	27.1	24.8	25.9	26.1	24.5	22.7	22.0	21.4	21.8	20.0	20.5	20.5
Pacific-----	23.2	24.2	24.2	25.4	23.4	21.4	22.1	23.1	21.2	17.8	16.2	15.3	15.4	14.6	13.6	13.2
NEW ENGLAND																
Maine-----	23.0	24.3	25.1	28.0	24.5	21.3	22.7	24.2	21.3	18.9	18.0	17.9	18.3	18.4	18.5	19.1
New Hampshire-----	21.6	22.4	23.9	26.2	22.6	18.4	19.1	20.6	19.4	17.7	16.9	15.9	16.0	15.7	16.0	16.2
Vermont-----	23.8	25.2	26.1	27.4	24.5	21.8	21.7	22.9	21.0	20.2	19.3	18.4	18.2	18.3	18.6	18.6
Massachusetts-----	20.5	20.2	20.8	23.5	21.1	16.9	19.2	20.9	19.4	16.1	15.2	14.4	13.9	13.9	13.9	14.3
Rhode Island-----	20.5	20.6	21.4	23.9	22.4	19.8	20.0	21.2	19.7	16.1	15.2	14.9	15.1	14.7	14.8	15.0
Connecticut-----	20.2	20.1	21.0	23.2	21.8	19.3	19.6	22.2	21.0	16.7	14.9	14.1	14.4	13.8	13.6	13.6
MIDDLE ATLANTIC																
New York-----	20.3	20.2	20.8	23.1	21.5	19.2	18.7	19.8	19.0	15.9	14.5	13.9	14.1	13.8	13.6	13.9
New Jersey-----	20.2	20.0	20.4	23.0	21.6	19.3	18.8	20.3	19.3	16.0	14.4	13.9	13.9	13.8	13.4	13.5
Pennsylvania-----	21.1	21.6	22.1	24.4	22.2	19.1	19.5	21.4	20.4	17.6	16.7	16.3	16.7	16.5	16.4	16.5
EAST NORTH CENTRAL																
Ohio-----	23.4	23.8	23.7	25.6	22.6	19.3	19.4	21.1	20.9	18.1	16.6	15.8	16.4	15.7	15.1	14.8
Indiana-----	23.8	23.8	23.9	25.5	23.2	20.3	21.1	22.1	21.1	18.9	18.0	17.1	17.6	16.5	16.0	15.7
Illinois-----	21.8	21.8	21.6	23.3	21.7	18.7	19.0	20.3	19.6	17.1	15.8	15.1	15.8	14.9	14.3	14.5
Michigan-----	25.3	24.8	24.9	26.5	23.9	20.7	21.2	23.6	22.4	19.7	18.9	18.3	19.2	18.4	18.1	16.1
Wisconsin-----	24.1	24.5	24.6	25.9	23.6	20.9	21.0	21.8	21.0	18.2	17.5	17.4	17.8	17.5	17.2	17.2
WEST NORTH CENTRAL																
Minnesota-----	25.3	25.3	25.4	27.0	24.6	21.7	22.4	22.9	22.1	20.0	19.0	18.1	18.3	17.6	17.6	17.1
Iowa-----	23.9	24.0	23.8	25.5	22.8	19.7	20.5	20.6	19.9	18.5	17.7	17.2	17.3	16.9	17.0	16.3
Missouri-----	21.7	22.0	22.2	23.4	21.6	19.1	19.7	20.3	18.9	17.3	16.2	15.5	15.5	15.1	14.9	15.3
North Dakota-----	27.5	28.2	28.6	29.5	26.8	24.2	25.4	24.7	22.9	21.6	20.5	20.1	20.1	19.4	20.7	20.5
South Dakota-----	27.3	27.3	26.8	27.5	24.8	22.7	23.6	22.9	21.2	19.9	18.7	18.7	18.4	18.3	19.5	19.2
Nebraska-----	24.0	24.2	24.6	25.4	22.4	20.7	21.1	20.9	19.2	17.3	16.7	16.9	16.9	16.7	17.6	17.1
Kansas-----	23.1	22.7	22.6	24.0	22.3	20.4	21.0	21.2	19.6	17.4	16.0	16.1	16.1	15.7	16.0	16.3
SOUTH ATLANTIC																
Delaware-----	24.0	23.3	23.3	25.3	22.8	21.6	21.8	22.9	20.5	18.6	17.1	16.4	17.0	17.2	15.4	15.8
Maryland-----	23.1	23.0	23.5	25.2	23.6	21.5	22.2	24.0	23.1	19.9	17.8	16.8	17.3	16.5	15.9	16.3
District of Columbia-----	24.7	24.6	24.8	24.4	21.4	19.7	19.3	19.2	18.4	17.1	16.9	16.3	16.3	16.5	15.6	15.4
Virginia-----	24.7	25.2	25.6	28.8	24.8	23.9	25.2	26.1	24.3	22.3	21.3	20.1	20.3	19.9	19.8	20.0
West Virginia-----	25.2	27.2	27.6	29.3	26.7	23.0	24.3	25.0	24.0	23.3	22.2	22.1	22.9	22.8	22.0	22.6
North Carolina-----	26.2	27.6	28.5	29.9	27.7	26.0	27.1	28.0	26.0	24.1	22.5	22.4	23.0	23.1	22.4	23.4
South Carolina-----	27.1	28.8	28.9	29.9	28.3	27.3	28.8	30.0	26.0	25.1	23.5	22.7	22.0	21.9	21.3	22.1
Georgia-----	26.5	28.0	28.4	29.0	26.8	25.8	26.2	26.2	25.8	22.0	20.7	20.6	20.7	20.8	20.4	21.1
Florida-----	23.3	23.1	23.1	23.7	22.7	22.6	23.5	22.9	20.6	19.3	17.8	17.6	17.6	17.4	17.1	17.4
EAST SOUTH CENTRAL																
Kentucky-----	25.5	26.7	27.4	28.5	26.7	24.0	25.5	25.7	24.2	22.6	22.4	21.6	22.4	20.5	20.6	21.4
Tennessee-----	24.7	25.6	25.5	27.4	25.3	22.9	24.4	24.8	22.4	20.3	18.9	18.5	19.0	18.5	18.1	19.1
Alabama-----	27.0	28.1	28.9	30.0	27.8	25.2	27.7	28.2	24.7	22.4	22.2	21.8	22.1	22.0	21.6	22.5
Mississippi-----	29.8	31.9	31.5	31.5	30.2	27.2	29.0	29.5	27.0	25.7	24.1	23.7	25.1	24.7	23.8	23.1
WEST SOUTH CENTRAL																
Arkansas-----	23.9	24.7	26.3	26.7	25.3	23.3	24.3	24.1	22.0	20.9	19.7	18.3	19.2	18.5	17.7	18.8
Louisiana-----	28.5	28.7	29.2	29.9	27.5	25.0	26.8	26.7	24.1	22.6	21.5	20.8	21.1	20.1	19.2	18.6
Oklahoma-----	22.4	23.6	24.1	25.2	23.8	22.3	24.2	23.8	21.2	20.5	19.2	18.7	19.1	17.8	17.7	18.4
Texas-----	26.4	26.5	25.9	26.9	25.8	24.8	26.6	26.2	22.5	21.2	19.8	19.1	19.3	18.7	18.1	18.8
MOUNTAIN																
Montana-----	26.4	27.0	27.7	28.4	25.1	22.5	23.5	24.0	22.7	21.3	20.7	19.9	19.7	19.0	19.3	18.7
Idaho-----	27.2	28.0	29.3	31.2	27.2	24.6	26.6	26.5	24.1	23.3	22.5	21.5	22.5	21.1	21.4	20.4
Wyoming-----	26.2	27.0	27.6	28.4	24.7	24.1	25.7	26.0	24.1	22.4	20.7	20.3	20.6	19.4	20.4	19.1
Colorado-----	25.6	25.4	26.1	26.6	25.3	22.3	22.8	23.2	21.6	19.2	18.7	18.5	18.7	18.0	17.1	17.7
New Mexico-----	32.4	33.8	34.0	34.9	32.8	31.1	32.4	31.1	28.8	29.2	27.8	27.2	27.9	27.6	26.5	28.0
Arizona-----	27.8	28.4	27.8	29.3	26.8	24.2	25.0	26.1	26.0	23.8	23.0	22.4	22.6	22.2	20.4	19.7
Utah-----	30.8	31.5	31.7	34.2	29.2	27.7	27.7	29.8	28.3	24.7	24.3	23.5	24.3	23.5	23.3	23.7
Nevada-----	22.9	23.4	23.7	27.1	23.1	22.8	23.3	22.4	21.1	18.5	19.1	18.6	18.4	17.3	15.1	14.8
PACIFIC																
Washington-----	23.5	24.6	24.8	26.5	23.7	21.6	22.8	24.1	21.8	17.7	16.2	15.6	16.0	15.2	14.4	14.0
Oregon-----	23.7	24.7	25.1	26.7	22.5	19.5	20.2	22.2	20.5	17.7	16.2	15.3	15.1	14.6	13.6	13.1
California-----	23.1	23.7	23.9	25.0	23.5	21.6	22.2	23.0	21.2	17.8	16.3	15.3	15.4	14.5	13.4	13.0

NOTE.—For 1935-40 and 1947-50, rates based on total population in each specified area. For 1941-46, rates for the United States based on population including armed forces overseas, and rates for geographic divisions and States based on civilian population in each area. United States rates based on civilian population were: 25.8 (1946); 21.4 (1945); 22.1 (1944); 23.0 (1943); 21.5 (1942); 19.1 (1941). For further discussion of population bases, see text in chapter 2.

Table 6.58. Crude Birth Rates Adjusted for Underregistration, by Place of Residence: United States, Each Division and State, 1940-50

(Rates based on live births per 1,000 population enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1941-49)

AREA	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
UNITED STATES-----	24.1	24.5	24.9	26.6	24.1	20.4	21.2	22.7	22.2	20.3	19.4
GEOGRAPHIC DIVISIONS											
New England-----	21.0	21.0	21.8	24.3	22.0	19.5	19.9	21.8	20.2	16.9	15.9
Middle Atlantic-----	20.7	20.8	21.3	23.7	21.9	19.4	19.2	20.7	19.9	16.8	15.6
East North Central-----	23.7	23.8	23.8	25.5	23.1	20.1	20.5	22.2	21.4	18.8	17.7
West North Central-----	24.0	24.1	24.3	25.7	23.5	21.0	21.8	22.2	21.0	19.3	18.4
South Atlantic-----	25.3	27.4	28.0	29.4	27.5	26.3	27.6	26.6	26.8	25.3	24.1
East South Central-----	27.5	29.0	29.5	31.0	29.3	27.2	29.3	30.1	27.7	26.0	25.4
West South Central-----	27.3	27.9	28.0	29.1	28.0	26.8	29.0	29.0	26.0	25.0	23.8
Mountain-----	29.8	29.3	29.9	31.3	29.6	26.4	27.6	28.0	26.4	24.6	24.0
Pacific-----	23.5	24.2	24.4	25.7	23.7	21.7	22.4	23.5	21.6	18.1	16.6
NEW ENGLAND											
Maine-----	23.5	24.6	25.4	28.3	24.9	21.6	23.2	24.7	22.0	19.5	18.6
New Hampshire-----	21.7	22.5	24.0	26.3	22.7	18.5	19.2	20.8	19.6	17.9	17.2
Vermont-----	23.9	25.4	26.4	27.8	24.8	22.2	22.2	23.4	21.5	20.8	19.9
Massachusetts-----	20.6	20.2	20.9	23.6	21.2	19.0	19.3	21.1	19.5	18.2	15.3
Rhode Island-----	20.5	20.6	21.5	23.9	22.5	19.9	20.2	21.3	19.9	18.3	15.4
Connecticut-----	20.2	20.1	21.0	23.2	21.9	19.4	19.7	22.3	21.1	16.7	15.0
MIDDLE ATLANTIC											
New York-----	20.4	20.3	20.9	23.3	21.6	19.3	18.8	20.0	19.2	16.1	14.7
New Jersey-----	20.3	20.0	20.5	23.1	21.7	18.4	18.9	20.4	18.5	16.1	14.5
Pennsylvania-----	21.2	21.8	22.3	24.6	22.5	18.4	18.9	21.8	20.8	18.1	17.2
EAST NORTH CENTRAL											
Ohio-----	23.6	24.0	24.0	26.0	23.1	19.7	20.0	21.8	21.5	18.9	17.4
Indiana-----	24.0	24.1	24.2	25.9	23.7	20.7	21.6	22.7	21.7	19.5	18.6
Illinois-----	22.0	22.1	21.9	23.8	22.0	19.0	19.3	21.0	20.0	17.6	16.2
Michigan-----	25.5	25.1	25.2	26.9	24.1	21.1	21.6	24.1	22.9	20.2	19.3
Wisconsin-----	24.2	24.6	24.8	26.1	23.9	21.1	21.3	22.2	21.4	18.7	18.0
WEST NORTH CENTRAL											
Minnesota-----	25.3	25.2	25.4	27.1	24.7	21.7	22.4	23.0	22.2	20.1	19.1
Iowa-----	24.1	24.2	24.1	25.8	23.2	20.1	21.0	21.3	20.7	19.4	18.6
Missouri-----	22.2	22.5	22.9	24.3	22.5	20.1	20.9	21.8	20.4	19.0	18.0
North Dakota-----	27.7	28.4	28.9	29.9	27.2	24.6	26.0	25.4	23.8	22.7	21.6
South Dakota-----	27.7	27.7	27.3	28.2	25.5	23.4	24.5	23.8	22.2	20.8	19.6
Nebraska-----	24.1	24.4	24.9	25.7	22.8	21.0	21.5	21.4	19.7	17.8	17.3
Kansas-----	23.2	23.0	22.9	24.4	22.6	20.9	21.5	21.8	20.3	18.2	16.8
SOUTH ATLANTIC											
Delaware-----	24.2	23.5	23.4	25.5	23.0	21.8	22.0	23.2	20.8	19.0	17.5
Maryland-----	23.4	23.3	23.9	25.6	24.0	21.9	22.7	24.6	23.7	20.5	18.3
District of Columbia-----	25.0	24.8	25.0	24.7	21.7	20.0	19.6	19.5	18.8	17.5	17.4
Virginia-----	25.4	26.0	26.5	27.8	25.8	23.0	23.5	24.6	23.7	20.0	18.4
West Virginia-----	26.6	28.9	29.5	31.5	29.0	25.3	26.9	27.9	27.1	26.7	25.7
North Carolina-----	27.3	28.9	30.0	31.8	29.6	26.2	29.7	31.1	29.3	27.7	26.3
South Carolina-----	30.2	32.6	33.1	34.4	33.1	32.5	34.8	36.9	32.7	32.2	30.6
Georgia-----	28.0	29.9	30.6	31.5	29.5	26.7	29.9	30.4	28.1	26.6	25.7
Florida-----	23.9	23.9	24.1	24.8	24.0	24.1	25.3	24.9	22.7	21.4	19.9
EAST SOUTH CENTRAL											
Kentucky-----	26.9	28.3	29.2	30.5	28.8	26.0	27.9	28.2	26.8	25.1	25.1
Tennessee-----	25.6	26.7	27.0	29.2	27.5	25.6	27.8	28.9	26.7	24.8	23.8
Alabama-----	28.1	29.5	30.4	31.9	30.0	28.7	30.7	31.7	28.3	26.0	26.2
Mississippi-----	30.4	32.8	32.6	32.9	31.7	28.9	31.1	32.0	29.6	28.5	27.1
WEST SOUTH CENTRAL											
Arkansas-----	27.1	28.3	30.6	31.3	30.1	28.5	30.1	30.5	28.4	27.5	26.3
Louisiana-----	29.7	30.2	30.0	30.9	29.6	27.4	29.6	30.0	27.3	25.9	24.9
Oklahoma-----	23.3	24.7	23.5	26.8	25.6	24.4	26.8	26.4	24.2	23.8	22.6
Texas-----	27.6	27.9	27.5	28.6	27.7	26.9	29.1	29.1	25.5	24.4	23.1
MOUNTAIN											
Montana-----	26.6	27.2	27.9	28.6	25.4	22.7	23.9	24.4	23.1	21.7	21.2
Idaho-----	27.6	28.5	29.7	31.7	27.8	25.3	27.4	27.4	26.1	24.5	23.6
Wyoming-----	26.5	27.4	28.0	28.8	25.1	24.7	26.4	26.7	26.0	23.3	21.7
Colorado-----	26.4	26.3	27.2	27.8	26.6	23.6	24.4	25.1	23.6	21.1	20.8
New Mexico-----	34.5	35.9	36.6	38.0	36.2	34.8	36.2	34.7	32.7	33.2	31.6
Arizona-----	30.7	30.8	30.3	32.5	30.1	28.0	30.5	29.9	29.8	27.6	27.6
Utah-----	31.1	31.9	32.1	34.6	29.7	28.2	29.4	30.6	29.2	25.6	25.2
Nevada-----	23.4	23.9	24.2	27.7	23.7	23.4	23.9	23.1	21.7	19.1	20.1
PACIFIC											
Washington-----	23.6	24.8	25.0	26.7	23.9	21.9	23.1	24.5	22.2	18.1	16.6
Oregon-----	23.9	24.9	25.3	27.0	22.8	19.8	20.5	22.6	20.9	18.2	16.6
California-----	23.3	23.9	24.2	25.3	23.8	21.9	22.5	23.4	21.5	18.1	16.6

NOTE.—For 1940 and 1947-50, rates based on total population in each specified area. For 1941-46, rates for the United States based on population including armed forces overseas, and rates for geographic divisions and States based on civilian population in each area. United States rates based on civilian population were: 24.6 (1946); 22.4 (1945); 23.2 (1944); 24.3 (1943); 22.9 (1942); 20.5 (1941). For further discussion of population bases, see text in chapter 2.

## SUMMARY TABLES

Table 6.59. Birth Rates by Race: United States, Each Division and State, 1940 and 1950

(By place of residence. Rates based on registered live births per 1,000 population in each specified group, enumerated as of April 1)

AREA	RATES PER 1,000 TOTAL POPULATION						RATES PER 1,000 FEMALE POPULATION <sup>1</sup>					
	1950			1940			1950			1940		
	All races	White	Non-white	All races	White	Non-white	All races	White	Non-white	All races	White	Non-white
UNITED STATES	23.6	22.7	31.1	17.9	17.5	21.7	103.9	100.8	128.8	75.7	72.5	83.3
GEOGRAPHIC DIVISIONS												
New England	20.9	20.8	27.1	15.7	15.7	18.1	93.2	92.9	112.0	65.3	65.2	74.2
Middle Atlantic	20.6	20.1	28.1	15.3	15.1	18.6	87.8	86.7	100.5	60.7	60.6	62.9
East North Central	23.5	23.0	29.9	17.1	17.0	18.2	104.4	103.6	114.2	71.1	71.3	66.1
West North Central	23.8	23.6	29.0	17.4	17.4	18.7	111.8	111.5	123.8	75.1	75.1	74.5
South Atlantic	25.2	25.1	31.7	20.8	19.7	23.9	107.6	99.2	133.4	83.6	80.2	92.6
East South Central	26.5	24.2	33.8	21.8	21.2	23.4	117.3	107.1	150.6	90.0	89.2	92.0
West South Central	25.9	24.8	30.7	20.0	19.9	20.3	113.9	109.5	135.0	80.8	81.5	78.2
Mountain	27.8	27.5	33.4	22.0	22.1	20.8	126.4	125.0	157.1	95.9	95.8	98.0
Pacific	23.2	22.8	30.7	16.2	16.2	16.5	103.5	102.3	123.0	66.7	68.4	74.8
NEW ENGLAND												
Maine	23.0	23.1	20.2	18.0	18.0	16.4	108.9	106.9	114.6	81.8	81.8	86.5
New Hampshire	21.6	21.6	14.5	16.9	15.9	13.1	101.5	101.5	78.2	75.0	75.0	68.0
Vermont	23.8	23.9	8.9	19.3	19.3	11.8	113.9	114.0	39.7	90.1	90.1	58.8
Massachusetts	20.5	20.4	28.4	15.2	15.2	17.1	91.1	90.6	119.1	82.5	82.3	72.0
Rhode Island	20.5	20.3	27.7	15.2	15.1	21.2	89.7	89.0	126.8	61.1	60.6	63.6
Connecticut	20.2	20.1	26.0	14.9	14.9	16.9	87.5	87.1	100.1	60.0	59.7	71.3
MIDDLE ATLANTIC												
New York	20.3	19.7	28.4	14.5	14.4	17.0	86.2	85.5	94.7	56.7	56.9	53.1
New Jersey	20.2	18.6	29.4	14.4	14.0	20.1	86.2	84.1	112.3	56.4	55.4	72.9
Pennsylvania	21.1	20.7	27.1	16.7	16.5	20.0	90.7	89.6	104.7	66.3	68.0	72.4
EAST NORTH CENTRAL												
Ohio	25.4	23.0	28.6	16.6	16.5	18.0	103.4	102.8	111.8	68.0	69.1	67.1
Indiana	23.8	23.5	29.3	16.0	18.0	17.9	107.5	107.0	118.5	77.2	77.7	67.3
Illinois	21.8	21.1	29.9	15.8	15.7	17.6	95.8	94.2	111.6	63.5	63.6	61.4
Michigan	25.3	24.8	30.9	18.8	18.8	19.0	111.1	110.7	116.3	78.8	79.4	67.8
Wisconsin	24.1	23.9	36.1	17.5	17.4	27.1	112.6	112.0	152.8	76.1	75.8	117.0
WEST NORTH CENTRAL												
Minnesota	25.3	25.2	35.5	19.0	16.9	29.2	119.5	119.0	170.9	81.0	80.5	142.9
Iowa	23.9	23.9	29.1	17.7	17.7	13.7	115.0	114.8	135.4	78.1	78.2	60.9
Missouri	21.7	21.2	27.9	16.2	16.2	16.9	98.8	97.5	113.0	68.2	68.8	63.0
North Dakota	27.5	27.3	36.4	20.5	20.2	37.7	133.3	132.1	204.6	91.8	90.3	188.1
South Dakota	27.3	26.9	35.9	18.7	18.3	30.8	132.9	131.2	180.0	83.7	81.4	151.0
Nebraska	24.0	23.8	32.4	16.7	16.7	18.0	113.6	113.1	141.0	72.7	72.7	74.5
Kansas	23.1	22.9	26.4	16.0	16.0	15.9	108.2	107.7	119.2	69.8	69.9	66.4
SOUTH ATLANTIC												
Delaware	24.0	22.8	31.3	17.1	16.5	20.8	103.5	98.7	132.8	70.3	68.2	83.2
Maryland	23.1	21.6	30.8	17.8	16.7	22.9	97.9	92.3	125.0	72.4	68.8	89.6
District of Columbia	24.7	21.4	30.7	16.9	15.0	21.7	91.2	82.3	105.8	59.1	53.7	71.5
Virginia	24.7	23.5	29.0	21.3	20.8	23.7	106.3	100.7	126.4	86.1	84.6	98.6
West Virginia	25.2	25.1	27.2	22.2	22.5	18.6	111.8	111.3	120.0	93.8	95.4	71.9
North Carolina	26.2	23.5	35.6	22.5	21.3	25.8	111.0	99.2	144.2	90.0	85.4	101.6
South Carolina	27.1	23.8	32.4	23.5	20.8	27.0	116.8	100.0	145.0	94.3	83.3	108.3
Georgia	26.5	23.8	32.7	20.7	19.2	23.7	113.5	102.1	139.7	82.0	77.4	89.9
Florida	23.3	21.2	31.0	17.8	17.3	19.2	100.8	93.9	122.9	70.1	71.2	67.6
EAST SOUTH CENTRAL												
Kentucky	25.5	25.4	26.5	22.4	23.0	14.9	117.9	117.8	119.0	97.6	100.9	60.3
Tennessee	24.7	23.6	30.4	18.9	19.4	16.7	106.2	102.1	126.9	76.5	80.0	61.8
Alabama	27.0	23.9	33.4	22.2	21.0	24.4	116.7	102.9	146.2	90.0	86.7	95.9
Mississippi	29.8	23.1	37.8	24.1	21.1	27.3	136.3	102.7	176.2	99.0	87.6	110.2
WEST SOUTH CENTRAL												
Arkansas	23.9	22.4	28.9	19.7	20.0	19.1	110.8	103.5	136.4	82.9	85.4	75.8
Louisiana	28.5	25.2	35.1	21.5	19.7	24.7	123.7	106.1	156.4	85.0	78.7	95.9
Oklahoma	22.4	21.8	29.1	19.2	19.2	19.6	102.3	99.2	134.1	80.3	80.4	78.8
Texas	26.4	26.2	27.9	19.8	20.3	17.1	114.5	114.1	116.6	78.8	81.6	63.5
MOUNTAIN												
Montana	26.4	25.8	44.2	20.7	20.1	35.4	127.7	124.4	239.3	93.4	90.7	180.0
Idaho	27.2	27.1	36.9	22.5	22.5	17.2	128.2	127.5	191.5	100.4	100.5	89.3
Wyoming	28.2	26.0	34.5	20.7	20.5	30.4	121.7	120.4	192.6	90.3	89.4	161.1
Colorado	25.6	25.5	29.8	18.7	18.7	17.4	115.3	115.0	128.2	80.7	60.8	73.1
New Mexico	32.4	32.4	32.4	27.8	29.1	11.6	144.4	143.9	150.0	118.8	124.8	53.1
Arizona	27.8	26.9	33.5	23.0	23.2	22.0	122.7	118.0	157.0	98.5	97.8	103.0
Utah	30.8	30.8	28.9	24.3	24.3	19.6	139.4	139.4	136.4	104.3	104.4	96.5
Nevada	22.9	22.5	28.6	19.1	18.6	28.6	100.8	98.7	133.4	85.2	81.9	151.2
PACIFIC												
Washington	23.5	23.2	31.7	16.2	16.1	19.5	109.0	108.0	147.8	70.7	70.2	96.0
Oregon	23.7	23.6	29.2	16.2	16.1	20.8	109.2	108.9	127.7	70.1	69.7	96.7
California	23.1	22.6	30.6	16.3	16.3	16.0	101.5	100.0	120.8	68.0	67.8	71.4

<sup>1</sup>Computed by relating total births, regardless of age of mother, to female population aged 15-44 years.



NATALITY RATES

Table 6.60. Birth Rates Adjusted for Underregistration, by Race: United States, Each Division and State, 1940 and 1950

(By place of residence. Rates based on live births per 1,000 population in each specified group, enumerated as of April 1)

AREA	RATES PER 1,000 TOTAL POPULATION						RATES PER 1,000 FEMALES POPULATION <sup>1</sup>					
	1950			1940			1950			1940		
	All races	White	Non-white	All races	White	Non-white	All races	White	Non-white	All races	White	Non-white
UNITED STATES	24.1	25.0	33.3	19.4	18.6	26.7	106.2	102.3	137.3	79.9	77.1	102.4
GEOGRAPHIC DIVISIONS												
New England	21.0	20.8	27.4	15.9	15.9	18.7	93.5	93.2	112.9	66.2	66.1	76.9
Middle Atlantic	20.7	20.1	28.5	15.6	15.4	19.5	89.2	87.1	101.9	61.9	61.7	85.9
East North Central	23.7	23.2	30.7	17.7	17.6	19.6	105.3	104.4	117.4	75.4	73.5	71.1
West North Central	24.0	23.8	30.3	18.4	18.3	21.6	112.6	112.2	129.9	79.2	79.0	86.9
South Atlantic	26.3	25.8	34.3	24.1	23.1	25.8	121.3	121.9	144.4	97.0	90.1	115.1
East South Central	27.5	25.0	35.5	25.4	24.4	28.3	121.8	110.8	157.7	105.1	102.8	111.3
West South Central	27.3	25.7	34.6	23.8	22.8	25.0	120.1	113.4	152.2	96.2	93.2	107.8
Mountain	28.8	28.1	44.1	24.0	23.5	35.9	131.2	127.7	207.5	104.8	102.2	168.8
Pacific	23.5	23.0	31.1	16.6	16.5	17.4	104.4	103.1	124.8	70.1	69.8	78.7
NEW ENGLAND												
Maine	23.3	23.3	20.2	18.6	18.6	30.9	109.9	109.9	114.6	84.9	84.7	167.0
New Hampshire	21.7	21.7	14.5	17.2	17.2	13.1	101.7	101.7	78.2	76.1	76.1	88.0
Vermont	23.9	24.0	8.9	19.9	19.9	11.8	114.4	114.5	39.7	92.7	98.7	58.8
Massachusetts	20.6	20.4	28.8	15.3	15.3	17.5	91.4	90.8	121.0	63.1	63.0	75.5
Rhode Island	20.5	20.4	27.7	15.4	15.3	21.2	89.8	89.1	126.8	61.8	61.3	93.6
Connecticut	20.2	20.1	26.0	15.0	14.9	19.2	87.5	87.1	100.1	60.3	60.0	72.6
MIDDLE ATLANTIC												
New York	20.4	19.8	26.8	14.7	14.6	17.7	86.6	85.8	96.0	57.3	57.6	55.2
New Jersey	20.3	19.6	29.7	14.5	14.2	20.4	86.6	84.4	113.7	57.0	55.9	73.9
Pennsylvania	21.2	20.8	27.5	17.2	17.0	21.4	91.2	90.1	106.2	70.3	69.9	77.8
EAST NORTH CENTRAL												
Ohio	23.6	23.2	29.1	17.4	17.3	19.1	104.4	103.7	113.7	72.4	72.4	71.3
Indiana	24.0	23.7	29.8	18.6	18.6	19.0	108.7	108.0	120.5	79.8	80.2	71.6
Illinois	22.0	21.3	30.9	16.2	16.1	19.3	96.7	94.9	115.2	65.3	65.2	67.6
Michigan	25.5	25.0	32.1	19.3	19.2	20.1	112.3	111.6	120.6	80.6	81.0	71.7
Wisconsin	24.2	24.0	36.4	16.0	17.9	29.1	113.0	112.4	154.1	78.3	78.0	125.7
WEST NORTH CENTRAL												
Minnesota	25.3	25.2	37.1	19.1	19.0	29.8	119.6	119.1	178.6	81.5	81.1	145.7
Iowa	24.1	24.0	29.5	18.6	18.7	15.2	115.6	115.6	137.2	82.4	82.5	67.7
Missouri	22.2	21.6	29.1	18.0	17.9	20.6	100.9	99.3	117.8	75.7	75.6	76.7
North Dakota	27.7	27.4	40.8	21.6	21.3	40.1	134.1	132.8	216.9	97.0	95.5	200.0
South Dakota	27.7	27.1	42.5	19.6	18.9	39.7	134.9	132.1	212.1	87.7	84.1	190.0
Nebraska	24.1	23.9	33.7	17.3	17.2	19.4	114.2	113.5	146.4	75.0	74.9	80.5
Kansas	23.2	23.1	27.5	16.8	16.8	17.1	109.0	108.3	124.0	73.0	73.0	71.5
SOUTH ATLANTIC												
Delaware	24.2	22.9	31.7	17.5	16.9	21.1	104.1	99.1	134.4	72.0	70.0	84.4
Maryland	23.4	21.8	31.4	18.3	17.1	24.3	98.9	92.9	127.5	74.6	70.3	95.1
District of Columbia	25.0	21.5	31.4	17.4	15.3	22.4	92.4	82.6	108.4	60.5	54.9	73.7
Virginia	25.4	24.0	30.4	23.2	22.1	26.3	109.3	102.7	132.7	95.8	81.5	109.3
West Virginia	26.6	26.4	29.8	25.7	25.8	22.8	118.2	117.4	131.1	108.2	109.7	88.1
North Carolina	27.3	24.1	36.0	26.3	24.1	32.0	115.4	101.6	154.4	105.2	96.8	126.3
South Carolina	30.2	25.3	38.0	30.6	25.0	38.0	130.2	108.5	169.8	122.8	99.9	153.9
Georgia	28.0	24.5	35.8	25.7	22.9	30.8	119.8	105.3	152.1	101.4	92.5	117.2
Florida	23.9	21.4	32.9	19.9	19.0	22.4	103.4	95.0	130.6	78.3	78.1	78.8
EAST SOUTH CENTRAL												
Kentucky	26.9	26.8	27.9	25.1	25.7	16.9	124.3	124.3	125.3	109.2	112.8	88.2
Tennessee	25.6	24.3	32.1	23.8	24.1	22.5	109.8	104.9	134.1	96.1	99.1	83.3
Alabama	29.1	24.6	35.5	26.2	24.2	29.9	121.6	106.0	155.2	106.1	99.9	117.3
Mississippi	30.4	23.4	38.8	27.1	22.4	31.9	136.3	104.1	181.3	111.0	93.2	128.6
WEST SOUTH CENTRAL												
Arkansas	27.1	24.3	37.0	26.3	25.0	30.4	125.9	112.2	174.6	110.5	106.8	120.7
Louisiana	29.7	25.9	37.5	24.9	22.3	29.6	129.2	111.2	167.0	98.5	89.2	114.7
Oklahoma	23.3	22.3	33.3	22.6	21.9	28.9	106.3	101.7	153.4	94.5	91.9	117.4
Texas	27.6	27.0	31.3	23.1	22.7	25.2	119.3	117.6	130.8	91.8	91.4	93.6
MOUNTAIN												
Montana	26.6	26.0	44.6	21.2	20.5	39.2	128.4	125.1	240.6	95.7	92.4	199.0
Idaho	27.6	27.4	28.8	23.6	23.6	22.0	129.8	129.0	201.6	105.6	105.5	114.4
Wyoming	26.5	26.3	34.5	21.7	21.4	36.7	123.2	121.9	192.8	94.7	93.3	194.4
Colorado	26.4	26.3	30.3	20.8	20.9	19.4	119.0	118.7	130.6	89.8	89.9	81.4
New Mexico	34.5	33.6	45.1	31.6	32.0	27.1	153.4	149.1	208.4	136.2	137.1	124.4
Arizona	30.7	27.7	51.5	27.6	24.8	44.4	135.6	121.3	241.0	118.2	104.4	208.1
Utah	31.1	31.1	32.0	25.2	25.0	35.2	140.9	140.8	150.6	108.3	107.5	173.0
Nevada	23.4	22.8	31.7	20.3	19.0	39.2	102.9	100.0	148.1	89.6	83.7	206.1
PACIFIC												
Washington	23.6	23.4	32.2	16.6	16.5	22.3	109.7	109.6	150.2	72.3	71.6	109.5
Oregon	23.9	23.9	29.4	16.6	16.5	24.8	110.2	109.9	128.4	72.0	71.4	117.4
California	23.3	22.8	31.1	16.6	16.6	16.5	102.5	100.9	122.7	69.3	69.1	73.6

<sup>1</sup>Computed by relating total births, regardless of age of mother, to female population aged 15-44 years.

## Chapter 7

### FETAL MORTALITY STATISTICS

#### Definitions, Reporting Requirements, and Qualifications

##### Introduction

Until very recently, fetal mortality and statistics on this subject have received scant attention. This condition is understandable when viewed against the background of the difficult problems faced by program agencies, the medical profession, and research groups in reducing maternal and infant mortality. Concentration in these two fields has paid heavy dividends during the past half century.

In the case of infant mortality, the reduction of mortality during the postneonatal period has been greater than at earlier ages, and as a result, today two-thirds of the infant deaths in this country take place during the first few weeks after birth. With this change, the primary emphasis in programs directed at the reduction of infant mortality has shifted to the loss in the first 4 weeks of life. Because of the many similarities between conditions influencing these deaths and fetal loss in general, fetal death statistics have been brought into the most prominent position they have ever occupied.

Many problems still exist in the collection of statistics on fetal deaths through the registration system. The most important factors affecting the quality and comparability of these data are the underregistration of fetal deaths and the lack of uniformity among the States in the regulations regarding the registration of fetal deaths.

Although the States have come closer together on reporting requirements in recent years, significant differences still existed in 1950. The minimum gestation age for which the registration of a fetal death was called for in 1950 is given in table 7.01 for each State. It will be noted that in only three areas was the lower limit for reporting fetal deaths set above 20 weeks (or 5 months). One area, New York City, required the reporting of all fetal deaths regardless of gestation age. All except one of the remaining areas specified the minimum period as "advanced to," "reached," or "after" 20 weeks (or 5 months). For these areas the seemingly slight variations in terminology may also give rise to some differences in interpretation and reporting.

Another aspect in which the State registration requirements for fetal deaths have differed is in the specification of the criteria for determining the absence of life at time of birth. In most areas, requirements in 1950 specified that any one of the following criteria—heart action, breathing, and movement of voluntary muscles—was evidence of life. The regulations of a third of the areas, however, were not specific but merely identified fetal death as "not a live birth" or "showing no evidence of life."<sup>1</sup>

While differences in regulations have caused a large

degree of incomparability in the past, it is believed that, at the present time, underregistration is of far greater significance. A measure of underreporting of fetal deaths is available only for New York City.<sup>2</sup> In this area, where reporting of fetal deaths for the period of the test, 1943 through 1945, was probably more complete than in the rest of the country in 1950, it was found that 14 percent of the fetal deaths occurring in the "third trimester of pregnancy" were not registered. The figure for fetal deaths in the "second trimester" was 34 percent.

In an attempt to evaluate the degree of difference from State to State in the completeness of fetal death reporting, a comparison of the variation in the fetal death rate (excluding fetal deaths of less than 20 weeks) and the neonatal death rate was made on the assumption that the true variation in these series should be somewhat alike.<sup>1</sup> This comparison indicated greater variation in the fetal death rates suggesting that reporting varied more for fetal deaths. But, the difference was moderate and it was concluded that closer study of fetal death data was warranted.

An effect, counter to that of underreporting, probably exists in some areas because of the reporting of some liveborn children who die almost immediately after birth as fetal deaths. The perinatal rate, which is generally based on fetal deaths of gestations of 28 weeks or more and early neonatal deaths combined, has been used in some investigations to overcome the effect of this factor.

##### National and international standard definitions

Periodically, over the past 15 to 20 years, consideration has been given to methods for improving comparability of fetal death statistics. However, the most concerted action started in 1950. In an effort to introduce consistency in terminology and at the same time to stimulate the collection of data on total fetal loss, the World Health Organization in May 1950 recommended for adoption the following definition of fetal death: "Fetal death is death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles."<sup>3</sup> The term "fetal death" was defined on an all-inclusive basis to end confusion arising from the variety of usages of such terms as stillbirth, abortion, miscarriage, etc.

<sup>2</sup>Baumgartner, Leona; Wallace, Helen M.; Landsberg, Eva; and Pessin, Vivian, "The Inadequacy of Routine Reporting of Fetal Deaths," *American Journal of Public Health*, vol. 39, No. 12, pp. 1549-1552, December 1949.

<sup>3</sup>Public Health Service, National Office of Vital Statistics, "International Recommendations on Definitions of Live Birth and Fetal Death," PHS Publication No. 39, Washington, D. C., October 1950.

<sup>1</sup>For further details, see Yerushalmy, J., and Bierman, Jessie M., "Major Problems in Fetal Mortality," *National Office of Vital Statistics, Vital Statistics—Special Reports*, vol. 33, No. 13, 1952.

# FETAL MORTALITY

**Table 7.01. MINIMUM PERIODS OF GESTATION FOR FETAL DEATH REGISTRATION AND FETAL DEATHS BY PERIOD OF GESTATION:  
UNITED STATES AND EACH STATE, 1950**  
(By place of occurrence)

AREA	Minimum period of gestation for fetal death registration	Total	PERIOD OF GESTATION <sup>1</sup>											
			Under 16 weeks	16-19 weeks	20-23 weeks	24-27 weeks	28-31 weeks	32-35 weeks	36 weeks	37-39 weeks	40 weeks	41-42 weeks	Over 42 weeks	Not stated
UNITED STATES-----		81,300	10,961	2,077	5,947	6,843	7,995	7,757	5,222	5,101	19,627	1,178	449	8,143
Alabama-----	After 5 months	2,146	5	18	162	206	330	219	230	132	624	29	7	184
Arizona-----	Advanced to 5th month	393	-	-	22	52	51	43	36	31	134	3	1	20
Arkansas-----	Advanced to 5th month	800	4	15	35	72	83	82	56	38	291	4	1	119
California-----	Advanced to 5th month	3,711	3	19	372	471	444	524	302	393	1,016	102	30	35
Colorado-----	Reached 20 weeks	529	-	1	39	65	62	76	1	19	254	4	1	7
Connecticut-----	After not less than 28 weeks <sup>2</sup>	560	3	3	14	35	54	85	44	61	190	16	3	52
Delaware-----	After at least 20 weeks	142	-	1	9	7	20	19	7	16	53	1	-	10
District of Columbia---	After 5 months	501	2	4	50	50	58	67	43	60	123	10	4	30
Florida-----	Reached 20 weeks	1,427	-	1	114	169	214	133	186	116	427	18	6	43
Georgia-----	After at least 20 weeks	2,022	-	9	110	229	265	333	1	84	941	4	1	45
Idaho-----	After at least 20 weeks	253	-	7	15	17	24	14	28	22	39	3	2	82
Illinois-----	Advanced to 5th month	3,118	5	18	280	345	399	411	357	324	859	58	27	35
Indiana-----	After at least 20 weeks	1,553	1	7	100	137	184	170	136	126	452	31	15	194
Iowa-----	Reached 20 weeks	976	4	9	60	83	129	103	88	95	228	40	12	125
Kansas-----	Advanced to 5th month	665	4	9	55	52	69	80	63	44	167	16	5	101
Kentucky-----	Advanced to 5th month	1,435	1	2	80	132	146	139	125	73	375	15	5	342
Louisiana-----	After at least 20 weeks	1,743	-	15	120	193	284	266	38	73	726	8	1	19
Maine-----	After at least 20 weeks	405	1	7	36	50	40	55	34	35	87	10	-	50
Maryland-----	After at least 20 weeks <sup>(3)</sup>	1,088	19	32	120	117	116	126	70	81	319	17	8	63
Massachusetts-----	Advanced to 5th month	1,753	-	-	-	-	-	-	-	-	-	-	-	1,753
Michigan-----	Advanced to 5th month	3,114	4	24	280	359	403	402	276	263	746	58	34	265
Minnesota-----	Advanced to 5th month	1,236	1	8	78	127	143	141	93	137	306	30	13	159
Mississippi-----	After at least 20 weeks	1,845	1	6	115	185	269	178	118	87	828	17	8	33
Missouri-----	After at least 20 weeks	1,836	33	39	194	177	191	191	117	127	579	37	14	137
Montana-----	Advanced to 5th month	241	-	-	20	31	21	34	37	31	51	6	2	8
Nebraska-----	Advanced to 5th month	505	1	8	48	46	59	60	41	50	103	17	5	67
Nevada-----	After at least 20 weeks	62	-	-	9	7	13	7	7	3	11	-	-	5
New Hampshire-----	Reached 20 weeks	234	3	4	27	25	27	32	18	21	55	7	1	14
New Jersey-----	After at least 20 weeks	1,612	26	32	157	165	187	218	115	160	559	44	16	133
New Mexico-----	After at least 20 weeks	392	-	4	24	50	42	42	35	49	116	8	2	20
New York (excl. N.Y.C.)--	After at least 20 weeks	2,620	3	25	229	315	351	374	227	279	673	87	20	37
New York City-----	Any product of conception	16,372	*10,777	1,440	899	440	413	402	191	279	873	115	52	491
North Carolina-----	Advanced to 5th month	2,580	3	11	160	282	348	304	206	158	841	15	8	244
North Dakota-----	Reached 20 weeks	223	2	4	22	14	34	29	22	16	55	4	-	21
Ohio-----	At least 4½ months	3,474	21	112	366	328	405	390	247	229	842	57	23	453
Oklahoma-----	After at least 20 weeks	838	1	1	39	80	103	79	-	18	372	2	1	142
Oregon-----	After at least 20 weeks	507	-	4	43	46	72	72	46	39	117	9	3	56
Pennsylvania-----	Completed 6 months	4,544	17	101	486	499	514	524	412	389	1,211	82	37	272
Rhode Island-----	Completed 6 months	257	-	1	9	35	30	29	-	3	147	-	-	3
South Carolina-----	Reached 20 weeks	1,586	2	8	78	148	190	168	146	69	496	4	4	273
South Dakota-----	Reached 20 weeks	282	1	2	24	24	25	27	31	20	79	6	3	40
Tennessee-----	After at least 20 weeks	1,678	-	-	109	186	205	207	135	126	670	29	10	1
Texas-----	Advanced to 5th month	4,135	5	9	185	215	302	256	311	202	1,038	40	18	1,554
Utah-----	Advanced to 5th month	266	1	1	27	26	19	31	18	26	52	6	3	56
Vermont-----	5½ months	143	-	1	7	11	10	20	6	11	52	6	-	19
Virginia-----	Reached 20 weeks	1,895	5	27	217	173	224	201	239	152	518	22	10	107
Washington-----	After at least 20 weeks	822	-	9	90	115	126	97	63	86	175	21	4	36
West Virginia-----	Advanced to 5th month <sup>5</sup>	1,206	-	14	99	108	128	124	119	77	363	11	9	154
Wisconsin-----	After at least 20 weeks	1,231	1	3	102	127	151	163	93	159	361	46	20	5
Wyoming-----	After at least 20 weeks	144	1	2	11	17	17	11	8	12	33	3	-	29

<sup>1</sup>Period of gestation reported in months allocated to gestation intervals in weeks as follows: 1-3 months to "Under 16 weeks"; 4 months to "16-19 weeks"; 5 months to "20-23 weeks"; 6 months to "24-27 weeks"; 7 months to "28-31 weeks"; 8 months to "32-35 weeks"; 9 months to "40 weeks"; 10 months to "Over 42 weeks." Colorado, Georgia, Louisiana (for part of year), Oklahoma, and Rhode Island requested reporting of gestation age in months.

<sup>2</sup>Also includes "or measuring at least 13.8 inches."

<sup>3</sup>Further specified that at 20 weeks, "fetus averages 10 inches in length, and 9 ounces in weight."

<sup>4</sup>Under 16 weeks of gestation distributed as follows: Under 4 weeks, 91; 4-7 weeks, 2,169; 8-11 weeks, 5,598; 12-15 weeks, 2,919.

<sup>5</sup>Also includes "or total length of 10 inches."

The definition of fetal death issued by the World Health Organization has been adopted in the United States as the nationally recommended standard for use in State and municipal registration laws and regulations.<sup>4</sup> However, the data for 1950 shown in this volume are too early to reflect any changes made as a result of this recommendation.

As a further step toward increasing the comparability of data on fetal deaths for different countries, the World Health Organization recommended that in classifying fetal deaths for statistical purposes they be grouped as early, intermediate, and late fetal deaths. These groups are defined as follows:

Less than 20 completed weeks of gestation (early fetal deaths)-----	Group I
20 completed weeks of gestation but less than 28 (intermediate fetal deaths)-----	Group II
28 completed weeks of gestation and over (late fetal deaths)-----	Group III
Gestation period not classifiable in Groups I, II, and III-----	Group IV

### Use of ratios and rates

Both ratios and rates have been used in analyzing the data on fetal deaths in this section. The "ratios" represent the number of fetal deaths per 1,000 live births while "rates" are fetal deaths per 1,000 live births and fetal deaths combined.

In former annual reports the ratio was employed exclusively in describing fetal mortality because differences in definitions and completeness of reporting did not warrant the refinement introduced by the computation of rates for the detail shown. In this volume, however, statistics on fetal loss are shown for certain characteristics for which the proportion of fetal deaths varies considerably from one category to another. In these instances, it becomes important to utilize rates rather than ratios to indicate variability in fetal mortality.

### Fetal death reporting by period of gestation

A total of 81,300 fetal deaths was registered in the United States in 1950. Because of limitations in reporting requirements, the great majority of these (68,262) represent fetal deaths of gestations of 20 weeks or more, or of unknown gestation. The number of fetal deaths by period of gestation reported in each State is shown in table 7.01.

These statistics point to some of the present shortcomings of registration data on fetal deaths. With regard to underreporting of fetal deaths at lower gestations, a comparison of the figures for New York City, with similar data for other areas, indicates that registration of fetal deaths of 20-23 weeks is markedly less complete in the latter. In New York City, fetal deaths of 20-23 weeks of gestation amounted to more than double the number in the next higher interval, 24-27 weeks. At 28-31 weeks the number continued to drop off slightly. In most areas, however, fewer fetal deaths were reported at the 20-23 week period than at 24-27 weeks, and in some the number at 28-31 weeks was even substantially higher than in the previous interval.

The underreporting of fetal deaths at the lower gestations is undoubtedly due in some part to a tendency to underestimate the gestation age of fetal deaths occurring at gestations close to the lower reporting level.

<sup>4</sup>Prior to the adoption of this definition the nationally recommended definition of a fetal death (stillbirth) for registration purposes was as follows: "A fetus showing no evidence of life after complete birth (no action of heart, breathing, or movement of voluntary muscle), if the 20th week of gestation has been reached, should be registered as a stillbirth."

As indicated in table 7.01 the registration of fetal deaths of less than 20 weeks (or 5 months) of gestation is not required in most areas. The fact that any were reported in these States may be due to a fairly common practice (in a few cases covered by the regulations) of using birth weight and/or fetal length criteria in place of gestation age to determine whether a record should be filed.<sup>5</sup> In Maryland, the somewhat higher proportion of early fetal deaths may also be a result of an earlier regulation in which the registration of all fetal deaths was covered.

Some appreciation of the total fetal loss can be obtained from the large number of fetal deaths of less than 20 weeks of gestation reported in New York City. Allowing for incompleteness of reporting at this and higher gestation levels, it has been estimated that possibly as many as 20 percent of the pregnancies end in fetal deaths.<sup>6</sup>

The gestation periods for a fairly high proportion of fetal deaths are not recorded. Excluding Massachusetts, which did not require the reporting of this item, gestation age was lacking for 8 percent of the fetal deaths in 1950. In 8 States the "not stated" group represented more than 15 percent of the total fetal deaths.

Inaccuracies in the reporting of gestation age show up in the case of fetal deaths as for live births in a high concentration at 40 weeks of gestation and an abnormally large number reported as of 36 weeks.

Fetal deaths of less than 20 weeks of gestation have been excluded in preparing most of the tables in this volume and all tables in Volume II in order to obtain data on a more consistent basis for comparison from year to year and from State to State. Fetal deaths of unknown gestation, however, are included in these tables since it is reasonable to assume that very few relate to fetal deaths of less than 20 weeks of gestation. Data on this basis (that is, including only those fetal deaths for which the period of gestation was given as 20 weeks or more, or was not stated) were first shown in publications relating to fetal deaths in 1945. Limited information for this group is also available for 1942 through 1944.

### Trends and Detailed Characteristics

#### Trend in fetal death ratios

Fetal death ratios by race based on all reported fetal deaths are shown in table 7.02 for 1922 to 1950 for the birth-registration States. Lack of uniformity in the definition of a fetal death and variation in completeness of registration undoubtedly influence to a considerable extent the comparability of the data during this period.

Considering the probable total effect of these factors, as well as that of incompleteness of the registration area until 1933, it appears likely that the ratios in table 7.02 would understate any decline in fetal mortality. Changes in the regulations have more often been in the direction of broadening the base of fetal death reporting, than in the other direction. With respect to completeness of reporting, the situation has probably improved because of the increases in the numbers of women receiving hospital and medical care at childbirth and also because of the general strengthening of the vital registration system. However, there are no data indicating whether this change has kept pace with (or exceeded) the

<sup>5</sup>Potter, Edith L., and Shapiro, Sam, "Survey of Opinions of Obstetricians Concerning Official Reporting of Fetal Mortality," *American Journal of Obstetrics and Gynecology*, vol. 67, No. 3, pp. 651-660, March 1954.

<sup>6</sup>Erhardt, Carl L., "Reporting of Fetal Deaths in New York City," *Public Health Reports*, vol. 67, No. 12, pp. 1161-1167, December 1952.

Table 7.02. FETAL DEATH RATIOS BY RACE:  
BIRTH-REGISTRATION STATES, 1922-50

(Includes all fetal deaths reported, regardless of period of gestation. Ratios per 1,000 live births in each specified group)

YEAR	All races	White	Non-white	YEAR	All races	White	Non-white
1950-----	22.9	20.3	39.2	1935-----	35.8	31.1	68.7
1949-----	22.9	20.3	39.7	1934-----	36.2	31.4	70.1
1948-----	23.5	20.9	41.3	1933-----	37.0	32.2	71.1
1947-----	23.7	21.1	44.2	1932-----	37.8	32.7	74.4
1946-----	25.6	23.2	44.2	1931-----	38.2	33.4	74.1
1945-----	26.6	24.1	44.6	1930-----	39.2	34.0	79.9
1944-----	27.0	24.5	45.4	1929-----	39.5	34.4	79.7
1943-----	26.7	24.2	46.2				
1942-----	28.2	25.5	49.3	1928-----	40.2	35.0	81.5
1941-----	29.9	26.5	54.0	1927-----	36.8	34.8	74.8
1940-----	31.3	27.7	56.7	1926-----	38.1	35.1	73.0
1939-----	32.0	28.2	59.0	1925-----	38.1	35.1	73.1
1938-----	32.1	28.1	61.1	1924-----	39.3	35.8	76.2
1937-----	33.4	29.2	63.2	1923-----	38.9	35.9	71.8
1936-----	34.4	29.8	66.9	1922-----	39.4	36.4	73.4

NOTE.—Data relating to fetal deaths were collected for 1918 but not for 1919 to 1921, inclusive.

improvement in registration completeness of live births.

For both the white and nonwhite groups, the fetal death ratios based on all reported events have shown a steady downward trend since the early 1930's. During this period the decrease appears to have been relatively greater for the nonwhite group than for the white.

The decline in the fetal death ratio has been general throughout the country as indicated in table 7.10, which gives trend data based on all fetal deaths reported for each State. It will be noted from this table, however, that for New York an increase is shown over this period. This rise reflects only the effect of efforts in New York City to obtain more complete reporting of fetal deaths. Similarly, the somewhat sharper drop in the ratio for Maryland as compared with other areas may possibly be explained by the change in 1943 in the regulations regarding the registration of fetal deaths in that State.

Data in tables 7.03 and 7.09 give a more comparable basis for determining changes in the fetal death ratio but for a more limited time period. Comparison of ratios in these tables, which are restricted to fetal deaths of gestations of 20 weeks or more, or not stated, indicates a reduction of 25 percent in fetal mortality between 1942 and 1950 for the United States as a whole. This exceeds the reduction for this period in the ratio based on total reported fetal deaths principally because it eliminates the extraneous effect of the improvement in completeness of reporting of fetal deaths of less than 20 weeks of gestation in New York City.

Table 7.03. FETAL DEATH RATIOS BY RACE:  
UNITED STATES, 1942-50

(Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated. Ratios per 1,000 live births in each specified group)

YEAR	All races	White	Non-white	YEAR	All races	White	Non-white
1950-----	19.2	17.1	32.5	1945-----	23.9	21.4	42.0
1949-----	19.8	17.5	34.6	1944-----	24.5	---	---
1948-----	20.6	18.3	36.5	1943-----	24.5	---	---
1947-----	21.1	18.7	39.6	1942-----	25.6	---	---
1946-----	22.8	20.4	40.9				

### Fetal death ratios by State and geographic division

Table 7.04 gives fetal death ratios by race for 1945 (the earliest year for which these data are available) and 1950 for each State and geographic division by place of residence. Fetal deaths of less than 20 weeks of gestation have been excluded in computing these ratios.

In all geographic divisions and in most States fetal deaths occurred relatively more frequently among nonwhite than among white births. The differences in the ratios were smallest in the New England and Pacific Divisions. In many of the other divisions the ratios for the nonwhites were almost twice the corresponding ratios for the whites.

Geographic variations in the fetal death ratios should be interpreted carefully, keeping in mind the limitations previously discussed. An extreme example of how the data can be affected is found in ranking areas by fetal death ratios; in the white group one of the highest ratios (20.3 for New York) and one of the lowest ratios (13.8 for Connecticut) are traceable to differences in reporting requirements and completeness.

Comparison of the ratios by race for 1945 and 1950 for each division indicates that in every case the ratio was reduced by at least 17 percent over this period. The relative improvement, however, varied more by division in the nonwhite than in the white group, with the larger decreases for the nonwhite being recorded in the New England, Middle Atlantic, and East North Central Divisions (about 26 percent in each), and in the Pacific Division (36 percent).

### Fetal death rates by age of mother and birth order

The fetal mortality rates by age of mother for 1950 for each birth order shown in the chart indicate that both characteristics have an important influence on fetal loss. While inaccuracies in reporting "birth order (including fetal deaths)" undoubtedly affect these rates, it is not likely that these errors are of such a nature as to invalidate the relationships among the various groups.

For each age group of women the risk of a fetal death occurring at gestations of 20 weeks or more was lowest among those pregnant for a second time.<sup>7</sup> The over-all fetal death rate in first pregnancies was almost 50 percent higher than in second pregnancies (table 7.05). The difference was comparatively more marked among women 25 years of age and over than among younger women.

After the second pregnancy, the chance of a fetal death occurring increased at each successive birth order. Nevertheless, for women past 25 years of age first pregnancies remained one of the highest risk groups. In fact, among women near the end of the childbearing ages the chance of a fetal death was less in an eighth or later pregnancy than in a first pregnancy.

The lowest fetal mortality rate at each birth order in 1950 generally came at or near the age interval where women were most likely to have a birth of that order. For each older group of women, the risk of a fetal death occurring became progressively greater and at the higher ages reached levels far above the minimum rates.

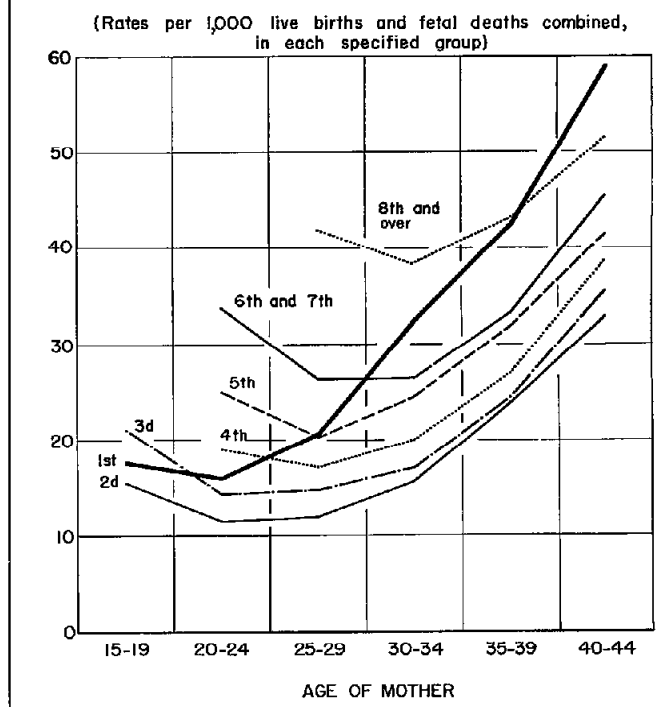
<sup>7</sup>In this section, for simplicity in terminology, references are made to women of specified pregnancies. However, the birth order figures given are believed to approximate more closely the data for pregnancies that had advanced to the 20th week of gestation rather than figures for all pregnancies.

Table 7.04. FETAL DEATH RATIOS BY RACE: UNITED STATES, EACH DIVISION AND STATE, 1945 AND 1950

(By place of residence. Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated. Ratios per 1,000 live births in each specified group)

AREA	1950			1945		
	All races	White	Non-white	All races	White	Non-white
UNITED STATES-----	19.2	17.1	32.5	23.9	21.4	42.0
GEOGRAPHIC DIVISIONS						
New England-----	17.1	17.0	21.4	20.8	20.7	28.9
Middle Atlantic-----	20.9	19.5	35.2	25.2	23.7	48.0
East North Central---	17.4	16.4	28.6	22.1	21.2	38.6
West North Central---	16.5	15.8	32.6	20.5	19.7	41.4
South Atlantic-----	23.0	17.9	34.7	29.1	23.0	44.1
East South Central---	23.1	18.3	34.1	27.4	22.0	41.3
West South Central---	19.9	16.8	32.0	25.3	21.6	41.0
Mountain-----	16.1	15.6	25.2	20.6	20.1	30.3
Pacific-----	14.9	14.5	19.6	18.0	17.4	30.4
NEW ENGLAND						
Maine-----	18.9	18.9	16.9	18.2	18.2	0
New Hampshire-----	20.1	20.1	71.4	21.9	22.0	0
Vermont-----	15.9	15.9	0	22.0	22.0	0
Massachusetts-----	18.1	16.0	19.6	22.8	22.6	33.4
Rhode Island-----	15.0	14.7	24.3	20.5	20.5	18.0
Connecticut-----	14.1	13.8	23.1	17.3	17.0	28.9
MIDDLE ATLANTIC						
New York-----	22.2	20.3	41.4	27.0	25.2	56.9
New Jersey-----	18.5	17.5	27.5	23.8	22.6	39.1
Pennsylvania-----	19.9	19.1	29.8	23.5	22.1	41.9
EAST NORTH CENTRAL						
Ohio-----	17.9	17.0	29.3	24.2	23.2	41.1
Indiana-----	16.2	15.1	35.7	19.6	18.7	39.7
Illinois-----	16.9	15.8	25.7	21.3	20.3	34.2
Michigan-----	19.3	16.3	29.4	24.0	22.7	43.1
Wisconsin-----	15.0	14.7	29.1	18.9	18.9	24.6
WEST NORTH CENTRAL						
Minnesota-----	16.1	16.0	21.5	20.9	20.8	25.9
Iowa-----	15.0	15.0	12.8	19.6	19.7	2.9
Missouri-----	19.7	17.7	38.6	23.6	21.2	51.1
North Dakota-----	13.4	13.0	32.6	19.1	18.7	33.5
South Dakota-----	15.9	15.7	19.6	15.5	14.8	28.2
Nebraska-----	15.7	15.5	23.0	18.4	18.5	14.7
Kansas-----	15.1	14.5	29.3	19.1	18.2	41.9
SOUTH ATLANTIC						
Delaware-----	19.1	15.8	33.9	24.7	21.5	42.5
Maryland-----	19.8	16.8	30.4	26.9	22.1	47.4
District of Columbia---	18.8	14.3	24.5	23.2	18.6	32.6
Virginia-----	23.5	19.0	36.2	30.1	23.6	49.5
West Virginia-----	23.7	23.2	29.9	31.5	30.4	50.5
North Carolina-----	24.1	17.6	36.6	25.5	20.1	37.1
South Carolina-----	27.4	17.9	38.4	33.7	22.0	47.4
Georgia-----	21.9	15.6	32.3	29.4	22.1	42.0
Florida-----	22.4	16.6	36.7	31.4	23.6	53.2
EAST SOUTH CENTRAL						
Kentucky-----	19.1	18.6	25.3	23.6	23.0	33.4
Tennessee-----	19.8	17.5	28.9	23.8	20.3	41.4
Alabama-----	25.9	19.0	36.3	29.0	22.0	40.7
Mississippi-----	28.2	17.9	35.8	34.0	23.0	42.7
WEST SOUTH CENTRAL						
Arkansas-----	17.5	14.7	25.0	20.6	17.9	28.2
Louisiana-----	22.8	15.9	32.7	29.1	20.4	42.6
Oklahoma-----	16.9	15.4	28.9	23.9	22.4	35.4
Texas-----	20.2	17.9	35.0	25.5	22.5	46.8
MOUNTAIN						
Montana-----	15.2	14.4	28.6	17.4	16.1	36.7
Idaho-----	15.9	15.7	26.2	17.4	17.5	9.4
Wyoming-----	19.2	18.7	35.6	17.7	17.4	24.8
Colorado-----	15.5	15.5	14.2	21.9	21.7	29.4
New Mexico-----	18.2	17.7	24.2	24.3	24.6	21.3
Arizona-----	18.5	17.2	25.7	23.4	21.3	38.7
Utah-----	12.1	11.8	26.0	17.1	17.0	21.9
Nevada-----	18.3	16.6	37.8	26.7	24.6	52.1
PACIFIC						
Washington-----	14.4	14.2	21.2	15.5	15.3	22.4
Oregon-----	13.8	13.6	24.0	17.1	17.0	22.5
California-----	15.1	14.8	19.3	18.7	17.9	31.9

### FETAL DEATH RATES BY AGE OF MOTHER AND BIRTH ORDER (INCLUDING FETAL DEATHS): UNITED STATES, 1950



For all birth orders, the fetal death rates for the nonwhite group were higher than those for the white. However, the greatest relative differences occurred in first and second order births. At these orders, the rates among the nonwhite were close to double the rates among the white births, while at orders above the second the fetal mortality rates among nonwhite births were about one and one-half times the rates for the white. In pregnancies among both the white and the nonwhite races, the fetal death rate dropped sharply after the first.

At each age the fetal death rate was much higher among the nonwhites than the whites. Considering age and birth order simultaneously, the differential by race persisted.

#### Period of gestation rates

Fetal death rates by period of gestation for single and multiple births by race in 1950 are shown in table 7.06. These rates indicate what proportion of the deliveries at each gestation age involve a fetal death. Because of inaccuracies in the reporting of gestation on fetal deaths as well as live births (chapter 6), these data should be taken only as suggestive of the true situation. For this reason, broad intervals are used in presenting the rates throughout the gestation range except at 36 weeks. Data for the 36-week group are shown separately in view of the known misreporting of many full-term pregnancies as of 36 weeks of gestation.

In both single and plural births<sup>8</sup> the fetal death rate dropped sharply with increasing gestation age.<sup>9</sup> There were,

<sup>8</sup>Each member of a plural set is counted separately.

<sup>9</sup>There is evidence, however, that an increase in the rate occurs among pregnancies that have advanced much beyond 40 weeks of gestation.

Table 7.05. FETAL DEATH RATES BY AGE OF MOTHER, RACE, AND BIRTH ORDER (INCLUDING FETAL DEATHS): UNITED STATES, 1950

(Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated. Birth order refers to number of children ever born to mother, including fetal deaths. Data for Massachusetts are included only in the totals by age of mother because this State did not require the reporting of birth order. Figures for birth order not stated (for States other than Massachusetts) and for age of mother not stated are distributed. Rates per 1,000 live births and fetal deaths combined, in each specified group)

RACE AND BIRTH ORDER	Total <sup>1</sup>	AGE OF MOTHER					
		15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years
		ALL RACES----	18.8	17.2	14.6	16.5	21.9
First-----	19.5	17.5	15.9	20.6	32.2	42.4	59.1
Second-----	13.4	15.3	11.4	12.0	15.6	23.8	32.8
Third-----	16.5	21.0	14.4	14.7	17.0	24.4	35.6
Fourth-----	20.4	28.9	19.1	17.1	20.0	27.0	38.5
Fifth-----	25.3	46.0	25.1	20.3	24.5	31.8	41.3
Sixth and seventh--	30.0	29.8	33.8	26.2	26.5	33.4	45.3
Eighth and over----	43.8	41.7	53.1	41.8	38.2	43.1	51.6
WHITE-----	16.8	14.5	13.0	14.8	19.4	28.0	41.1
First-----	17.7	14.9	14.6	18.9	29.1	38.4	56.3
Second-----	12.2	12.4	10.3	11.2	14.5	22.3	31.7
Third-----	15.3	18.7	12.9	13.7	15.8	23.0	33.4
Fourth-----	18.8	15.7	16.4	15.6	18.7	25.4	36.3
Fifth-----	23.1	40.0	20.0	18.4	21.4	29.8	38.9
Sixth and seventh--	26.6	0	28.1	22.3	23.2	29.5	41.1
Eighth and over----	38.0	333.3	45.0	32.5	30.9	36.2	47.8
NONWHITE-----	31.5	25.7	24.1	29.7	42.0	54.1	65.7
First-----	34.2	27.7	30.2	44.4	73.8	92.5	100.5
Second-----	23.2	21.6	19.3	24.9	37.7	49.6	53.0
Third-----	24.1	23.5	19.7	23.8	34.4	46.9	71.6
Fourth-----	27.7	36.7	24.1	24.5	32.1	44.1	68.8
Fifth-----	32.7	48.7	30.6	25.2	40.8	46.8	65.7
Sixth and seventh--	38.2	41.0	37.8	32.0	36.1	50.9	72.0
Eighth and over----	53.5	0	57.4	49.4	48.1	56.4	62.5

<sup>1</sup>Includes data for age groups "under 15 years" and "45 years and over."

however, certain differences in these rates for single and plural births. For example, among single deliveries the rate declined even more sharply after 32-35 weeks than in the earlier periods. Among single births, the chance of a fetal death in pregnancies which terminated after 39 weeks was less than a tenth the rate among deliveries at 32-35 weeks. For plural births the advantage for births at term was not nearly as marked.

Another difference between single and plural births is the greater danger of a fetal death occurring in the latter group. The over-all rate for births in multiple deliveries was close to three times the rate for single deliveries. Examination of the data by gestation age reveals, however, that this relation was by no means consistent throughout the gestation range. In fact, at the early gestation ages, fetal deaths occurred relatively less frequently in plural than in single deliveries.

At all gestations and in both single and plural births, the fetal death rates were higher among the nonwhites than the whites. In single deliveries the difference was relatively greatest at gestations of 40 weeks and over, while in plural events the rates for the nonwhite group exceeded the white to an almost equal degree at all gestations from 28-31 weeks and upward.

Table 7.06. FETAL DEATH RATES AMONG DELIVERIES AT SPECIFIED PERIODS OF GESTATION, BY RACE AND PLURALITY: UNITED STATES, 1950

(Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated. Data for Louisiana and Massachusetts included only in "Total". Figures for gestation not stated in other States are distributed. Rates per 1,000 live births and fetal deaths combined, in each specified group)

RACE AND PLURALITY	Total	PERIOD OF GESTATION <sup>1, 2</sup>					
		20-27 <sup>2</sup> weeks	28-31 weeks	32-35 weeks	36 weeks	37-39 weeks	40 weeks and over
TOTAL FETAL DEATHS-----	18.8	421.0	215.1	110.2	21.8	19.0	8.3
White-----	16.8	405.8	206.7	103.1	20.8	18.0	7.2
Nonwhite--	31.5	478.4	245.9	150.3	25.7	27.3	15.3
Fetal deaths in single deliveries--	18.1	434.6	225.7	116.9	21.3	18.7	8.1
White-----	16.2	418.0	219.0	110.1	20.3	17.8	7.1
Nonwhite--	30.2	496.0	249.8	154.4	24.8	26.7	14.7
Fetal deaths in plural deliveries--	51.4	319.0	130.9	54.0	39.1	25.8	25.3
White-----	45.8	316.0	111.6	46.4	33.8	23.8	21.1
Nonwhite--	78.4	331.5	211.1	107.7	58.0	44.0	43.7

<sup>1</sup>For conversion of gestation reported in months to weeks, see footnote 1 of table 7.01.

<sup>2</sup>Excludes data for Connecticut which did not require reporting of fetal deaths of less than 28 weeks of gestation.

Sex ratio by gestation

For both white and nonwhite groups, there were considerably more male than female fetal deaths in 1950 at gestations of 20 weeks or more. In the white group, 1,184 male fetal deaths occurred for every 1,000 female (table 7.07). Similarly, the sex ratio (males per 1,000 females) among the nonwhites was 1,274. These ratios greatly exceeded the corresponding figures for live births which were 1,058 for

Table 7.07. MALES PER 1,000 FEMALES AMONG LIVE BIRTHS AND FETAL DEATHS, BY RACE AND SELECTED PERIODS OF GESTATION: UNITED STATES, 1950

(Live births to residents of Louisiana and Massachusetts and fetal deaths to residents of Massachusetts included only in "Total" since gestation data are not available. Fetal deaths of sex not stated are distributed within specified group)

RACE	Total <sup>1</sup>	PERIOD OF GESTATION <sup>2</sup>		
		20-27 weeks	28-35 weeks	37 weeks and over
Live births and fetal deaths:				
White-----	1,060	1,221	1,154	1,056
Nonwhite--	1,032	1,219	1,024	1,031
Live births:				
White-----	1,058	1,187	1,152	1,056
Nonwhite--	1,025	1,112	990	1,027
Fetal deaths:				
White-----	1,184	1,276	1,161	1,161
Nonwhite--	1,274	1,349	1,174	1,318

<sup>1</sup>Includes all live births regardless of gestation and fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.

<sup>2</sup>For conversion of gestation reported in months to weeks, see footnote 1 of table 7.01.

white and 1,025 for nonwhite.

The sex ratio was high for both the white and the nonwhite races in the intermediate fetal death group (20-27 weeks) and then dropped sharply at 28-35 weeks. Among the whites the ratio for fetal deaths was the same at 37 weeks and over as at 28-35 weeks, while in the nonwhite group the ratio increased markedly between these intervals.

Among live births in the white group, many more boys than girls were born at gestations through 35 weeks. The ratio then dropped considerably. For the nonwhite group, the ratio was very high only for those born at 20-27 weeks of gestation. At each gestation age, the sex ratio among live births was higher in the white than in the nonwhite group, whereas in the case of fetal deaths the ratios for nonwhite events exceeded those for white.

### Birth weight distributions

The fetal death certificates in use in 1950 in several States (table 35, Volume II) did not include an item on birth weight. In addition, in those States requiring information on birth weight, the percent completeness of reporting on this item was generally poor.

Despite these defects and the effect of underregistration of fetal deaths, the distribution of fetal deaths in 1950 by reported birth weights for each gestation group by race shown in table 7.08 probably indicates some of the essential features of the actual distribution.

In preparing table 7.08, the "not stated" birth weights were not distributed, therefore the over-all figures, without

regard to gestation, are slightly biased because of differences in the completeness of reporting of birth weight by gestation. Taking account of this bias by distributing the "not stated" birth weights according to gestation age for all States but Connecticut and Massachusetts (the same area covered for the corresponding table on live births in chapter 6), results in only moderate changes in the distributions. These adjusted percentage distributions by race, based on registered fetal deaths of gestations of 20 weeks or more, or not stated, are as follows:

Weight	White	Nonwhite
1,000 grams or less-----	20.0	17.2
1,001-1,500 grams-----	11.7	11.7
1,501-2,000 grams-----	11.5	12.3
2,001-2,500 grams-----	12.5	13.3
2,501 grams or more-----	44.1	45.5

Percentage distributions of fetal deaths by weight in table 7.08 when compared with similar distributions for live births, suggest that at each gestation age fetal deaths tended to weigh less than live births. The difference between the weights of live births and fetal deaths was more marked among the white than the nonwhite group. Examination of the data for single and plural births shows the same relationships.

In addition, it should be noted that among reported fetal deaths of the same gestation, the nonwhite generally weighed slightly more than the white group. This is in contrast with the situation for live births, where the white children were on the average heavier at birth than the nonwhite.

Table 7.08. BIRTH WEIGHT DISTRIBUTION OF FETAL DEATHS, BY RACE AND PERIOD OF GESTATION: UNITED STATES, 1950

(Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated. Birth weight data for fetal deaths in several States and period of gestation data for fetal deaths in Massachusetts were not available for either the entire year or most of the year)

RACE AND PERIOD OF GESTATION <sup>1</sup>	FETAL DEATHS WITH BIRTH WEIGHT REPORTED		PERCENT IN WEIGHT GROUP <sup>2</sup>						
	Number	Percent of total	1,000 grams or less	1,001-1,500 grams	1,501-2,000 grams	2,001-2,500 grams	2,501-3,000 grams	3,001-3,500 grams	3,501 grams or more
ALL RACES <sup>3</sup> -----	42,194	61.8	17.5	11.2	11.6	13.1	13.1	15.2	18.3
20-27 weeks-----	7,586	59.3	68.8	19.3	7.9	2.7	0.7	0.4	0.3
28-31 weeks-----	5,266	65.9	24.0	30.4	25.6	13.8	3.6	1.4	1.1
32-35 weeks-----	5,161	66.5	7.9	17.2	25.2	26.1	13.3	6.7	3.6
36 weeks-----	4,121	78.9	2.4	6.5	12.3	21.0	19.0	18.0	20.7
37-39 weeks-----	3,878	76.0	1.4	4.0	10.5	20.6	23.3	21.0	19.1
40 weeks and over-----	14,614	68.8	0.7	1.3	3.7	9.4	18.6	28.8	37.5
WHITE <sup>3</sup> -----	32,916	62.9	17.9	11.2	11.5	12.9	13.1	15.3	18.1
20-27 weeks-----	5,782	60.0	71.2	18.4	7.0	2.1	0.6	0.3	0.5
28-31 weeks-----	4,013	67.8	25.5	31.1	24.9	12.6	3.4	1.4	1.1
32-35 weeks-----	4,156	68.6	8.3	17.7	25.1	25.6	12.9	6.7	3.8
36 weeks-----	3,118	79.1	2.7	7.1	12.7	21.1	18.9	17.7	19.8
37-39 weeks-----	3,286	76.5	1.6	4.3	10.9	20.1	23.7	20.7	18.7
40 weeks and over-----	11,314	71.4	0.7	1.5	3.7	9.5	18.4	28.9	37.4
NONWHITES <sup>3</sup> -----	9,278	58.2	16.0	11.3	12.2	13.7	13.1	15.0	18.6
20-27 weeks-----	1,804	57.2	61.2	22.1	10.6	4.4	0.9	0.7	0.2
28-31 weeks-----	1,253	60.5	19.4	28.3	27.9	17.4	4.4	1.6	1.0
32-35 weeks-----	1,005	59.1	6.5	15.2	25.7	28.1	14.9	6.9	2.6
36 weeks-----	1,003	78.4	1.5	4.7	11.1	20.9	19.4	18.8	23.5
37-39 weeks-----	592	73.4	0.5	2.7	8.3	23.1	20.9	22.6	21.8
40 weeks and over-----	3,300	61.0	0.5	0.9	3.8	9.0	19.6	28.2	38.0

<sup>1</sup>For conversion of gestation reported in months to weeks, see footnote 1 of table 7.01.

<sup>2</sup>Percent distribution based on fetal deaths for which birth weight was reported. For conversion of gram weights to pounds and ounces, see text in chapter 6.

<sup>3</sup>Includes fetal deaths for which gestation was not stated in weeks or months.



Table 7.09. Fetal Death Ratios by Place of Residence, 1942-50; and by Place of Occurrence, 1944-50: United States, Each Division and State

(Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated. Ratios per 1,000 live births)

AREA	PLACE OF RESIDENCE									PLACE OF OCCURRENCE <sup>1</sup>						
	1950	1949	1948	1947	1946	1945	1944	1943	1942	1950	1949	1948	1947	1946	1945	1944
UNITED STATES	19.2	19.8	20.6	21.1	22.8	23.9	24.5	24.5	25.6	19.2	19.8	20.6	21.1	22.8	23.9	24.5
GEOGRAPHIC DIVISIONS																
New England	17.1	16.8	17.8	17.9	20.2	20.8	---	21.5	23.2	17.1	16.5	17.8	17.9	20.3	20.7	21.4
Middle Atlantic	20.8	21.1	22.5	22.1	23.6	25.2	---	24.5	25.8	20.9	21.2	22.5	22.1	23.6	25.3	25.4
East North Central	17.4	17.8	18.5	19.3	21.4	22.1	---	22.6	22.5	17.3	17.8	16.5	19.3	21.4	22.2	22.9
West North Central	16.5	17.0	17.3	17.6	19.5	20.5	---	20.2	22.4	16.6	17.0	17.4	17.7	19.6	20.6	20.8
South Atlantic	23.0	24.6	25.2	25.9	27.6	29.1	---	31.6	34.3	23.0	24.6	25.1	25.8	27.5	29.0	30.4
East South Central	23.1	24.2	24.2	24.9	25.5	27.4	---	28.0	30.5	23.1	24.2	24.2	25.0	25.5	27.1	27.4
West South Central	18.9	20.7	22.1	22.6	24.1	25.3	---	26.6	26.0	19.9	20.7	22.0	22.6	24.1	25.3	25.7
Mountain	16.1	16.3	16.7	18.2	19.5	20.6	---	20.4	21.0	16.1	16.3	16.7	18.3	19.7	20.2	20.1
Pacific	14.9	15.1	15.6	16.2	18.1	18.0	---	17.1	18.0	14.9	15.1	15.6	16.2	18.1	18.1	18.0
NEW ENGLAND																
Maine	18.9	17.1	16.6	16.7	17.0	18.2	---	17.1	24.7	19.1	16.9	16.8	16.6	17.1	17.9	15.7
New Hampshire	20.1	18.3	18.7	20.7	22.0	21.9	---	17.8	25.9	19.4	19.3	18.9	20.3	21.7	21.9	24.7
Vermont	15.9	16.8	18.7	18.0	22.6	22.0	---	25.6	24.1	16.3	17.1	18.4	18.7	23.2	20.8	24.1
Massachusetts	18.1	17.2	19.4	19.2	22.5	22.8	---	23.4	24.6	18.1	17.2	19.4	19.3	22.5	22.9	23.2
Rhode Island	15.0	17.6	17.3	16.5	19.5	20.5	---	23.5	22.6	15.1	16.9	16.5	16.5	19.4	20.0	22.9
Connecticut	14.1	13.8	14.4	14.9	16.1	17.3	---	19.0	18.9	13.9	13.6	14.4	14.7	16.0	17.1	18.2
MIDDLE ATLANTIC																
New York	22.2	22.6	25.2	23.8	25.8	27.0	---	26.7	28.0	22.3	22.8	25.2	23.8	25.8	27.2	27.2
New Jersey	16.5	19.8	19.5	21.3	22.2	23.8	---	23.7	24.0	18.6	19.7	19.8	21.3	22.1	24.1	22.9
Pennsylvania	19.9	19.5	20.2	20.2	21.2	23.5	---	22.2	23.8	19.9	19.6	20.1	20.2	21.2	23.4	24.0
EAST NORTH CENTRAL																
Ohio	17.9	19.3	20.0	20.2	23.8	24.2	---	23.4	24.3	18.0	19.3	20.0	20.3	23.9	24.4	24.7
Indiana	16.2	16.2	16.4	17.3	18.5	19.6	---	20.1	20.2	16.4	16.3	16.4	17.5	16.7	19.6	20.5
Illinois	16.9	17.3	17.8	18.7	21.0	21.3	---	22.1	21.7	16.6	17.2	17.7	18.6	20.9	21.4	21.9
Michigan	19.3	18.8	20.0	21.0	22.6	24.0	---	25.3	24.5	19.2	18.8	20.0	21.0	22.5	24.0	24.9
Wisconsin	15.0	15.5	16.7	17.2	17.7	18.9	---	20.2	19.2	14.9	15.5	16.8	17.2	17.7	16.9	20.2
WEST NORTH CENTRAL																
Minnesota	16.1	16.2	17.7	17.2	19.8	20.9	---	20.2	21.6	16.3	16.3	17.7	17.2	19.9	21.0	19.2
Iowa	16.0	15.6	14.9	15.6	18.2	19.6	---	19.9	20.2	15.1	16.7	15.0	15.6	18.1	19.4	19.8
Missouri	19.7	20.0	20.9	21.0	22.6	23.6	---	22.8	27.1	20.0	19.8	20.9	21.2	22.7	23.6	24.5
North Dakota	13.4	16.0	14.3	17.3	17.3	18.1	---	17.7	17.4	12.6	15.9	14.1	16.8	17.8	16.8	20.8
South Dakota	15.9	14.6	15.3	15.3	16.4	15.5	---	16.2	18.6	15.6	14.5	13.3	15.5	16.1	16.4	18.0
Nebraska	15.7	15.8	16.8	16.7	18.3	18.4	---	19.5	21.5	15.6	15.9	16.9	17.0	18.3	18.5	20.2
Kansas	15.1	16.5	16.0	15.9	17.3	19.1	---	18.0	20.7	15.3	16.6	16.1	15.9	17.5	19.1	19.0
SOUTH ATLANTIC																
Delaware	19.1	22.9	21.8	19.3	20.7	24.7	---	23.1	24.4	18.1	22.1	22.1	19.5	20.8	24.7	23.0
Maryland	19.8	22.4	22.5	24.1	25.3	26.9	---	27.8	29.3	20.6	22.3	22.4	23.6	25.0	27.4	28.6
District of Columbia	18.8	22.2	21.0	21.7	25.0	23.2	---	23.4	26.4	17.1	20.6	20.5	21.2	23.3	22.5	25.6
Virginia	23.5	24.2	26.2	26.1	28.8	30.1	---	30.7	32.7	24.0	24.6	26.4	26.4	29.8	30.6	30.7
West Virginia	23.7	23.9	25.7	24.7	31.7	31.5	---	34.8	34.3	23.4	24.2	25.4	24.4	31.6	32.0	33.2
North Carolina	24.1	25.6	24.3	24.5	25.8	25.5	---	27.0	31.3	24.0	25.5	24.3	24.4	25.4	25.2	26.2
South Carolina	27.4	27.7	28.2	32.1	32.2	35.7	---	37.0	40.8	27.5	27.7	28.1	31.9	32.3	33.9	34.9
Georgia	21.9	23.6	26.1	25.9	26.7	29.4	---	33.9	38.6	21.9	23.7	26.3	25.6	26.7	29.5	32.9
Florida	22.4	25.6	24.8	27.6	29.8	31.4	---	34.6	37.8	22.3	25.6	24.3	27.6	29.7	30.4	31.6
EAST SOUTH CENTRAL																
Kentucky	19.1	19.5	19.0	21.2	20.9	23.6	---	24.6	26.7	19.0	19.2	18.9	21.0	20.5	23.5	23.7
Tennessee	18.8	20.8	21.3	21.7	22.6	23.8	---	22.4	22.3	20.4	21.2	21.6	22.1	22.8	23.8	22.8
Alabama	25.9	27.3	26.8	27.9	28.6	29.0	---	30.1	33.2	25.8	27.3	26.9	27.8	28.7	28.0	30.0
Mississippi	28.2	29.9	30.5	29.8	30.5	34.0	---	35.7	41.0	26.0	29.6	30.4	29.8	30.6	34.1	34.0
WEST SOUTH CENTRAL																
Arkansas	17.5	17.3	19.1	17.8	19.5	20.6	---	23.2	27.5	17.1	17.4	19.3	17.5	19.2	20.6	20.4
Louisiana	22.8	24.0	25.5	26.8	27.2	29.1	---	30.0	31.5	22.7	24.1	25.6	26.9	27.2	29.1	28.8
Oklahoma	16.9	17.4	16.8	20.1	21.6	25.9	---	21.0	19.9	16.7	17.1	18.3	19.9	21.6	23.5	21.3
Texas	20.2	21.1	22.3	23.0	24.9	25.5	---	27.9	25.2	20.2	21.1	22.4	23.0	24.8	25.6	27.1
MOUNTAIN																
Montana	15.2	15.0	15.7	15.8	17.4	17.4	---	18.6	17.6	15.7	15.3	15.6	15.9	17.2	16.3	16.6
Idaho	15.8	16.4	13.9	16.4	18.2	17.4	---	17.9	20.3	15.7	16.2	14.5	16.3	15.2	18.2	20.9
Wyoming	19.2	16.6	16.7	19.7	17.8	17.7	---	19.8	18.9	16.7	16.7	17.2	19.0	17.7	16.8	17.5
Colorado	15.5	16.6	16.8	19.3	22.0	21.9	---	21.7	23.5	15.4	16.6	16.7	19.3	22.1	21.7	21.8
New Mexico	16.2	17.7	20.7	22.0	21.0	24.3	---	23.4	23.6	17.9	20.2	22.2	21.0	23.7	21.1	21.1
Arizona	16.5	17.5	17.6	19.7	20.2	23.4	---	25.0	22.5	16.8	17.4	17.6	19.5	20.4	22.1	23.6
Utah	22.1	24.0	14.4	13.9	16.1	17.1	---	15.8	17.6	12.4	14.1	14.4	14.3	18.2	17.2	15.7
Nevada	18.3	16.9	19.5	20.5	21.0	26.7	---	19.2	21.2	16.5	16.6	20.3	21.5	20.6	24.1	20.0
PACIFIC																
Washington	14.4	15.2	14.1	15.7	17.4	15.5	---	13.0	15.5	14.3	15.1	13.8	15.5	17.0	15.4	14.0
Oregon	13.8	13.9	15.0	15.5	17.3	17.1	---	16.3	16.6	14.0	14.0	14.8	15.5	17.3	17.2	18.6
California	15.1	15.3	16.0	16.5	18.4	18.7	---	18.3	18.8	15.1	15.3	16.1	16.4	18.4	18.9	19.0

<sup>1</sup>These ratios differ from those shown in table 7.09 which are computed for all fetal deaths reported, regardless of period of gestation.

Table 7.10. Fetal Death Ratios by Place of Occurrence:

(Includes all fetal deaths reported, regardless of period of gestation. Ratios per 1,000 live births. For each State, ratios are shown from 1932 or from the year of its ad-

AREA	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
1 UNITED STATES (birth-registration States)	22.9	22.9	23.5	23.7	25.6	26.6	27.0	26.7	26.2	29.9	31.3
GEOGRAPHIC DIVISIONS											
2 New England	17.2	16.6	17.9	17.9	20.3	20.9	21.5	21.6	23.3	23.7	25.8
3 Middle Atlantic	40.9	37.8	37.6	35.6	37.9	39.2	36.6	35.3	37.3	39.5	39.2
4 East North Central	17.6	18.0	18.9	18.6	21.5	22.4	23.1	22.8	22.9	23.7	25.0
5 West North Central	17.0	17.4	17.8	18.0	20.2	21.1	21.4	21.4	23.5	24.5	25.0
6 South Atlantic	23.2	24.8	25.4	26.2	28.3	29.6	31.2	32.4	35.3	37.5	39.7
7 East South Central	25.2	24.4	24.3	25.2	25.8	27.4	27.7	28.3	30.8	34.4	37.1
8 West South Central	20.0	20.8	22.2	22.8	24.0	25.5	25.8	26.6	26.2	29.9	31.0
9 Mountain	16.2	16.5	16.9	18.4	20.0	20.4	20.2	20.4	21.1	22.0	22.7
10 Pacific	15.0	15.2	15.7	16.3	16.2	16.2	16.1	17.2	16.1	16.8	19.3
NEW ENGLAND											
11 Maine	19.5	16.9	16.9	16.6	16.9	17.9	15.7	17.2	25.1	26.6	29.4
12 New Hampshire	20.0	20.2	19.3	20.8	23.0	22.6	25.2	17.1	26.9	25.6	24.8
13 Vermont	16.4	17.2	18.8	18.7	22.4	20.8	24.4	26.6	23.2	20.4	25.6
14 Massachusetts	18.1	17.2	19.4	19.3	22.6	22.9	23.2	23.4	24.6	24.6	26.8
15 Rhode Island	15.1	16.9	16.6	16.5	19.3	20.0	22.9	23.4	22.1	25.7	26.3
16 Connecticut	14.1	15.8	14.8	14.9	15.9	17.5	16.5	19.2	19.2	19.1	20.2
MIDDLE ATLANTIC											
17 New York	62.8	56.6	55.4	50.9	54.7	54.6	53.8	49.7	51.4	53.3	51.9
18 New Jersey	19.2	20.4	20.7	22.2	22.5	24.8	23.8	24.5	24.9	25.9	26.1
19 Pennsylvania	20.5	20.0	21.0	21.0	22.5	24.6	25.1	22.8	24.6	25.3	28.6
EAST NORTH CENTRAL											
20 Ohio	18.7	19.8	20.9	21.1	24.2	24.7	25.2	23.7	25.2	24.9	25.9
21 Indiana	16.5	16.4	16.6	17.6	19.0	19.8	20.7	20.5	20.4	20.8	23.0
22 Illinois	16.7	17.3	18.0	18.9	20.9	21.7	22.1	22.1	21.9	23.7	25.6
23 Michigan	19.4	19.0	20.1	21.1	22.7	24.1	25.0	25.4	24.7	26.0	26.0
24 Wisconsin	15.0	15.5	16.9	17.3	17.6	18.9	20.2	20.3	19.1	19.9	22.0
WEST NORTH CENTRAL											
25 Minnesota	16.4	16.4	17.8	17.3	20.0	21.1	19.3	20.3	22.0	22.0	21.5
26 Iowa	15.3	15.0	15.2	15.8	18.5	19.5	19.9	20.3	20.5	21.5	22.5
27 Missouri	20.8	20.6	22.0	22.0	24.7	24.8	26.3	26.0	30.6	32.4	32.4
28 North Dakota	13.0	16.1	14.4	16.8	18.1	18.1	21.1	19.6	17.1	19.7	22.2
29 South Dakota	15.8	14.9	13.8	15.9	15.8	16.7	18.0	16.3	19.0	17.4	18.6
30 Nebraska	15.9	16.0	17.1	17.2	18.6	18.7	20.4	19.9	21.9	21.2	23.1
31 Kansas	15.6	17.0	16.4	16.2	17.4	19.4	19.1	18.8	20.7	21.6	24.7
SOUTH ATLANTIC											
32 Delaware	19.3	22.2	22.4	19.7	21.5	25.2	23.7	29.2	23.7	27.7	23.9
33 Maryland	21.7	23.1	23.9	25.5	27.4	31.1	33.9	34.8	37.5	36.2	43.8
34 District of Columbia	17.3	20.9	20.8	21.2	35.2	26.6	28.9	28.6	26.4	28.9	25.7
35 Virginia	24.4	25.0	26.9	27.0	28.6	31.2	31.3	32.3	34.1	37.3	36.8
36 West Virginia	23.7	24.4	25.7	24.7	32.3	32.4	33.9	35.4	34.8	32.6	35.4
37 North Carolina	24.1	25.7	24.5	24.6	25.7	25.3	26.3	26.6	31.1	31.2	34.4
38 South Carolina	21.6	27.7	28.1	31.9	32.2	34.2	35.1	37.3	41.1	44.6	47.1
39 Georgia	22.0	23.7	26.5	26.1	27.4	29.8	33.1	34.4	36.7	43.0	47.6
40 Florida	22.3	25.7	24.4	27.7	30.6	30.4	31.7	34.2	38.0	43.2	42.2
EAST SOUTH CENTRAL											
41 Kentucky	19.0	19.5	19.0	21.1	20.7	23.7	23.7	24.6	26.5	30.0	32.0
42 Tennessee	20.4	21.3	21.6	22.1	23.5	23.8	22.8	22.9	22.8	26.2	29.1
43 Alabama	26.1	27.5	27.1	28.3	28.6	28.3	30.2	30.3	33.4	37.3	39.9
44 Mississippi	28.1	29.9	30.5	30.3	31.1	34.6	34.9	36.3	42.2	45.1	46.2
WEST SOUTH CENTRAL											
45 Arkansas	17.5	17.5	19.3	17.5	19.3	20.7	20.5	22.9	28.2	26.7	27.0
46 Louisiana	22.9	24.3	25.8	27.0	27.3	29.2	26.9	30.3	32.0	37.2	36.0
47 Oklahoma	16.9	17.2	18.7	20.3	21.2	23.5	21.3	20.3	19.7	23.1	25.2
49 Texas	20.3	21.1	22.5	23.2	24.8	25.9	27.3	26.1	25.3	30.2	31.5
MOUNTAIN											
49 Montana	15.7	15.3	15.6	15.9	17.0	16.3	16.8	17.9	17.8	19.8	18.8
50 Idaho	16.1	16.7	14.5	16.4	19.4	18.8	21.3	19.0	20.4	17.5	21.5
51 Wyoming	19.1	16.7	17.3	19.3	17.0	16.8	17.9	20.7	19.3	21.4	20.0
52 Colorado	15.4	16.7	17.0	19.4	22.6	21.7	21.9	21.9	23.9	24.4	24.0
53 New Mexico	18.0	18.0	20.2	22.2	21.3	23.8	21.1	23.6	23.4	23.4	28.3
54 Arizona	18.8	17.5	17.7	19.3	21.2	22.7	23.8	23.0	21.2	24.8	24.8
55 Utah	12.4	14.2	14.4	14.3	16.5	17.4	15.8	15.8	17.9	19.5	16.7
56 Nevada	16.5	17.7	20.8	22.2	21.6	24.4	20.6	19.0	22.2	24.3	16.9
PACIFIC											
57 Washington	14.4	15.2	13.9	15.6	17.4	15.5	14.0	12.9	15.5	14.7	16.7
58 Oregon	14.1	14.3	15.0	15.6	17.6	17.2	18.9	16.5	17.1	18.4	21.1
59 California	15.2	15.4	16.2	16.5	18.5	19.0	19.1	18.5	18.9	19.9	19.6

FETAL MORTALITY RATES

United States, Each Division and State, 1922-50

mission to the birth-registration area; for each geographic division, ratios are shown from 1922 or from the year when the division, as a whole, became a part of the area)

1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	
32.0	32.1	33.4	34.4	35.8	36.2	37.0	37.8	38.2	39.2	39.5	40.2	38.8	38.1	38.1	39.3	38.9	39.4	1
26.6	27.3	28.4	28.9	30.0	30.9	32.7	33.2	33.3	33.9	33.8	35.0	36.0	36.5	36.7	37.2	37.7	37.4	2
37.9	35.8	34.6	35.5	36.0	36.1	38.9	38.7	39.0	38.6	38.7	40.5	39.5	40.2	39.7	41.0	41.1	40.9	3
25.3	25.9	27.1	27.8	29.4	30.0	31.0	31.7	33.2	34.0	34.7	35.2	35.0	35.5	35.3	36.1	36.4	36.7	4
25.0	26.9	26.9	28.1	29.3	30.0	29.6	29.7	31.8	---	---	---	---	---	---	---	---	---	5
41.3	43.9	46.2	41.3	49.4	49.1	49.4	51.8	51.5	54.2	55.7	53.9	---	---	---	---	---	---	6
38.8	39.4	41.0	41.7	42.4	42.1	43.5	42.4	43.0	46.2	45.8	45.6	43.7	---	---	---	---	---	7
34.1	33.8	35.3	36.6	38.4	37.3	38.1	---	---	---	---	---	---	---	---	---	---	---	8
23.1	23.7	23.9	25.9	25.4	26.6	27.2	28.1	27.8	27.9	28.4	---	---	---	---	---	---	---	9
20.3	20.8	21.9	22.7	25.6	23.8	25.7	26.6	28.1	27.9	28.4	28.3	27.6	28.2	28.5	29.7	29.9	30.6	10
30.4	34.5	32.9	30.9	33.8	33.3	37.0	33.9	36.6	35.7	38.9	40.2	39.2	40.7	39.6	40.4	42.5	44.9	11
27.6	31.3	31.9	29.7	34.1	30.8	36.3	38.4	40.2	41.7	37.5	38.6	42.9	40.2	41.4	41.4	45.8	41.9	12
27.5	26.7	30.4	28.4	28.7	32.9	31.3	30.5	27.9	28.1	29.3	29.5	31.0	31.8	30.1	33.3	31.7	28.8	13
27.5	27.1	28.1	29.5	30.2	30.9	33.9	34.8	34.8	34.9	33.8	35.4	35.8	36.2	36.2	37.9	37.3	36.5	14
25.4	27.1	31.3	29.6	28.7	28.9	28.1	34.2	32.3	33.9	34.5	33.6	34.6	35.3	34.7	33.2	34.1	37.8	15
21.9	22.1	23.2	28.3	26.4	28.1	27.8	28.9	27.1	29.1	30.6	31.8	34.4	36.6	27.6	---	---	---	16
47.8	38.3	38.0	39.6	39.7	41.2	42.7	41.6	41.5	40.9	40.9	42.8	41.3	42.4	41.9	43.7	42.7	42.5	17
28.1	29.8	30.9	33.5	34.1	36.2	36.2	37.4	39.3	38.0	39.7	40.1	41.4	40.8	39.9	40.6	42.5	40.6	18
29.7	29.9	31.9	31.6	32.3	35.1	35.3	33.7	35.9	36.2	36.0	38.0	36.8	37.7	37.3	38.4	36.9	39.2	19
27.0	27.5	28.8	29.8	31.9	32.7	32.8	33.9	34.7	36.0	37.2	37.0	37.5	37.7	37.8	37.9	36.9	39.4	20
22.1	21.4	24.0	23.8	27.0	26.7	28.9	28.6	29.1	29.6	29.4	31.1	31.1	30.6	31.4	31.8	31.0	30.7	21
35.3	26.2	26.5	27.6	29.6	30.2	29.8	30.9	34.3	35.6	34.6	36.1	36.1	36.4	36.1	38.6	39.1	36.0	22
27.1	28.3	29.6	30.0	31.1	31.3	34.4	34.7	35.5	36.9	37.8	37.8	38.3	38.3	37.0	37.7	39.1	44.1	23
21.9	23.0	23.9	24.3	22.8	25.4	28.7	27.4	26.3	29.9	29.9	29.8	28.3	28.9	29.7	29.3	26.7	27.3	24
24.3	24.9	24.6	26.2	27.5	28.2	27.2	28.7	29.9	29.2	28.5	29.5	29.7	31.5	30.3	30.7	30.6	30.1	25
23.5	25.4	25.6	27.1	26.9	26.9	28.3	31.6	31.8	31.4	30.6	26.6	28.7	27.6	32.6	33.7	---	---	26
31.3	35.0	34.7	36.0	38.5	38.4	37.8	41.3	41.9	43.1	45.8	44.7	45.6	---	---	---	---	---	27
22.9	21.2	24.0	27.0	25.6	24.0	27.8	25.8	28.2	27.8	28.5	28.6	29.0	27.2	25.5	29.9	---	---	28
20.4	22.2	20.6	20.7	26.6	25.4	22.2	23.6	---	---	---	---	---	---	---	---	---	---	29
20.2	22.9	23.2	22.2	27.6	25.5	26.5	27.5	28.8	27.7	30.1	31.7	31.9	32.7	30.6	30.1	30.2	30.7	30
22.4	23.5	23.7	26.2	27.3	26.5	26.2	28.2	29.0	31.1	33.7	32.9	32.2	33.4	32.4	29.2	32.4	33.0	31
28.5	30.2	32.8	36.5	36.7	33.9	39.0	33.8	41.1	43.4	41.8	34.1	38.0	44.8	40.0	43.7	38.1	39.3	32
45.0	43.6	47.1	48.6	55.7	57.9	64.6	64.4	66.4	69.2	71.9	69.7	72.1	68.4	67.6	70.6	68.7	72.2	33
28.7	34.1	34.0	36.9	37.9	43.5	43.0	46.0	46.0	49.7	47.8	48.6	49.5	49.8	48.8	48.7	52.0	54.5	34
38.9	40.0	41.8	43.6	42.4	43.3	42.9	44.4	43.8	45.2	44.4	44.2	45.0	44.1	42.8	48.2	44.3	44.3	35
36.2	39.5	39.2	37.3	39.4	39.4	37.3	36.9	38.8	37.2	39.0	38.5	38.2	38.1	38.4	---	---	---	36
36.3	36.5	39.7	40.9	41.3	41.4	41.4	46.7	45.3	46.8	47.1	48.4	42.0	44.9	46.4	43.0	40.9	42.2	37
45.7	50.6	55.1	58.2	60.9	56.4	58.9	63.0	62.0	65.8	67.2	67.9	---	---	---	---	---	---	38
50.0	52.8	57.3	59.2	61.3	59.3	57.4	60.4	59.6	62.5	60.0	58.5	---	---	---	---	---	---	39
45.5	49.3	51.3	49.4	56.1	58.7	56.6	56.6	56.3	64.9	63.4	67.5	66.6	65.7	69.4	69.8	---	---	40
33.0	32.5	34.5	36.4	33.2	33.6	33.9	33.8	35.5	34.1	32.1	31.1	32.7	31.5	33.2	33.3	31.5	35.7	41
31.7	36.4	38.6	38.9	40.5	38.9	42.7	39.9	42.1	49.9	44.1	42.8	40.8	---	---	---	---	---	42
40.5	41.8	42.5	44.2	48.2	49.7	47.4	49.1	48.9	52.7	53.0	52.0	49.2	---	---	---	---	---	43
51.1	47.5	48.6	47.5	47.8	46.4	48.5	47.3	45.6	48.6	54.5	57.7	53.2	51.8	53.8	52.7	53.7	54.4	44
35.3	33.5	36.0	38.0	37.8	35.7	38.9	39.8	38.9	43.2	43.3	45.9	46.0	---	---	---	---	---	45
43.2	42.5	45.5	47.4	49.4	46.2	50.2	50.5	49.5	52.3	53.4	58.4	53.9	---	---	---	---	---	46
25.9	27.1	27.3	28.3	29.0	27.5	25.8	25.7	24.4	30.2	33.8	30.8	---	---	---	---	---	---	47
33.0	32.7	33.9	35.0	38.1	37.8	38.4	---	---	---	---	---	---	---	---	---	---	---	48
19.5	23.4	22.6	21.8	23.1	24.5	26.2	27.9	32.1	28.7	28.9	34.2	32.0	31.8	33.5	30.7	29.3	30.2	49
21.6	20.3	23.3	24.7	22.9	22.5	23.6	27.0	19.8	22.2	26.3	25.5	24.0	26.3	---	---	---	---	50
17.6	18.6	21.2	14.3	19.7	19.5	20.0	26.4	26.0	30.0	22.6	28.5	29.3	31.2	30.2	34.4	33.3	34.7	51
26.4	25.0	26.7	30.3	28.6	32.0	31.8	31.7	30.8	31.7	35.2	30.2	---	---	---	---	---	---	52
26.1	26.3	24.1	31.5	28.7	32.7	29.3	31.4	27.9	30.5	26.0	---	---	---	---	---	---	---	53
23.2	27.3	25.3	29.0	27.9	27.3	30.5	25.3	31.1	28.8	29.6	27.6	30.1	29.2	---	---	---	---	54
21.4	21.2	20.6	20.3	21.6	19.1	21.4	20.6	23.0	21.9	22.5	25.3	23.6	23.5	24.8	23.3	23.4	25.5	55
18.6	22.2	24.1	21.8	21.8	32.1	31.0	47.6	33.5	28.5	32.8	---	---	---	---	---	---	---	56
17.5	16.9	20.1	20.0	21.3	23.1	21.4	24.8	26.8	26.1	25.2	27.7	27.9	30.0	27.0	28.0	26.9	28.8	57
19.3	21.5	21.9	21.3	22.4	23.9	26.6	25.1	27.2	28.5	31.2	28.8	30.4	31.9	30.5	31.6	32.4	31.3	58
21.1	21.5	22.4	23.7	24.4	24.0	26.9	27.3	28.8	28.3	28.9	28.4	27.0	28.5	28.6	29.9	30.4	31.1	59

## Chapter 8

### MORTALITY STATISTICS

#### GENERAL MORTALITY STATISTICS

##### High lights of 1950

There were 1,452,454 deaths registered in the United States in 1950. The crude death rate, based on the enumerated population present in the United States, was 9.6 per 1,000. This is the lowest crude death rate that has ever been recorded for the country. The previous low was a rate of 9.7 in 1949. The crude death rate (9.7) for the total population including the armed forces overseas was the same for both 1949 and 1950.

Mortality from the infective diseases continued its decline while death rates for chronic diseases again showed a slight rise. Mortality from accidents remained about the same as it was in 1949, but there was a small increase in the death rate for motor-vehicle accidents which was compensated for by a decline in the death rate for other types of accidents. The drop in the rates for tuberculosis and for syphilis was particularly noteworthy. The death rate for gastritis, duodenitis, and colitis, which had risen in 1949 from the rate for 1948, returned to its previous low level.

There were no major epidemics of the childhood diseases during 1950. Only cases of whooping cough were reported with greater frequency than in 1949. The death rates reflect these conditions with the rates for measles, scarlet fever, diphtheria, and acute poliomyelitis lower for 1950 than for 1949, while the rate for whooping cough was slightly higher.

One major infective disease group failed to show a decline; the death rate for influenza and pneumonia rose from a rate of 30.0 per 100,000 population for 1949 to a rate of 31.3 for 1950. The year 1949 had been relatively free of influenza, while in 1950 there was some increase in the incidence of this disease towards the end of the winter.

The slight decline in the crude rate for the population as a whole is again shown in the decline of the death rate for the white population. The rate for the nonwhite population remained almost the same in 1950 as it was in 1949. The rates by sex show a slightly greater change for females than for males. The rates for the age groups under 65 years are about the same or slightly lower than those for 1949, while the rates at ages above 65 are a trifle higher.

An infant born in 1950 and living throughout its entire life under mortality conditions exactly like those of 1950 can expect to live, on the average, 68.4 years. If the baby is a white girl, she can expect, on the average, to live 72.4 years, while a white boy can expect to live 66.6 years. For the nonwhite population, these figures are 63.2 for females and 59.2 for males. In every group, there has been an improvement over the expectation of life at birth according to the 1949

mortality rates. However, the improvement was greatest, as in the past, for the white female group.

There is considerable variation in any measure of mortality by geographic area. Crude death rates are higher in areas where there are large proportions of older people, and lower where the average age of the population is low. In 1950, the crude death rates were high in the New England and Middle Atlantic Divisions, and low in the South and in the Mountain Division. They were higher in the urban than in the rural parts of the country.

Infant and maternal mortality continued their decline. The infant mortality rate reached the low figure of 29.2 deaths under 1 year per 1,000 live births, while maternal mortality was also at a low of 8.3 deaths per 10,000 live births.

##### Death rates by month

The death rates by month reflect chiefly the seasonal influence of the respiratory diseases. For 1950, the series of monthly rates presented in table 8.01 show the variation that has been typical since the early 1920's when the summer peak of mortality was eliminated. The curve of mortality is now at its low point in the summer months and rises to a peak in late winter or early spring, depending upon the month in which the high incidence of respiratory diseases is concentrated.

Table 8.01. CRUDE DEATH RATES BY MONTH:  
UNITED STATES, 1945-50

(Exclusive of fetal deaths and of deaths among armed forces overseas. Rates on an annual basis per 1,000 population excluding armed forces overseas, estimated as of July 1 for 1945-49, and enumerated as of April 1 for 1950)

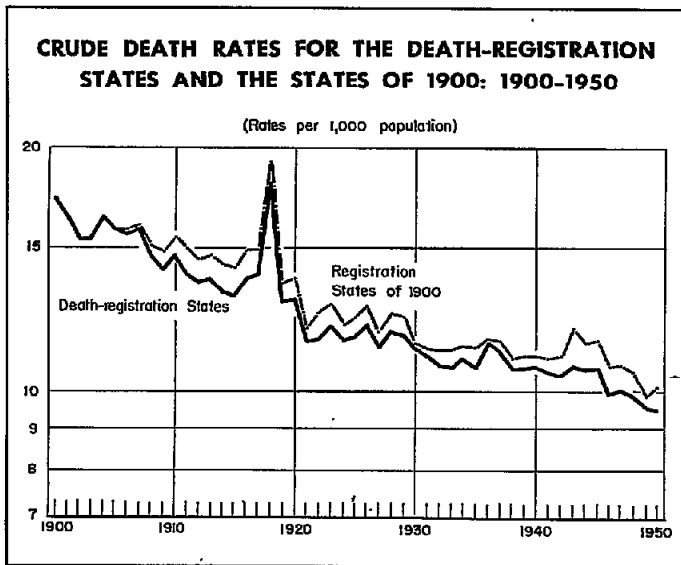
MONTH	1950	1949	1948	1947	1946	1945
TOTAL-----	9.6	9.7	9.9	10.1	10.0	10.6
January-----	10.0	10.3	11.2	10.8	11.7	11.3
February-----	10.1	10.3	11.1	10.7	11.2	11.4
March-----	10.9	10.3	10.5	11.4	10.4	10.9
April-----	10.2	10.0	9.9	10.6	10.0	10.5
May-----	9.5	9.5	9.7	9.8	9.8	10.4
June-----	9.4	9.5	9.5	9.8	9.6	10.3
July-----	8.8	9.4	9.1	9.2	9.1	9.6
August-----	8.6	8.9	9.3	9.4	8.8	9.6
September-----	8.9	9.0	8.8	9.0	9.2	9.6
October-----	9.3	9.3	9.6	9.5	9.5	10.3
November-----	9.6	9.8	9.6	10.1	9.8	10.5
December-----	10.3	10.2	10.3	10.8	10.6	12.7

General Mortality Trends

The crude death rate since 1900

The general decline.—Table 8.02 gives the number of deaths and the crude death rates for the death-registration States for each year from 1900 to 1950. In this period, the crude death rate has decreased by more than 40 percent—from 17.2 per 1,000 population in 1900 to 9.6 in 1950. The decline has been fairly continuous, the only major interruption being the influenza pandemic of 1918, when the rate rose to 18.1. It is apparent, however, from figure 8.A that the rate of decline was not uniform throughout this period. Between 1900 and 1917, the rate declined almost three times faster than it did for the period 1921 to 1937. Probably as a result of the introduction and increasing use of chemotherapy, the trend again accelerated in 1938. The fall in the crude death rate from 1938 to 1950 was almost twice as rapid as that for the preceding period. (In these comparisons, data for 1918 through 1920 were omitted because of the abnormal mortality conditions during the influenza epidemic and the years following.)

FIGURE 8.A



Death-registration area.—These rates represent deaths in the entire United States only since 1933. Deaths were registered in a few States and cities, and death rates were published by these areas during most of the 19th century. The first mortality statistics published by the Federal Government were for 1850, and were based on the data collected at the decennial census of that year for the entire United States. The decennial collection of vital statistics by census enumerators was continued through 1900. For the census year 1880, however, there was established a registration area, and for that year, as well as for 1890 and 1900, transcripts of death certificates were received from the States and cities included in the area, in addition to enumerators' returns.

The annual collection of mortality statistics for that part of the United States known as the registration area began with the calendar year 1900. The area expanded from 10 States and the District of Columbia to the entire United States in 1933.<sup>1</sup> From these fragmentary data, it can be seen that the death rate has declined fairly continuously since the latter part of

<sup>1</sup>For a more detailed history of the development of vital statistics in the United States, see chapter 1.

the 19th century.

In the discussion in this chapter, the death rates for the expanding group of registration States are used as an index of the trend in mortality for the country as a whole during the period 1900 through 1932. A comparison of the crude

Table 8.02. POPULATION, DEATHS, AND CRUDE DEATH RATES: DEATH-REGISTRATION STATES, 1900-1950

(Rates per 1,000 population)

YEAR	Population of continental United States <sup>1</sup>	DEATH-REGISTRATION STATES		
		Population <sup>2</sup>	Deaths <sup>3</sup>	
			Number	Rate
1950-----	151,132,000	150,697,561	1,452,454	9.6
1949-----	149,188,000	148,665,000	1,445,607	9.7
1948-----	146,631,000	146,095,000	1,444,357	9.9
1947-----	144,126,000	143,446,000	1,445,370	10.1
1946-----	141,389,000	140,054,000	1,395,617	10.0
1945-----	139,928,000	132,481,000	1,401,719	10.6
1944-----	138,397,000	132,885,000	1,411,558	10.6
1943-----	136,739,000	134,245,000	1,459,544	10.9
1942-----	134,860,000	133,920,000	1,385,187	10.3
1941-----	133,402,000	133,121,000	1,397,642	10.5
1940-----	131,820,000	131,669,275	1,417,269	10.8
1939-----	130,879,718	130,879,718	1,387,897	10.6
1938-----	129,824,939	129,824,939	1,381,391	10.6
1937-----	128,824,829	128,824,829	1,450,427	11.3
1936-----	128,053,180	128,053,180	1,479,228	11.6
1935-----	127,250,232	127,250,232	1,392,752	10.9
1934-----	126,573,773	126,573,773	1,396,905	11.1
1933-----	125,578,763	125,578,763	1,342,106	10.7
1932-----	124,840,471	118,905,899	1,293,269	10.9
1931-----	124,039,648	118,148,987	1,307,273	11.1
1930-----	123,076,741	117,238,278	1,327,240	11.3
1929-----	121,769,939	115,317,450	1,369,757	11.9
1928-----	120,501,115	113,636,160	1,361,987	12.0
1927-----	119,058,062	107,084,532	1,211,627	11.3
1926-----	117,399,225	103,822,685	1,257,256	12.1
1925-----	115,831,963	102,031,555	1,191,809	11.7
1924-----	114,113,463	99,318,098	1,151,076	11.6
1923-----	111,949,945	96,788,197	1,174,065	12.1
1922-----	110,054,778	92,702,901	1,083,952	11.7
1921-----	108,541,489	87,814,447	1,009,673	11.5
1920-----	106,466,420	86,079,263	1,118,070	13.0
1919-----	105,062,747	83,157,982	1,072,263	12.9
1918-----	104,549,886	79,008,412	1,430,079	18.1
1917-----	103,413,743	70,234,775	981,239	14.0
1916-----	101,965,984	66,971,177	924,971	13.8
1915-----	100,549,013	61,894,847	815,500	13.2
1914-----	99,117,567	60,963,309	810,914	13.3
1913-----	97,826,814	58,156,740	802,909	13.8
1912-----	95,331,300	54,847,700	745,771	13.6
1911-----	93,867,814	53,929,644	749,918	13.9
1910-----	92,406,536	47,470,437	696,856	14.7
1909-----	90,491,525	44,223,515	630,057	14.2
1908-----	88,708,976	38,634,759	567,245	14.7
1907-----	87,000,271	34,552,837	550,245	15.9
1906-----	85,436,556	33,782,288	531,005	15.7
1905-----	83,819,666	21,767,980	345,863	15.9
1904-----	82,164,974	21,332,076	349,855	16.4
1903-----	80,632,152	20,945,222	327,295	15.6
1902-----	79,160,196	20,582,907	318,636	15.5
1901-----	77,585,128	20,237,453	332,203	16.4
1900-----	76,094,134	19,965,446	343,217	17.2

<sup>1</sup>For 1940 and 1950, enumerated as of April 1, plus estimates of armed forces overseas; for other years, estimated as of July 1. Estimates for the two periods 1917-19 and 1941-49, include armed forces overseas.

<sup>2</sup>For 1940 and 1950, enumerated as of April 1; for other years, estimated as of July 1. Figures represent total population residing in the area, that is, exclusive of armed forces overseas.

<sup>3</sup>Exclusive of fetal deaths. For 1940-50, exclusive of deaths among armed forces overseas.

death rates for the expanding area (figure 8.A) with those for a fixed group of States, the death-registration States of 1900, shows the same general downward trend (table 8.03). The difference between the two may be attributed chiefly to the changing composition of the population of the expanding area. Since 1906, when five States were added to the original area, the rates for the expanding area have been lower than those for the States of 1900. The comparatively low death rates for some of the newly admitted States may have been due partly to less complete registration than in the States of 1900.

Table 8.03. POPULATION, DEATHS, AND CRUDE DEATH RATES: DEATH-REGISTRATION STATES OF 1900, FOR 1900-1950  
(Rates per 1,000 population)

YEAR	Population <sup>1</sup>	DEATHS <sup>2</sup>	
		Number	Rate
1950-----	40,086,142	407,653	10.2
1949-----	40,257,000	395,432	9.8
1948-----	39,433,000	410,068	10.4
1947-----	38,381,000	410,439	10.7
1946-----	37,203,000	399,454	10.7
1945-----	34,701,000	400,527	11.5
1944-----	34,910,000	401,104	11.5
1943-----	35,191,000	424,163	12.1
1942-----	35,779,000	394,767	11.0
1941-----	35,796,000	391,677	10.9
1940-----	35,423,590	394,650	11.1
1939-----	35,314,889	391,329	11.1
1938-----	35,111,774	385,121	11.0
1937-----	34,932,731	403,351	11.5
1936-----	34,760,511	405,605	11.7
1935-----	34,507,613	388,861	11.3
1934-----	34,211,483	390,206	11.4
1933-----	33,985,324	384,753	11.3
1932-----	33,804,620	383,305	11.3
1931-----	33,639,002	383,830	11.4
1930-----	33,424,483	385,970	11.5
1929-----	32,794,166	406,954	12.4
1928-----	32,017,994	396,826	12.5
1927-----	31,398,197	374,441	11.9
1926-----	31,098,147	400,729	12.9
1925-----	30,708,973	379,877	12.4
1924-----	30,132,895	368,739	12.2
1923-----	29,538,065	380,174	12.9
1922-----	28,994,025	364,935	12.6
1921-----	28,582,224	347,355	12.2
1920-----	28,044,761	388,608	13.9
1919-----	27,635,524	374,613	13.6
1918-----	26,955,633	516,578	19.2
1917-----	26,982,383	403,506	15.0
1916-----	26,572,517	397,698	15.0
1915-----	26,185,198	373,705	14.3
1914-----	25,815,832	371,441	14.4
1913-----	25,367,952	372,895	14.7
1912-----	24,882,050	363,619	14.6
1911-----	24,498,110	368,067	15.0
1910-----	24,130,431	377,015	15.6
1909-----	23,669,456	353,576	14.9
1908-----	23,202,753	351,163	15.1
1907-----	22,757,506	366,658	16.1
1906-----	22,261,378	353,906	15.9
1905-----	21,767,980	345,863	15.9
1904-----	21,332,076	349,855	16.4
1903-----	20,943,222	327,295	15.6
1902-----	20,582,907	318,636	15.5
1901-----	20,237,453	332,203	16.4
1900-----	19,985,446	343,217	17.2

<sup>1</sup>For 1940 and 1950, enumerated as of April 1; for other years, estimated as of July 1. Figures represent total population residing in the area, that is, exclusive of armed forces overseas.

<sup>2</sup>By place of occurrence. Exclusive of fetal deaths. For 1940-50, exclusive of deaths among armed forces overseas.

It is also true that the majority of the newly admitted States were those with a younger population, which would be expected to have lower crude death rates.

Both the level and the rate of change of the crude death rates for the expanding death-registration area have also been influenced by changes in the composition of the population which affected the entire country.<sup>2</sup> As a consequence of the decline in the birth rate before 1936, of the fall in the death rate, and of restrictions placed on immigration, the average age of the population increased. Since the crude death rate for an older population would be higher than that of a younger group under the same mortality conditions, the recorded decline in the crude rate actually understates the improvement in health of the nation since 1900.

**Deaths among armed forces overseas.**—Death rates for the period of World War II, which have been computed for the population present in the country, excluding the armed forces overseas (table 8.02) were influenced by changes in the population composition resulting from the withdrawal of young men for duty with the armed forces overseas. Thus, the crude rate became more heavily weighted by the higher mortality of the older age groups in the population. The death rates presented in table 8.02 reflect health conditions in the United States during the years 1941 to 1950. However, they are not entirely comparable with rates for previous years, since they are for a part rather than for the whole of the population of the United States. In table 8.04, rates are presented for 1941 to 1950 based on deaths in the United States and among the armed forces overseas, and the total population of the country. As a measure of population loss, these figures may be compared with rates for 1900 to 1940, given in table 8.02. These rates exceed the figures for the continental United States for the years 1942 through 1945. Beginning in 1946, they again return to the level of the rates excluding events among the armed forces overseas.

Table 8.04. DEATHS INCLUDING THOSE AMONG THE ARMED FORCES OVERSEAS, AND CRUDE DEATH RATES: UNITED STATES, 1941-50

(Exclusive of fetal deaths. Rates per 1,000 population including armed forces overseas)

YEAR	Number <sup>1</sup>	Rate	YEAR	Number <sup>1</sup>	Rate
1950-----	1,463,912	9.7	1945-----	1,514,036	10.8
1949-----	1,444,893	9.7	1944-----	1,572,297	11.4
1948-----	1,445,654	9.9	1943-----	1,500,346	11.0
1947-----	1,447,224	10.0	1942-----	1,411,164	10.5
1946-----	1,403,076	9.9	1941-----	1,400,714	10.5

<sup>1</sup>Compiled from provisional records of the Department of Defense. Excludes 5,663 deaths of Merchant Marine personnel between December 1941 and September 1945.

NOTE.—For 1941-49, rates based on population estimated as of July 1; for 1950, based on population enumerated as of April 1, plus estimates of armed forces overseas.

### Other measures of mortality

The crude death rates discussed in the first section are simply a measure of population loss. Where there are large differences between the crude rates, these figures may be taken as direct indications of differences in health conditions between population groups; but, for the range of rates found in this country, finer measures are needed to detect variations in the public health. The most common refinement of the crude rate is a rate computed specifically for an age, race, or sex

<sup>2</sup>For a more detailed discussion of changes in population, see chapter 3.

group, or for a defined area. With such rates, it becomes possible to compare, for example, mortality at ages 1-14 years for the white and nonwhite race groups in the United States, or among the 48 States.

These detailed comparisons are extremely valuable in discovering the underlying variables in mortality. However, a single measure of mortality which can summarize the differences between two groups or two time periods is still desirable. To meet this need, several types of adjusted rates and indices have been developed. These have been discussed in detail in a previous publication.<sup>3</sup> One such measure which allows for differences in age composition between two groups is the age-adjusted death rate. The age-adjusted rates shown in this chapter are computed by using the distribution of the enumerated population of the United States in 1940 as a standard population. Each figure represents the rate that would have existed if the age-specific rates of the year prevailed in a population whose age distribution was like that of the United States in 1940.

Another convenient summary measure of mortality is the average life expectancy at birth. This is the number of years that persons, on the average, born in the year under discussion could expect to live if the mortality rates of that same year held during their lifetime. These measures—age-adjusted rates, life table values, and specific rates—are presented in the sections that follow.

**Trend of the age-adjusted rate**

The decline in the crude death rate for the death-registration States, illustrated in figure 8.A, was chiefly the result of improved mortality among infants, children, and young adults. The survival of children to adult ages, the virtual cessation of immigration since 1920, and the decline in the birth rate before 1936—all served to contribute to the aging of the population. The median age of the population of the United States advanced from 22.9 years in 1900 to 30.2 years in 1950. A rate free of the influence of the change in age composition of the population is needed to evaluate the trend of mortality. Table 8.39 shows the age-adjusted rates for the expanding group of death-registration States from 1900 to 1950. These rates are abstract figures, and while they cannot be compared with the crude rates for the same year, they may be compared with other age-adjusted rates based on the same standard population.

It may be recalled that the trend of the crude death rates discussed earlier showed that the rate of decline had decreased following the 1918 epidemic, and had resumed at an increasing pace after 1938. From the age-adjusted rates, it may be seen that the rate of decline in the period from 1921 to 1937 was only slightly slower than that for the period from 1900 to 1917. However, the decline since 1938 was even more rapid than that shown by the crude death rate.

**Trend of rates by race and sex**

**Specific rates.**—The declines seen in the crude death rate for the total population since 1900 are also evident in the fall in the rates for the white and nonwhite males and females. Table 8.05, based on the rates shown in table 8.40, shows the average annual percent decline in rate for each group for the periods 1900 to 1917, 1921 to 1937, and 1938 to 1950. The death rate for white males was falling at a rapid rate in the early part of the century, very slowly from 1921 to 1937, and at a slightly heightened pace from 1938 to 1950. The rates for white females also declined most rapidly from 1900 to 1917. In each period, however, the fall was much faster than for the white males.

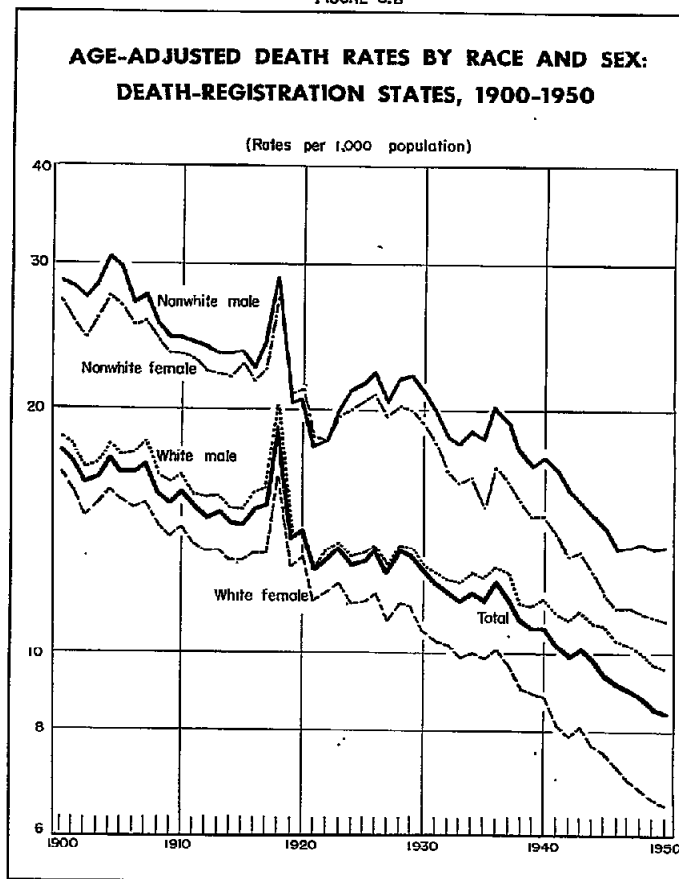
Table 8.05. AVERAGE ANNUAL PERCENT DECLINE IN SPECIFIC AND AGE-ADJUSTED DEATH RATES, BY RACE AND SEX: DEATH-REGISTRATION STATES, 1900-1917, 1921-37, AND 1938-50

(Based on straight line fitted by method of least squares to logarithms of rates given in tables 8.39 and 8.40)

RACE AND SEX	SPECIFIC DEATH RATE			AGE-ADJUSTED DEATH RATE		
	1900-1917	1921-37	1938-50	1900-1917	1921-37	1938-50
<b>ALL RACES</b>						
Both sexes-----	1.398	0.463	0.882	1.074	0.637	2.301
Male-----	1.278	0.102	0.517	0.949	0.421	1.754
Female--	1.569	0.887	1.311	1.237	1.319	3.040
<b>WHITE</b>						
Both sexes-----	1.506	0.451	0.705	1.186	0.896	2.237
Male---	1.365	0.098	0.329	1.043	0.507	1.605
Female--	1.686	0.869	1.149	1.384	1.380	2.929
<b>NONWHITE</b>						
Both sexes-----	1.662	0.860	2.174	1.436	0.749	2.962
Male---	1.707	0.402	1.953	1.609	0.277	2.712
Female--	1.636	1.359	2.421	1.308	1.327	3.262

The percent declines in the death rates for nonwhites show that the greatest improvement took place since 1938, when the average annual percent decline was even higher than that for 1900 to 1917. The nonwhite females also show an advantage in a more rapid decline than the nonwhite males, but the difference is not so great as for the white population.

FIGURE 8.B



<sup>3</sup>Linder, Forrest E., and Grove, Robert D., "Vital Statistics Rates in the United States, 1900-1940," chapter IV, U. S. Government Printing Office, Washington, D. C., 1943.

In the three periods under discussion, the percentage declines have been greater for the nonwhite population than for the white. The differences between the two race groups have been larger for males than for females.

**Ratio of male mortality to female.**—Mortality since 1900 has decreased more rapidly for the female than for the male for both race groups. The death rate for white males decreased 38 percent in that period, as contrasted with a 51 percent decrease for females. Among the nonwhite population, the decreases were 51 percent for males and 59 percent for females.

For convenience, the comparison of male and female mortality may be expressed as a ratio, obtained by dividing the death rate for males by that for females. From the data just cited, it is evident that this ratio for both races has been increasing since 1900.

The increase for the total population was fairly steady from 1900 to 1917, with the ratio rising from 1.09 to 1.16. The ratio rose to 1.21 in 1918, but then dropped to a record

low of 1.06 in 1920. From 1921 until 1950, the ratio rose almost without interruption, and in 1950 the figure for the United States was 1.34.

**Age-adjusted rates.**—Figure 8.B shows the trend of the age-adjusted rates by race and sex for the expanding group of registration States. When the specific rates are adjusted for the changing age composition of the population, the differences in trend between the periods 1900 to 1917 and 1921 to 1937 observed in the rates above, are diminished. This is true for each race and sex group except the nonwhite males. For females, the rates of decline in the age-adjusted rates in the two periods were almost identical; while for males, the downward trend of the age-adjusted rate was less steep in the latter period.

The rates of decline of the age-adjusted rate increased significantly for each group for the period 1938 to 1950, as contrasted with the previous 17 years. In this last period, the fall in rates has been more rapid for females than for males, and greater for nonwhites than for whites.

### EXPLANATION OF THE COLUMNS OF THE LIFE TABLE

**Column 1—Age interval ( $x$  to  $x+n$ ).**—The age interval, shown in column 1, is the interval between the two exact ages indicated. For instance, "20-25" means the 5-year interval between the twentieth birthday and the twenty-fifth.

**Column 2—Proportion dying ( ${}_nq_x$ ).**—This column shows the proportion dying during the indicated age interval among those alive on the birthday which marks the beginning of the interval. For example, the proportion dying in the age interval 20-25 for white males is 0.0086. In other words, if the age-specific mortality rates prevailing in 1950 should continue in effect over a 5-year period, then, out of every 1,000 white males alive and exactly 20 years old at the beginning of the period, 8.6 would die before reaching their twenty-fifth birthday. The "proportion dying" column forms the basis of the life table, all the other columns being derived from it.

**Column 3—Number living ( $l_x$ ).**—This column shows the number of persons who survive to the exact age marking the beginning of each age interval out of a cohort of 100,000 live births, among whom the proportions dying in each age interval throughout their lives are exactly those shown in column 2. Thus, out of 100,000 white male babies born alive, 96,979 will complete the first year of life and enter the second; 96,458 will begin the sixth year; 95,191 will reach age 20; and 13,062 will live to age 85.

**Column 4—Number dying ( ${}_nd_x$ ).**—This column shows the number dying in each successive age interval out of 100,000 live births. Out of 100,000 white males born alive, 3,021 die in the first year of life, 521 in the succeeding 4 years, 816 in the 5-year period between exact ages 20 and 25, and 13,062 die after reaching age 85. Each figure in column 4 is the difference between two successive figures in column 3.

**Columns 5 and 6—Stationary population ( ${}_nL_x$  and  $T_x$ ).**—Suppose that a group of 100,000 individuals like that assumed in columns 3 and 4 is born every year, and that the proportions dying in each such group in each age interval throughout the lives of the members are exactly those shown in column 2. If there were no migration and if the births were evenly distributed over the calendar year, the survivors of these births would make up what is called a stationary population—stationary because in such a population the number of persons living in any given age group would never change. When an individual left the group, either by death or by growing older and entering the next higher age group, his place would immediately be taken by someone entering from the next lower age group. Thus, a census taken at any time in such a stationary community would always show the same total population and the same numerical distribution of that population among the various age groups. In such a stationary population supported by 100,000 annual births, column 3 shows the number of persons who, each year, reach the birthday which marks the beginning of the age interval indicated in column 1, while column 4 shows the number of persons who die each year in the indicated

age interval.

Column 5 shows the number of persons in the stationary population in the indicated age interval. For example, the figure given for white males in the age interval 20-25 is 473,972. This means that in a stationary population of white males supported by 100,000 annual births and with proportions dying in each age group always in accordance with column 2, a census taken on any date would show 473,972 persons between exact ages 20 and 25.

Column 6 shows the total number of persons in the stationary population (column 5) in the indicated age interval and all subsequent age intervals. For example, in the stationary population of white males referred to in the last illustration, column 6 shows that there would be at any given moment a total of 4,735,032 persons who have passed their twentieth birthday. The population at all ages 0 and above (in other words, the total population of the stationary community) would be 6,657,637.

**Column 7—Average remaining lifetime ( $e_x$ ).**—The average remaining lifetime (also called the complete expectation of life) at any age is the average number of years remaining to be lived by those surviving to that age, on the basis of a given set of age-specific rates of dying. In order to arrive at this value, it is first necessary to observe that the figures in column 5 of the life tables can also be interpreted in terms of a single life table cohort, without introducing the concept of the stationary population. From this point of view, each figure in column 5 represents the total time (in years) lived between the two indicated birthdays by all those reaching the earlier birthday among the survivors of a cohort of 100,000 live births. Thus, the figure 473,972 for white males in the age interval 20-25 is the total number of years lived between the twentieth and twenty-fifth birthdays by the 95,191 (column 3) who reach the twentieth birthday out of 100,000 white males born alive. The corresponding figure in column 6 (4,735,032) is the total number of years lived after attaining age 20 by the 95,191 reaching that age. This number of years divided by the number of persons (4,735,032 divided by 95,191) gives 49.7 years as the average remaining lifetime of white males at age 20.

Care must be exercised in drawing conclusions from the figures in column 7. Thus, observing that the average lifetime of white persons is greater than that of nonwhites, one should not conclude that the oldest ages reached by white persons necessarily exceed those attained by the most long-lived nonwhites. The difference in the average length of life is due to the fact that a greater proportion of nonwhites die before reaching old age. For example, the number surviving to age 65 out of 100,000 born alive is far greater among whites than among nonwhites; yet the average length of life remaining at age 65 is about the same for both groups.



Life Tables

Life table values for 1950

The rates of mortality during a specific period may be summarized by the life table method to obtain measures of comparative longevity. The basis of these measures is a closed cohort for each of the population groups under examination which is assumed to be subject throughout life to the mortality rates of that period. For example, table 8.06 presents a life table showing the progress of a cohort starting with 100,000 live births and subject throughout life to the mortality rates of the year 1950; and, similarly, each of the four sections of table 8.07 presents life tables separately for whites and nonwhites by sex.

The most usual measure of the comparative longevity of different populations is the average duration of life, also called the expectation of life at birth. This is the average number of years lived by the members of the life table cohort. In table 8.07, the average duration of life appears, in each case, opposite age 0 in the column which gives the average remaining lifetime. These values indicate that females, on the average, live longer than males, and white persons longer

than nonwhite.

There is, however, some objection to the use of the average duration of life as a standard of comparison because the method of calculating it gives great weight to the relatively large number of deaths occurring in the first year of life. This influence may be entirely eliminated by considering instead the average lifetime remaining to those members of the cohort surviving to age 1, or, in other words, the expectation of life at age 1. As a result of this change the differences between these various groups are somewhat reduced; however, white females still live, on the average, 5.5 years longer than white males, and 8.3 years longer than nonwhite females, while white males live 6.3 years longer than nonwhite males.

Another possible standard for comparing the longevity of different populations is provided by the median length of life, or "probable lifetime," which is the age at which half of the original members of the cohort have died. When the life table cohort starts with 100,000 births, this would be the age at which there are just 50,000 survivors. In other words, it is the age to which an infant born alive has just an even chance of surviving. In computing this median length of life the deaths in the age group in which the median age lies are assumed to be evenly distributed. Thus, from table 8.07, the median length of life on the basis of 1950 mortality rates for white

Table 8.06. ABRIDGED LIFE TABLES: UNITED STATES, 1949 AND 1950

AGE INTERVAL	PROPORTION DYING	OF 100,000 BORN ALIVE		STATIONARY POPULATION		AVERAGE REMAINING LIFETIME	AGE INTERVAL	PROPORTION DYING	OF 100,000 BORN ALIVE		STATIONARY POPULATION		AVERAGE REMAINING LIFETIME
		Number living at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals				Average number of years of life remaining at beginning of age interval	Number living at beginning of age interval	Number dying during age interval	In the age interval	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$x$ to $x+n$	$nq_x$	$l_x$	$n^d_x$	$n^L_x$	$T_x$	$e_x$	$x$ to $x+n$	$nq_x$	$l_x$	$n^d_x$	$n^L_x$	$T_x$	$e_x$
1950							1949						
0-1-----	0.0292	100,000	2,923	97,467	6,840,990	68.4	0-1-----	0.0314	100,000	3,140	97,307	6,797,284	68.0
1-5-----	.0055	97,077	538	386,593	6,743,523	69.5	1-5-----	.0061	96,860	587	385,629	6,699,977	69.2
5-10-----	.0030	96,539	294	481,864	6,356,950	65.8	5-10-----	.0033	96,273	322	480,464	6,314,348	65.6
10-15-----	.0029	96,245	281	480,599	5,875,066	61.0	10-15-----	.0032	95,951	303	479,074	5,833,884	60.8
15-20-----	.0054	95,964	517	478,681	5,394,467	56.2	15-20-----	.0056	95,648	533	477,060	5,354,810	56.0
20-25-----	.0073	95,447	692	475,600	4,915,766	51.5	20-25-----	.0076	95,115	720	473,870	4,877,750	51.3
25-30-----	.0080	94,755	753	471,968	4,440,186	46.9	25-30-----	.0082	94,395	775	470,113	4,403,880	46.7
30-35-----	.0099	94,002	931	467,813	3,968,218	42.2	30-35-----	.0102	93,620	958	465,835	3,933,767	42.0
35-40-----	.0140	93,071	1,306	462,312	3,500,405	37.6	35-40-----	.0148	92,662	1,370	460,106	3,467,932	37.4
40-45-----	.0216	91,765	1,987	454,202	3,038,093	33.1	40-45-----	.0222	91,292	2,026	451,738	3,007,826	32.9
45-50-----	.0335	89,778	3,006	441,869	2,583,891	28.8	45-50-----	.0349	89,266	3,117	439,029	2,556,088	28.6
50-55-----	.0504	86,772	4,374	423,585	2,142,022	24.7	50-55-----	.0514	86,149	4,426	420,335	2,117,059	24.6
55-60-----	.0748	82,398	6,161	397,397	1,718,437	20.9	55-60-----	.0767	81,723	6,285	393,754	1,696,724	20.8
60-65-----	.1093	76,237	8,330	361,254	1,321,040	17.3	60-65-----	.1109	75,458	8,367	357,256	1,302,970	17.3
65-70-----	.1523	67,907	10,346	314,711	959,786	14.1	65-70-----	.1523	67,091	10,218	310,939	945,714	14.1
70-75-----	.2242	57,561	12,905	256,467	645,075	11.2	70-75-----	.2262	56,873	12,865	253,110	634,775	11.2
75-80-----	.3226	44,658	14,405	187,085	388,608	8.7	75-80-----	.3237	44,008	14,247	184,231	381,665	8.7
80-85-----	.4299	30,253	13,005	116,724	201,525	6.7	80-85-----	.4305	29,761	12,813	114,778	197,434	6.6
85+-----	1.0000	17,248	17,248	84,801	84,801	4.9	85+-----	1.0000	16,948	16,948	82,656	82,656	4.9

males is determined to be 70.8 years, for white females 76.6 years, for nonwhite males 62.7 years, and for nonwhite females 66.1 years. It is evident that the median length of life is longer than the average duration of life for all groups.

Still another measure of comparative longevity is the number of persons surviving to stated ages in several cohorts of, say, 100,000 live births. For example, it is of some interest to examine the proportion of survivors to ages 20 and 65, since these ages may be taken as representing, respectively, the attainment of manhood or womanhood, and the retirement age. At age 20 the ratio of nonwhite male to white male survivors

in the 1950 life tables is 97 percent, while at age 65 the ratio is 70 percent. This marked difference indicates the cumulative effect of higher mortality among nonwhite males in the intervening years. For white and nonwhite females the corresponding ratios are 97 percent and 67 percent.

**Trend from 1900 to 1950**

Life tables have been prepared at 10-year intervals for the United States between 1900 and 1940. Each of these is based on a census of population and deaths in the 3-year period containing the census year. Selected values from these tables

Table 8.07. ABRIDGED LIFE TABLES BY RACE AND SEX: UNITED STATES, 1950

AGE INTERVAL	PROPORTION DYING	OF 100,000 BORN ALIVE		STATIONARY POPULATION		AVERAGE REMAINING LIFETIME	AGE INTERVAL	PROPORTION DYING	OF 100,000 BORN ALIVE		STATIONARY POPULATION		AVERAGE REMAINING LIFETIME
		Number living at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval			Number living at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$x$ to $x+n$	$nq_x$	$l_x$	$n^d_x$	$n^l_x$	$T_x$	$e_x$	$x$ to $x+n$	$nq_x$	$l_x$	$n^d_x$	$n^l_x$	$T_x$	$e_x$
<b>WHITE MALE</b>							<b>NONWHITE MALE</b>						
0-1-----	0.0302	100,000	3,021	97,338	6,657,637	66.6	0-1-----	0.0492	100,000	4,923	95,857	5,922,688	59.2
1-5-----	.0054	96,979	521	396,294	6,560,299	67.6	1-5-----	.0110	95,077	1,048	376,907	5,826,831	61.3
5-10-----	.0033	96,458	320	481,394	6,174,005	64.0	5-10-----	.0048	94,029	452	468,790	5,449,924	58.0
10-15-----	.0034	96,138	325	479,935	5,692,611	59.2	10-15-----	.0048	93,577	453	466,771	4,981,134	53.2
15-20-----	.0065	95,813	622	477,644	5,212,676	54.4	15-20-----	.0108	93,124	1,007	463,288	4,514,363	48.5
20-25-----	.0086	95,191	816	475,972	4,735,032	49.7	20-25-----	.0179	92,117	1,653	456,690	4,051,075	44.0
25-30-----	.0085	94,375	803	469,924	4,261,060	45.2	25-30-----	.0212	90,464	1,915	447,640	3,594,385	39.7
30-35-----	.0100	93,572	933	465,658	3,791,136	40.5	30-35-----	.0276	88,549	2,440	436,750	3,146,745	35.5
35-40-----	.0145	92,639	1,344	460,074	3,325,478	35.9	35-40-----	.0350	86,109	3,013	423,165	2,709,995	31.5
40-45-----	.0234	91,295	2,137	451,529	2,865,404	31.4	40-45-----	.0501	83,096	4,159	405,309	2,286,830	27.5
45-50-----	.0377	89,158	3,362	437,962	2,413,875	27.1	45-50-----	.0706	78,937	5,569	381,113	1,881,521	23.8
50-55-----	.0590	85,796	5,061	417,110	1,975,915	23.0	50-55-----	.1059	73,368	7,770	347,707	1,500,408	20.5
55-60-----	.0896	80,735	7,234	386,500	1,558,803	19.3	55-60-----	.1495	65,598	9,809	305,625	1,152,701	17.6
60-65-----	.1306	73,501	9,599	344,428	1,172,303	15.9	60-65-----	.1946	55,789	10,854	251,800	849,076	15.2
65-70-----	.1835	63,902	11,724	291,105	827,875	13.0	65-70-----	.2075	44,935	9,323	201,303	597,276	13.3
70-75-----	.2593	52,178	13,531	227,671	536,770	10.3	70-75-----	.2669	35,812	9,503	154,222	395,973	11.1
75-80-----	.3537	38,647	13,864	158,017	309,099	8.0	75-80-----	.3566	26,109	9,311	107,126	241,751	9.5
80-85-----	.4730	24,783	11,721	92,482	151,082	6.1	80-85-----	.3494	16,798	5,870	68,858	134,625	8.0
85+-----	1.0000	13,062	13,062	58,600	58,600	4.5	85+-----	1.0000	10,928	10,928	65,787	65,787	6.0
<b>WHITE FEMALE</b>							<b>NONWHITE FEMALE</b>						
0-1-----	0.0231	100,000	2,312	97,998	7,241,661	72.4	0-1-----	0.0402	100,000	4,021	96,664	6,320,087	63.2
1-5-----	.0044	97,688	434	389,358	7,143,663	73.1	1-5-----	.0094	95,979	898	381,031	6,223,403	64.8
5-10-----	.0024	97,254	232	485,593	6,754,305	69.5	5-10-----	.0039	95,081	374	474,261	5,842,372	61.4
10-15-----	.0021	97,022	202	484,644	6,268,712	64.6	10-15-----	.0036	94,707	339	472,706	5,368,111	56.7
15-20-----	.0031	96,820	300	483,447	5,784,068	59.7	15-20-----	.0086	94,368	814	470,049	4,895,405	51.9
20-25-----	.0040	96,520	384	481,717	5,300,621	54.9	20-25-----	.0126	93,554	1,176	464,979	4,425,356	47.3
25-30-----	.0049	96,136	467	479,589	4,818,904	50.1	25-30-----	.0163	92,378	1,508	458,175	3,960,377	42.9
30-35-----	.0064	95,669	612	476,910	4,339,315	45.4	30-35-----	.0222	90,870	2,013	449,425	3,502,202	38.5
35-40-----	.0093	95,057	884	473,228	3,862,405	40.6	35-40-----	.0307	88,857	2,731	437,615	3,052,777	34.4
40-45-----	.0143	94,173	1,344	467,767	3,389,179	36.0	40-45-----	.0435	86,126	3,743	421,475	2,615,162	30.4
45-50-----	.0217	92,829	2,019	459,483	2,921,412	31.5	45-50-----	.0619	82,383	5,100	399,484	2,193,687	26.6
50-55-----	.0322	90,810	2,925	447,291	2,461,929	27.1	50-55-----	.0881	77,283	6,810	369,715	1,794,203	23.2
55-60-----	.0493	87,885	4,329	429,408	2,014,638	22.9	55-60-----	.1211	70,473	8,538	331,245	1,424,408	20.2
60-65-----	.0769	83,556	6,423	402,815	1,585,230	19.0	60-65-----	.1643	61,935	10,177	284,255	1,093,243	17.7
65-70-----	.1172	77,133	9,041	364,544	1,182,415	15.3	65-70-----	.1536	51,758	7,952	238,843	808,968	15.6
70-75-----	.1887	68,092	12,852	309,872	817,871	12.0	70-75-----	.2204	43,806	9,657	194,825	570,145	13.0
75-80-----	.2896	55,240	15,999	236,533	507,999	9.2	75-80-----	.2926	34,149	9,991	145,651	375,320	11.0
80-85-----	.4084	39,241	16,027	154,139	271,466	6.9	80-85-----	.2929	24,158	7,075	102,789	229,669	9.5
85+-----	1.0000	23,214	23,214	117,327	117,327	5.1	85+-----	1.0000	17,083	17,083	126,860	126,860	7.4

are shown in tables 8.08 and 8.09 together with corresponding figures from abridged life tables for the single years 1949 and 1950. In using these values it must be remembered that, since the area covered at each period was limited by the size of the death-registration area, the values for periods prior to 1929-31 are not strictly comparable with those for later periods. This cause of variation could at most account for only a small part of the spectacular improvement observed over the entire period covered; however, it is believed that the fluctuations shown at certain ages in the values for Negroes during the first 30 years of the century may be attributable, in part, to the expanding character of the death-registration area, and, in part, also to progressive improvement in the completeness of death reporting.

In recent years there has been an increasing interest in data on average length of life for specific past years for which such figures were not available. In many other instances, information has been desired for population subdivisions or combinations for which life tables were not prepared. For example, life tables for the periods 1919-21 and 1929-31 were prepared for four subdivisions of the population by race and sex but not for the total population nor for combinations such as total males or total whites. In order to meet these needs,

the estimated figures given in table 8.10 have been computed.<sup>4</sup>

Life table values for 1941 through 1948 presented in table 8.10 are based on population estimates for each year projected from the 1940 census. These population estimates contain an adjustment for misstatement of age of the nonwhite population 55 years of age and over. The results of the 1950 census and the Post-Enumeration Survey<sup>5</sup> did not bear out the validity of this adjustment. The Bureau of the Census has therefore reestimated the population by age, race, and sex for July 1, 1941 to 1949, by linear interpolation between the 1940 and 1950 census counts.<sup>6</sup> Similarly, population estimates for July 1, 1950, have been projected from the 1950 enumerated

<sup>4</sup>For estimating procedure, see 'Estimated Average Length of Life in the Death-Registration States,' National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 33, No. 9, 1951.

<sup>5</sup>U. S. Bureau of the Census, "United States Census of Population: 1950, Volume II, Characteristics of the Population," Part 1, United States Summary, p. 7, U. S. Government Printing Office, Washington, D. C., 1953.

<sup>6</sup>See chapter 2, table 2.21.

Table 8.08. NUMBER SURVIVING TO SPECIFIED AGES OUT OF 100,000 BORN ALIVE, BY RACE AND SEX: DEATH-REGISTRATION STATES, FOR SELECTED YEARS

RACE, SEX, AND AGE	1950	1949	1939-41	1929-31 <sup>1</sup>	1919-21 <sup>1</sup>	1909-11 <sup>1</sup>	1900-1902 <sup>1</sup>	RACE, SEX, AND AGE	1950	1949	1939-41	1929-31 <sup>1</sup>	1919-21 <sup>1</sup>	1909-11 <sup>1</sup>	1900-1902 <sup>1</sup>
<b>WHITE MALE</b>								<b>NONWHITE MALE</b>							
0-----	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0-----	100,000	100,000	100,000	100,000	100,000	100,000	100,000
1-----	96,979	96,747	95,188	93,768	91,975	87,674	86,655	1-----	95,077	94,693	91,696	91,268	89,499	78,065	74,674
5-----	96,458	96,165	94,150	91,738	88,842	82,972	80,864	5-----	94,029	93,635	89,920	88,412	85,195	68,589	64,385
10-----	96,138	95,803	93,601	90,810	87,530	81,519	79,109	10-----	93,577	93,165	89,211	87,311	83,768	66,377	61,730
15-----	95,813	95,454	93,089	90,074	86,546	80,549	78,037	15-----	93,124	92,670	88,417	86,152	82,332	64,478	59,667
20-----	95,191	94,823	92,295	88,904	84,997	79,116	76,376	20-----	92,117	91,578	86,770	85,621	79,057	61,426	56,733
25-----	94,575	93,993	91,241	87,371	83,061	77,047	73,907	25-----	90,464	89,860	84,055	79,516	74,540	57,736	53,285
30-----	93,572	93,186	90,092	85,707	80,888	74,810	71,219	30-----	88,549	87,876	80,865	75,085	70,344	54,073	49,867
35-----	92,659	92,238	88,713	83,812	78,441	72,108	68,245	35-----	86,109	85,485	77,185	70,049	65,873	49,865	46,541
40-----	91,295	90,826	86,880	81,457	75,733	68,848	64,954	40-----	83,096	82,337	72,830	64,710	61,353	45,414	42,989
45-----	89,158	88,654	84,285	78,345	72,696	65,115	61,369	45-----	78,937	78,125	67,514	58,432	56,589	40,563	39,230
50-----	85,796	85,241	80,521	74,288	69,107	60,741	57,274	50-----	73,368	72,046	60,766	51,748	51,880	35,427	34,766
55-----	80,735	80,109	75,156	68,981	64,574	55,622	52,491	55-----	65,598	64,499	52,867	44,436	46,581	29,754	29,987
60-----	73,501	72,781	67,787	61,933	58,498	48,987	46,452	60-----	55,789	54,948	44,370	36,790	40,506	23,750	24,194
65-----	63,902	63,090	58,305	52,984	50,663	40,862	39,245	65-----	44,935	44,755	35,912	29,314	34,042	17,806	19,015
70-----	52,178	51,605	46,739	41,880	40,873	31,527	30,840	70-----	35,612	35,891	27,688	21,741	26,923	12,295	13,829
75-----	38,647	38,221	33,404	29,471	29,205	21,585	21,387	75-----	26,109	26,615	19,765	14,419	18,854	7,494	8,892
<b>WHITE FEMALE</b>								<b>NONWHITE FEMALE</b>							
0-----	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0-----	100,000	100,000	100,000	100,000	100,000	100,000	100,000
1-----	97,688	97,496	96,211	95,037	93,808	89,774	88,939	1-----	95,979	95,748	93,318	92,796	91,251	81,493	78,525
5-----	97,254	97,010	95,308	93,216	90,721	85,349	83,426	5-----	95,081	94,853	91,710	90,185	87,149	72,768	68,056
10-----	97,022	96,760	94,890	92,456	89,564	83,979	81,723	10-----	94,707	94,472	91,092	89,201	85,607	70,508	65,111
15-----	96,820	96,542	94,534	91,894	88,712	83,093	80,680	15-----	94,358	94,117	90,363	88,088	83,954	68,218	62,384
20-----	96,520	96,228	93,984	90,939	87,281	81,750	78,978	20-----	93,554	93,274	88,505	85,078	80,154	64,764	59,053
25-----	96,136	95,825	93,228	89,524	85,163	79,865	76,588	25-----	92,378	91,931	85,961	81,067	75,359	61,430	55,795
30-----	95,669	95,341	92,320	87,972	82,740	77,676	73,887	30-----	90,870	90,294	83,147	76,816	70,633	58,281	52,773
35-----	95,057	94,681	91,211	86,248	80,206	75,200	70,971	35-----	88,857	88,288	79,879	72,192	65,857	54,595	49,567
40-----	94,173	93,753	89,805	84,256	77,624	72,425	67,935	40-----	86,126	85,486	75,908	67,271	61,130	50,568	46,146
45-----	92,829	92,363	87,920	81,780	74,871	69,341	64,677	45-----	82,383	81,612	71,061	61,365	56,230	45,947	42,279
50-----	90,810	90,308	85,267	78,572	71,547	65,629	61,005	50-----	77,283	75,900	64,886	54,920	50,780	40,886	37,681
55-----	87,885	87,278	81,520	74,321	67,323	61,053	56,509	55-----	70,473	69,410	57,419	47,074	44,742	35,415	33,124
60-----	83,556	82,793	76,200	68,462	61,704	54,900	50,752	60-----	61,935	60,884	49,102	38,761	37,954	28,908	27,524
65-----	77,133	76,297	68,701	60,499	54,299	47,086	45,806	65-----	51,758	51,009	40,718	30,852	31,044	22,302	21,995
70-----	68,092	67,198	58,363	49,932	44,638	37,482	35,206	70-----	43,808	43,214	32,579	23,341	24,107	15,871	16,140
75-----	55,240	54,209	44,685	37,024	32,777	26,569	25,362	75-----	34,149	33,648	24,668	16,576	17,216	10,657	11,066

<sup>1</sup>Figures for the nonwhite groups cover only Negroes. However, in no case did the Negro population comprise less than 95 percent of the corresponding nonwhite population.

NOTE.—For 1900-1902 and 1909-11, data are for the death-registration States of 1900, which consisted of 10 States and the District of Columbia; for 1919-21, for the death-registration States of 1920, which consisted of 34 States and the District of Columbia; for 1929-31, 1939-41, 1949, and 1950, for the entire continental United States.

data. The life table values shown in tables 8.06, 8.08, 8.09, and 8.10 for 1949 and 1950 are based on the new population estimates, while the values for 1941 through 1948 in table 8.10 are the same as those published in previous reports. The 1949 and 1950 values are thus not entirely comparable with figures for the previous years of the decade. In general, if the revised population estimates had been used, the average length of life for the years 1941 through 1948 would have been slightly higher than the figures shown in table 8.10.

In the period of nearly a half-century covered by table 8.09, the average duration of life has increased by 18.4 years

for white males, 21.3 years for white females, 26.7 years for nonwhite males, and 28.2 years for nonwhite females. The proportion reaching age 65 (table 8.08) has increased by 63 percent for white males, 76 percent for white females, 136 percent for nonwhite males, and 135 percent for nonwhite females. The improvement in the average remaining lifetime becomes progressively less at older ages, but the recent values even at relatively old ages are substantially higher than in the earliest period. It is a striking fact that the improvement in longevity since the beginning of the century has been appreciably greater for females than for males.

Table 8.09. AVERAGE REMAINING LIFETIME IN YEARS AT SPECIFIED AGES, BY RACE AND SEX: DEATH-REGISTRATION STATES, FOR SELECTED YEARS

RACE, SEX, AND AGE	1950	1949	1939-41	1929-31 <sup>1</sup>	1919-21 <sup>1</sup>	1909-11 <sup>1</sup>	1900-1902 <sup>1</sup>	RACE, SEX, AND AGE	1950	1949	1939-41	1929-31 <sup>1</sup>	1919-21 <sup>1</sup>	1909-11 <sup>1</sup>	1900-1902 <sup>1</sup>
<b>WHITE MALE</b>								<b>NONWHITE MALE</b>							
0-----	66.6	68.2	62.81	59.12	56.34	50.23	48.23	0-----	59.2	58.9	52.33	47.55	47.14	34.05	32.54
1-----	67.6	67.4	64.98	62.04	60.24	56.26	54.61	1-----	61.3	61.2	56.05	51.08	51.63	42.53	42.46
5-----	64.0	63.8	61.68	59.38	58.31	55.37	54.45	5-----	58.0	57.9	53.13	48.69	50.18	44.25	45.06
10-----	59.2	59.0	57.03	54.96	54.15	51.32	50.59	10-----	53.2	53.2	48.54	44.27	45.99	40.65	41.90
15-----	54.4	54.2	52.33	50.39	49.74	46.91	46.25	15-----	48.5	48.5	43.95	39.83	41.75	36.77	38.26
20-----	49.7	49.6	47.76	46.02	45.60	42.71	42.19	20-----	44.0	44.0	39.74	35.95	38.36	33.46	35.11
25-----	45.2	45.0	43.28	41.78	41.60	38.79	38.52	25-----	39.7	39.8	35.94	32.67	35.54	30.44	32.21
30-----	40.5	40.4	38.80	37.54	37.65	34.87	34.88	30-----	35.5	35.6	32.25	29.45	32.51	27.33	29.25
35-----	35.9	35.8	34.36	33.33	33.74	31.08	31.29	35-----	31.5	31.6	28.67	26.39	29.54	24.42	26.16
40-----	31.4	31.3	30.03	29.22	29.66	27.45	27.74	40-----	27.5	27.7	25.23	23.36	26.53	21.57	23.12
45-----	27.1	27.0	25.87	25.28	26.00	23.86	24.21	45-----	23.8	24.0	22.02	20.59	23.55	18.85	20.09
50-----	23.0	22.9	21.96	21.51	22.22	20.39	20.76	50-----	20.5	20.8	19.18	17.92	20.47	16.21	17.34
55-----	19.3	19.2	18.34	17.97	18.59	17.03	17.42	55-----	17.6	18.0	16.67	15.46	17.50	13.82	14.69
60-----	15.9	15.9	15.05	14.72	15.25	13.98	14.35	60-----	15.2	15.7	14.38	13.15	14.74	11.67	12.62
65-----	13.0	13.0	12.07	11.77	12.21	11.25	11.51	65-----	13.3	13.7	12.18	10.87	12.07	9.74	10.39
70-----	10.3	10.3	9.42	9.20	9.51	8.83	9.03	70-----	11.1	11.4	10.06	8.78	9.58	8.00	8.33
75-----	8.0	8.0	7.17	7.02	7.30	6.75	6.84	75-----	9.3	9.5	8.09	6.99	7.61	6.58	6.60
<b>WHITE FEMALE</b>								<b>NONWHITE FEMALE</b>							
0-----	72.4	71.9	67.29	62.67	58.53	53.62	51.08	0-----	63.2	62.7	55.51	49.51	46.92	37.67	35.04
1-----	73.1	72.8	68.93	64.93	61.51	58.69	56.39	1-----	64.8	64.5	58.47	52.33	50.39	45.15	43.54
5-----	69.5	69.1	65.57	62.17	59.43	57.67	56.03	5-----	61.4	61.1	55.47	49.81	48.70	46.42	46.04
10-----	64.6	64.3	60.85	57.65	55.17	53.57	52.15	10-----	56.7	56.3	50.83	45.33	44.54	42.84	43.02
15-----	59.7	59.5	56.07	53.00	50.67	49.12	47.79	15-----	51.9	51.5	46.22	40.87	40.36	39.18	39.79
20-----	54.9	54.6	51.38	48.52	46.46	44.88	43.77	20-----	47.3	47.0	42.14	37.22	37.15	36.14	36.89
25-----	50.1	49.9	46.78	44.25	42.55	40.88	40.05	25-----	42.9	42.6	38.31	33.93	34.35	32.97	33.90
30-----	45.4	45.1	42.21	39.99	38.72	36.96	36.42	30-----	38.5	38.4	34.52	30.67	31.48	29.61	30.70
35-----	40.6	40.4	37.70	35.73	34.86	33.09	32.82	35-----	34.4	34.2	30.83	27.47	28.58	26.44	27.52
40-----	36.0	35.8	33.25	31.52	30.94	29.26	29.17	40-----	30.4	30.2	27.31	24.30	25.60	23.34	24.37
45-----	31.5	31.3	28.90	27.39	26.98	25.45	25.51	45-----	26.6	26.5	24.00	21.39	22.61	20.43	21.36
50-----	27.1	26.9	24.72	23.41	23.12	21.74	21.89	50-----	23.2	23.3	21.04	18.60	19.76	17.65	18.67
55-----	22.9	22.8	20.73	19.60	19.40	18.18	18.43	55-----	20.2	20.3	18.44	16.27	17.09	14.98	15.88
60-----	19.0	18.8	17.00	16.05	15.93	14.92	15.23	60-----	17.7	17.7	16.14	14.22	14.69	12.78	13.60
65-----	15.3	15.2	13.56	12.81	12.75	11.97	12.23	65-----	15.6	15.7	13.95	12.24	12.41	10.82	11.38
70-----	12.0	11.9	10.50	9.98	9.94	9.38	9.59	70-----	13.0	13.1	11.81	10.38	10.25	9.22	9.62
75-----	9.2	9.2	7.92	7.56	7.62	7.20	7.33	75-----	11.0	11.1	9.80	8.62	8.37	7.55	7.90

<sup>1</sup>Figures for the nonwhite groups cover only Negroes. However, in no case did the Negro population comprise less than 95 percent of the corresponding nonwhite population.

NOTE.—For 1900-1902 and 1909-11, data are for the death-registration States of 1900, which consisted of 10 States and the District of Columbia; for 1919-21, for the death-registration States of 1920, which consisted of 34 States and the District of Columbia; for 1929-31, 1939-41, 1949, and 1950, for the entire continental United States.

Table 8.10. ESTIMATED AVERAGE LENGTH OF LIFE IN YEARS: DEATH-REGISTRATION STATES, 1900-1950

YEAR	ALL RACES			WHITE			NONWHITE		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
1950----	68.4	68.8	71.5	69.2	66.6	72.4	61.0	59.2	63.2
1949----	68.0	65.4	71.0	68.8	66.2	71.9	60.6	58.9	62.7
1948----	67.2	64.7	70.2	68.0	65.5	71.0	60.0	58.1	62.5
1947----	66.8	64.4	69.7	67.6	65.2	70.5	59.7	57.9	61.9
1946----	66.7	64.4	69.4	67.5	65.1	70.3	59.1	57.5	61.0
1945----	65.9	63.8	67.9	66.8	64.4	69.5	57.7	56.1	59.6
1944----	65.2	63.6	66.8	66.2	64.5	68.4	56.6	55.8	57.7
1943----	63.3	62.4	64.4	64.2	63.2	65.7	55.6	55.4	56.1
1942----	66.2	64.7	67.9	67.3	65.9	69.4	56.6	55.4	58.2
1941----	64.8	63.1	66.8	66.2	64.4	68.5	53.8	52.5	55.3
1940----	62.9	60.8	65.2	64.2	62.1	66.6	53.1	51.5	54.9
1939----	63.7	62.1	65.4	64.9	63.3	66.6	54.5	53.2	56.0
1938----	63.5	61.9	65.3	65.0	63.2	66.8	52.9	51.7	54.3
1937----	60.0	58.0	62.4	61.4	59.3	63.8	50.3	48.3	52.5
1936----	58.5	56.6	60.6	59.8	58.0	61.9	49.0	47.0	51.4
1935----	61.7	59.9	63.9	62.9	61.0	65.0	53.1	51.3	55.2
1934----	61.1	59.3	63.3	62.4	60.5	64.6	51.8	50.2	53.7
1933----	63.3	61.7	65.1	64.3	62.7	66.3	54.7	53.5	56.0
1932----	62.1	61.0	63.5	63.2	62.0	64.5	53.7	52.8	54.6
1931----	61.1	59.4	63.1	62.6	60.8	64.7	50.4	49.5	51.5
1930----	59.7	58.1	61.6	61.4	59.7	63.5	48.1	47.3	49.2
1929----	57.1	55.8	58.7	58.6	57.2	60.3	46.7	45.7	47.8
1928----	56.8	55.6	58.3	58.4	57.0	60.0	46.3	45.6	47.0
1927----	60.4	59.0	62.1	62.0	60.5	63.9	48.2	47.6	48.9
1926----	56.7	55.5	58.0	58.2	57.0	59.6	44.6	43.7	45.6
1925----	59.0	57.6	60.6	60.7	59.3	62.4	45.7	44.9	46.7
1924----	59.7	58.1	61.5	61.4	59.8	63.4	46.6	45.5	47.8
1923----	57.2	56.1	58.5	58.3	57.1	59.6	48.3	47.7	48.9
1922----	59.6	58.4	61.0	60.4	59.1	61.9	52.4	51.8	53.0
1921----	60.8	60.0	61.8	61.8	60.8	62.9	51.5	51.6	51.3
1920----	54.1	53.6	54.6	54.9	54.4	55.6	45.3	45.5	45.2
1919----	54.7	53.5	56.0	55.8	54.5	57.4	44.5	44.5	44.4
1918----	39.1	36.6	42.2	39.8	37.1	43.2	31.1	29.9	32.5
1917----	50.9	48.4	54.0	52.0	49.3	55.3	38.8	37.0	40.8
1916----	51.7	49.6	54.3	52.5	50.2	55.2	41.3	39.6	43.1
1915----	54.5	52.5	56.8	55.1	53.1	57.5	38.9	37.5	40.5
1914----	54.2	52.0	56.8	54.9	52.7	57.5	38.9	37.1	40.8
1913----	52.5	50.3	55.0	53.0	50.8	55.7	38.4	36.7	40.3
1912----	53.5	51.5	55.9	53.9	51.9	56.2	37.9	35.9	40.0
1911----	52.6	50.9	54.4	53.0	51.3	54.9	36.4	34.6	38.2
1910----	50.0	48.4	51.8	50.3	48.6	52.0	35.6	33.8	37.5
1909----	52.1	50.5	53.8	52.5	50.9	54.2	35.7	34.2	37.3
1908----	51.1	49.5	52.8	51.5	49.9	53.3	34.9	33.8	36.0
1907----	47.6	45.6	49.9	48.1	46.0	50.4	32.5	31.1	34.0
1906----	48.7	46.9	50.8	49.3	47.3	51.4	32.9	31.8	33.9
1905----	48.7	47.3	50.2	49.1	47.6	50.6	31.3	29.6	33.1
1904----	47.6	46.2	49.1	48.0	46.6	49.5	30.8	29.1	32.7
1903----	50.5	49.1	52.0	50.9	49.5	52.5	33.1	31.7	34.6
1902----	51.5	49.8	53.4	51.9	50.2	53.8	34.6	32.9	36.4
1901----	49.1	47.6	50.6	49.4	48.0	51.0	33.7	32.2	35.3
1900----	47.3	46.3	48.3	47.6	46.6	48.7	33.0	32.5	33.5

NOTE.—Estimates based on life table values shown in table 8.09. For estimating procedure, see "Estimated Average Length of Life in the Death-Registration States," National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 33, No. 9, 1951.

### Mortality for Urban and Rural Areas

In the past, it has been found that mortality was higher in urban areas than in rural areas. Table 8.11 shows this same relationship for 1950. In these volumes, "urban" includes all incorporated places of 2,500 population or more in the 1950 census, and a number of unincorporated places

defined as urban under special rules.<sup>7</sup> The remaining areas of the country are defined as "rural."

The distinction between residence within the incorporated city, which is classified as urban, and residence outside the city limits, classified as rural, has always been a difficult one to make from the residence information on the death certificate. While no direct measures of the size of the error existed, it was considered proportionately greater for cities of 2,500 to 10,000 population, and for the rural areas. For 1950, it has been found in a special study which permitted the comparison of the residence reported on the birth certificate and on the census enumeration for the same persons, that a considerable number of events for the rural areas surrounding cities of all sizes were improperly identified on the birth certificate as occurring in the adjacent urban place.<sup>8</sup> The percentage error is probably greater for 1950 than it has been in previous years, since in the last decade the greatest proportionate increase in population in the United States has occurred in suburban areas surrounding large cities.

It is unlikely that the same type of error has not occurred for deaths. It may be assumed that the error is associated with movement from the place of residence to the place of occurrence of the birth or death. Since the amount of such movement associated with deaths is smaller than that for births,<sup>9</sup> the percentage error in residence allocation may also be less for deaths than for births. With no further information, it is impossible to estimate "correct" death rates for urban and rural areas, and for population-size groups of cities. The rates obtained from the number of deaths for urban areas published in these volumes are probably higher than the "true" rates, while for rural areas, they are probably lower. The net effect of correction of the figures would be to reduce the presently observed urban-rural differences in mortality; but most likely, not to eliminate them.

In the geographic classification of vital statistics for 1950, the country has also been divided into metropolitan and non-metropolitan counties, the metropolitan counties being all those that comprise the standard metropolitan areas<sup>10</sup> and the remaining counties, nonmetropolitan. The errors in coding place of residence probably take place within the urban and rural parts of the metropolitan counties, and of the nonmetropolitan counties, but not between the two types of counties. The figures for these areas as a whole may be used with confidence, and may serve as an approximation of urban-rural differences in mortality.

As may be seen from table 2.20, over 80 percent of the population of the metropolitan counties is urban according to the definition used in these volumes. A substantial proportion of the rural population of the metropolitan counties lives in the urbanized fringe of the standard metropolitan areas, and thus is also urban in character. For the nonmetropolitan counties, about three-fourths of the population is rural.

Table 8.11 shows that the crude death rates are about the same for the two types of counties. Age-specific rates will not be available in time for inclusion in this volume, but when they are computed, they should provide some information on whether or not the recorded differences in mortality by age for urban and rural areas observed in 1950 actually exist.

<sup>7</sup>For a more detailed definition of urban or rural areas, see chapter 2. In classifying deaths by residence, unit of residence is defined as the individual urban place, or the rural area of the county, of which the decedent was a resident.

<sup>8</sup>For a detailed description of this study, see chapter 2.

<sup>9</sup>See chapter 2, tables 2.09 and 2.14.

<sup>10</sup>For definition, see chapter 2.

Table 8.11. DEATH RATES BY RACE AND SEX, FOR URBAN AND RURAL AREAS IN METROPOLITAN AND NONMETROPOLITAN COUNTIES: UNITED STATES, 1950

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE AND AREA	ALL COUNTIES			METROPOLITAN COUNTIES			NONMETROPOLITAN COUNTIES		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
ALL RACES-----	9.6	11.1	8.2	9.7	11.1	8.3	9.6	11.0	8.1
Urban <sup>1</sup> -----	10.5	12.2	9.0	10.4	11.9	8.9	11.1	13.0	9.4
Rural <sup>1</sup> -----	8.3	9.5	7.1	7.2	8.3	6.2	8.8	10.0	7.4
White-----	9.5	10.9	8.0	9.5	11.0	8.2	9.3	10.8	7.8
Urban <sup>1</sup> -----	10.4	12.0	8.8	10.2	11.8	8.7	10.8	12.7	9.1
Rural <sup>1</sup> -----	8.1	9.4	6.8	7.1	8.1	6.0	8.5	9.9	7.2
Nonwhite-----	11.2	12.5	9.9	11.2	12.6	9.8	11.2	12.4	10.1
Urban <sup>1</sup> -----	12.0	13.6	10.6	11.5	13.0	10.0	13.9	15.8	12.3
Rural <sup>1</sup> -----	10.0	11.0	9.0	9.2	10.2	8.2	10.2	11.2	9.2

<sup>1</sup>See text for discussion of possible errors in rates.

## Mortality by State

### Crude death rates

The crude death rates in 1950 by State of residence ranged from 7.2 per 1,000 population for Utah to 11.4 for residents of New Hampshire (table 8.12). In general, the higher rates were among residents of the New England, Middle Atlantic, and North Central Divisions and the lower rates in the Southern (South Atlantic, and East and West South Central Divisions) Mountain, and Pacific Divisions.

Differences in the crude death rates for States reflect not only differences in mortality but also differences in the age, race, and sex composition of the population. For example, the relatively high death rates for some of the New England and Middle Atlantic States are associated with the older average age of persons living in these areas and therefore do not necessarily indicate less favorable mortality conditions. In addition, it may be assumed that the difference in completeness of death registration is a factor in the geographic differences in the crude death rates.

The crude death rates for the nonwhite population shown in table 8.13, by State of residence, are generally higher than the rates for the white population of the State. The range of the rates is also greater, varying from 7.7 deaths per 1,000 population in California, where about one-fifth of the nonwhite population is Chinese and Japanese, to 16.5 in Kentucky.

Tables 8.12 and 8.13 also show the crude death rates for 1940, and the percentage decline between 1940 and 1950. The crude death rate for the total population declined in all except a few States. By geographic division, the percentage change in the rate varied from a decrease of 2 percent for the West North Central Division to a drop of 19 percent for the Pacific. The declines in the crude death rates for the nonwhite population were with few exceptions greater than those for the total population.

### Age-adjusted death rates

Because of the marked differences in the age composition of the population of the various States, crude death rates for individual States are not satisfactory measures of mortality conditions. Rates adjusted for differences in the age composition of the population are shown in table 8.41. The range of the rates for 1950 is considerably reduced from that seen for the crude death rates in table 8.12. The highest rate is 10.0 per 1,000 population for residents of South Carolina, and the lowest (7.1) for Nebraska. By geographic division, the lower rates are found for the West North Central, and the highest in

the South Atlantic and East South Central.

Table 8.41 also shows age-adjusted rates for 1950 by race and sex for residents of each State. For the white group, the rates are about 50 percent higher for males than for females; while for the nonwhite, the rates for men are about 20 percent above those for women.

Comparing the rates for nonwhites in those States with nonwhite populations of 50,000 or more in 1950, the age-adjusted rates range from 8.9 per 1,000 nonwhite population in California to 14.1 in Kentucky. As a whole, the higher rates are found in the South Atlantic States.

When age-adjusted rates in 1950 for the total population of each State are compared with those for 1940 (table 8.14), it may be seen that there was a reduction in the death rate for every State.<sup>11</sup> The decline was less than 15 percent in only 3 States, and was more than 20 percent for over half the States. For the nonwhite population, the declines were, with few exceptions, of the same order of magnitude.

### Age-specific rates

Rates for 1950.—Table 8.42 gives death rates by age, race, and sex for residents of each State for 1950. In each age group, the death rates vary considerably among the States. The range of the rates per 1,000 enumerated population in each State may be seen below. The lowest and highest rates are shown for each age group, and also the rates below which one-quarter, one-half, and three-quarters of the States fall.

AGE	Lowest rate	First quartile	Median	Third quartile	Highest rate
1-4 years <sup>1</sup> -----	0.9	1.2	1.4	1.6	2.9
5-14 years-----	0.4	0.8	0.6	0.7	1.0
15-24 years-----	0.6	1.1	1.3	1.5	2.2
25-34 years-----	1.0	1.5	1.7	2.2	3.1
35-44 years-----	2.5	3.0	3.5	4.1	5.9
45-54 years-----	6.0	7.3	8.2	9.1	13.4
55-64 years-----	14.3	16.7	18.3	20.7	27.4
65-74 years-----	33.7	36.8	39.1	41.9	47.2
75-84 years-----	77.2	87.4	92.2	96.3	104.5
85 years and over-----	166.7	187.6	203.7	210.0	227.9

<sup>1</sup>Infant mortality rates based on live births are discussed separately. See page 164.

<sup>11</sup>A comparison between two age-adjusted rates describes the change in mortality if the population distribution had remained like that of the United States in 1940. When other means or standards are used to obtain mortality indices, conclusions may differ from those obtained here.

Table 8.12. CRUDE DEATH RATES: UNITED STATES, EACH DIVISION AND STATE, 1940 AND 1950, WITH PERCENT CHANGES

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified area, enumerated as of April 1.)

AREA	1950	1940	Percent change
UNITED STATES	9.6	10.8	-11.1
GEOGRAPHIC DIVISIONS			
New England	10.4	11.7	-11.1
Middle Atlantic	10.5	11.2	-6.2
East North Central	10.0	11.0	-9.1
West North Central	10.1	10.3	-1.9
South Atlantic	8.9	10.5	-15.2
East South Central	9.1	10.4	-12.5
West South Central	8.4	9.7	-13.4
Mountain	8.6	10.2	-15.7
Pacific	9.3	11.5	-19.1
NEW ENGLAND			
Maine	10.8	12.5	-13.6
New Hampshire	11.4	12.7	-10.2
Vermont	11.0	13.0	-15.4
Massachusetts	10.5	11.8	-11.0
Rhode Island	10.5	11.2	-6.2
Connecticut	9.5	10.6	-10.4
MIDDLE ATLANTIC			
New York	10.5	11.1	-5.4
New Jersey	10.2	11.0	-7.3
Pennsylvania	10.5	11.3	-7.1
EAST NORTH CENTRAL			
Ohio	10.1	11.4	-11.4
Indiana	10.3	11.8	-12.7
Illinois	10.6	11.3	-6.2
Michigan	9.1	9.9	-8.1
Wisconsin	9.8	10.1	-3.0
WEST NORTH CENTRAL			
Minnesota	9.4	9.4	0
Iowa	10.3	10.4	-1.0
Missouri	11.1	11.6	-4.3
North Dakota	8.4	8.2	+2.4
South Dakota	9.0	8.9	+1.1
Nebraska	9.5	9.6	-1.1
Kansas	10.0	10.3	-2.9
SOUTH ATLANTIC			
Delaware	11.0	12.3	-10.6
Maryland	9.6	12.1	-20.7
District of Columbia	10.7	12.2	-12.3
Virginia	9.0	11.1	-18.9
West Virginia	8.7	9.3	-6.5
North Carolina	7.7	8.9	-13.5
South Carolina	8.5	10.7	-20.6
Georgia	8.8	10.4	-15.4
Florida	9.6	11.4	-15.8
EAST SOUTH CENTRAL			
Kentucky	9.5	10.5	-9.5
Tennessee	8.9	10.1	-11.9
Alabama	8.8	10.4	-15.4
Mississippi	9.5	10.7	-11.2
WEST SOUTH CENTRAL			
Arkansas	8.1	8.8	-8.0
Louisiana	8.8	10.8	-18.5
Oklahoma	8.7	8.9	-2.2
Texas	8.2	9.8	-16.3
MOUNTAIN			
Montana	9.9	10.3	-3.9
Idaho	8.2	9.4	-12.8
Wyoming	8.0	8.6	-7.0
Colorado	9.3	10.9	-14.7
New Mexico	8.0	10.3	-22.3
Arizona	8.6	11.1	-22.5
Utah	7.2	8.8	-18.2
Nevada	9.9	12.7	-22.0
PACIFIC			
Washington	9.5	11.6	-18.1
Oregon	9.2	11.2	-17.9
California	9.3	11.5	-19.1

Table 8.13. DEATH RATES FOR THE NONWHITES: UNITED STATES, EACH DIVISION AND STATE, 1940 AND 1950, WITH PERCENT CHANGES

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 nonwhite population in each specified area, enumerated as of April 1.)

AREA	1950	1940	Percent change
UNITED STATES	11.2	13.8	-18.8
GEOGRAPHIC DIVISIONS			
New England	10.6	14.2	-25.4
Middle Atlantic	10.9	13.9	-21.6
East North Central	11.1	15.0	-26.0
West North Central	14.3	16.5	-13.3
South Atlantic	11.2	14.0	-20.0
East South Central	12.0	13.9	-13.7
West South Central	10.9	12.7	-14.2
Mountain	11.9	13.8	-13.8
Pacific	8.0	12.2	-34.4
NEW ENGLAND			
Maine	8.9	8.9	0
New Hampshire	15.5	20.6	-24.8
Vermont	8.9	9.4	-5.3
Massachusetts	10.9	14.4	-24.3
Rhode Island	13.9	17.4	-20.1
Connecticut	9.3	13.2	-29.5
MIDDLE ATLANTIC			
New York	10.1	12.6	-19.8
New Jersey	11.3	14.9	-24.2
Pennsylvania	11.9	15.1	-21.2
EAST NORTH CENTRAL			
Ohio	11.2	15.1	-25.8
Indiana	13.1	15.9	-17.6
Illinois	11.7	15.8	-25.9
Michigan	9.2	12.6	-27.0
Wisconsin	10.9	15.3	-28.8
WEST NORTH CENTRAL			
Minnesota	12.3	15.0	-18.0
Iowa	12.9	15.9	-18.9
Missouri	14.9	17.2	-13.4
North Dakota	11.2	15.5	-27.7
South Dakota	14.4	16.1	-10.6
Nebraska	12.6	14.1	-10.6
Kansas	14.2	15.5	-8.4
SOUTH ATLANTIC			
Delaware	13.7	18.5	-25.9
Maryland	11.9	16.4	-27.4
District of Columbia	11.2	15.5	-27.7
Virginia	12.5	15.6	-19.9
West Virginia	12.0	14.0	-14.3
North Carolina	10.0	11.6	-13.8
South Carolina	10.4	13.7	-24.1
Georgia	11.6	13.8	-15.9
Florida	11.7	14.9	-21.5
EAST SOUTH CENTRAL			
Kentucky	16.5	18.0	-8.3
Tennessee	12.9	15.1	-14.6
Alabama	11.4	13.9	-18.0
Mississippi	11.3	12.6	-10.3
WEST SOUTH CENTRAL			
Arkansas	10.1	11.0	-8.2
Louisiana	11.3	13.8	-18.1
Oklahoma	11.5	12.5	-8.0
Texas	10.8	12.6	-14.3
MOUNTAIN			
Montana	12.9	16.6	-22.3
Idaho	13.3	17.6	-24.4
Wyoming	12.0	20.7	-42.0
Colorado	9.6	16.4	-41.5
New Mexico	12.4	8.8	+40.9
Arizona	12.2	13.9	-12.2
Utah	11.1	11.8	-5.9
Nevada	11.8	22.4	-47.3
PACIFIC			
Washington	10.7	16.7	-35.9
Oregon	9.9	16.8	-41.1
California	7.7	11.4	-32.5

Table 8.14. AGE-ADJUSTED DEATH RATES: UNITED STATES, EACH DIVISION AND STATE, 1940 AND 1950, WITH PERCENT DECREASES

(By place of residence. Rates per 1,000 population. For 1940, based on rates shown in table 11 of "Vital Statistics Rates in the United States, 1900-1940," and for 1950, on rates shown in table 8.42. Computed by the direct method using as the standard population the age distribution of the population of the United States as enumerated in 1940)

AREA	1950	1940	Percent decrease	AREA	1950	1940	Percent decrease
UNITED STATES-----	8.4	10.7	21.5				
GEOGRAPHIC DIVISIONS				SOUTH ATLANTIC			
New England-----	7.9	10.2	22.5	Delaware-----	9.5	11.4	16.7
Middle Atlantic-----	8.8	11.1	20.7	Maryland-----	9.2	12.2	24.6
East North Central-----	8.4	10.4	19.2	District of Columbia-----	9.9	12.5	20.8
West North Central-----	7.6	9.1	16.5	Virginia-----	9.2	12.3	25.2
South Atlantic-----	9.1	12.0	24.2	West Virginia-----	8.6	10.7	18.6
East South Central-----	8.9	11.6	23.3	North Carolina-----	8.7	11.3	23.0
West South Central-----	8.1	10.8	25.0	South Carolina-----	10.0	13.5	25.9
Mountain-----	8.2	10.7	23.4	Georgia-----	9.3	12.3	24.4
Pacific-----	7.9	10.2	22.5	Florida-----	8.4	11.6	27.6
NEW ENGLAND				EAST SOUTH CENTRAL			
Maine-----	8.0	10.2	21.6	Kentucky-----	8.5	10.8	21.3
New Hampshire-----	8.0	10.0	20.0	Tennessee-----	8.7	11.2	22.3
Vermont-----	7.9	10.4	24.0	Alabama-----	9.1	12.5	27.2
Massachusetts-----	7.8	10.3	24.3	Mississippi-----	9.5	12.4	23.4
Rhode Island-----	8.5	10.6	19.8	WEST SOUTH CENTRAL			
Connecticut-----	7.7	9.9	22.2	Arkansas-----	7.5	10.0	25.0
MIDDLE ATLANTIC				Louisiana-----	9.0	12.6	28.6
New York-----	8.7	10.9	20.2	Oklahoma-----	7.4	9.6	22.9
New Jersey-----	8.6	11.0	21.8	Texas-----	8.1	10.9	25.7
Pennsylvania-----	8.9	11.4	21.9	MOUNTAIN			
EAST NORTH CENTRAL				Montana-----	8.4	10.2	17.6
Ohio-----	8.2	10.5	21.9	Idaho-----	7.7	9.9	22.2
Indiana-----	8.3	10.4	20.2	Wyoming-----	8.2	9.9	17.2
Illinois-----	8.7	10.8	19.4	Colorado-----	7.6	10.1	24.8
Michigan-----	8.4	10.2	17.6	New Mexico-----	8.7	11.4	23.7
Wisconsin-----	7.8	9.2	15.2	Arizona-----	8.8	12.3	28.5
WEST NORTH CENTRAL				Utah-----	7.5	9.9	24.2
Minnesota-----	7.3	8.6	15.1	Nevada-----	9.5	12.8	25.8
Iowa-----	7.3	8.5	14.1	PACIFIC			
Missouri-----	8.2	10.1	18.8	Washington-----	7.8	10.0	22.0
North Dakota-----	7.5	8.6	12.8	Oregon-----	7.6	9.5	20.0
South Dakota-----	7.5	8.6	12.8	California-----	7.9	10.3	23.3
Nebraska-----	7.1	8.5	16.5				
Kansas-----	7.3	8.7	16.1				

The death rate is used as an index of the health conditions in any State. The health of the people in the State is the resultant of many factors, only two of which are the geographic location of the State and its health program. Some of the other factors—and perhaps more fundamental ones—are its economic status, occupation and industry distribution, degree of urbanization, and availability of medical services. All these factors have similar effects on mortality over a narrow age range. If the death rates for a State are relatively high or low at one age, they are likely to be in the same relative position in adjacent age groups. This is particularly true for States at the extreme ends of the rate distribution for a given age group. For example, the 8 lowest death rates for children 1-4 years of age are found in States that are included in the first quartile of the distribution of rates for each age group between 1 and 35 years. The converse statement is true for 5 of the 8 highest death rates among preschool children.

However, a pattern of correlation between rates by age among the States does not hold throughout the entire age range. Low death rates for the youngest ages are frequently found in States in which the death rates are relatively high at the older ages. Thus, 6 of the States in the first (lowest) quartile at ages 1-4 years are in the fourth quartile for ages 75-84

years; and 6 of the States in the fourth quartile at ages 1-4 years are in the first for ages 75-84.

These observations suggest that there may be groups of States for which the curves of mortality by age are very much alike. A detailed examination of the figures in table 8.42 shows that such a pattern seems to exist for 1950 in the States of the Middle Atlantic and the East North Central Divisions, and for most of those in the Southern and New England Divisions. It is evident for part of the age range in the States of the West North Central and the Mountain Divisions, but not for the States of the Pacific Division.

In most of the New England and all of the Middle Atlantic States, death rates for the age groups under 35 years are low, and rates for ages 55 years and over, relatively high. Except for Wisconsin, the rates for the East North Central States are close to the median for the entire country at every age. Rates for Wisconsin are below the median at every age under 65 years. In the Southern States as a whole, the rates are high in almost every age group under 65 years. At older ages, a particular fact stands out; 9 of the 13 States in the first (or lowest) quartile for rates at ages 75-84 years are in the South.

Rates by race.—For the white population, the patterns for the States in the New England, Middle Atlantic, and East North Central Divisions are approximately as described for



the total population, although they are somewhat less definite. The South, however, is an area of more heterogeneous mortality for whites than it appears to be for the entire population. While death rates in many of the Southern States are relatively high at ages under 35 years, there are numerous exceptions, even for these younger age groups. At older ages, relatively high death rates are evident chiefly in the States of the South Atlantic Division, whereas in the East South Central and West South Central States, death rates are generally near or below that for whites in the United States as a whole.

There is little correlation between the age-specific mortality rates for the white and nonwhite residents of each State. For example, for the age group 1-4 years, the rates are relatively high among the white population of West Virginia, Tennessee, and Texas; for the nonwhite, the rates are relatively low. Similar differences may be observed for other age groups, so that, in general, no inferences about the mortality for the nonwhite population can be made from the rates for the white population of a State.

Differences in mortality between the white and nonwhite populations of every State are considerable. At all ages under 75 years, the rates are higher for the nonwhite and show greater variation among States. In the discussion that follows, comparisons are made only for rates based on 20 or more deaths in the specified age-race category for the State. The contrast between the rates per 1,000 enumerated population in each State by race, and the range of the rates are shown below:

AGE AND RACE	Lowest rate	United States	Highest rate
1-4 years:			
White-----	0.9	1.2	2.1
Nonwhite-----	1.6	2.5	17.4
5-14 years:			
White-----	0.4	0.6	0.9
Nonwhite-----	0.6	0.9	2.2
15-24 years:			
White-----	0.6	1.1	2.1
Nonwhite-----	1.5	2.5	5.3
25-34 years:			
White-----	1.0	1.5	2.8
Nonwhite-----	2.6	4.4	7.5
35-44 years:			
White-----	2.4	3.1	4.4
Nonwhite-----	5.0	8.1	10.7
45-54 years:			
White-----	5.9	7.7	10.2
Nonwhite-----	10.5	17.1	23.4
55-64 years:			
White-----	14.0	18.0	20.7
Nonwhite-----	18.1	33.7	45.0
65-74 years:			
White-----	32.2	40.2	45.8
Nonwhite-----	34.3	46.0	67.9
75-84 years:			
White-----	78.5	94.2	105.4
Nonwhite-----	49.8	80.4	158.4
85 years and over:			
White-----	176.8	206.8	232.3
Nonwhite-----	79.0	144.7	210.0

Further examination of the age-specific rates, by State, for the nonwhite population shows almost no geographic pattern. Rates are not consistently high or low for any series of consecutive age groups. Areas of high or low mortality seem to be scattered at random throughout the country. The basic factors in mortality reflected in rates for nonwhites apparently are not a function of geographic distribution in units of States.

**Rates by sex.**—The correlation between the age-specific rates for males and females by State is high. The rates for males, however, are higher than those for females at every age. The deaths per 1,000 enumerated population and the

range of rates in each age group are shown below:

AGE AND SEX	Lowest rate	United States	Highest rate
Under 1 year:			
Male-----	27.2	37.3	66.5
Female-----	20.1	28.5	61.2
1-4 years:			
Male-----	1.0	1.5	3.1
Female-----	0.7	1.3	2.9
5-14 years:			
Male-----	0.5	0.7	1.2
Female-----	0.3	0.5	0.8
15-24 years:			
Male-----	0.8	1.7	2.7
Female-----	0.4	0.9	1.7
25-34 years:			
Male-----	1.2	2.2	4.1
Female-----	0.8	1.4	2.8
35-44 years:			
Male-----	3.0	4.3	7.0
Female-----	1.6	2.9	4.9
45-54 years:			
Male-----	7.4	10.7	16.5
Female-----	4.2	6.4	10.5
55-64 years:			
Male-----	17.8	24.1	33.9
Female-----	10.0	14.1	21.2
65-74 years:			
Male-----	38.6	49.0	60.5
Female-----	26.1	33.0	38.1
75-84 years:			
Male-----	86.5	104.3	118.8
Female-----	61.2	84.0	94.5
85 years and over:			
Male-----	174.7	216.4	267.9
Female-----	128.2	191.9	213.8

In general, relatively high rates for males and for females are found in the same States. The age groups showing the lowest correlation between the mortality rates for the sexes are 5-14 and 35-44 years, reflecting a wide variation in the ratios of death rates by sex at these ages. At age 35-44 years, the death rate for white males for the United States was 1.6 times that for white females. It was 1.5 in the Middle Atlantic Division and 1.9 in the South Atlantic Division; and for individual States, the range of the ratios was even greater.

**1950 and 1940.**—With almost no exceptions, the age-specific death rates for residents of every State were lower in 1950 than in 1940. The percentage decline varied, however, among the age groups and States. In every State, the greatest relative decrease occurred in rates for one of the age groups under 35 years, most frequently in the 1-4 year group. For the United States as a whole, the rate for this age group declined 52 percent between 1940 and 1950. The second largest decrease was shown in the rate at 25-34 years of age, reflecting the great decrease in mortality for women in these ages.

For the age groups under 55 years of age, the larger percent declines in rates have been recorded for States with the highest mortality in 1940. There does not appear to be a geographical differential in the decline in rates at older ages.

**Qualifications.**—The difference in completeness of registration of deaths may be a factor in the geographic differences in mortality rates by age and race. While no direct evidence of the completeness of death registration exists, it is thought to vary with age, race, and degree of urbanization. It seems likely that the same factors that produce incomplete registration of births would contribute to incomplete registration of deaths.<sup>12</sup>

<sup>12</sup>For details of the test of completeness of birth registration for 1950, see chapter 6.

Errors in age reported on the death certificate and in the enumerated population also disturb the analysis of age-specific mortality rates. These are discussed on page 161. In table 8.42, the effect of the errors is evident in the abrupt change of the level of rates for the nonwhite population between the ages of 55-64 and 65-74 years.

### Mortality by Age, Race, and Sex

#### Rates in 1950

The great variation in mortality with age, race, and sex is evident in data for 1950, shown in table 8.15. Mortality is lowest in childhood and highest at the two extremes of the life span. From a comparatively high level in early infancy, the death rate drops sharply and remains low during childhood. Thereafter, the death rate rises, slowly during the young adult years, and more rapidly during middle and older age.

At every age throughout the life span, males are subject to a higher mortality than females. The ratio of the death rates for the two sexes is higher for the white than for the nonwhite population. In 1950, the death rate for white males was 36 percent higher than the death rate for white females; while the corresponding difference between the death rates

Table 8.15. DEATH RATES BY AGE, RACE, AND SEX, AND RATIO OF DEATH RATES—MALE TO FEMALE: UNITED STATES, 1950

(Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

AGE AND RACE	RATE		Ratio of rates, male to female
	Male	Female	
ALL AGES <sup>1</sup> -----	11.1	8.2	1.34
White-----	10.9	8.0	1.36
Nonwhite--	12.5	9.9	1.26
Under 1 year-----	37.3	28.5	1.31
White-----	34.0	25.7	1.32
Nonwhite--	59.9	47.5	1.26
1-4 years-----	1.5	1.3	1.20
White-----	1.4	1.1	1.21
Nonwhite--	2.7	2.3	1.18
5-14 years-----	0.7	0.5	1.45
White-----	0.7	0.5	1.49
Nonwhite--	1.0	0.7	1.29
15-24 years-----	1.7	0.9	1.88
White-----	1.5	0.7	2.13
Nonwhite--	2.9	2.2	1.34
25-34 years-----	2.2	1.4	1.52
White-----	1.9	1.1	1.64
Nonwhite--	5.0	3.9	1.27
35-44 years-----	4.3	2.9	1.48
White-----	3.8	2.4	1.62
Nonwhite--	8.6	7.5	1.14
45-54 years-----	10.7	6.4	1.66
White-----	9.8	5.5	1.80
Nonwhite--	18.6	15.5	1.19
55-64 years-----	24.1	14.1	1.70
White-----	23.0	12.9	1.76
Nonwhite--	36.9	30.4	1.22
65-74 years-----	49.0	35.0	1.48
White-----	48.6	32.4	1.50
Nonwhite--	52.5	39.8	1.32
75-84 years-----	104.3	84.0	1.24
White-----	105.3	84.8	1.24
Nonwhite--	90.3	70.6	1.28
85 years and over-----	216.4	191.9	1.13
White-----	221.2	196.8	1.12
Nonwhite--	160.2	133.7	1.20

<sup>1</sup>Figures for age not stated included in the total, but not distributed among the specified age groups.

for the two sexes in the nonwhite population was 26 percent.

The death rates among nonwhite persons in 1950 exceeded the death rates for white persons in each of the age groups shown except those for age 75 years and over, and were more than twice as high as the rates for white persons in the range 15 to 54 years. The relative difference in the mortality of the two race groups is greater among females than among males.

#### Death rates by specified race

Table 8.16 gives death rates for the white, Negro, and other nonwhite races for 1940 and 1950. The recorded rates for 1950 range from 3.6 per 1,000 population for the "all other" nonwhite races to 13.0 per 1,000 for American Indians.

Table 8.16. DEATHS AND DEATH RATES BY SPECIFIED RACE AND SEX: UNITED STATES, 1940 AND 1950

(Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

SEX AND RACE	NUMBER		RATE	
	1950	1940	1950	1940
BOTH SEXES-----	1,452,454	1,417,269	9.6	10.8
White-----	1,276,085	1,231,223	9.5	10.4
Nonwhite-----	176,369	186,046	11.2	13.8
Negro-----	169,606	178,743	11.3	13.9
Indian <sup>1</sup> -----	4,440	4,791	13.0	14.3
Chinese-----	1,057	1,184	9.0	15.3
Japanese-----	865	656	6.1	6.7
All other <sup>1</sup> -----	401	472	3.6	9.4
MALE-----	827,749	791,003	11.1	12.0
White-----	731,366	690,901	10.9	11.6
Nonwhite-----	96,383	100,102	12.5	15.1
Negro-----	92,004	95,517	12.6	15.2
Indian <sup>1</sup> -----	2,497	2,527	14.0	14.7
Chinese-----	888	1,049	11.6	18.3
Japanese-----	658	633	6.6	8.8
All other <sup>1</sup> -----	336	376	4.6	8.7
FEMALE-----	624,705	626,266	8.2	9.5
White-----	544,719	540,322	8.0	9.2
Nonwhite-----	79,986	85,944	9.9	12.6
Negro-----	77,602	83,226	10.0	12.6
Indian <sup>1</sup> -----	1,945	2,264	11.8	13.9
Chinese-----	169	135	4.2	6.7
Japanese-----	207	223	3.2	4.1
All other <sup>1</sup> -----	65	96	1.7	13.3

<sup>1</sup>For discussion of special problems relating to deaths and death rates for "Indian" and "All other," see text.

Rates for Indians may be affected by differences in classification of race in the Census of Population and in the registration of births and deaths. In the 1950 census, the population enumerated as Indian numbered 342,226. The Bureau of Indian Affairs has estimated the 1950 population at 421,600 by adding the natural increase to the 1930 enumeration. The differences between the two figures arise, in part, in two ways. Indians living off the reservations may not be identified as Indians in the census. In several Southern States, people of mixed stock of Indian and other races who consider themselves Indian have been classified in the 1950 census as "other nonwhite." These groups contain about 32,000 people. There are also many other Indians living off the reservations, but not in an identifiable group, who may have been enumerated as white or Negro. Their number is difficult to estimate directly. It is believed that for these mixed stock and the other off-reservation Indians, births and deaths are registered as Indian.

Three death rates may be computed for Indians for 1950:

Based on the enumerated population-----	13.0 per 1,000
Based on the enumerated population plus the mixed stock-----	11.9 per 1,000
Based on the Bureau of Indian Affairs' estimate-----	10.5 per 1,000

The death rates for the all other nonwhite population are also affected by this difference in registration and census practice. If these mixed stock groups (32,000) are subtracted from the enumerated other nonwhite population (78,004), the 1950 death rate for the latter group becomes 5.1 per 1,000 rather than 3.6, as shown in table 8.16. Even the rate of 5.1 seems remarkably low, suggesting further inconsistencies in the reporting of race on the death certificate and in the census enumeration.

Death rates for 1940 are also shown in table 8.16. Since the mixed blood group was enumerated as Indian in 1940, the recorded decline in the death rate for Indians understates the actual change. Compared with a rate of 11.9 per 1,000 population for 1950, the decline since 1940 was 17 percent. Similarly, the decline for the all other nonwhite races becomes 46 rather than 62 percent.

Death rates by age for the same races are shown in table 8.17. The differences in classification of population and of deaths affect the age-specific rates as well as the crude rates. However, population data are not available in sufficient detail to compute the rates that would be observed when the mixed stock group was added to the Indian. It is evident that the specific rates must be overstated for Indians and understated for all other nonwhites, but, even with this limitation, age-

specific rates for Indians under 45 years of age are considerably higher than those in any other race group.

### Death rates including armed forces overseas

The normal pattern of mortality by age was considerably disturbed during the years of World War II. Table 8.18 gives age-specific rates for 1941 through 1950 based on the total deaths of males during those years, both in the United States and overseas, and the total population including the armed forces overseas. The death rate increased for all age groups between 15 and 39 years. The excess mortality was greatest for the age group 20-24. For that age group, the highest rate during the years of World War II occurred in 1944, when the figure, including deaths overseas (12.2) was three times the death rate for the continental United States. The rate for the age group 25-29 years, shown in table 8.18, was also at its highest in 1944, when it was more than twice the rate excluding the overseas population. For ages 15-19 and 30-34, the rates were about 1.5 times the comparable continental rate in that year. A smaller increase is shown for ages 35-39, and practically none at older ages.

### Trend since 1900

The trend in mortality by age, race, and sex is shown in table 8.40. The table gives death rates for the expanding area of death-registration States from 1900 through 1950. In this period, the death rate has declined at every age, the greatest relative decrease having occurred in the death rates for the younger ages, and the smallest in the rates for the older ages. Since 1900, the death rate for children 1-4 years of age has decreased 93 percent; while the rate for persons in the age group 75-84 has declined only 24 percent, and that for persons 85 years and over, 23 percent (table 8.19).<sup>13</sup>

Table 8.40 also shows that annual fluctuations in mortality are frequently concurrent for many age groups, indicating that current mortality conditions may act with general force on the population. Thus, the influenza pandemic of 1918 caused a rise in mortality at all ages under 55 years. Similarly, the year 1946 marked a low point in the death rates for persons 45 years and over. An age group in each year, however, includes a group of people with a different mortality experience. Each new generation has, almost without exception in the past 50 years, begun life with a lower death rate, and, as it has grown older, has been subject to a death rate at every age lower than that for the preceding generation.

It may be seen from table 8.40 that death rates dropped rapidly for every age group in the early part of the century. The decline was interrupted by the influenza pandemic of 1918, when the death rate rose to the highest on record at ages 5 to 55 years. For older persons, there was no increase in rates in this year. In 1921, death rates fell for every age, and the downward trend was resumed at a new level. Rates continued to decline steadily through the next three decades for persons under 25 years of age. At older ages, the decline was not resumed until the 1930's. In general, the trend was accelerated during the 1940's, and by 1946, the death rates for all age groups of the population were the lowest on record up to that time. Since 1946, the death rates for the age groups under

Table 8.17. DEATH RATES BY SPECIFIED RACE, AGE, AND SEX: UNITED STATES, 1950

(Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

SEX AND RACE	Total <sup>1</sup>	Under 5 years	5-14 years	15-24 years	25-44 years	45-64 years	65 and over
<b>BOTH SEXES---</b>	9.6	7.5	0.5	1.3	2.6	13.1	62.3
White-----	9.5	6.8	0.6	1.1	2.2	12.2	62.6
Nonwhite-----	11.2	13.0	0.9	2.5	6.1	23.2	58.8
Negro-----	11.3	12.8	0.8	2.5	6.2	23.6	58.9
Indian <sup>2</sup> -----	13.0	27.9	1.8	4.9	8.0	16.6	64.8
Chinese-----	9.0	8.6	0.7	1.4	3.1	18.0	64.2
Japanese-----	6.1	5.2	0.4	0.5	1.3	10.6	41.3
All other <sup>2</sup> -----	3.6	4.3	0.3	0.8	2.2	8.3	25.4
<b>MALE-----</b>	11.1	8.5	0.7	1.7	3.2	16.5	70.2
White-----	10.9	7.7	0.7	1.5	2.8	15.7	70.5
Nonwhite-----	12.5	14.4	1.0	2.9	6.7	25.4	65.9
Negro-----	12.6	14.1	1.0	2.9	6.8	26.0	66.3
Indian <sup>2</sup> -----	14.0	30.4	1.9	4.9	8.3	18.3	70.0
Chinese-----	11.6	8.7	0.9	1.5	3.5	19.9	68.7
Japanese-----	8.6	6.0	0.5	0.5	1.5	13.3	46.5
All other <sup>2</sup> -----	4.6	4.8	0.2	1.1	2.5	8.9	33.9
<b>FEMALE-----</b>	8.2	6.6	0.5	0.9	2.1	9.8	55.3
White-----	8.0	5.9	0.5	0.7	1.7	8.7	55.5
Nonwhite-----	9.9	11.6	0.7	2.2	5.6	20.9	52.0
Negro-----	10.0	11.4	0.7	2.1	5.6	21.2	52.1
Indian <sup>2</sup> -----	11.8	25.3	1.7	4.9	7.6	14.6	59.0
Chinese-----	4.2	8.4	0.5	1.2	2.2	9.2	37.9
Japanese-----	3.2	4.3	0.3	0.6	1.1	7.6	22.1
All other <sup>2</sup> -----	1.7	3.8	0.3	0.5	1.4	4.5	5.4

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

<sup>2</sup>For discussion of special problems relating to death rates for "Indian" and "All other," see text.

<sup>13</sup>Death rates for 85 years and over require careful interpretation because of problems in the reporting of age on the death certificate and in the enumerated population, and also because it is an open-end age class. More detailed data from countries with a longer and possibly more accurate series of mortality records indicate that there may be no change in the last 50 years in mortality rates within this group. See Vincent, Paul, "La Mortalité Des Vieillards," Population, 6<sup>e</sup> année, numero 2, Avril-Juin, 1951.

Table 8.18. DEATHS INCLUDING THOSE AMONG THE ARMED FORCES OVERSEAS, AND DEATH RATES FOR MALES, BY AGE AND RACE: UNITED STATES, 1941-50

(Rates per 1,000 population in each specified group, including armed forces overseas)

RACE AND YEAR	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59 <sup>1</sup>
	years	years	years	years	years	years	years	years	years
	NUMBER								
ALL RACES									
1950-----	10,253	16,129	13,464	14,297	18,871	27,067	38,114	54,299	72,169
1949-----	7,938	11,564	12,141	13,472	19,320	27,090	38,953	54,453	72,048
1948-----	8,302	12,686	12,756	14,303	19,739	27,983	39,207	56,853	72,622
1947-----	9,051	13,340	13,342	14,848	20,125	28,272	39,564	57,132	72,516
1946-----	10,147	15,285	14,146	15,904	20,638	27,614	39,275	55,888	69,335
1945-----	19,348	64,588	43,459	27,604	25,443	29,850	40,786	56,684	70,941
1944-----	20,309	69,588	43,793	27,447	25,224	28,646	40,468	56,587	69,584
1943-----	14,108	35,484	26,480	20,483	23,513	30,354	42,009	58,300	70,221
1942-----	12,731	26,375	21,609	20,043	23,926	30,754	42,621	56,858	67,562
1941-----	12,307	17,179	16,971	18,664	23,046	30,618	42,530	56,030	66,459
WHITE									
1950-----	8,814	13,589	10,685	11,124	14,900	21,896	31,607	45,598	63,056
1949-----	6,442	9,219	9,351	10,405	15,182	21,879	31,865	46,002	63,195
1948-----	6,761	10,094	9,760	11,109	15,399	22,427	32,100	47,932	63,675
1947-----	7,327	10,476	10,304	11,591	15,903	22,880	32,620	48,394	64,078
1946-----	8,375	12,251	10,935	12,322	16,157	22,287	32,313	47,560	61,289
1945-----	17,289	60,852	39,586	23,556	20,713	23,996	33,701	48,252	62,840
1944-----	18,032	66,007	40,256	23,466	20,635	23,509	33,420	47,937	61,561
1943-----	11,405	31,271	22,539	16,297	18,571	24,144	34,726	49,624	62,066
1942-----	10,393	22,522	17,565	15,480	18,599	24,383	35,054	48,331	59,769
1941-----	9,853	13,471	12,787	14,034	17,753	24,042	34,894	47,463	58,608
NONWHITE									
1950-----	1,439	2,540	2,779	3,173	3,971	5,171	6,507	8,701	9,113
1949-----	1,496	2,345	2,790	3,067	4,138	5,211	7,088	8,451	8,853
1948-----	1,541	2,592	2,976	3,194	4,340	5,556	7,107	8,921	8,947
1947-----	1,724	2,864	3,038	3,257	4,222	5,392	6,944	8,738	8,438
1946-----	1,772	3,034	3,211	3,582	4,481	5,327	6,962	8,328	8,066
1945-----	2,079	3,936	3,873	4,048	4,730	5,854	7,085	8,452	8,101
1944-----	2,277	3,581	3,537	3,981	4,589	6,137	7,048	8,650	8,023
1943-----	2,703	4,213	3,941	4,186	4,942	6,210	7,282	8,678	8,155
1942-----	2,338	3,853	4,044	4,563	5,327	6,371	7,567	8,507	7,793
1941-----	2,454	3,708	4,184	4,630	5,293	6,576	7,636	8,567	7,851
	RATE								
ALL RACES									
1950-----	1.9	2.8	2.2	2.5	3.4	5.3	8.4	13.1	19.9
1949-----	1.5	2.0	2.0	2.4	3.5	5.4	8.7	13.3	20.2
1948-----	1.5	2.2	2.2	2.6	3.7	5.7	8.8	14.1	20.8
1947-----	1.6	2.3	2.3	2.7	3.8	5.8	9.0	14.3	21.2
1946-----	1.8	2.7	2.5	3.0	4.0	5.8	9.0	14.2	20.7
1945-----	3.4	11.3	7.6	5.2	5.0	6.3	9.4	14.5	21.5
1944-----	3.5	12.2	7.7	5.2	5.0	6.4	9.4	14.6	21.4
1943-----	2.4	6.2	4.7	3.9	4.7	6.6	9.8	15.1	22.0
1942-----	2.1	4.6	3.9	3.9	4.9	6.8	10.0	14.9	21.6
1941-----	2.0	3.0	3.1	3.6	4.8	6.8	10.0	14.8	21.6
WHITE									
1950-----	1.9	2.6	2.0	2.2	3.0	4.8	7.7	12.1	18.8
1949-----	1.3	1.8	1.7	2.0	3.1	4.8	7.9	12.4	19.2
1948-----	1.4	2.0	1.8	2.2	3.2	5.0	8.0	13.0	19.7
1947-----	1.5	2.1	2.0	2.4	3.4	5.2	8.2	13.3	20.3
1946-----	1.7	2.4	2.1	2.5	3.5	5.2	8.2	13.3	19.8
1945-----	3.4	11.9	7.7	4.9	4.5	5.6	8.6	13.5	20.7
1944-----	3.5	12.9	7.9	4.9	4.6	5.6	8.5	13.5	20.5
1943-----	2.2	6.1	4.5	3.4	4.2	5.8	8.9	14.1	21.0
1942-----	2.0	4.4	3.5	3.3	4.2	5.9	9.1	13.8	20.6
1941-----	1.8	2.6	2.6	3.0	4.1	5.9	9.0	13.7	20.6
NONWHITE									
1950-----	2.3	4.1	4.4	5.8	7.0	10.4	14.6	23.3	32.7
1949-----	2.3	3.8	4.5	5.6	7.4	10.5	16.0	22.9	32.1
1948-----	2.4	4.2	4.8	5.9	7.8	11.4	16.3	24.6	33.0
1947-----	2.7	4.7	4.9	6.0	7.7	11.2	16.2	24.5	31.7
1946-----	2.7	5.0	5.3	6.7	8.2	11.2	16.5	23.7	30.9
1945-----	3.2	6.4	6.4	7.6	8.8	12.4	17.0	24.5	31.5
1944-----	3.5	5.9	5.9	7.6	8.7	13.3	17.4	25.8	32.2
1943-----	4.1	7.1	6.7	8.1	9.6	13.8	18.5	26.6	33.8
1942-----	3.6	6.6	7.1	9.0	10.5	14.5	19.8	26.9	33.5
1941-----	3.7	6.4	7.4	9.2	10.6	15.2	20.3	27.6	34.4

<sup>1</sup>Includes deaths among armed forces overseas at age 60 years and over. Rates based on population 55-59 years of age.

## NOTES:

Excludes deaths among armed forces overseas for which age and race were not stated as follows: 1941, 118; 1942, 2,083; 1943, 2,396; 1944, 48,793; 1945, 2,512; 1946, 3,323; 1947, 8; 1949, 4; 1950, 132. Also, excludes 5,663 deaths of Merchant Marine personnel between December 1941 and September 1945.

For 1941-49, rates based on population estimated as of July 1; for 1950, based on population enumerated as of April 1, plus estimates of armed forces overseas.

55 years have fallen even more rapidly; while at ages 65 years and over, the rates have been almost level.

Figure 8.C shows the trends in death rates from 1900 to 1950 by age for the four race-sex groups. It is evident that even though the four sets of trend lines follow the same general pattern, there are conspicuous differences between them.

In general, at ages under 15 years, death rates have been reduced more rapidly for nonwhite children than for white. At the beginning of the century, the rate for nonwhites at ages 1-4 was 2.2 times that for whites, and by 1950, it was 2.0 times as high. Similarly, at ages 5-14, the rate for nonwhites was 2.4 times that for whites in 1900, and 1.5 in 1950. During the same period, the death rates for females of these age groups dropped a little more rapidly than those for males.

For the age groups between 15 and 44 years, death rates did not, on the whole, fall so rapidly for nonwhites as for whites in the period from 1900 to 1935. A change in the trend occurred between 1935 and 1940. In the last decade, the gap between the rates for the two groups has been narrowed, but the rates for nonwhites are still between two and three times those for whites.

Table 8.19. DEATH RATES BY AGE AND SEX: DEATH-REGISTRATION STATES, 1900 AND 1950, WITH PERCENT DECREASES

(Exclusive of fetal deaths. Rates per 1,000 population in each specified group, estimated as of July 1 for 1900, and enumerated as of April 1 for 1950)

SEX AND AGE	1950 <sup>1</sup>	1900	Percent decrease
<b>BOTH SEXES</b>			
All ages <sup>2</sup> -----	9.6	17.2	44.2
Under 1 year-----	33.0	162.4	79.7
1-4 years-----	1.4	19.8	92.9
5-14 years-----	0.6	3.9	84.6
15-24 years-----	1.3	5.9	78.0
25-34 years-----	1.8	8.2	78.0
35-44 years-----	3.6	10.2	64.7
45-54 years-----	9.5	15.0	43.3
55-64 years-----	19.1	27.2	29.8
65-74 years-----	40.7	56.4	27.8
75-84 years-----	93.3	123.3	24.3
85 years and over-----	202.0	260.9	22.6
<b>MALE</b>			
All ages <sup>2</sup> -----	11.1	17.9	38.0
Under 1 year-----	37.3	179.1	79.2
1-4 years-----	1.5	20.5	92.7
5-14 years-----	0.7	3.8	81.6
15-24 years-----	1.7	5.9	71.2
25-34 years-----	2.2	8.2	73.2
35-44 years-----	4.3	10.7	59.8
45-54 years-----	10.7	15.7	31.8
55-64 years-----	24.1	28.7	16.0
65-74 years-----	49.0	59.3	17.4
75-84 years-----	104.3	128.3	18.7
85 years and over-----	216.4	268.8	19.5
<b>FEMALE</b>			
All ages <sup>2</sup> -----	8.2	16.5	50.3
Under 1 year-----	28.5	145.4	80.4
1-4 years-----	1.3	19.1	93.2
5-14 years-----	0.5	3.9	87.2
15-24 years-----	0.9	5.8	84.5
25-34 years-----	1.4	8.2	82.9
35-44 years-----	2.9	9.8	70.4
45-54 years-----	6.4	14.2	54.9
55-64 years-----	14.1	25.8	45.3
65-74 years-----	33.0	53.6	38.4
75-84 years-----	84.0	118.8	29.3
85 years and over-----	192.0	255.2	24.8

<sup>1</sup>Exclusive of deaths among armed forces overseas. Rates based on population excluding armed forces overseas.

<sup>2</sup>Figures for age not stated included in the total, but not distributed among the specified age groups.

The differences in death rates for men and women in the age groups between 15 and 44 years have increased between 1900 and 1950, with the most rapid change concentrated in the last decade. While the excess mortality of males over females is greater for whites than for nonwhites, the trend for both race groups seems to be towards greater differences in the sex-specific rates.

The sharp downward trend in mortality rates seen for the age groups under 45 years is no longer evident beyond this age. The average decline in rate from 1900 to 1950 is less than 1 percent per year for the age group 45 to 54, and it is even smaller at older ages.

A large part of the decline in the death rates at ages 45 and over has been enjoyed by white females. In each age group shown in figure 8.C, there has been a continuous, although irregular, fall in death rates for white females since 1900. For nonwhite females, a fairly regular fall in rates was not observed until 1930. The downward trend continued until 1946; by 1950, the rate for the age group 45-54 was lower than the figure for 1946, but at older ages, the rates had increased.

For the white males at these ages, the downward trend of the period 1900 to 1915 was not resumed until 1940. Most of the decline in the last decade occurred before 1946. The 1940-50 decade has also been the only one in this century in which a conspicuous decline was observed for nonwhite males at these ages. The fall in rates has been continuous for the 45-54 age group, but the rate for older ages reached a minimum in 1946, and has risen slightly since then.

Qualifications

Analysis of age-specific trends in death rates is limited to a certain extent by deficiencies in the data. Some deaths are not recorded; the population may not be completely enumerated.<sup>14</sup> Of more serious consequences are the errors in reporting age on the death certificate and in the enumeration of the population. It is difficult to measure these deficiencies directly, but if the data are examined for logical consistency, certain lapses are evident.

The distribution of deaths in 1950 in the white population by age forms a fairly regular curve which increases steadily from 15 years of age until it reaches a peak at 70-74 years for males and at 75-79 years for females. For the nonwhite population, the curve is relatively flat between the ages of 50 and 69 years, suggesting that age may not be correctly reported on the death certificate.

The profile of the population enumerated for the nonwhites also shows some unexpected features. For example, the number of nonwhite females enumerated at ages 65-69 is greater than the number at 60-64. The errors in the enumeration do not seem to be of the same magnitude as the errors in age on the death certificate. The death rates for 1950 based on the enumerated population (per 1,000) at ages 60 years and over are:

AGE	Total	White male	White female	Non-white male	Non-white female
60-64 years-----	23.3	28.1	16.2	42.7	35.7
65-69 years-----	33.3	40.7	25.2	46.2	33.5
70-74 years-----	51.5	60.4	42.6	63.7	51.6
75-79 years-----	78.9	90.1	69.9	82.9	64.8
80-84 years-----	120.9	135.2	112.5	106.0	81.7
85 years and over-----	202.0	221.2	196.8	160.2	133.7

These figures exhibit an expected regularity for the white population. For the nonwhite, they are marked by an apparent understatement of the death rate at all ages above 65 years.

<sup>14</sup>U. S. Bureau of the Census, *op. cit.*, p. 36.

FIGURE 8.C

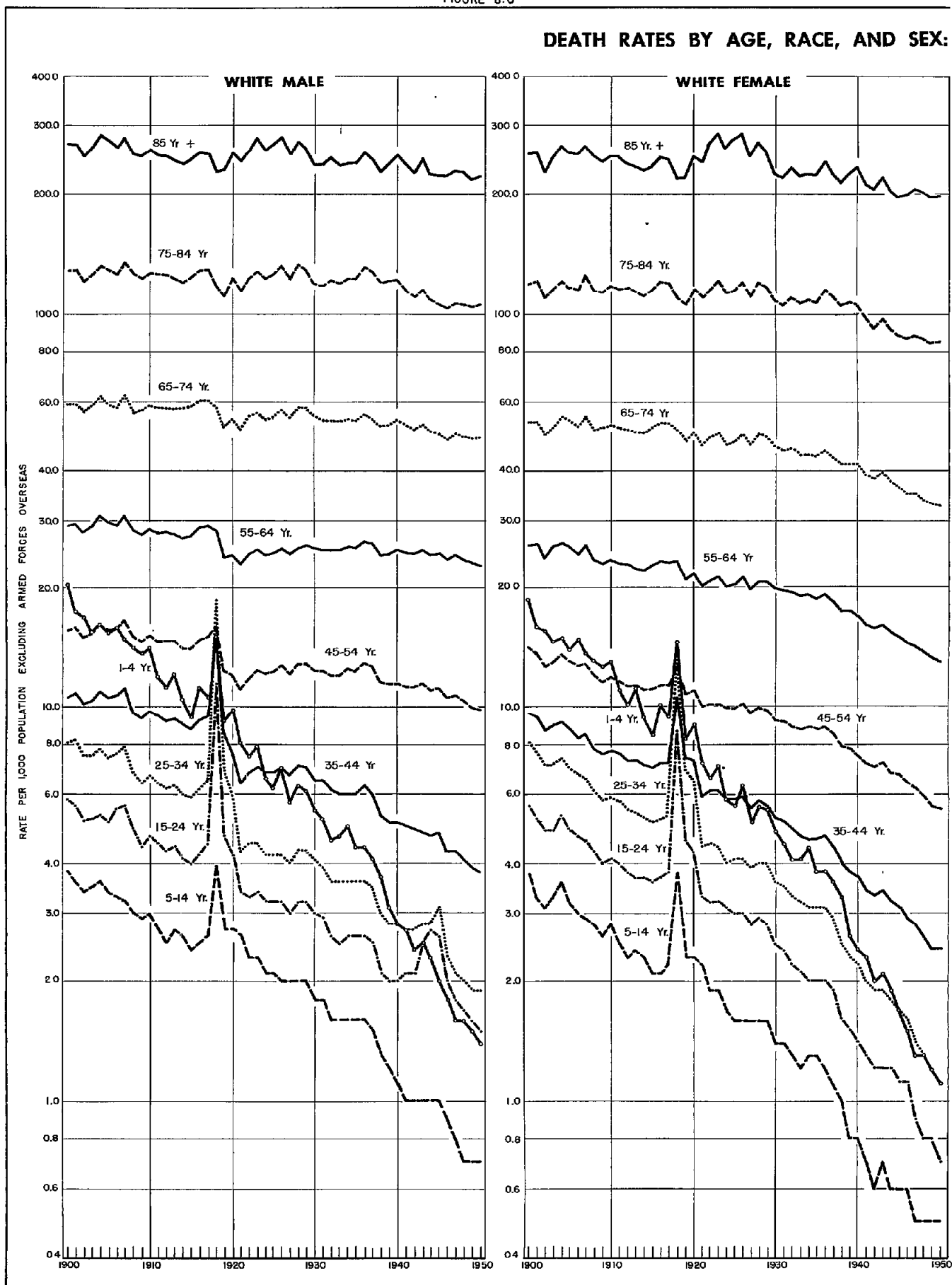
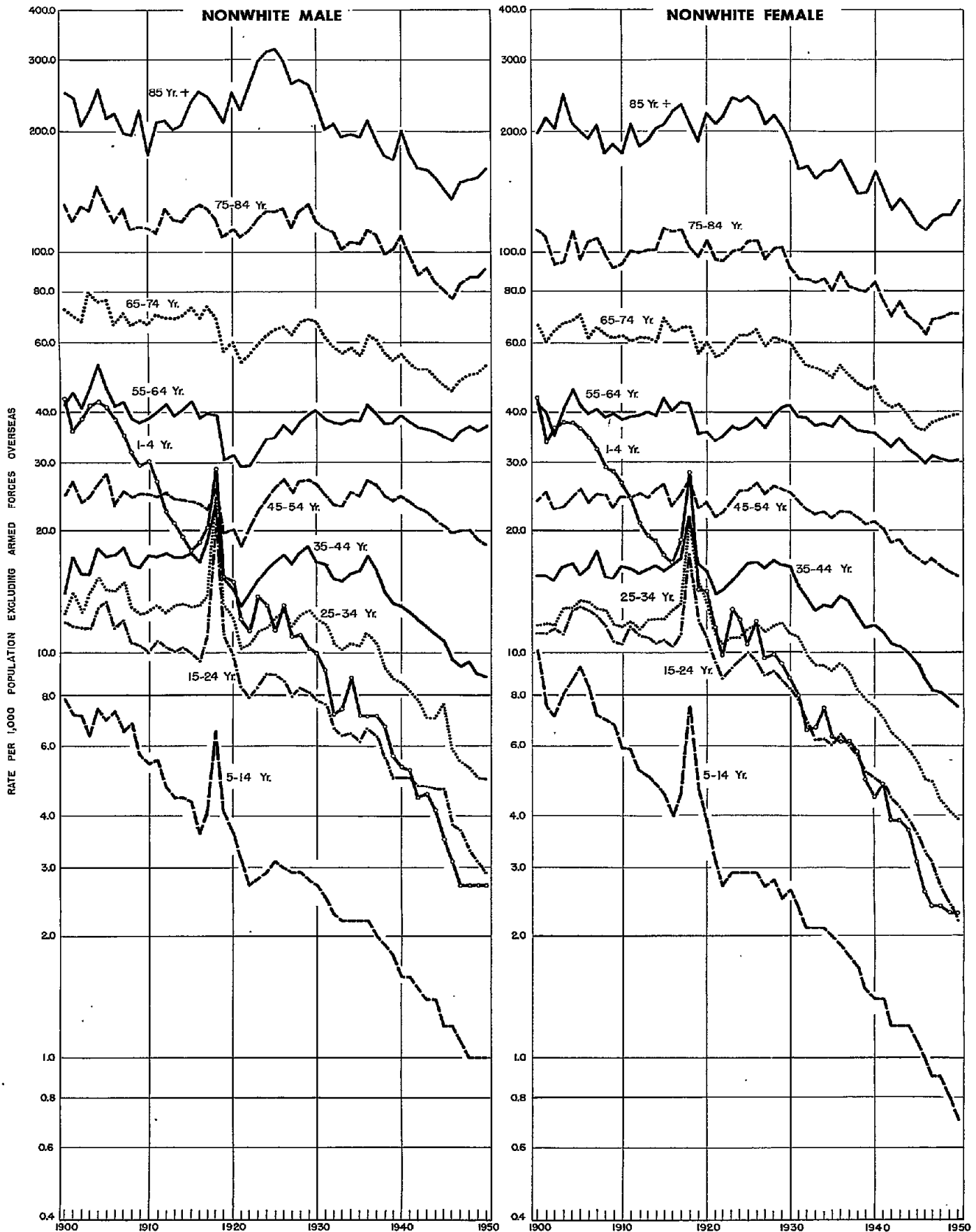


FIGURE 8.C

DEATH-REGISTRATION STATES, 1900-1950



The 1940 Census of Population and mortality figures showed similar irregularities. At that time, an adjustment was made in the estimate of the nonwhite population between the ages of 55 and 74. The results of the 1950 census and the Post-Enumeration Survey<sup>15</sup> did not bear out the validity of this adjustment. Death rates by age, race, and sex for 1941 to 1949 published in previous reports of this Office were based on population estimates<sup>16</sup> for each year that were projections from the 1940 census, and contained the adjustment in the nonwhite population at ages 55-74. Following the 1950 census, estimates were recomputed based on a linear interpolation between the 1940 and 1950 enumerated populations. Rates by age published in this volume are based on this intercensal series,<sup>17</sup> and consequently are not comparable with figures published in previous years. The greatest effect of the new estimates is seen in the rates for the nonwhite population at ages 55 years and over. For example, death

rates per 1,000 population for 1949 based on both series are:

AGE	WHITE		NONWHITE	
	Based on "old" estimates	Based on revised estimates	Based on "old" estimates	Based on revised estimates
Under 1 years-----	30.7	32.2	60.5	55.8
1-4 years-----	1.4	1.4	2.4	2.5
5-9 years-----	0.6	0.6	0.8	0.9
10-14 years-----	0.6	0.6	0.8	0.9
15-19 years-----	1.0	1.0	2.0	2.1
20-24 years-----	1.3	1.3	3.2	3.3
25-29 years-----	1.4	1.4	4.0	4.0
30-34 years-----	1.7	1.7	5.0	5.1
35-39 years-----	2.6	2.5	7.3	6.8
40-44 years-----	3.9	3.9	10.7	10.1
45-49 years-----	6.1	6.2	14.8	15.0
50-54 years-----	9.6	9.6	21.5	20.8
55-59 years-----	14.4	14.9	27.8	29.3
60-64 years-----	22.2	22.5	36.7	38.1
65-69 years-----	35.1	32.6	53.8	38.6
70-74 years-----	53.0	51.2	61.1	55.4
75-79 years-----	80.5	80.0	72.0	71.4
80-84 years-----	127.2	119.2	78.7	91.8
85 years and over-----	263.3	204.9	99.6	135.4

<sup>15</sup>U. S. Bureau of the Census, *op. cit.*, p. 7.

<sup>16</sup>U. S. Bureau of the Census, 'Current Population Reports, Population Estimates,' Series P-25, No. 39, 1950.

<sup>17</sup>See chapter 2, table 2.21.

## INFANT MORTALITY

### Rates in 1950

In 1950, 103,825 infants out of the 3,554,149 registered live births in the United States died before their first birthday. These figures give an infant mortality rate of 29.2 deaths under 1 year per 1,000 live births, the lowest rate recorded since the formation of the birth-registration area. The rate for white infants was 26.8 per 1,000 live births; while for nonwhite infants, it was 44.5. Both figures are lower than the same rates for 1949, which were 28.9 and 47.3.

**Adjusted rates.**—The infant mortality rates given in table 8.49 have been computed by the conventional method in which the infant deaths occurring in a specified period are related to the number of live births occurring during the same period. Rates computed in this way are influenced by changes in the number of births and will not be comparable if the birth rate is fluctuating widely. Deaths under 1 year of age occurring during any calendar year are deaths not only of infants born during that year but also of infants born during parts of the previous year. Therefore, if the birth rate is declining rapidly, the infant mortality rate will be too high because deaths for some of the births of the last year are related to a lesser number of births this year. Conversely, if the birth rate is increasing, the infant mortality rate will be too low.

An approximate correction for this error can be made by allocating the deaths of infants occurring during a given year to the year in which the infants were born and computing the rate in two parts. The deaths of infants born during a given year are related to the number of births for the same year, and the deaths of those born during the previous year are related to the births of that year. The two ratios are then added to obtain the annual rate. The annual rates shown in table 8.20 have been adjusted by the method described, and may be compared with the unadjusted figures in table 8.49. As may be seen, the errors introduced into the annual rates by changes in the numbers of births are comparatively small and are not sufficient to invalidate the use of unadjusted rates for such purposes as describing the long-term trend of infant mortality. But, they may be of significance in the interpretation of changes in mortality risk from one year to the next.

Table 8.20. INFANT MORTALITY RATES BY MONTH: UNITED STATES, 1945-50

(Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births, adjusted for changing numbers of births and length of month)

MONTH	1950	1949	1948	1947	1946	1945
TOTAL-----	29.2	31.4	31.8	32.8	34.6	38.1
January-----	30.1	34.8	36.2	36.7	39.7	41.3
February-----	29.6	33.7	34.8	35.1	39.5	43.1
March-----	31.1	32.1	32.2	34.7	36.7	39.8
April-----	30.9	30.6	31.7	32.8	37.0	38.9
May-----	29.8	30.7	32.7	31.3	38.1	36.2
June-----	29.1	30.1	32.2	29.9	36.5	36.5
July-----	27.0	30.9	29.7	29.1	33.5	34.4
August-----	26.8	30.9	30.2	29.9	32.4	37.1
September-----	27.1	29.3	26.7	29.3	31.2	37.2
October-----	27.7	29.8	31.0	29.6	32.1	35.9
November-----	29.6	30.7	31.1	31.4	32.7	36.4
December-----	31.2	31.7	32.7	34.3	35.4	41.1

NOTE.—Annual rate adjusted by allocation of infant deaths to year of birth. Monthly rates adjusted by the Registrar-General's method, published in the "Eighty-third Annual Report of the Registrar-General for England and Wales, 1920," H. M. Stationery Office, London, 1922.

### Rates by month

Monthly infant mortality rates computed by conventional methods are likewise influenced by changes in the number of births. Seasonal changes alone are sufficient to introduce considerable bias into the monthly rates, and serious distortions may be caused by a secular change such as the post-war rise in the birth rate. Approximate correction for this error can be made by allocating the infant deaths occurring during a given month to the month in which the infants were born and relating them to the births for that month. The monthly rates shown in table 8.20 have been adjusted by such a method.

These figures show that, for 1950, the rate for every month except April fell below that for the same month in the previous year. The seasonal variation in infant mortality has been similar to that of the mortality rate for all ages,



characterized by comparatively high rates in the winter months and by low rates in the summer months. Infant mortality, however, is much more sensitive to minor outbreaks of influenza and pneumonia, and of diarrhea than the general mortality rate. The monthly rates for 1950 reflect the rise in incidence of the respiratory infections in March. The lack of a summer peak, which is frequently seen in infant mortality rates, is a result of the low mortality from diarrhea in this year.

### Rates by age, race, and sex in 1950

In recent years, infant mortality has become increasingly a problem of mortality in the first 4 weeks of life. More than two-thirds of the deaths in the first year of life now occur at ages under 28 days. In the neonatal period (under 28 days), the first day of life is the day of greatest risk. One-half of the babies dying under 28 days died in their first day of life. Many of these infants were born prematurely. Data on the experience of the child born prematurely, or born weighing 2,500 grams or less, have been discussed in a previous chapter.<sup>18</sup>

The detailed distribution of infant mortality by age, race, and sex in 1950 is shown in table 8.21. Mortality among nonwhite infants is much higher than that among white infants, the relative differences being greater after the first few days of life than in the period immediately following birth. The infant mortality rate for all nonwhite infants under 1 year was 44.5 per 1,000 live births, as compared with 26.8 for white infants. Infant mortality among males is also considerably higher than that among females. In 1950, the mortality rate for males under 1 year was 32.8 per 1,000 live births, while the rate for female infants was 25.5. The excess in infant mortality for males is relatively greater in the first few months of life than in later infancy.

### Trend of the infant mortality rate

The infant mortality rate for the entire United States is known only since the year 1933. The birth-registration area, formed in 1915, expanded rapidly from 10 States and the District of Columbia to include the entire United States in 1933. Thus, infant mortality rates based on deaths under 1 year per 1,000 live births may be computed beginning with 1915. For 1900 to 1915, deaths under 1 year and the population estimated in that age group are available, and death rates may be computed which are not exactly comparable with the infant mortality rates based on live births, but they do serve to indicate the general trend of mortality. Rates for the death-registration States, and data from the few States which kept careful records in the years before 1900 show that the long-term decline in infant mortality started in the latter part of the 19th century.

The sanitary revolution that began in that period affected the survival of the entire population, but especially that of infants and children. Between 1915, the first year for which a comparable rate is available, and 1950, infant mortality declined 71 percent. For the age groups 1-4 and 5-14, reductions of 85 and 74 percent, respectively, were recorded in this same period; and they are the only age groups for which the improvements in mortality were greater than for infants.

Figure 8.D shows that while there has been no major interruption in the trend of infant mortality from 1915 to 1950, the rate of decline has not been uniform. It is of particular interest that the rapid fall in rates begun in 1938 has

Table 8.21. INFANT MORTALITY RATES BY DETAILED AGE, RACE, AND SEX: UNITED STATES, 1950

(Exclusive of fetal deaths. Rates per 1,000 live births in each specified group)

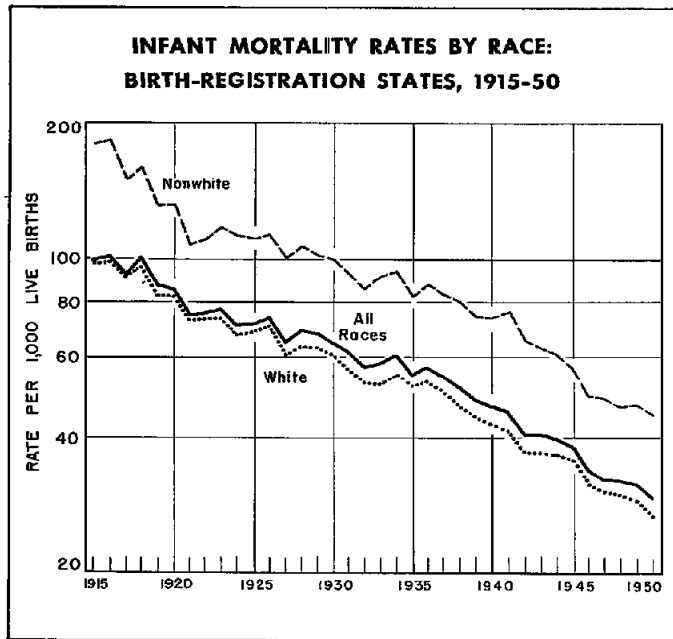
SEX AND AGE	All races	White	Nonwhite
<b>BOTH SEXES</b> -----	29.2	26.8	44.5
Under 1 day-----	10.2	9.7	13.0
1 day-----	3.1	3.0	3.7
2 days-----	2.0	2.0	2.3
3 days-----	1.1	1.0	1.4
4 days-----	0.6	0.6	0.9
5 days-----	0.5	0.4	0.8
6 days-----	0.4	0.3	0.7
7-13 days-----	1.3	1.2	2.4
14-20 days-----	0.7	0.6	1.4
21-27 days-----	0.6	0.5	1.0
Under 28 days-----	20.5	19.4	27.5
28-59 days-----	1.8	1.6	3.6
2 months-----	1.4	1.2	2.7
3 months-----	1.2	1.0	2.2
4 months-----	0.9	0.8	1.8
5 months-----	0.7	0.6	1.5
6 months-----	0.6	0.5	1.3
7 months-----	0.6	0.5	1.1
8 months-----	0.5	0.4	0.9
9 months-----	0.4	0.3	0.8
10 months-----	0.3	0.3	0.6
11 months-----	0.3	0.3	0.6
<b>MALE</b> -----	32.8	30.2	48.9
Under 1 day-----	11.5	11.0	14.7
1 day-----	3.6	3.5	4.2
2 days-----	2.4	2.4	2.7
3 days-----	1.3	1.2	1.5
4 days-----	0.7	0.7	0.9
5 days-----	0.5	0.5	0.9
6 days-----	0.4	0.4	0.7
7-13 days-----	1.5	1.3	2.6
14-20 days-----	0.8	0.7	1.5
21-27 days-----	0.6	0.6	1.1
Under 28 days-----	23.3	22.2	30.8
28-59 days-----	2.1	1.7	4.0
2 months-----	1.5	1.3	2.8
3 months-----	1.3	1.1	2.4
4 months-----	1.0	0.8	1.8
5 months-----	0.8	0.7	1.6
6 months-----	0.7	0.6	1.4
7 months-----	0.6	0.5	1.2
8 months-----	0.5	0.4	0.9
9 months-----	0.4	0.4	0.8
10 months-----	0.3	0.3	0.6
11 months-----	0.3	0.3	0.6
<b>FEMALE</b> -----	25.5	23.1	39.9
Under 1 day-----	8.8	8.3	11.2
1 day-----	2.6	2.5	3.2
2 days-----	1.6	1.6	1.9
3 days-----	0.9	0.8	1.3
4 days-----	0.5	0.5	0.8
5 days-----	0.4	0.4	0.8
6 days-----	0.3	0.3	0.6
7-13 days-----	1.2	1.0	2.2
14-20 days-----	0.7	0.6	1.2
21-27 days-----	0.5	0.4	0.9
Under 28 days-----	17.5	16.4	24.2
28-59 days-----	1.6	1.3	3.1
2 months-----	1.2	1.0	2.6
3 months-----	1.0	0.9	2.0
4 months-----	0.9	0.7	1.7
5 months-----	0.7	0.6	1.4
6 months-----	0.6	0.5	1.3
7 months-----	0.5	0.4	1.0
8 months-----	0.4	0.4	0.9
9 months-----	0.4	0.3	0.7
10 months-----	0.3	0.3	0.6
11 months-----	0.3	0.2	0.5

<sup>18</sup>See natality statistics, chapter 6.

slowed down in recent years. Since 1946, the rate has changed only 14 percent.

The comparison of the infant death rates for males with females (table 8.49), shows that for the entire period, 1915 through 1950, the rate for males remained between 21 and 29 percent above that for females. The decline for the two groups has been parallel.

FIGURE 8.D



### Trend by race

Table 8.22 gives infant mortality rates for the white and Negro races and for the other nonwhite races. The infant mortality rates for both white and Negro infants have declined consistently since 1915 and at approximately the same rate. On the other hand, the infant mortality rate for the other nonwhite races followed a very irregular course until 1933. This last group, however, is quite heterogeneous, including American Indians, Chinese, and Japanese. During the expansion period of the birth-registration area, the addition of new States frequently changed the representation of these race groups in the population of the expanding area. These changes may account for the wide swing in the infant mortality rate for the other nonwhite races between 1916 and 1930.

### Trend by age

All age groups under 1 year of age have shared in the reduction in the total infant mortality rate, but in differing degrees. Figure 8.E shows that until 1936 the death rate under 1 day was almost level. From 1936 to 1950, the rate dropped 32 percent. The rates for white and nonwhite infants under 1 day, which are given in table 8.50, show the same general pattern of decline.

The rates for the remainder of the first week of life have dropped steadily since the early part of the century, with the rates for the latter part of the week, from 3-6 days, declining more rapidly than those for the first and second days. In recent years, beginning with 1943, there has been almost no change in the death rates at 1 and 2 days of age

Table 8.22. INFANT MORTALITY RATES BY RACE: BIRTH-REGISTRATION STATES, 1915-50

(Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births in each specified group)

YEAR	All races	White	NONWHITE		
			Total	Negro	Other
1950	29.2	26.8	44.5	43.9	55.2
1949	31.3	28.9	47.3	46.8	58.1
1948	32.0	29.9	46.5	45.7	63.1
1947	32.2	30.1	48.5	47.7	65.7
1946	33.8	31.8	49.5	48.8	65.4
1945	36.3	35.6	57.0	56.2	74.3
1944	39.8	36.9	60.3	59.3	80.8
1943	40.4	37.5	62.5	61.5	84.6
1942	40.4	37.3	64.6	64.2	74.1
1941	45.3	41.2	74.8	74.1	88.8
1940	47.0	43.2	73.8	72.9	91.0
1939	48.0	44.3	74.2	73.2	97.2
1938	51.0	47.1	79.1	77.9	102.4
1937	54.4	50.3	85.2	82.0	108.9
1936	57.1	52.9	87.6	86.1	120.0
1935	55.7	51.9	83.2	81.9	110.8
1934	60.1	54.5	94.4	91.0	114.5
1933	58.1	52.8	91.3	85.4	127.5
1932	57.6	53.3	86.2	84.1	103.5
1931	61.6	57.4	93.1	92.7	117.8
1930	64.6	60.1	99.9	99.5	141.1
1929	67.6	63.2	102.2	101.5	119.3
1928	68.7	64.0	106.2	106.9	111.8
1927	64.6	60.6	100.1	99.9	103.4
1926	73.3	70.0	111.8	112.1	108.9
1925	71.7	68.3	110.8	112.0	95.6
1924	70.8	66.8	112.9	114.1	95.0
1923	77.1	73.5	117.4	119.9	85.8
1922	76.2	73.2	110.0	111.7	89.9
1921	75.6	72.5	105.5	110.7	78.8
1920	85.8	82.1	131.7	135.6	89.6
1919	86.6	83.0	130.5	134.3	88.2
1918	100.9	97.4	161.2	162.5	126.4
1917	93.8	90.5	150.7	151.0	142.5
1916	101.0	98.0	184.9	184.3	204.8
1915	99.9	98.6	181.2	180.6	196.2

for white infants; while for nonwhite, the rates have continued downward.

The pattern in the decline in death rates since 1915 by detailed age is generally similar from the second week of life through the end of the first year of life. However, the rate of fall grows steeper with increasing age, so that, while the percentage change in rate for the second week of life (7-13 days) has been 78 percent between 1915 and 1950, the decline in the rate for the last 3 months of the first year of life has been 89 percent in the same period.

When the rates by race are examined for the same age intervals, the consistent declines for each age group for white and nonwhite infants are striking. At every age, the rates for the nonwhite infants are much greater than those for the white; and, in general, the disparity increases with increasing age at death.

### Rates for urban and rural areas

Table 8.23 and table 14 (Volume II) show infant and neonatal mortality rates for white and nonwhite births for various aggregates of the population. The country has been divided into metropolitan and nonmetropolitan counties, the metropolitan counties being all those that comprise the standard

FIGURE 8.E

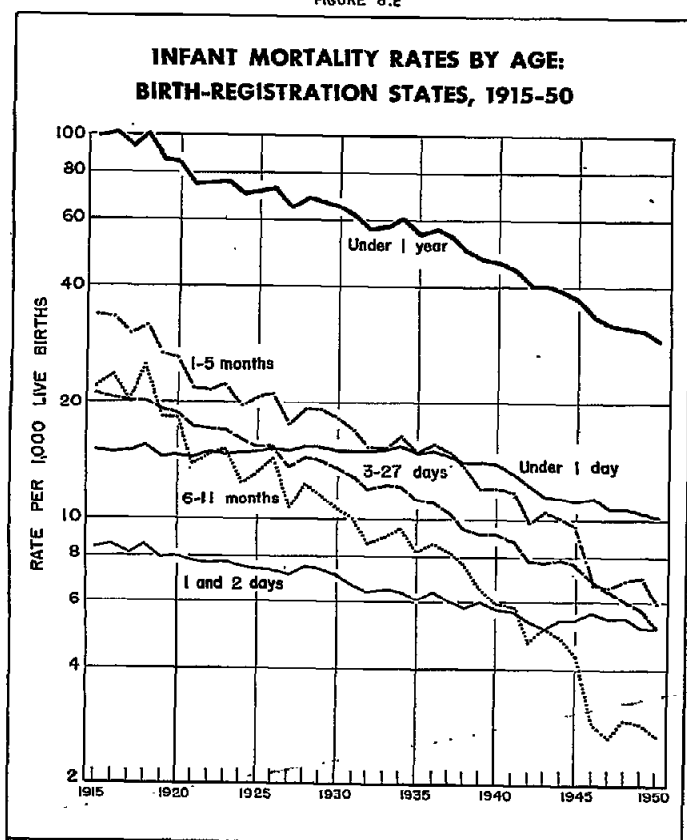


Table 8.23. INFANT MORTALITY RATES BY RACE AND POPULATION-SIZE GROUP IN METROPOLITAN AND NONMETROPOLITAN COUNTIES: UNITED STATES, 1950

(By place of residence. Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births in each specified group)

RACE AND AREA	All counties	Metro-politan counties	Nonmetro-politan counties
<b>ALL RACES</b> -----	29.2	26.4	32.6
<b>Urban</b> -----	28.4	26.5	33.8
Places of 250,000 or more-----	26.8	26.8	...
Places of 100,000 to 250,000-----	28.2	28.2	...
Places of 50,000 to 100,000-----	27.8	27.8	...
Places of 25,000 to 50,000-----	28.2	25.0	30.4
Places of 10,000 to 25,000-----	29.0	22.6	35.3
Places of 2,500 to 10,000-----	32.2	23.4	36.0
<b>Rural</b> -----	30.5	26.4	32.0
<b>WHITE</b> -----	26.8	24.5	29.7
<b>Urban</b> -----	26.3	24.4	31.3
Places of 250,000 or more-----	24.3	24.3	...
Places of 100,000 to 250,000-----	25.5	25.5	...
Places of 50,000 to 100,000-----	25.8	25.8	...
Places of 25,000 to 50,000-----	26.5	24.2	28.3
Places of 10,000 to 25,000-----	27.0	21.9	30.7
Places of 2,500 to 10,000-----	30.0	22.6	35.5
<b>Rural</b> -----	27.6	24.9	28.7
<b>NONWHITE</b> -----	44.5	40.0	49.0
<b>Urban</b> -----	42.6	39.5	52.9
Places of 250,000 or more-----	37.8	37.8	...
Places of 100,000 to 250,000-----	43.7	43.7	...
Places of 50,000 to 100,000-----	43.3	43.3	...
Places of 25,000 to 50,000-----	43.4	38.3	45.0
Places of 10,000 to 25,000-----	45.0	37.0	55.5
Places of 2,500 to 10,000-----	54.4	44.1	55.8
<b>Rural</b> -----	47.0	44.0	47.5

NOTE.—For definitions of areas, see text in chapter 2.

metropolitan areas.<sup>19</sup> The remaining counties are designated nonmetropolitan. This dichotomy has been superimposed on the standard urban-rural classification used in the past, in which each incorporated place of 2,500 population or more is included in the urban area, and all remaining areas are classified as rural.<sup>19</sup> The distribution of the population of the United States in 1950 in these classes is shown in table 2.20, and the number of births in each class, in table 14.

The contrast in infant mortality rates between the metropolitan counties and nonmetropolitan is greater than that between urban and rural areas. An examination of the detailed population-size classes (table 8.23) within the metropolitan counties shows that the cities and the rural areas of these counties form a fairly homogeneous group. The small cities show slightly lower rates than the large cities and the rural areas.

By definition, any county containing a city of more than 50,000 population is a metropolitan county, so that cities of this size or larger are not found in the nonmetropolitan areas. For the cities below this size and the rural parts of the county, the infant mortality rates are in every case higher in the nonmetropolitan counties than they are in the metropolitan counties. It is rather surprising to find that the rate for the rural part of the nonmetropolitan counties is lower than that for the cities in these counties. This difference may arise through failure to allocate properly to the place of residence and incomplete registration of deaths and births.

There may be a tendency on the part of some rural residents to give the neighboring urban center as the usual place of residence. Such errors may seriously affect data classified by population size of place, causing an overstatement of the number of resident deaths for cities and an understatement for the surrounding rural areas. Since these considerations

<sup>19</sup>For definitions, see chapter 2.

apply also to natality data, the error is more or less compensated in the infant mortality rate or ratio of infant deaths to live births. It may be assumed, however, that the rate is affected to some extent, since it is unlikely that the relative error would be exactly the same for both infant deaths and live births.

Little quantitative information is available as to the extent of underregistration of deaths, but it is known to be greater in rural than in urban areas, and also greater for the nonwhite than for the white population.

### Infant mortality by State

The infant and neonatal mortality rates by race for each State and geographic division are given in table 8.51 by place of residence. In 1950, when deaths under 1 year per 1,000 live births averaged 29.2 for the United States, the rate for Connecticut was 21.8 and for New Mexico, 54.8. The lowest rates were found, on the whole, in the New England and Pacific Divisions and the highest in the Mountain, and East and West South Central Divisions.

The death rates in every State except New Mexico are higher for the neonatal period (under 28 days) than they are for the remainder of the first year of life. The dispersion of the rates for the neonatal period—from 16.0 for Vermont to 27.8 for Nevada—is smaller than that for the period 28 days to 11 months, reflecting the greater difficulties in preventing the causes of death peculiar to the first month of life. While the differences in neonatal rates are not large, the lowest rates are again found in the New England and Pacific Divisions, and the highest in the East South Central Division. Data by race show that the rates are considerably higher for nonwhite than for white infants, and vary more widely between States.

The neonatal mortality rate has declined 29 percent for the United States since 1940. While all States shared in the decline, in general, States having the higher rates in 1940 still had the higher rates in 1950.

The diseases responsible for death in the age period 28 days to 11 months are for the greater part amenable to control, and the rate for the United States was 8.7 per 1,000 live births. The rate for this age period has been brought to the low point for the country in Connecticut, where it was 4.2. In the New England Division as a whole, the rate was 5.7; and in the Mountain Division, it was 13.7. For nonwhite infants, the rate for this period is more than twice as high as that for white infants. Among the States which had 75 or more nonwhite infant deaths in 1950, the rate varied from 7.7 deaths (at ages 28 days to 11 months per 1,000 live births) for the District of Columbia to 84.0 for New Mexico.

The rate (28 days to 11 months) has declined 52 percent for the United States since 1940, and for the individual States from 22 to 63 percent. Since equally large reductions have been achieved in States with high and with low rates in 1940, there is no evidence as yet that the rate is approaching an irreducible minimum in any State.

### Infant mortality by cause

The great declines in infant mortality were achieved chiefly through control of the respiratory, enteric, and communicable diseases, and more recently, through improved prenatal and natal care. The infant mortality rates for selected causes are shown in table 8.53 for 1921 through 1948. By 1948, more than half the infant deaths were assigned to diseases peculiar to the first year of life—chiefly, premature birth, injury at birth, and asphyxia and atelectasis.

In keeping with the increasing relative importance of this group of deaths, the Sixth Revision of the International Lists, first used in the United States in 1949, provides a more detailed classification of certain diseases of early infancy. The various specific morbid conditions within this cause group are now further categorized as to whether or not there was mention of immaturity<sup>20</sup> on the death certificate. The Sixth Revision also introduced a category for diarrhea of the newborn (under 28 days) and pneumonia of the newborn (under 28 days), both parts of the group, certain diseases of early infancy.

As a consequence of all these changes, it is difficult to compare past data with that for 1949 and 1950 without making extensive adjustments for comparability. Table 8.54 has been constructed by applying the comparability ratios shown in table 2.03 to the number of deaths assigned to each corresponding cause during the years in which the Fifth Revision of the International List was in use, 1939 to 1948.<sup>21</sup> Table 8.54 shows the continued decline between 1939 and 1950 in the mortality from influenza and pneumonia; gastritis, duodenitis, enteritis, and colitis; and other infectious diseases; the slower decline in mortality from the diseases of early infancy; and the relatively small change in the infant mortality rate for congenital malformations. The death rate for immaturity unqualified has also fallen, but at present it is difficult to know whether the decline is the result of the prevention of

<sup>20</sup>An immature infant is defined as a liveborn infant with a birth weight of 5½ pounds (2,500 grams) or less, or specified as immature. If weight is not specified, a liveborn infant with a period of gestation of less than 37 weeks or specified as 'premature' may be considered the equivalent of an immature infant.

<sup>21</sup>The computational procedure has been described in 'Vital Statistics of the United States, 1949,' Part I, pp. XVI and LI.

premature birth, improvements in care of the immature infant, or better medical certification.

Table 8.52 shows the rates for more detailed causes by race and sex, for 1950. The causes of death grouped under certain diseases of early infancy are responsible for more than half the deaths under 1 year of age. Besides this group, the major causes of infant death remain influenza and pneumonia; gastritis, duodenitis, enteritis, and colitis; congenital malformations; and accidents. For almost every cause shown in table 8.52, death rates are higher for males than for females. They are also higher for nonwhite infants than for white with one major exception. The death rate for congenital malformations was 2.8 per 1,000 live births for nonwhite infants contrasted with 4.1 for white infants.

The causes of death that characterize the neonatal period are shown in table 8.24. Under the Sixth Revision of the International Lists, these causes have been further classified according to whether or not immaturity of the infant was reported on the death certificate. More than 70 percent of the deaths in the period are associated with the immaturity of the infant at birth. However, for more than one-third of the deaths assigned to immaturity, no other specified cause was stated on the death certificate. When both this condition and a cause of death are given, the proportion of deaths reported with immaturity is found to vary considerably by cause. For example, two-thirds of the neonatal deaths assigned to postnatal asphyxia and atelectasis are reported with immaturity, while less than half the deaths from birth injuries are so reported.

Infant mortality rates by age are shown for the most important causes of death in table 8.25. Nearly all deaths from the diseases of early infancy occur in the first 4 weeks of life, while only about 60 percent of the deaths from congenital malformations occur in the same period. On the other hand, deaths from influenza and pneumonia; gastritis, duodenitis, enteritis and colitis; and accidents are more frequent in later infancy.

Table 8.24. NEONATAL MORTALITY RATES FOR CERTAIN DISEASES OF EARLY INFANCY: UNITED STATES, 1950

(Exclusive of fetal deaths. Rates per 1,000 live births. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1940)

CAUSE OF DEATH	UNDER 28 DAYS		
	Total	Without mention of immaturity	With immaturity
Certain diseases of early infancy-----760-776	16.5	4.8	11.8
Birth injuries-----760,761	3.3	1.7	1.6
Intracranial and spinal injury at birth-----760	1.4	1.0	0.4
Other birth injury-----761	1.9	0.7	1.2
Postnatal asphyxia and atelectasis---762	3.6	1.3	2.3
Pneumonia of newborn-----763	0.8	0.5	0.2
Diarrhea of newborn-----764	0.2	0.1	0.1
Other infections of newborn-----765-768	0.1	0.1	0.0
Neonatal disorders arising from maternal toxemia-----769	0.3	0.1	0.2
Hemolytic disease of newborn (erythroblastosis)-----770	0.7	0.6	0.1
Hemorrhagic disease of newborn-----771	0.2	0.2	0.1
Ill-defined diseases peculiar to early infancy, including nutritional maladjustment-----772, 773	0.8	0.2	0.6
Immaturity with mention of any other subsidiary condition-----774	0.3	...	0.3
Immaturity unqualified-----776	6.2	...	6.2

Table 8. 25. INFANT MORTALITY RATES FOR SELECTED CAUSES, BY AGE: UNITED STATES, 1950

(Exclusive of fetal deaths. Rates per 1,000 live births. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

CAUSE OF DEATH	Total deaths under 1 year	UNDER 28 DAYS				28 DAYS-11 MONTHS		
		Total	Under 1 day	1-6 days	7-27 days	Total	28 days-5 months	6-11 months
ALL CAUSES-----	29.2	20.5	10.2	7.7	2.7	8.7	6.0	2.7
Influenza and pneumonia, except pneumonia of newborn-----480-493	2.4	0.0	0.0	0.0	0.0	2.4	1.6	0.7
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543,571,572	1.1	0.0	0.0	0	0.0	1.1	0.7	0.4
Congenital malformations-----750-759	4.0	2.5	0.9	1.0	0.6	1.4	1.1	0.4
Birth injuries-----760,761	3.3	3.3	1.9	1.2	0.1	0.0	0.0	0.0
Postnatal asphyxia and atelectasis-----762	3.7	3.6	1.9	1.6	0.2	0.1	0.1	0.0
Pneumonia of newborn-----763	0.8	0.8	0.1	0.5	0.4	***	***	***
Diarrhea of newborn-----764	0.2	0.2	0.0	0.0	0.2	0.0	0.0	0.0
Hemolytic disease of newborn (erythroblastosis)-----770	0.7	0.7	0.3	0.4	0.1	0.0	0.0	0.0
Immaturity unqualified-----776	6.3	6.2	3.9	2.0	0.4	0.1	0.1	0.0
Accidents-----E900-E962	1.0	0.2	0.0	0.1	0.1	0.8	0.6	0.2

### MORTALITY BY CAUSE OF DEATH

#### General trend

**Changes since 1900.**—Mortality statistics by cause of death constitute a record of health progress achieved during the past 50 years. This era of progress saw the virtual control of the diseases commonly transmitted by water, milk, food, and by insects. It also witnessed the tremendous gains made through immunization programs; in improved living conditions; and in the development and application of new therapeutic, medical, and surgical procedures.

In the first decade of this century, the public health program was largely a matter of sanitation and the quarantine of communicable diseases. Fumigation was still in vogue. Influenza and pneumonia, and tuberculosis were the most frequent causes of death, but the health officer was more preoccupied with the control of water- and food-borne diseases. Summer diarrhea was a regular occurrence and took a heavy toll, especially among infants and children. Public water supplies were not safe, and typhoid outbreaks occurred frequently. Even large cities like Cleveland and Pittsburgh suffered repeated typhoid epidemics between 1901 and 1906. The seriousness of the gastro-intestinal disease problem in the early 1900's may be seen from a comparison of the combined death rate for typhoid fever, dysentery, and diarrhea, duodenitis, and enteritis for those years with the present death rate for malignant neoplasms, the second principal cause of death today. Such a comparison indicates a higher mortality rate for the epidemic gastro-intestinal diseases at the beginning of the century.

The infectious diseases common in childhood constituted serious public health problems. Mortality from diphtheria, measles, whooping cough, and scarlet fever was high. The risk of death from childbirth was six to seven times the present experience. The death rate for accidents (nonmotor-vehicle) was also relatively greater than as compared with now.

The awakening of public consciousness to the serious public health problems of the time is indicated by the founding of the Hygienic Laboratory of the Public Health Service in 1902, the National Tuberculosis Association in 1904, the passage of the Federal Food and Drugs Act in 1906, and the holding of the First American Conference for the Prevention of Infant Mortality in 1909. Progress was slow in the first decade despite the availability of fundamental knowledge concerning water-, milk-, and food-borne diseases, and of many other epidemic diseases. Part of the difficulty was the

lack of public health education. People were reluctant to accept readily the presently established practices such as chlorination of public water supplies and pasteurization of milk.

Beginning about the second decade of the century, the public health movement took on the broader aspects of health. By 1920, all States had health officers and many large and well-staffed departments. The programs of nonofficial health agencies also began to get under way. Up to that time, the chief function of the health officer was to prevent disease by sanitary supervision, and the role of the physician was to practice curative medicine. Closer integration of medicine into public health programs was sought. This resulted in the establishment of prenatal clinics and special clinics for tuberculosis, followed by clinics for venereal diseases, cancer, heart disease, and mental hygiene. The private practitioner became a member of the public health team, and gave added impetus to preventive medicine.

During this era of changing public health objectives, great strides were made in the prevention of communicable diseases and in the reduction of mortality from them. Diseases which were once serious national health problems were virtually eliminated as causes of death. This achievement resulted largely from the sanitary control of the environment; isolation of contagious disease cases; immunization; and the development and application of new therapeutic, medical, and surgical techniques. The social and economic gains made in this period also contributed materially to public health progress, and vice versa.

Special mention should be made of the developments over the past 15 years which have caused an acceleration in the reduction of mortality. The dramatic effects of the sulfa drugs are reflected by the mortality trends starting about 1938 for certain diseases and conditions involving infections (figure 8.F). After the application of the sulfonamides came the discovery of penicillin, followed closely by other antibiotics. The increasing availability and use of these new therapeutic products have all but closed the history of many infectious diseases as causes of death. However, in appraising the merit of these drugs, such problems as the growing resistance of causative organisms to repeated antibiotic therapy, side effects, and reactions need to be thoroughly evaluated.

During the past 35 years, the country was drawn into two world conflicts. The United States participation in World War I came relatively late, and the personnel losses suffered

were comparatively light. The medical history of World War II is still being written. The United States military losses in this global war were not inconsequential.

Insofar as the health of the population is concerned, there is little evidence to show that it suffered during the years of World War II. On the contrary, the mortality experience during the past decade was extremely favorable. There was considerable concern expressed during the war years over conditions believed to be conducive to an increase in mortality in the United States, but these fears did not materialize. Tuberculosis mortality did not show the anticipated increase in the face of stress and strain of wartime conditions and longer hours of work. There were no influenza epidemics of the proportion that followed in the wake of World War I, in spite of the concentration of the population in military camps and defense areas. The infant and maternal mortality rates continued to decline through the period of the boom in the birth rate.

The decline in mortality since 1900 has contributed in no small way to bringing about significant changes in the composition of the population of the United States. Until 1936, the birth rate was falling steadily. This trend, curtailment of immigration, and the major improvements in the chances of survival through childhood and the early adult ages have resulted in a progressively aging population. These changes in the age structure of the population, in turn, have had an impact upon its health. Chronic diseases prevalent in the older ages are assuming increasing importance as public health problems. The cardiovascular-renal diseases now account for 53 percent of all deaths, whereas in 1900, they constituted only 20 percent of the total. Mortality from malignant neoplasms has increased steadily, and is now the second principal cause of death. The aging population has created still other public health problems, which are not delineated in any way by mortality statistics. These are, to mention a few, mental diseases, neurological diseases, arthritis, and metabolic diseases.

The records for the past 50 years describe an era of medical advances, social gains, and public health progress.

(table 8.26). Virtual elimination of a number of diseases as causes of death has been achieved. This has made possible a substantial extension in the average expectation of life. As a natural consequence of increased survival to the older ages, other problems of considerable magnitude have appeared on the public health horizon.

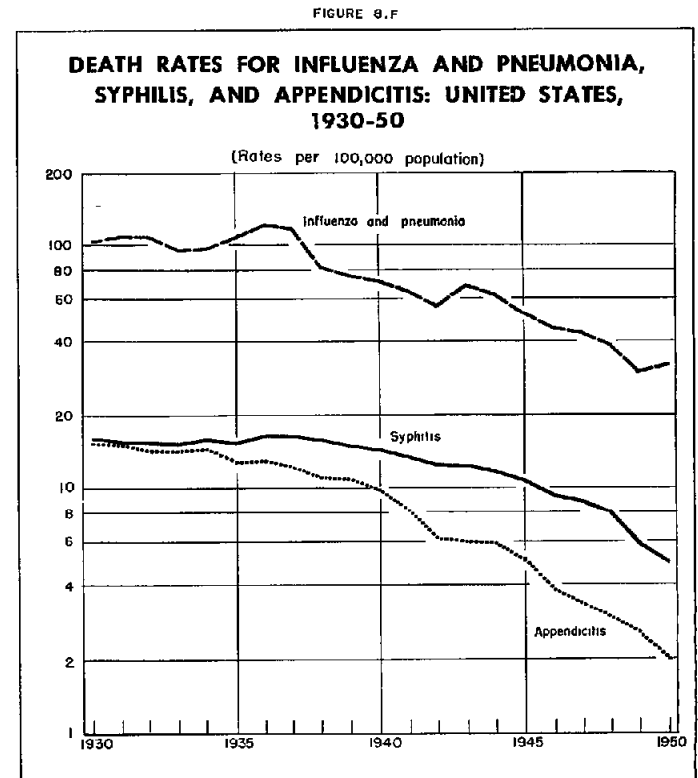


Table 8.26. MORTALITY FOR SELECTED CAUSES OF DEATH: DEATH-REGISTRATION STATES, FOR EACH DECENNIAL YEAR, 1900-1950

(Exclusive of fetal deaths. Rates per 100,000 population, estimated as of July 1 for 1900-1930, and enumerated as of April 1 for 1940 and 1950. See table 8.45 for category numbers of the International Lists and inclusions)

CAUSE OF DEATH	DEATH RATES						PROPORTIONATE MORTALITY (PERCENT OF TOTAL DEATHS)					
	1950	1940	1930	1920	1910	1900	1950	1940	1930	1920	1910	1900
ALL CAUSES-----	963.8	1,076.4	1,132.1	1,298.9	1,468.0	1,719.1	100.0	100.0	100.0	100.0	100.0	100.0
Tuberculosis, all forms-----	22.5	45.9	71.1	113.1	153.8	194.4	2.3	4.3	6.3	8.7	10.5	11.3
Influenza and pneumonia, except pneumonia of newborn-----	31.3	70.3	102.5	207.3	155.9	202.2	3.2	6.5	9.1	16.0	10.6	11.8
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----	5.1	10.3	26.0	53.7	115.4	142.7	0.5	1.0	2.3	4.1	7.9	8.5
Diphtheria-----	0.3	1.1	4.9	15.3	21.1	40.3	0.0	0.1	0.4	1.2	1.4	2.3
Typhoid fever-----	0.1	1.0	4.7	7.6	22.5	31.3	0.0	0.1	0.4	0.6	1.5	1.8
Major cardiovascular-renal diseases-----	510.8	485.7	414.4	364.9	371.9	345.2	53.0	45.1	36.6	28.1	25.3	22.1
Vascular lesions affecting central nervous system-----	104.0	90.9	89.0	93.0	95.8	106.9	10.8	8.4	7.9	7.2	6.5	6.2
Diseases of heart-----	355.5	292.5	214.2	159.6	158.9	137.4	36.9	27.2	16.9	12.3	10.8	8.0
Hypertension without mention of heart and general arteriosclerosis-----	28.7	18.3	19.0	30.0	32.6	20.0	3.0	1.7	1.7	2.3	2.2	1.2
All other cardiovascular diseases-----	6.2	4.9	5.6				0.6	0.5	0.5			
Chronic and unspecified nephritis and other renal sclerosis-----	16.4	79.0	86.7	82.4	84.6	81.0	1.7	7.3	7.7	6.3	5.8	4.7
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----	159.8	120.3	97.4	83.4	76.2	64.0	14.5	11.2	8.6	6.4	5.2	3.7
Diabetes mellitus-----	16.2	26.6	19.1	16.1	15.3	11.0	1.7	2.5	1.7	1.2	1.0	0.6
Accidents:												
Motor-vehicle accidents-----	23.1	26.2	26.7	10.3	1.8	---	2.4	2.4	2.4	0.8	0.1	...
All other accidents-----	37.5	47.0	53.1	59.7	82.4	72.3	3.9	4.4	4.7	4.6	5.6	4.2
All other causes-----	177.2	242.1	312.2	367.3	451.6	615.7	18.4	22.5	27.6	28.3	30.8	35.8

**Principal causes of death in 1950.**—Over half of the deaths in the United States are now caused by cardiovascular-renal diseases, of which the major component is the diseases of the heart. The principal cause of death<sup>22</sup>—diseases of the heart—accounts for more than one-third of all deaths (table 8.27). The other important components of the cardiovascular-renal diseases—vascular lesions affecting the central nervous system, general arteriosclerosis, and chronic nephritis—rank third, eighth, and ninth, respectively, in frequency as causes of death. Malignant neoplasms and diabetes mellitus, two diseases of noninfective origin, causing death chiefly among people in the older ages, are the second and tenth leading causes of death.

Accidents ranks fourth among the leading causes of death for the total population. It is among the top five causes at every age, but first among preschool and school children, and young adults. At the older ages, accidents is supplanted in the ranking by the high mortality from the chronic diseases.

Deaths from certain diseases of early infancy occurring in the first 4 weeks of life appear as the fifth leading cause in the entire population. The large number of deaths from certain diseases of early infancy (60,989 or 4 percent of all deaths in 1950) serves to emphasize the numerical importance of mortality among infants.

Table 8.27. MORTALITY FOR LEADING CAUSES OF DEATH: UNITED STATES, 1950

(Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population enumerated as of April 1. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. For method of ranking, see text)

Rank order	CAUSE OF DEATH	Rate	Percent of total deaths
	ALL CAUSES-----	963.8	100.0
1	Diseases of heart-----410-443	355.5	36.9
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	139.8	14.5
3	Vascular lesions affecting central nervous system-----330-334	104.0	10.8
4	Accidents-----E800-E862	60.6	6.3
...	Motor-vehicle accidents-----E810-E835	23.1	2.4
...	All other accidents-----E800-E802, E840-E862	37.5	3.9
5	Certain diseases of early infancy-----760-776	40.5	4.2
6	Influenza and pneumonia, except pneumonia of newborn-----480-493	31.3	3.2
7	Tuberculosis, all forms-----001-019	22.5	2.3
8	General arteriosclerosis-----450	20.4	2.1
9	Chronic and unspecified nephritis and other renal sclerosis-----592-594	16.4	1.7
10	Diabetes mellitus-----260	16.2	1.7
11	Congenital malformations-----750-759	12.2	1.3
12	Suicide-----E963, E970-E979	11.4	1.2
13	Cirrhosis of liver-----581	9.2	1.0
14	Hypertension without mention of heart-----444-447	8.3	0.9
15	Hernia and intestinal obstruction-----560, 561, 570	5.9	0.6
...	All other causes-----	109.6	11.4

<sup>22</sup>Rank ordering answers the question, "What are the most frequent causes of death?"—but does not answer the more complex question "What are the most important public health problems today?" Even to the simple question of frequency, the answers obtained by ranking are arbitrary. The rank order of the various causes depends on the list from which the selection was made, and the rules used in making the selection. For discussion of methods of selection, see "Leading Causes of Death: United States and Each State, 1950," National Office of Vital Statistics, Vital Statistics—Special Reports, vol. 37, No. 15, 1953.

## Major Cardiovascular-Renal Diseases

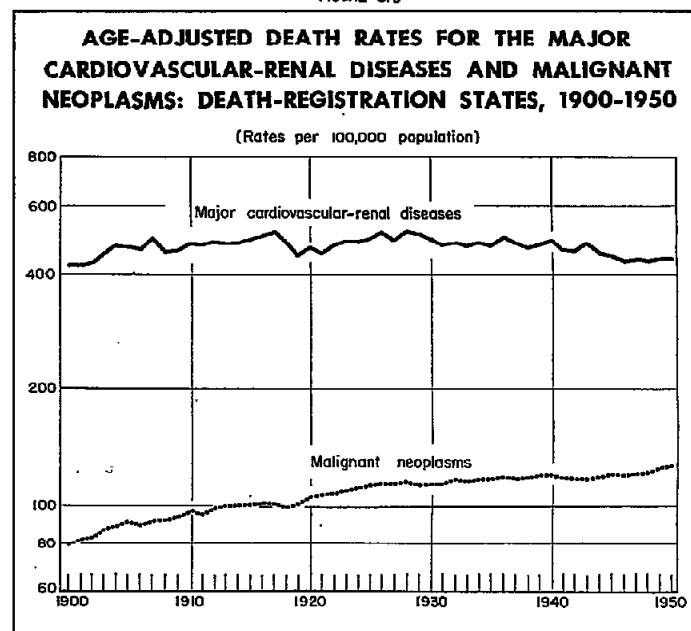
**Trend.**—The crude death rates for the cardiovascular-renal diseases as a group exhibit little or no trend during the first 20-year period after 1900. From 1920 onwards, the crude death rates show an unmistakable and rather rapid upward trend. That this is not a real increase in the risk of dying from cardiovascular-renal diseases, but a reflection of the aging population is indicated by the death rates adjusted for the changing age composition of the population. The age-adjusted death rates shown in figure 8.G do not give any clear evidence of a definite trend; but in terms of the impact on the population, the rising crude death rate is real. An increasing proportion of the population is dying from the cardiovascular-renal diseases, although the risk of dying from this group of diseases may not have changed over the years.

It is difficult to assess the mortality trend for the component parts of the cardiovascular-renal diseases. While diseases of the heart has been recorded as the principal cause of death, the actual level of mortality from this cause of death cannot be readily determined. For example, the changes and developments in medical and statistical practices have had an important bearing on the mortality trend for heart disease. There is little question of the great progress made in the clinical diagnosis of heart disease since the beginning of the century, but estimates of the reliability of heart disease mortality statistics are available only in special studies in limited areas.

Heart disease, as a mortality classification, has probably been abused more than any other cause-of-death category. Heart disease was probably overreported as a cause of death during the first two decades of the century in that many deaths were improperly returned as some ill-defined heart disease when actually they were due to an undiagnosed condition other than heart disease. On the other hand, it is probable that a large proportion of deaths certified as due to senility had, in fact, some cardiopathy. With improvements in diagnostic techniques and facilities, there has undoubtedly been an increase in the reporting of cases which previously would have gone undetected.

Mortality statistics on heart diseases have been affected

FIGURE 8.G



to a significant extent by the changes made in the various decennial revisions of the International List of Causes of Death. Each revision has resulted in transfers of certain inclusion terms from one rubric to another with or without change in the titles. The last revision (1948) altered almost completely the classification of heart diseases. Also, changes have been made in the method of selection of the cause of death to be tabulated when two or more causes of death are reported.

The changes in connection with the revision of the disease classification are of particular significance in the interpretation of mortality trends for heart disease because of the close clinical and pathological interrelationship of cardiac, vascular, and renal diseases. So long as cause-of-death statistics are based on the concept of counting individuals who die rather than conditions present at the time of death, it is not possible to obtain the exact level of mortality at any period for diseases such as heart disease which occur frequently with other related diseases or conditions.

The situation in regard to the mortality trends of the cardiovascular-renal diseases may be summarized<sup>23</sup> as follows: The recorded mortality statistics indicate a regular and marked upward trend in the age-adjusted death rate for

heart diseases. At the same time, there has been a compensating decrease in mortality from a certain group of causes known to be closely associated with heart disease, such as vascular lesions affecting the central nervous system, chronic nephritis, arteriosclerosis, and hypertension. This compensating effect is sufficient to remove all signs of an upward trend when all the major cardiovascular diseases are considered together.

The improvements in diagnostic methods and facilities, changes in terminology and methods of medical certification, and the revision of the disease classification and coding procedures, have almost certainly resulted in corresponding alterations in the death rates for the diseases involved. Nevertheless, the fact that there is no consistent trend when mortality from the cardiovascular-renal group is examined as a whole is not of itself evidence that clinical and statistical practices have been solely responsible for the upward trend in heart diseases. It is still possible that a true increase may have taken place in the risk of dying from one or more of the various forms of heart disease, and a true decline may have occurred in the rate of dying from the vascular and renal diseases. Even so, for purposes of trend analysis, it is desirable to examine mortality rates for the cardiovascular-renal diseases as a group rather than for the component parts.

Cardiovascular-renal disease mortality varies considerably by age, race, and sex (table 8.28). The risk of dying from the cardiovascular-renal diseases is progressively higher with increasing age, higher for whites as compared with

<sup>23</sup>Woolsey, Theodore D., and Moriyama, I. M., "Statistical Studies of Heart Diseases, II. Important Factors in Heart Disease Mortality Trends," Public Health Reports, vol. 63, No. 39, pp. 1247-1273, September 24, 1948.

Table 8.28. DEATH RATES FOR MAJOR CARDIOVASCULAR-RENAL DISEASES, BY AGE, RACE, AND SEX: DEATH-REGISTRATION STATES, FOR EACH DECENNIAL YEAR, 1900-1950

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated as of July 1 for 1900-1930, and enumerated as of April 1 for 1940 and 1950. See table 8.45 for category numbers of the International Lists, and p. 31 for discussion of comparability of rates between International List revisions)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>ALL RACES, BOTH SEXES</b>												
1950-----	510.8	11.4	3.8	5.5	13.5	32.4	122.4	411.5	1,074.3	2,585.8	6,522.9	14,625.6
1940-----	485.7	33.4	7.4	13.5	22.1	47.8	145.7	438.7	1,126.9	2,849.5	7,341.5	15,387.4
1930-----	414.4	47.9	11.7	18.5	32.7	62.2	158.6	444.4	1,139.6	2,942.7	7,137.2	13,938.9
1920-----	364.9	94.8	19.4	27.0	38.8	64.9	145.2	386.8	1,039.9	2,845.5	7,037.9	13,600.7
1910-----	371.9	210.2	28.9	36.4	45.5	81.3	183.7	440.3	1,139.9	2,846.4	6,282.9	10,447.3
1900-----	345.2	373.7	51.2	42.6	60.3	104.9	205.8	445.6	1,038.2	2,358.4	4,659.1	6,646.0
<b>WHITE MALE</b>												
1950-----	585.9	12.7	3.7	4.7	12.2	31.0	138.6	508.1	1,337.3	3,091.8	7,251.5	15,840.2
1940-----	538.0	36.5	7.0	12.2	20.8	43.0	142.4	479.6	1,304.7	3,227.2	7,972.7	16,668.8
1930-----	434.9	54.8	11.4	17.3	28.1	48.1	133.9	417.0	1,200.1	3,163.8	7,861.1	15,089.5
1920-----	366.5	112.4	19.8	25.6	34.8	49.6	119.4	349.8	1,056.3	2,945.6	7,444.8	14,665.8
<b>WHITE FEMALE</b>												
1950-----	439.4	7.2	3.2	5.3	11.0	22.0	65.5	217.3	664.5	2,053.3	6,038.5	14,506.2
1940-----	429.8	28.5	7.0	13.3	19.7	35.6	94.1	278.1	792.6	2,433.5	6,919.6	15,543.3
1930-----	378.6	39.0	10.9	19.4	30.7	50.8	116.9	325.0	912.8	2,617.3	6,786.7	13,879.0
1920-----	362.5	79.3	18.7	29.3	38.5	65.5	136.4	358.6	955.8	2,702.4	6,801.9	13,532.4
<b>NONWHITE MALE</b>												
1950-----	528.4	22.2	7.0	7.9	26.3	79.0	294.4	902.6	2,115.9	3,280.4	5,942.4	10,285.0
1940-----	526.5	43.4	9.2	17.1	33.1	118.3	365.8	1,071.8	2,120.1	3,339.5	6,625.5	10,981.0
1930-----	505.2	54.5	16.8	20.9	47.9	159.0	464.8	1,151.5	2,170.0	3,917.1	6,746.8	11,280.3
1920-----	369.0	80.0	24.5	20.1	52.5	133.9	294.5	706.8	1,448.9	3,189.3	6,109.6	10,283.5
<b>NONWHITE FEMALE</b>												
1950-----	468.8	20.1	5.7	10.5	29.6	88.6	311.1	862.5	1,933.7	2,692.8	4,985.4	9,017.1
1940-----	471.7	36.1	11.0	20.3	40.9	122.7	403.9	1,057.5	2,105.1	2,917.8	5,473.0	8,328.8
1930-----	455.7	56.5	15.6	18.8	68.0	181.6	488.9	1,201.3	2,310.6	3,582.2	5,160.0	8,624.3
1920-----	370.5	80.5	18.4	24.7	65.1	159.3	368.2	922.6	1,729.8	3,185.0	5,419.0	8,555.0

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

NOTES:

For 1900 and 1910, deaths not tabulated by age, by race and sex.

For 1940 and 1950, deaths exclude those among armed forces overseas; also, population bases exclude armed forces overseas.



nonwhites, and the death rate is greater for males than for females.

The mortality trend over the past 30 years indicates that for the white females the rates are declining in every age group except 85 years and over. The rate of decline is sharpest in the young age groups, and the slope becomes progressively less with increase in age. For the white males, the trend is upward at all ages between 35 and 65 years. The increasing risk of death among white males in the most productive working ages is one of the significant findings in the mortality analysis<sup>24</sup> of cardiovascular-renal diseases. If they represent true trends, they have serious health, economic, and social implications.

No definite trend is discernible in the rates for the age group 65-74 years, and at 85 years and over there is again an upward tendency in the rates. The cardiovascular-renal disease death rates for nonwhite females show varying rates of decline, with the possible exception of the rate for the 65-74 year age group. Here, no definite trend is evident. For the nonwhite males, the downward trend is noticeable for each age group except 55-64 and 65-74 years.

**Classification.**—In examining the causes making up the total complex of cardiovascular-renal diseases for any specific year, there must be some understanding of the International Lists of Diseases and Causes of Death, and of the problems of medical certification.

The clinician commonly considers heart diseases from three points of view—the functional circulatory changes, the anatomical alterations in the heart, and the etiology or pathogenesis of the condition. No one of these views is consistently taken and reported on the medical or death records. The International Statistical Classification, therefore, is a compromise. While emphasis is given to the etiology of the disease, it is not possible to omit the functional or anatomic aspects. Also, not included as cardiovascular-renal diseases are syphilitic heart disease and congenital malformations of the heart, which are classified elsewhere.

The medical certification now calls for a statement of the causes involved in the death with an indication of the underlying cause. Presumably, the underlying cause is the starting point, or the cause giving rise to the disease or condition causing death. However, in diseases of long duration, the etiological factor is not always clear, particularly to the physician who has not attended the case from the onset of the disease. In many cases, therefore, it is not possible for the medical certifier to describe the train of events of the cardiovascular-renal disease. The problem is an extremely complex one in view of the close interrelationship between the organs involved.

Mortality statistics for the cardiovascular-renal diseases, such as are shown in table 8.29, represent either the attending physician's judgment concerning the etiology of the disease, or, perhaps more generally, the significant findings observed or found in the history of the illness. In addition, there is frequent reporting of terms such as "heart disease" and "chronic myocarditis" which do not contribute to the understanding of the specific disease processes.

Because of the factors already mentioned, precise evaluation of the pathogenesis of the cardiovascular-renal deaths is not possible. The groupings in table 8.29 are not mutually

Table 8.29. NUMBER OF DEATHS AND DEATH RATES FOR THE COMPONENTS OF MAJOR CARDIOVASCULAR-RENAL DISEASES: UNITED STATES, 1950

(Exclusive of deaths among armed forces overseas. Rates per 100,000 population enumerated as of April 1. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

CAUSE OF DEATH	Number	Rate	Percent
Major cardiovascular-renal diseases-----330-334,400-468,592-594	769,751	510.8	100.0
Infective:			
Rheumatic fever-----400-402	1,924	1.3	0.2
Chronic rheumatic heart disease-----410-416	20,392	13.5	2.6
Chronic endocarditis not specified as rheumatic-----421	10,107	6.7	1.3
Acute and subacute endocarditis, myocarditis, and pericarditis-----430-432	4,170	2.8	0.5
Arteriosclerotic:			
Arteriosclerotic heart disease, including coronary disease-----420	321,003	215.0	41.7
Other myocardial degeneration with arteriosclerosis-----422.1	34,847	23.1	4.5
Hypertensive:			
Hypertensive disease-----440-447	97,756	64.9	12.7
Other:			
Vascular lesions affecting central nervous system-----330-334	156,751	104.0	20.4
General arteriosclerosis-----450	30,734	20.4	4.0
Chronic and unspecified nephritis and other renal sclerosis-----592-594	24,677	16.4	3.2
Other major cardiovascular-renal diseases-----Residual	67,390	44.7	8.8

exclusive nor are they necessarily complete. However, the data indicate the difficulty of arriving at any definite conclusions concerning the etiology of heart disease from mortality records. For example, arteriosclerosis is, by far, most frequently associated with heart disease. How much of this association should be ascribed to hypertension is not known. It is clear that there is a certain amount of inflation in the arteriosclerotic heart disease total because deaths involving hypertensive diseases are classified to arteriosclerotic heart disease if coronary disease is mentioned. In addition, there are other categories, vascular lesions affecting central nervous system and general arteriosclerosis, where hypertension and arteriosclerosis may both be involved. Since large numbers of deaths are assigned to these categories, the relative importance of hypertension as the underlying cause of the cardiovascular-renal diseases cannot be determined. This, in turn, makes it difficult to ascertain the importance of infectious diseases, as compared with hypertension in causing cardiovascular-renal diseases.

**Geographic area.**—The geographic distribution of cardiovascular-renal mortality indicates the area of highest crude death rates to be in the Northeast (New England States), with a narrow band of relatively high death rates from the Northeast extending through the Middle West. The lowest death rates are found in the Southwest. In general, the crude death rates are relatively low for residents of the Southern and Mountain States.

When the rates are adjusted for differences in the age composition of the population, the areas of the highest mortality extend from the New England States down the eastern coast to Florida, with the highest rates in the Middle Atlantic States. The age-adjusted death rate is lowest for residents of the Central States.

<sup>24</sup>Moriyama, I. M., and Woolsey, Theodore D., "Statistical Studies of Heart Disease, IX. Race and Sex Differences in the Trend of Mortality From the Major Cardiovascular-Renal Diseases," Public Health Reports, vol. 66, No. 12, pp. 355-368, March 23, 1951.

## Malignant Neoplasms

**Trend.**—In the period 1900 to 1950, the reported crude death rate for malignant neoplasms has more than doubled. The upward trend in the death rate for malignant neoplasms is particularly noticeable between 1900 and 1935 (figure 8.G). While some increase in the crude death rate is to be expected in an aging population, the change in the recorded rates in the earlier decades is much too great to be explained solely on the basis of the change in the age composition of the population. Since 1935, there has been a leveling off of the age-adjusted death rates which indicates that the rise in the crude death rate may be accounted for by the increasing proportion of persons in the older ages.<sup>25</sup>

Although the recorded death rates show a clear trend upwards, the significance of the indicated rise is seriously questioned. A true assessment of the cancer mortality trend is not possible because the effects of improvements in diagnostic methods and facilities on the reporting of malignant neoplasms cannot be determined. However, it is believed that much of the increase in the cancer death rate has been due to increased reporting of the disease. This should not minimize the importance of malignant neoplasms as a cause of death since the present crude death rate for malignant neoplasms is at its highest level. As the population grows older, it will continue to increase until means are discovered to prevent cancer mortality.

**Comparability.**—In addition to the problems of diagnosis and reporting, the interpretation of cancer mortality statistics is affected to some extent by changes in classification of causes of death. Insofar as is known, the comparability of the total figure for malignant neoplasms was little affected by the various decennial revisions of the International Lists of Causes of Death until the Sixth Revision, adopted in 1948 for use in the United States starting in 1949. In this revision, a group, "neoplasms of the lymphatic and hematopoietic tissues," which includes Hodgkin's disease, lymphosarcoma, and leukemia, was made a part of the neoplasm classification. This change in the classification increased the total assigned to malignant neoplasms about 5 percent, but this increase was compensated for by the effect of the change in the method of selecting the underlying cause of death. The net effect of classification changes on the total number of deaths assigned to malignant neoplasms was thus reduced to an estimated 1 percent, which is not particularly significant in terms of trend analysis. No such compensatory changes occurred in the number of deaths assigned to malignant neoplasms by age groups.<sup>26</sup> The cancer death rates for ages up to 25 years were increased greatly by the classification change, moderately for the age group between 25 and 44; and in the age groups over 65, the effect of the 1948 Revision was to record somewhat fewer deaths than by the previous classification procedures.

Another important change in classification procedures was made with the usage of the Sixth Revision in 1949. Prior to this time, the classification of cancer by site made no distinction between primary and secondary sites, although the joint-cause rules specified that cancers were to be classified to the primary site if so reported. In the 1948 Revision, special International categories were set up for secondary

neoplasms of liver, lung and bronchus, and of the lymph nodes, sites known to be frequently metastatic. This implied that all other specified sites were to be reserved for primary cancers. Therefore, starting in 1949, cancers reported as secondary or metastatic were not classified to the specified sites but assigned to the special subcategories<sup>27</sup> for secondary neoplasms under International List category 199. Since primary neoplasms are infrequently specified as such, this procedure does not ensure that all deaths classified to specific sites are, in fact, primary cancers. In the majority of the cases, they are the presumptive primary sites. The procedure has the effect of eliminating a large number of known secondary neoplasms from the presumptive primary site classifications. Data by specific sites for 1949 and 1950 are therefore not strictly comparable with those for past years merely on this basis. Comparison of data by organ systems indicates that 4 to 7 percent fewer deaths are now being assigned to the specific sites.

**Age.**—Cancer death rates by age now show that the greatest increases were recorded for the age groups over 45 years during the period 1900 to 1948, with relatively smaller increases, generally speaking, in the younger ages (table 8.30). The addition of Hodgkin's disease and leukemia to the neoplasm category in 1949, is reflected by the sudden rise in the death rates for the younger ages in that year. While evaluation of the effects of classification changes can be made, it is not possible, as mentioned before, to interpret the trend by age in terms of the actual force of cancer mortality. In the meager light of present knowledge, it must be concluded that the increase in recorded death rates by age may be due primarily to increased reporting of cancer as a result of improvements in diagnostic methods and facilities.

**State.**—The geographic distribution of cancer death rates in 1950 indicates the highest rates for the New England States (176.3 per 100,000 population) and the lowest (102.8) for the East South Central States (table 8.46). The highest rates are found for residents of the Northern States and the lowest rates for the Southern States. While part of the difference may be accounted for by the difference in age distribution of the population, the great range in the death rate cannot be explained on this basis alone. Here again, recognition and the reporting of the disease must be important factors in recording a death rate of 69.4 for New Mexico residents and 179.6 for the residents of Massachusetts.

**Site.**—Malignant neoplasms of the digestive organs and the peritoneum (death rate of 54.2 per 100,000 population) were, by far, the most common sites reported in 1950, followed by malignant neoplasms of the genital organs (23.1 per 100,000 population). Of the specified sites, malignant neoplasm of respiratory system (death rate of 14.1 per 100,000 population) was third in numerical importance (table 8.43). Respiratory cancer, once considered of importance only as a secondary site, is receiving increasing attention by investigators in many countries. Primary neoplasms of the respiratory organs are believed to be increasing, and statistical studies have been suggestive in associating respiratory cancers with smoking<sup>28</sup> and atmospheric pollution.<sup>29</sup>

<sup>27</sup>Subdivisions developed for use in the United States. For details, see "Vital Statistics Instruction Manual, Part II, Cause-of-Death Coding, 1950," National Office of Vital Statistics, 1950.

<sup>28</sup>Doll, Richard, and Hill, A. Bradford, "Smoking and Carcinoma of the Lung" (Preliminary Report), *British Medical Journal*, vol. ii, p. 739, September 30, 1950.

<sup>29</sup>Stocks, P., "Studies on Medical and Population Subjects, No. 1 Regional and Local Differences in Cancer Death Rates," His Majesty's Stationery Office, London, 1947.

<sup>25</sup>For more detailed discussion, see "The Trend of Cancer Mortality in the United States, 1900-1945," National Office of Vital Statistics, *Vital Statistics—Special Reports*, vol. 32, No. 1, p. 13, 1949.

<sup>26</sup>National Office of Vital Statistics, "The Effect of the Sixth Revision of the International Lists of Diseases and Causes of Death Upon Comparability of Mortality Trends," *Vital Statistics—Special Reports*, vol. 36, No. 10, 1951.

Table 8.30. DEATH RATES FOR MALIGNANT NEOPLASMS, INCLUDING NEOPLASMS OF LYMPHATIC AND HEMATOPOIETIC TISSUES, BY AGE, RACE, AND SEX: DEATH-REGISTRATION STATES, FOR SELECTED YEARS

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated as of July 1 for 1900-1930, 1948, and 1949, and enumerated as of April 1 for 1940 and 1950. See table 8.45 for category numbers of the International Lists, and p. 31 for discussion of comparability of rates between International List revisions)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>ALL RACES, BOTH SEXES</b>												
1950-----	139.8	8.7	11.7	6.7	8.6	20.0	62.7	175.1	392.9	692.5	1,155.3	1,451.0
1949-----	138.8	8.9	11.0	6.2	8.9	19.7	63.2	178.0	391.1	687.2	1,148.3	1,451.6
1948-----	134.9	3.5	5.5	3.1	5.8	16.8	58.8	172.8	389.0	687.7	1,172.8	1,518.4
1940-----	120.3	4.4	4.8	3.0	5.4	17.3	61.1	168.8	369.6	695.2	1,155.5	1,357.9
1930-----	97.4	3.1	4.1	2.0	4.2	16.7	58.9	159.6	355.6	677.1	1,019.7	1,196.3
1920-----	85.4	3.2	3.1	1.6	3.8	14.7	56.0	155.1	341.2	607.7	900.0	1,017.5
1910-----	76.2	3.1	3.5	1.5	3.5	14.1	55.6	156.7	322.4	541.7	749.9	810.9
1900-----	64.0	3.2	2.9	1.8	3.2	14.0	52.5	139.1	260.9	421.0	544.7	623.2
<b>WHITE MALE</b>												
1950-----	147.2	9.6	13.1	7.6	9.9	17.7	44.5	150.8	409.4	798.7	1,367.6	1,732.7
1949-----	145.7	10.1	12.8	7.4	10.7	17.0	45.1	151.3	403.8	790.3	1,372.1	1,735.9
1948-----	139.7	4.0	6.4	3.6	6.6	13.3	38.7	144.5	397.3	781.6	1,380.0	1,837.0
1940-----	119.6	5.0	5.3	3.2	6.3	11.9	38.3	133.3	357.1	759.5	1,320.3	1,569.9
1930-----	91.6	3.2	4.5	2.0	4.5	10.9	35.5	118.3	325.1	702.2	1,087.9	1,285.8
1920-----	73.2	3.2	3.5	1.7	3.7	9.5	31.6	110.8	298.0	599.3	908.3	1,047.5
<b>WHITE FEMALE</b>												
1950-----	139.9	7.8	11.3	6.3	7.5	20.9	74.5	185.8	362.5	616.5	1,026.6	1,348.3
1949-----	140.2	8.2	10.5	5.5	7.3	20.8	74.5	192.3	368.9	620.0	1,019.4	1,367.9
1948-----	138.3	3.2	4.8	2.8	4.8	18.2	72.3	189.2	371.7	630.6	1,058.0	1,421.2
1940-----	130.5	4.5	4.7	3.1	4.5	20.5	78.3	198.3	385.4	677.1	1,080.5	1,348.5
1930-----	112.5	3.3	3.9	2.1	3.8	20.6	79.4	203.2	401.2	689.6	1,028.4	1,282.1
1920-----	100.4	3.2	2.7	1.4	3.9	18.8	80.5	207.4	400.4	651.8	947.9	1,087.7
<b>NONWHITE MALE</b>												
1950-----	106.1	10.4	8.2	5.7	7.7	17.9	56.0	207.4	484.8	632.7	844.4	916.0
1949-----	99.4	7.9	7.4	5.4	9.0	16.9	58.5	196.4	457.4	569.3	767.4	806.6
1948-----	93.3	3.7	4.9	1.9	5.8	12.9	51.1	198.6	432.3	550.9	737.2	781.3
1940-----	65.0	1.7	2.2	1.9	4.3	11.6	47.0	156.4	310.6	400.3	532.2	499.1
1930-----	39.4	3.5	2.3	1.9	3.1	11.8	36.5	104.6	188.2	296.7	375.6	356.1
1920-----	29.0	1.4	2.2	1.0	3.1	10.8	25.4	69.0	158.2	193.0	295.9	383.0
<b>NONWHITE FEMALE</b>												
1950-----	110.1	6.9	7.1	4.0	8.6	33.5	119.3	273.3	481.0	476.9	578.9	716.0
1949-----	106.7	6.5	5.0	3.7	7.6	34.7	122.0	279.5	447.1	453.8	542.1	576.6
1948-----	105.2	2.7	3.9	2.6	6.9	35.6	118.8	265.0	463.1	447.6	605.6	595.0
1940-----	91.4	2.5	3.2	1.6	6.3	39.4	122.4	267.2	395.9	430.4	475.7	608.2
1930-----	73.7	0	3.4	1.2	6.0	37.2	119.5	237.5	370.0	420.7	431.4	435.6
1920-----	68.4	5.3	2.9	2.1	5.0	31.7	114.9	230.9	354.5	438.4	459.1	539.0

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

## NOTES:

For 1900 and 1910, deaths not tabulated by age, by race and sex.

For 1940-50, deaths exclude those among armed forces overseas; also, population bases exclude armed forces overseas.

## Accidents

**Trend.**—Not all of the scientific advances of the last century have resulted in declines in mortality rates. One of the more obvious defects in our civilization has been the continued high death rates for accidents. Compared with the rapid decline in the crude death rate, the small change in the death rate for accidents since 1900 has brought this cause into the forefront of current health problems. In 1900, accidents was responsible for 4 percent of all deaths, while in 1950, the percentage had increased to 6 percent. Accidents is now the fourth leading cause of death for the total population (table 8.27) and the first for children and young adults.

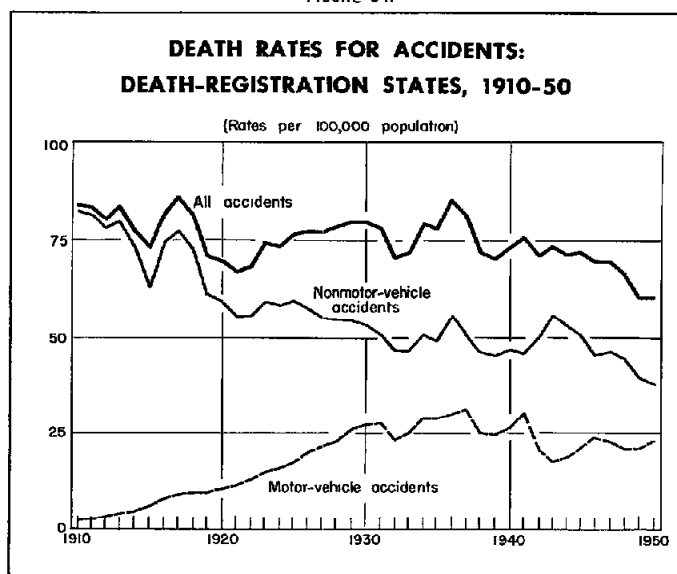
The continued high level of accident fatalities is due in large part to the failure to achieve substantial reductions in the death rate for motor-vehicle accidents. In 1950, deaths from motor-vehicle accidents accounted for more than one-third of all accidental deaths. This item did not even appear as a separate cause of death in the International List until

1906. From that year until 1937, the rate increased continuously except for a slight decline in 1932 and 1933. The rate dropped sharply during the years of gasoline rationing. With the end of the war, the rate rose again, but in recent years it seems to have stabilized at a lower level than in the prewar years.

The death rate for accidents, except motor-vehicle, has declined generally since 1900. As shown by figure 8.H, the rate in 1950 (37.5) was 55 percent lower than the rate in 1910 (82.4). Part of the reduction has been the result of the elimination of industrial hazards, and improved housing conditions and facilities. Better medical care of injuries has probably also effected reductions in accident mortality. The increases in rates during the war years were due to increased industrial activities, military training, and expanded transportation services.

The death rate for accidents measures the loss of population from this cause, but it does not measure the actual risk of death. No exact measure of the risk is available, but the figures can be more closely approximated. For

FIGURE 8 H



example, a better measure of risk of death in motor-vehicle accidents is a rate based on the number of deaths per 100 million vehicle miles traveled. Estimates of rates on this basis<sup>30</sup> show that, in general, the mileage death rate for motor-vehicle accidents has declined since 1925.

**Comparability.**—The decennial revisions of the International Lists since 1900 have had little effect on the classification of accidents. However, the introduction, along with the Sixth Revision, of the principle of tabulating the underlying cause of death selected by the certifying physician, has produced some change in the rates for 1949 and 1950 as contrasted with those for previous years. If, for example, the physician indicates that a chronic disease, such as hypertension, is the underlying cause of death and the accidental fall a contributory cause, the disease is now tabulated as the cause of death, rather than the fall. The effect of this change is most evident at the older ages. The ratio of deaths from accidents classified by the Fifth Revision to deaths from accidents classified by the Sixth Revision, obtained from a sample<sup>31</sup> of death certificates for 1949, showed that the revision had not affected the number of deaths assigned to motor-vehicle accidents at any age; but, at ages 65 years and over, 17 percent fewer deaths were assigned to non-motor-vehicle accidents according to the new procedure.

### Motor-Vehicle Accidents

**Trend by age, race, and sex.**—The general trend observed for the crude death rate for motor-vehicle accidents also characterizes the age-specific rates. The rates for most age groups rose rapidly in the 1920's. For a few age groups, declines were recorded in the 1930's; while for the other age groups, declines did not begin until the late 1930's, or early 1940's.

For children 1-4 and 5-14, the death rates reached a peak between 1926 and 1929. Since that time the rates have shown a downward trend. At older ages, the death rates, as a whole, reached their highest levels in the middle 1930's. The rates for young people, 15-24 years, have continued to rise. In 1950, the death rate for this group was 34.4 which was

<sup>30</sup> 'Accident Facts,' published annually by the National Safety Council, 1950 edition.

<sup>31</sup> National Office of Vital Statistics, 'Current Mortality Analysis,' vol. 7, No. 13, p. 18, 1950.

Table 8.31. NUMBER AND PERCENTAGE DISTRIBUTION OF DEATHS FROM MOTOR-VEHICLE ACCIDENTS, BY TYPE OF ACCIDENT: UNITED STATES, 1950

(Exclusive of deaths among armed forces overseas. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

CAUSE OF DEATH	Number	Percent
MOTOR-VEHICLE ACCIDENTS-----E810-E835	34,783	100.0
Motor-vehicle traffic accidents-----E810-E825	33,863	97.4
Motor-vehicle traffic accident—		
Involving collision with railway train-----E810	1,541	4.4
Involving collision with streetcar-----E811	89	0.3
To pedestrian-----E812	8,440	24.3
To pedal cyclist-----E813	373	1.1
To rider or passenger of motorcycle, in collision with nonmotor vehicle or object-----E814	50	0.1
To rider or passenger of motorcycle, in collision with other motor vehicle-----E815	528	1.5
Involving two or more motor vehicles-----E816	8,319	23.9
To occupant of motor vehicle, in collision with pedestrian or pedal cycle-----E817	1	0.0
Involving collision with animal or animal-drawn vehicle-----E818	69	0.2
Involving collision with fixed or unspecified object-----E819	1,749	5.0
While boarding and alighting-----E820	28	0.1
To rider of motorcycle not involving collision-----E821	357	1.0
Involving overturning in roadway-----E822	1,814	5.2
Involving running off roadway-----E823	5,066	14.6
Other noncollision motor-vehicle traffic accident-----E824	878	2.5
Motor-vehicle traffic accident of unspecified nature-----E825	4,561	13.1
Motor-vehicle nontraffic accidents----E830-E835	900	2.6
Motor-vehicle nontraffic accident—		
To pedestrian-----E830	551	1.6
To pedal cyclist-----E831	1	0.0
To rider or passenger of motorcycle-----E832	17	0.0
Involving two or more motor vehicles-----E833	18	0.1
While boarding and alighting-----E834	14	0.0
Of other and unspecified nature-----E835	299	0.9

4 percent higher than the rate for 1937, the peak year of the 1930-40 decade. The rates for ages 25 years and over have declined from the high points in the late 1930's. In the last decade, the curves for each age group between the ages of 25 and 64 years have, in general, remained below those for ages 15-24; while the rates for ages 65 years and over are higher.

The age group 15-24 years is the only one that has not shared in the decline of the last 15 years. The improvement in rates for the 1-4 and 25-34 year groups has been comparatively small, 21 and 13 percent, respectively. For ages 5-14 years, it has been 31 percent; and for the age groups 35 years and over, it has been between 25 and 40 percent.

The trends of the motor-vehicle accident death rates for the white and nonwhite populations since the early part of the century are similar to that described for the total population, except that for nonwhites at ages 1-4 years, no decline in the rate has occurred. The peak observed in the trend line for the age group 15-24 in the total population is not seen in the rates for nonwhites, which increase steadily with increasing age. At ages under 25 years, the trends of mortality for nonwhites have been below those for whites; but, in general, the rates for nonwhites between the ages of 25 and 64 have exceeded the rates for whites. At ages over 65 years, the rates have been higher for the white population.

The death rate for motor-vehicle accidents has been much higher for males than for females during the entire period. The excess for males has been at a minimum at ages 1-4 years, where the rate for males, in general, has been less than twice that for females. In the next older age group,

5-14 years, rates for males of each race group are about twice those for females. For ages 15 years and over, the sex ratio is even larger, rising as high as 6 and rarely falling below 3. In general, the ratio has been higher for nonwhites than for whites.

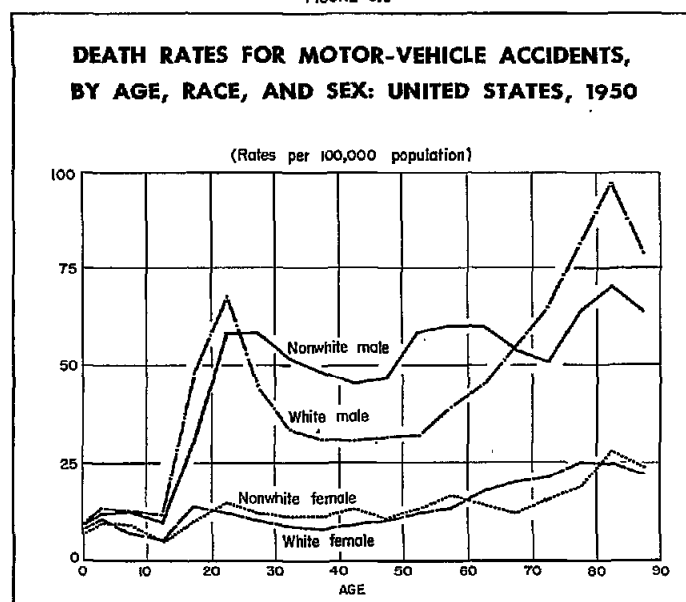
**Deaths in 1950.**—Figure 8.I shows the distribution of the death rates for motor-vehicle accidents in 1950 by age, race, and sex. It is evident that the risk of dying from this cause is greatest among males, with the rates for men at all ages 3.3 times that for women. The difference in rates exists at every age, and is most marked in the age group 15-24 years, where the rate for men is more than four times that for women. The rates for nonwhite males between the ages of 25 and 64 years are 40 to 60 percent higher than those for white males.

**Type of accident.**—Table 8.31 shows the number of motor-vehicle accident fatalities in 1950 by type of accident. Half of the deaths are accounted for by collisions of motor vehicles with pedestrians and by collisions between motor vehicles. The pedestrian fatalities are chiefly children and people past 55 years of age. More than two-thirds of the deaths in motor-vehicle crashes were between the ages of 15 and 64 years. Noncollision accidents are principally those in which the motor vehicle overturned or ran off the roadway. This type of accident caused about one-fourth of all motor-vehicle fatalities. The noncollision accidents and the accidents from collisions between motor vehicles account for 70 percent of the fatalities in rural areas; while in urban areas, more than half the fatal accidents are deaths of pedestrians, and a fifth are collisions between motor vehicles.<sup>32</sup>

Nontraffic accidents, which are those occurring on private property, such as driveways, industrial premises, and parking lots, killed 900 persons in 1950. The principal victims are children; 35 percent of the total were 1-4 years of age.

**State.**—Motor-vehicle accident death rates are lowest for residents of the New England and Middle Atlantic Divisions. This is in keeping with the more favorable motor-vehicle accident experience of cities, as compared with rural areas. The highest rates prevail for States in the Mountain Division.

FIGURE 8.I



<sup>32</sup>National Office of Vital Statistics, "Motor-Vehicle Accident Fatalities: United States, 1949," Vital Statistics—Special Reports, vol. 36, No. 21, p. 446, 1952.

For several of these States, death rates based on estimates of vehicle miles traveled and accidents within the State are closer to the comparable national rate than were the population death rates.<sup>33</sup>

### Nonmotor-Vehicle Accidents

**Trend.**—The decline in the death rate for nonmotor-vehicle accidents since 1910 shown in figure 8.H, has been shared by all age groups between 1 and 75 years. Between 1910 and 1940, the fall in rates, as shown in table 8.32, ranged from 25 percent at ages 65-74 years to 66 percent at ages 25-34 years.

During the years of World War II, the rates increased for several age groups. Between 1940 and 1943, the death rate for nonmotor-vehicle accidents for children under 15 years rose 13 percent. For the age group 15-24, the rate doubled; while for 25-34, the increase was about 30 percent. Rates did not rise higher than the figures for 1943 during the other years of World War II. After 1946, the prewar trend was resumed, and by 1950, the rates for all age groups were below the figures for 1940.

**Rates for 1950.**—Fatal nonmotor-vehicle accidents are, just as the motor-vehicle accidents, more frequent in the male population, the death rate among men being nearly twice that among women. The higher rates for males are shown at every age under 75 years (table 8.43), and reach a peak in the age groups between 15 and 34, when the ratio of the rates by sex is six to one. The rates for the nonwhite population between ages 1 and 74 years are higher than those for the white.

The distribution of the rates by age shows that the death rates for this cause are highest among infants and older people. It reaches a minimum at ages 5-14 and rises slowly to the rate of 30.9 per 100,000 population for the age group 45-54 years; and more rapidly to the rate of 927.5 for persons 85 years and over. The rates for nonmotor-vehicle accidents are relatively low at ages under 25, but compared with the total deaths at these ages, they account for a large part of this group's mortality. In fact, all accidents, including motor-vehicle accidents, is the leading cause of death in the age

Table 8.32. DEATH RATES FOR ACCIDENTS, EXCEPT MOTOR-VEHICLE ACCIDENTS, BY AGE: DEATH-REGISTRATION STATES, FOR EACH DECENNIAL YEAR, 1910-50

(Rates per 100,000 population estimated as of July 1 for 1910-30, and enumerated as of April 1 for 1940 and 1950. See table 8.45 for category numbers of the International Lists, and p. 31 for discussion of comparability of rates between International List revisions)

AGE	1950 <sup>1</sup>	1940 <sup>1</sup>	1930	1920 <sup>2</sup>	1910 <sup>2</sup>
ALL AGES <sup>3</sup> -----	37.5	47.0	55.1	59.7	82.4
Under 1 year-----	105.8	120.3	96.8	98.4	113.8
1-4 years-----	25.3	36.3	46.7	71.1	82.0
5-14 years-----	13.8	17.1	21.4	31.3	35.6
15-24 years-----	20.4	24.6	34.4	47.3	63.1
25-34 years-----	21.1	27.2	38.4	46.0	78.9
35-44 years-----	25.4	32.2	46.4	51.2	88.4
45-54 years-----	30.9	41.6	58.2	58.9	93.9
55-64 years-----	42.0	60.4	75.9	74.9	106.7
65-74 years-----	77.1	121.9	131.8	134.2	163.4
75-84 years-----	263.0	414.6	392.8	362.6	371.5
85 years and over-----	927.5	1,283.9	1,218.6	1,089.4	1,077.1

<sup>1</sup>Exclusive of deaths among armed forces overseas. Rates based on population excluding armed forces overseas.

<sup>2</sup>Includes legal executions.

<sup>3</sup>Figures for age not stated included in the total, but not distributed among the specified age groups.

<sup>33</sup>"Accident Facts," 1951 edition, p. 48.

groups between 1 and 25 years.

**Type of accident.**—Transport accidents which formed 10 percent of the nonmotor-vehicle accidents in 1950, include railway, aircraft, water-transport, and nonmotor-vehicle road accidents. The types of accidents included in the non-transport group are shown in table 8.33. Falls, which are of especial importance in the age groups 75 years and over, were 42 percent of the total nontransport accidents. Fires and explosions cause many deaths in childhood and old age. Victims of accidental drowning are mostly young men, as are the victims of accidents involving firearms. Accidents caused by machinery are chiefly industrial and farm accidents, and mainly affect adult males between the ages of 15 and 64 years.

**Place of fatal accident.**—Another useful axis in classifying accidents is the place of occurrence. Table 8.34 shows the fourth-digit place categories of the Sixth Revision of the International Lists, by age and sex, for fatal nontransport accidents in 1950. Home accidents are responsible for about

Table 8.33. NUMBER AND PERCENTAGE DISTRIBUTION OF DEATHS FROM SELECTED NONTRANSPORT ACCIDENTS, BY TYPE OF ACCIDENT: UNITED STATES, 1950

(Exclusive of deaths among armed forces overseas. For complete International List titles and numbers, see table 51 in Volume III)

CAUSE OF DEATH	Number	Percent
TOTAL NONTRANSPORT ACCIDENTS-----	49,699	100.0
Accidental falls-----	20,783	41.8
Accident caused by fire and explosion, etc.-----	6,405	12.9
Accidental drowning and submersion-----	4,785	9.6
Accident caused by firearm-----	2,174	4.4
Accident caused by machinery-----	1,771	3.6
Accidental poisoning by gases and vapors-----	1,769	3.6
Blow from falling object-----	1,613	3.2
Accidental poisoning by solid and liquid substances--	1,584	3.2
Accidental mechanical suffocation in bed or cradle---	1,360	2.7
Inhalation and ingestion of food or other object, etc.--	1,350	2.7
Other and unspecified nontransport accidents-----	6,105	12.3

Table 8.34. DEATHS FROM NONTRANSPORT ACCIDENTS BY PLACE OF ACCIDENT, AGE, AND SEX: UNITED STATES, 1950

(Exclusive of deaths among armed forces overseas. Numbers under places of accident are four-digit subcategory numbers of the Sixth Revision of the International Lists, 1948)

SEX AND AGE	All places (.0-.9)	PLACE OF ACCIDENT									
		Home	Farm	Mine and quarry	Industrial place and premises	Place for recreation and sport	Street and highway	Public building	Resident institution	Other specified places	Place not specified
		(.0)	(.1)	(.2)	(.3)	(.4)	(.5)	(.6)	(.7)	(.8)	(.9)
<b>BOTH SEXES</b> -----	49,699	24,057	2,421	960	2,360	363	2,194	1,342	2,416	6,161	7,425
Under 1 year-----	3,306	2,243	4	-	2	1	9	5	40	57	945
1-4 years-----	3,178	2,245	187	3	15	17	29	13	8	317	344
5-9 years-----	1,564	695	117	27	13	55	40	15	8	453	141
10-14 years-----	1,418	419	207	27	20	62	32	24	5	497	125
15-24 years-----	3,524	688	381	117	288	97	205	119	53	1,158	418
25-34 years-----	3,587	913	236	195	468	49	247	161	56	788	474
35-44 years-----	4,330	1,298	256	230	529	34	256	189	81	814	643
45-54 years-----	4,400	1,447	296	191	446	18	288	212	102	714	686
55-64 years-----	4,858	1,900	301	133	398	12	320	238	220	644	702
65-74 years-----	5,956	3,237	263	28	147	7	325	192	443	414	900
75-84 years-----	8,284	5,329	147	5	37	10	322	140	887	203	1,204
85 years and over-----	5,215	3,626	23	2	6	-	118	34	512	69	625
Not stated-----	79	17	3	2	1	1	3	-	1	33	18
<b>MALE</b> -----	31,201	11,507	2,212	939	2,318	310	1,762	1,081	1,171	5,407	4,494
Under 1 year-----	1,897	1,279	4	-	1	-	9	1	22	27	554
1-4 years-----	1,887	1,251	140	1	9	15	18	8	5	239	201
5-9 years-----	1,035	357	90	25	10	41	28	11	4	361	88
10-14 years-----	1,101	269	166	23	19	47	25	19	4	410	99
15-24 years-----	3,001	424	365	117	285	90	183	102	44	1,056	335
25-34 years-----	2,967	541	224	195	461	48	226	137	47	727	361
35-44 years-----	3,526	804	247	226	523	31	228	154	66	760	487
45-54 years-----	3,530	902	281	187	440	13	252	179	74	652	550
55-64 years-----	3,670	1,147	282	132	385	12	267	209	134	582	520
65-74 years-----	3,475	1,524	244	27	145	5	245	154	227	358	546
75-84 years-----	3,334	1,886	128	4	34	7	203	86	358	149	479
85 years and over-----	1,716	1,109	18	-	5	-	77	21	186	38	262
Not stated-----	62	14	3	2	1	1	1	-	-	28	12
<b>FEMALE</b> -----	18,498	12,550	209	21	42	53	432	261	1,245	754	2,931
Under 1 year-----	1,409	964	-	-	1	1	-	4	18	30	391
1-4 years-----	1,291	994	47	2	6	2	11	5	3	78	143
5-9 years-----	529	338	27	2	3	14	12	4	4	72	53
10-14 years-----	317	150	21	4	1	15	7	5	1	87	26
15-24 years-----	523	264	16	-	3	7	22	17	9	102	83
25-34 years-----	620	372	12	-	7	1	21	24	9	61	113
35-44 years-----	804	494	9	4	6	3	28	35	15	54	156
45-54 years-----	870	545	15	4	6	5	36	53	28	62	136
55-64 years-----	1,188	753	19	1	3	-	53	29	86	62	182
65-74 years-----	2,481	1,713	19	1	2	2	80	38	216	56	354
75-84 years-----	4,950	3,443	19	1	3	3	119	54	529	54	725
85 years and over-----	3,499	2,517	5	2	1	-	41	13	326	31	563
Not stated-----	17	3	-	-	-	-	2	-	1	5	6

NOTE.—Nontransport accidents are category numbers E870-E936, Sixth Revision of the International Lists, 1948.

half the fatalities from nontransport accidents; other specified places (fields, forests, streams, etc.) account for 12 percent of the total; farms, resident institutions, industrial places, and streets and highways follow in rank order. Except for home accidents and accidents in resident institutions, the number of men killed in each specified place outnumbered the number of women. These differences probably reflect the differences in occupational and recreational activities of men and women.

In fatalities in the home, falls and fires were the most important causes of death. Falls was also the leading cause of fatal accidents in resident institutions, public buildings, and on streets and highways. Blow from falling object and accidents caused by machinery were the two dominating causes of death in industrial places, and mines and quarries. Machinery also caused about one-quarter of the fatal accidents on farms.

These figures are probably understatements of the number of accidents in each type of place, since, for 15 percent of the nontransport accidents, no information about the place of accident was given on the death certificate.

**State.**—Differences between States in the death rates for nonmotor-vehicle accidents are less pronounced than those for motor-vehicle accident death rates. Rates are high in the States in the Mountain and Pacific Divisions, except California. The rates for States in the Middle and South Atlantic and East North Central Divisions are comparatively low. The highest rate is that of 62.8 for Montana, with no one kind of accident outstanding. The rate for West Virginia is one-third to one-fourth higher than those for neighboring States, owing to high mortality from accidents in mines and quarries. The lowest rate, 28.6, was experienced by New Jersey residents. This pattern for 1950 is similar to that for the previous decade.

### Influenza and Pneumonia

**Trend.**—Influenza and pneumonia have played an important role in affecting the course of mortality in the United States. The influenza pandemic of 1918-19 resulted in the greatest upturn in total mortality in this century, and the series of some 19 lesser epidemics since then have also given rise to excess deaths from other causes.<sup>34</sup> However, notable progress has been made in the reduction of mortality from these diseases.

The general trend of the death rate for influenza and pneumonia has been steadily downward, except for the explosive interruption of the 1918 pandemic, from a high level of about 200 per 100,000 population in 1900 to roughly one-half that rate in the late 1930's. Beginning in 1938, the downward trend has been greatly accelerated. In a span of about 12 years, the influenza and pneumonia death rate dropped approximately 56 percent,<sup>35</sup> to a death rate of 31.3 per 100,000 population in 1950. If 1950 had not been an epidemic year, the drop in the rate would have been slightly greater. The 1950 outbreak was relatively mild as indicated by the fact that the

excess deaths recorded were fewer than for any previous epidemic. (In the examination of trend data shown in table 8.45, the crude death rates for 1949 and 1950 will exaggerate the reduction in influenza and pneumonia mortality by about 10 percent when compared with the rates for the previous decade. The change in the cause-of-death classification procedure in 1949 has resulted in fewer deaths now being classified as influenza and pneumonia.)

If the trend evidenced from 1900 to 1937 had continued, the influenza and pneumonia death rate in 1950 would have been about 80 per 100,000 population, or more than 2.5 times the recorded rate. Also, if it were not for the sharp decline since 1937, roughly 75,000 more persons would have died from influenza and pneumonia alone than actually did in 1950.

The grouping of influenza and the pneumonias is not entirely satisfactory since it brings together diseases distinctly different in etiology, clinical course, and pathology. The grouping tends to emphasize the importance of influenza, and perhaps overshadows the significance of the pneumonias, which are, independent of influenza, numerically more important as causes of death. However, for analytical purposes, it is necessary to group these respiratory diseases because of the classification procedures employed prior to 1921. Before 1921, deaths reported as lobar pneumonia due to influenza were classified as lobar pneumonia. In 1921, the procedure was reversed and such deaths were assigned to the underlying cause, influenza. Therefore, for purposes of maintaining comparability over the past 50 years, the grouping of influenza and, at least, lobar pneumonia is necessary.

Influenza by itself is not regarded as a fatal disease but as a debilitating infection which prepares the way for a secondary invader, the most frequent resulting complication being pneumonia. Influenza and/or pneumonia also contribute to a large number of deaths from certain chronic diseases.<sup>36</sup>

The relative importance of influenza and the various pneumonia classifications in 1950 may be seen from the following tabulation:

	Number of deaths	Percent
Influenza and pneumonia-----	47,120	100.0
Influenza-----	6,597	14.0
Influenza with pneumonia-----	3,492	7.4
Influenza with other respiratory manifestations, and influenza unqualified-----	2,857	6.1
Influenza with digestive manifestations, etc.-----	242	0.5
Influenza with nervous manifestations, etc.-----	6	0.0
Pneumonia-----	40,523	86.0
Lobar pneumonia-----	13,639	28.9
Bronchopneumonia-----	18,883	40.1
Primary atypical pneumonia-----	4,095	8.7
Other and unspecified pneumonia-----	3,906	8.3

<sup>34</sup>Collins, Selwyn D., and Lehmann, Josephine, "Trends and Epidemics of Influenza and Pneumonia, 1918-1951," Public Health Reports, vol. 66, No. 46, pp. 1487-1516, November 16, 1951.

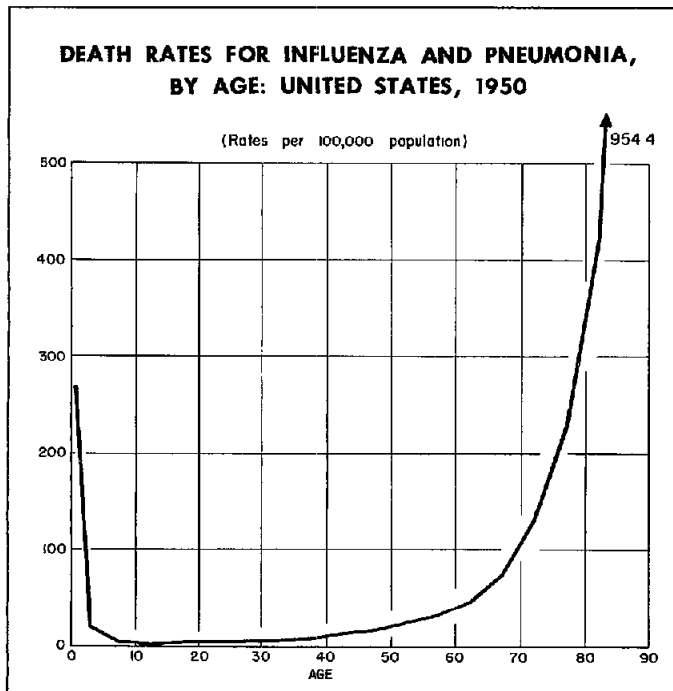
<sup>35</sup>Based on rates corrected for differences in cause-of-death classification between the Fifth and Sixth Revisions. See table 8.44.

<sup>36</sup>Collins, Selwyn D., and Lehmann, Josephine, "Excess Deaths From Influenza and Pneumonia, and From Important Chronic Diseases During Epidemic Periods, 1918-51," Public Health Monograph No. 10, Public Health Service Publication No. 213, U. S. Government Printing Office, Washington, D. C., 1953.

Influenza constitutes a relatively small proportion (14 percent) of the influenza and pneumonia total. In a smaller proportion (7 percent) of deaths, pneumonia was mentioned as a complicating condition.

The attack on influenza has not been on the disease itself, but on the complicating condition, pneumonia. A series of developments starting with serum therapy in the early 1930's, the use of the sulfonamides in the late 1930's, and the antibiotics in the early 1940's have contributed to the great decline of influenza and pneumonia mortality. The impact of the sulfa drugs was felt almost immediately, but the sulfonamides were superseded by the various antibiotics as they became available and proved effective in the treatment of respiratory infections.

FIGURE 8 J



While the large majority of the deaths from influenza and pneumonia are pneumonia deaths, the type of pneumonia predominating as the underlying cause is changing. Prior to 1940, lobar pneumonia exceeded by a fairly large margin all other pneumonias as the cause of death. Since 1938, the decline in the lobar pneumonia death rate has proceeded much faster than that for bronchopneumonia. For the first time, in 1940, the lobar pneumonia death rate was lower (about 4 percent) than the rate for bronchopneumonia. By 1950, the lobar pneumonia death rate was 27 percent lower than the corresponding figure for bronchopneumonia. At the same time, increasing numbers of deaths are being reported from atypical pneumonia. While the total for primary atypical pneumonia in 1950 was relatively small (4,095), the death rate for this cause has been increasing since the early 1940's. When atypical or virus pneumonia was first set up as a special category in 1944, 774 deaths (or a rate of 0.6 per 100,000 population) were reported. In 1950, the death rate for this cause was 2.7 per 100,000 population. Although a part of this increase is due to the effects of the revision in classification procedures, there is no doubt of the large increase in the reporting of atypical pneumonia.

**Trend by age.**—The mortality trends by age have rather similar characteristics, except for the levels of the rates. As in the crude death rate, the trend in the death rate for each

age group was downward with a sharp break further downward occurring in the late 1930's. The rates for those in the younger ages fell a little more rapidly than those for the older ages. However, the differences in the rate of decline are not very great. Perhaps the most notable feature of the death rates by age is the effect of the 1918 influenza pandemic on the various age groups. The population hardest hit by the epidemic was the group 25-34 years, and the effects were successively less on groups younger and older than 25-34 years. Aside from the rapid spread and virulence of the 1918 pandemic, a unique characteristic of that outbreak was its impact upon the young ages. Usually, those in the older ages are affected most.

**Age, race, and sex.**—The age distribution of influenza and pneumonia death rates in 1950 (figure 8,J) indicates the lowest death rates (3.2 per 100,000 population) for the 5-14 and 15-24 year age groups. The death rates are progressively higher going up the age scale and rise even more rapidly at ages under 5 years. The death rate of 18.9 for the 1-4 year age group is almost 6 times that for the 5-14 year age group; and the influenza and pneumonia death rate in infancy (268.1) is about 84 times the lowest recorded rate. The rate for the latter group would be slightly higher if pneumonia of the newborn were included. However, this would not change the relative positions of the death rates by age.

In 1950, the death rate among females was 27.4 as compared with the rate of 35.2 for males; and that for nonwhites (59.0) was more than twice the rate for whites (28.0).

**State.**—Geographically, the death rate ranges from a low of 16.7 per 100,000 population for residents of Connecticut to 50.0 for Colorado (table 8.46). On a regional basis, the rates are highest for the East South Central States and lowest for the Pacific States. In general, the areas of high influenza and pneumonia mortality are from the Mountain States down through the southern half of the country. The influenza epidemic of 1950 was relatively mild in terms of mortality, but excess mortality was recorded in all geographic divisions during the outbreaks. Analysis of data<sup>37</sup> from the large cities indicated some variation in the proportion of the excess deaths credited to influenza and pneumonia. Some, but by no means all, of the geographical differences in influenza and pneumonia death rates are probably due to variations in the way the respiratory infections are associated with chronic diseases, or in the manner influenza and pneumonia and chronic diseases are reported.

### Tuberculosis, All Forms

**Trend.**—The decline in tuberculosis mortality during the past 50 years has been remarkable. Except for the few years around World War I, there has been no major interruption in the decreasing mortality from tuberculosis, which dropped 88 percent in the period between 1900 and 1950.

Three distinct trends are evident in the crude death rate for tuberculosis during the past 50 years. In the first period between 1900 and 1916, the trend, while clearly downward, was not outstanding. In this period, the rate declined approximately 1.7 percent per year. Between 1921 and 1944, the rate of decline increased to about 2.4 percent per year; and between 1945 and 1950, the rate declined 8.7 percent per year. This increase in the rate of decline is evidence of an accelerating downward trend in tuberculosis mortality. While these are but rough indices of the annual rate of change since they are based upon comparison of death rates at both ends of the period, a more precise trend analysis will bear out

<sup>37</sup>Ibid.



the same conclusion. The tuberculosis death rate of 22.5 per 100,000 population in 1950 is the lowest ever recorded in the history of the United States.

The downward trend in the tuberculosis death rate<sup>38</sup> is not confined to any one sex or race group, but the rate of decline has been generally greater for females than for males, and for whites than for nonwhites. In general, the rates were highest for nonwhite males (except for the period 1919 to 1929, when the rates for nonwhite females exceeded those for nonwhite males), and lowest for white females. The sex differential in tuberculosis mortality has been widening over the past 30 years for whites, and 20 years for nonwhites. On the other hand, the gap in death rates between the race groups has been growing narrower in the past decade. The tuberculosis death rate in 1950 for white males was 25.0 per 100,000 population; for white females, 10.8; for nonwhite males, 74.7; and for nonwhite females, 50.6.

**Trend by age.**—The trends by age indicate part of the changing picture in tuberculosis mortality. As mentioned before, the death rate for every age group has undergone a substantial decline between 1900 and 1950 (figure 8.K). However, the general rate of decline has been greater for the younger ages.

The tuberculosis death rate for every age group reflects to varying degrees the effect of the influenza epidemics from 1918 to 1920. The biggest upsurge in tuberculosis mortality occurred in the 15-24 and 25-34 year age groups.

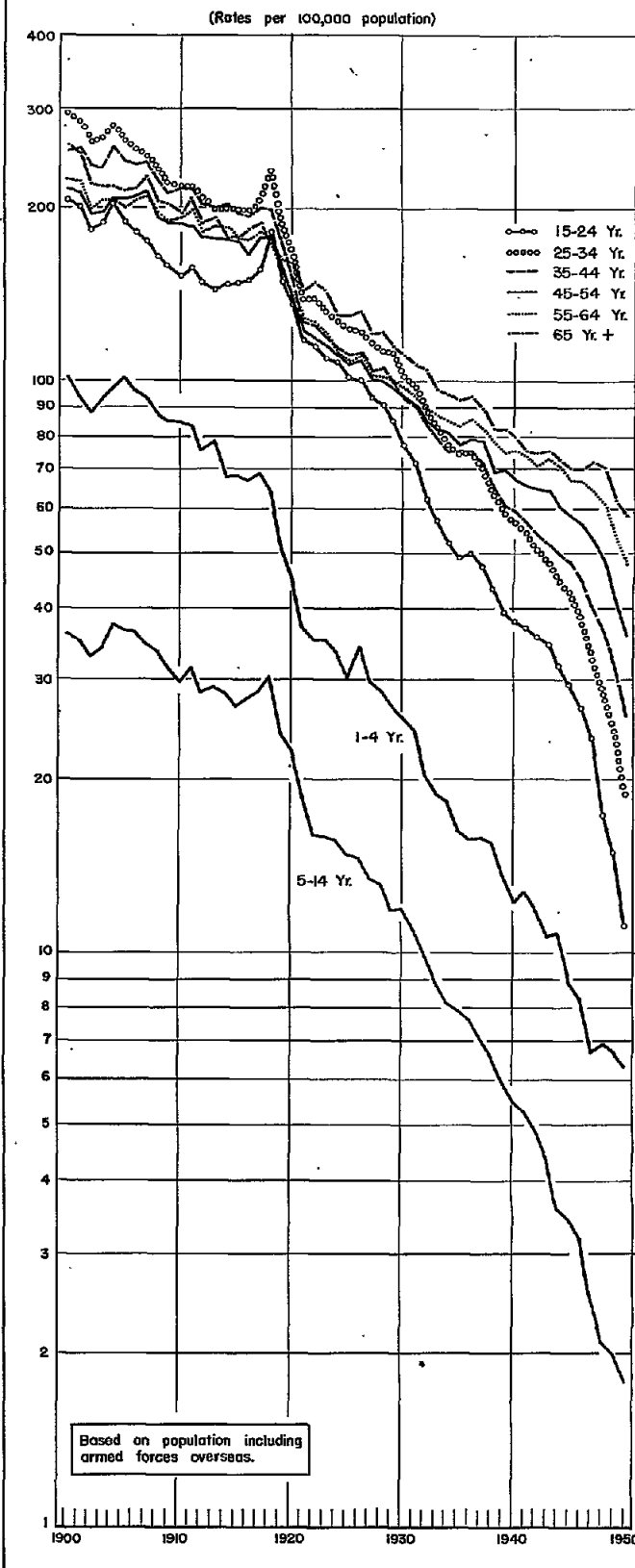
Of particular interest is the course of mortality in the young adult ages. In the first decade of this century, the death rate for the 25-34 year age group was consistently higher than the rates for any other age group. The excess tuberculosis deaths resulting from the influenza epidemics in 1918 to 1920 again brought the rates for the 25-34 year age group to higher levels than those recorded for the other ages. Since that time, the rate declined faster than those of the age groups above 35 years. As a consequence, the death rate for the 25-34 year age group now lies between those for 15-24 and 35-44.

The change in the tuberculosis death rate during the past years is greatest for the 15-24 year age group. The decline is almost as great for the population 25-34 years, and as the age scale is ascended, the rate of decline is smaller but substantial up to age 65 years. In the younger ages, the change in the rate of decrease is noticeable in the death rate for those 5-14, but there is no conspicuous change in the rate for the 1-4 age group. The acceleration in the downward trend for the 5-14 year age group appears to have started several years before the other age groups. For the 15-24 year age group, the rates have dropped more rapidly since 1945 than at any other time in its previous history.

Deaths from tuberculosis of the respiratory organs form the bulk of all deaths from tuberculosis. In 1950, the death rate for tuberculosis of the respiratory system was 20.6, and that for nonrespiratory tuberculosis was 1.9 per 100,000 population. Until recent years, the death rate for the nonrespiratory forms of tuberculosis was declining relatively faster than that for pulmonary tuberculosis. While the decline is continuing, there are indications that during the past 5 years, the death rate for respiratory tuberculosis is decreasing at a greater rate than mortality from the nonrespiratory forms of tuberculosis. It would appear that, for the first time, more rapid advances are being made in the prevention of deaths from respiratory tuberculosis which represents, by far, a bigger problem than that of the nonrespiratory forms

FIGURE 8.K

### DEATH RATES FOR TUBERCULOSIS, ALL FORMS, BY AGE: DEATH-REGISTRATION STATES, 1900-1950



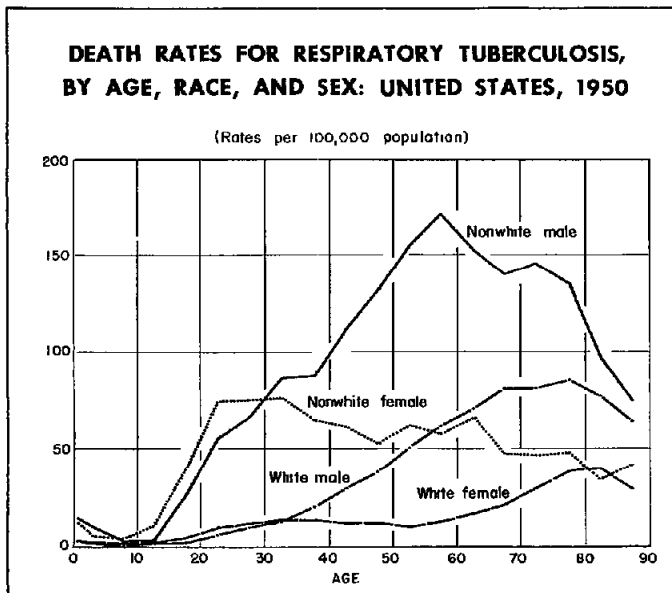
<sup>38</sup>For the most recent comprehensive analysis of tuberculosis mortality trend by age, race, and sex, see Guralnick, Lillian, and Glaser, Stanley, "Tuberculosis Mortality in the United States, 1948," Public Health Reports, vol. 65, No. 14, pp. 468-493, April 7, 1950.

of tuberculosis.

The relative difference in mortality by sex is considerably greater for respiratory than for the nonrespiratory forms of the disease. In 1950, the respiratory tuberculosis death rate for males was 27.9 per 100,000 population, or about twice that for females (13.5). For nonrespiratory tuberculosis, the death rate for males was 2.2, or about 38 percent higher than the rate of 1.6 for females.

The race differential in tuberculosis mortality continues to be great, despite the reduction in death rates in recent years. The death rate for respiratory tuberculosis among nonwhites in 1950 was 55.4, or almost 3.5 times higher than the rate of 16.6 for whites. While the frequency of deaths from nonrespiratory tuberculosis has reached a very low level among whites, it is still of importance for the nonwhite population. In 1950, the death rate for nonrespiratory tuberculosis was 1.3 per 100,000 population for whites, whereas among nonwhites, it was 6.9—more than five times as large.

FIGURE 8. L.



**Age, race, and sex.**—The pattern of distribution of respiratory tuberculosis death rates by age, race, and sex in 1950 follows the same general configurations of the past years (figure 8.L). There are, however, several specific changes of interest resulting from the differential decline in the death rates. For example, the bimodal peaks in the death rate for nonwhite females are not now as prominent as they used to be, primarily because the first peak has been flattened out considerably owing to the relatively large drop in the death rate among nonwhites in the younger ages. For all race-sex groups, the average age at death from respiratory tuberculosis appears to have been pushed up to an older age. Formerly, the death rate curve for white females generally cut across the curve for nonwhite females at a point between 70 and 80 years of age. In 1950, no such cross-over occurred, and the

maximum death rates for white females remained lower than the lowest death rate recorded for nonwhite females. Another point of interest is that the death rate for white females at ages 30-34 in 1950 was slightly higher than that for white males, a change in the relationship observed in the past.

Although the general configuration of the curves of death rates for the various race and sex groups by age still remains the same, the pattern is changing in detail. The higher peaks are being depressed, and the curves show less variation with age. More and more, respiratory tuberculosis is becoming a cause of death in the older ages. However, when deaths from respiratory tuberculosis are related to deaths from all causes, respiratory tuberculosis remains a relatively important cause of death in young adulthood.

**State.**—Mortality from tuberculosis, all forms (table 8.46), in 1950 ranged from a low of 6.2 per 100,000 for residents of Wyoming to a high of 59.6 for Arizona residents. Although deaths occurring in institutions were allocated to the specified "usual place of residence" in 1950, the latter figure undoubtedly reflects to some extent deaths among those who migrated to Arizona for reasons of health. In general, the highest death rates were found in the South Central States and northern portion of the Atlantic States, and in two of the Mountain States, Arizona and New Mexico. Only 6 States, Arizona, New Mexico, Kentucky, Maryland, Tennessee, and Arkansas, and the District of Columbia, recorded resident death rates over 30 per 100,000 population in 1950; 22, or 45 percent of the States, recorded death rates lower than 20; and 4 States, Wyoming, Utah, Iowa, and Nebraska, reported resident death rates considerably lower than 10 per 100,000 population.

Areas of high death rates as well as those States with low death rates have contributed to the rapid decline in the tuberculosis death rate observed for the United States. There appears to be no indication that the tuberculosis death rate is leveling off even for States with very low rates.

### Diabetes Mellitus

**Trend.**—The general mortality trend for diabetes has been upwards during the period 1900 to 1940, but, since 1940, the crude death rate has leveled off. When the rates are adjusted for the changing age composition of the population, it is found that the rising trend of diabetes mortality is not as great as that for the crude death rates, and that the rates stopped increasing about 1936. Furthermore, the death rate appears to be declining in recent years.

Neither the annual crude death rates nor the age-adjusted death rates give any indication of the decline in diabetes mortality to the extent expected after the discovery of insulin in 1922. On the contrary, the recorded crude death rate for diabetes continued to rise almost without interruption until 1940, despite the widespread use of insulin for nearly 20 years. However, because of the problems in reporting and classification, the "true" trend of diabetes has probably been one of decreasing mortality rather than that indicated by the crude death rates. The leveling off, or possibly the decline in the death rate during the past decade, has resulted from the fall in the death rate in the older ages.

A major consideration in the interpretation of statistics

FIGURE 8.M

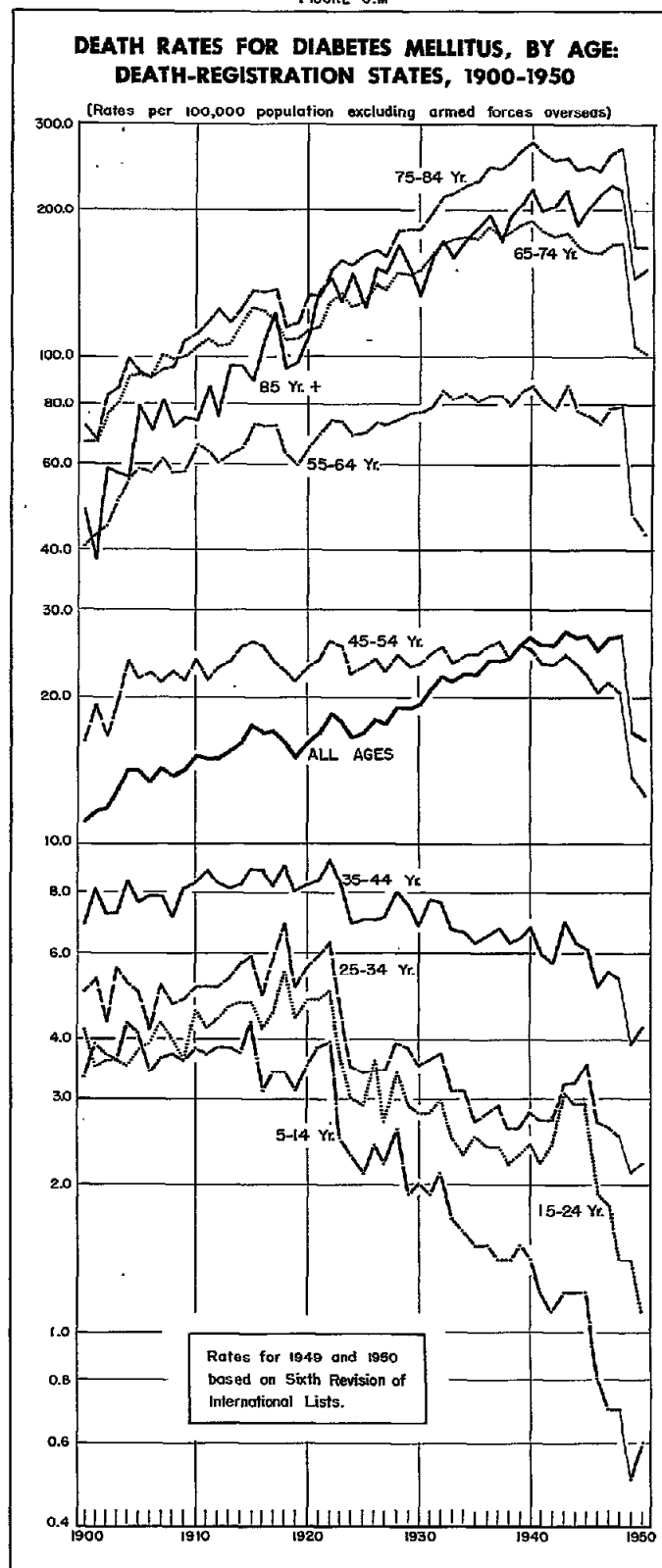
of diseases such as diabetes is how well the disease is recognized or detected, and hence reported. It is well known that there has been an increasing recognition of diabetes. Also, there are indications of increased reporting of diabetes on the death certificates. This in itself is significant, but the effect of such an increase in reporting would probably not result in too great an overstatement of the diabetes death rate, were it not for a certain practice in the cause-of-death classification in effect in the United States through 1948. Before the adoption of the Sixth Revision of the International Lists of Diseases and Causes of Death in 1949, cognizance was not taken of the distinction made by the physician in reporting diabetes as the direct or contributory cause of death. For example, a physician reporting the death of a diabetic with heart disease might feel that diabetes was only a contributory factor to the risk of dying because diabetes was under insulin control throughout the period of illness from heart disease. In such a case, he would report heart disease as the underlying cause and diabetes as a contributory cause. In the cause-of-death classification prior to 1949, however, diabetes was selected as the primary cause over heart disease because of its stronger priority weight. This practice had the effect of grossly exaggerating the recorded diabetes death rate because diabetes is frequently reported on the death certificate as a contributory cause of death. The degree of overstatement is estimated to be about 40 percent. In other words, if the physician's statement of diabetes as being only a contributory factor to death (and not related to the immediate or underlying cause) is taken into consideration, as was done starting in 1949, the diabetes death rate would be about 40 percent lower merely from the change in classification procedures.

The effects of comparability are even greater on the diabetes death rate for older ages because of the association between diabetes and other chronic diseases at these ages. The ratios of deaths classified as diabetes by the Sixth Revision to deaths assigned to this cause by the Fifth Revision, obtained from a sample of death certificates,<sup>39</sup> are:

All ages-----	0.58
Under 1 year-----	0.50
1-14 years-----	0.90
15-24 years-----	1.03
25-44 years-----	0.75
45-64 years-----	0.57
65-74 years-----	0.56
75 years and over-----	0.58

The break in the comparability of the time series for diabetes is disturbing. However, statistics on diabetes mortality are now a better index of mortality risk from diabetes than those for former years.

Because of the increasing proportion of diabetes reported jointly with other causes over the past years, it seems likely that since the introduction of insulin the "true" diabetes mortality trend has been downward rather than upward as indicated by the crude death rates. The crude death rate has the further disadvantage of obscuring the effects of insulin therapy on mortality among young diabetics. Here, the classification problems mentioned above are less likely to arise



<sup>39</sup>Same as footnote 31.

because death results more frequently from complications of the disease itself.

The death rates by age show that between 1900 and 1922 the diabetes mortality rates for the age groups up to 45 years were either level or indicated some upward tendency. Coincident with the introduction of insulin therapy in the early 1920's, the mortality trend has been downward. The rate of decline has been greatest for children, and less for each successively older age group (figure 8.M).

In the older age groups, the mortality trend has been upward between 1900 and 1940, with the rate of change increasing with age. Except for the age group 85 years and over, the mortality trend appears to be turning downward in the older ages, starting about 1940.

**Race and sex.**—The large sex differential in diabetes mortality has been observed for a long time. In 1950, the diabetes death rate of 19.9 per 100,000 population for females was 59 percent higher than that for males (12.5). For nonwhites, the death rate for females (18.7) exceeded the rate for males (10.0) by 87 percent. For whites, the difference was smaller (56 percent), the death rate for females being 20.0 per 100,000 population and that for males 12.8 (table 8.43).

Mortality data for the years past indicated that the race difference in diabetes mortality was as great or greater than the sex difference. For example, in 1930, the diabetes death rate for whites was 55 percent higher than that for nonwhites, and the sex difference also amounted to about 55 percent. Large race differentials were recorded each year until 1949, when, apparently because of the change in cause-of-death classification procedures, the large gap formerly observed was suddenly narrowed. In 1950, the diabetes death rate for whites was about 14 percent higher than the rate for nonwhites. While this difference is still relatively great, the magnitude of the difference has been reduced considerably, presumably by the change in statistical practice. The race difference in the rates for males has remained high, the rate being 28 percent greater for whites than for nonwhites. For females, the rate for whites exceeds that for nonwhites only by about 7 percent.

**State.**—Diabetes mortality in 1950 ranged from 5.6 per 100,000 population for residents of New Mexico to 35.9 for residents of Rhode Island. In general, the death rates for the Northern States are considerably higher than those for the Southern, Mountain, and Pacific States. Part of the geographic differences found may be attributed to differences in the age composition of the population. Differences in problems of diagnosis and reporting also affect the interpretation of geographic distribution of death rates. However, the differences appear too great to be completely accounted for on these bases.

## Maternal Mortality

**Trend.**—The maternal mortality rate of 8.3 per 10,000 live births in 1950 was the lowest ever recorded for the United States. The mortality risk of pregnancy, childbirth, and the puerperium is now about one-seventh of what it was 35 years ago when maternal mortality rates were first computed for the birth-registration States of 1915.

In the period 1915 to 1950, three phases in the maternal mortality trend may be seen. In the first period, from 1915 through 1928, there was little or no change in the general level. Of significance, however, were the explosive effects on maternal deaths of the influenza pandemic of 1918 and the

influenza epidemics that followed in 1919 and 1920. Beginning with 1929, the rate declined. In the years 1929 to 1936, the maternal mortality rate dropped from 69.5 per 10,000 live births to 56.8, a rate of decline of about 3 percent per year. Since 1936, maternal mortality has been declining almost twice as fast when compared with the previous period.

In the interpretation of the maternal mortality trend, cognizance should be taken of the effect of classification changes. According to the provisional information, maternal mortality rates for the decade 1939-48 are overstated about 9 percent when compared with the rates for 1949 and 1950, which are based on the Sixth Revision. This difference arises because conditions associated with pregnancy are frequently reported as contributory factors in death. Under the joint-cause relationships in the Fifth Revision coding procedure, diseases of pregnancy, childbirth, and the puerperium took precedence over most other causes reported on the death certificate. Since, according to the rules applied with the Sixth Revision, only deaths in which deliveries and complications of pregnancy, childbirth, and the puerperium have been indicated as the underlying cause are so tabulated, the level of the maternal mortality rate has dropped about 9 percent. However, the comparability factor does not in any way affect the conclusions reached on the changing trend of maternal mortality previously discussed.

Table 8.35. MATERNAL MORTALITY RATES BY RACE: BIRTH-REGISTRATION STATES, 1915-50

(Deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium per 10,000 live births in each specified group)

YEAR	All races	White	Non-white	YEAR	All races	White	Non-white
1950 <sup>1</sup> -----	8.3	6.1	22.2	1932-----	63.5	58.1	97.6
1949 <sup>1</sup> -----	9.0	6.8	23.5	1931-----	66.1	60.1	111.4
1948-----	11.7	8.9	30.1	1930-----	67.3	60.9	117.4
1947-----	13.5	10.9	33.5	1929-----	69.5	63.1	119.9
1946-----	15.7	13.1	35.9	1928-----	69.2	62.7	121.0
1945-----	20.7	17.2	45.5	1927-----	64.7	59.4	113.3
1944-----	22.8	18.9	50.6	1926-----	65.6	61.9	107.1
1943-----	24.5	21.1	51.0	1925-----	64.7	60.3	118.2
1942-----	25.9	22.2	54.4	1924-----	65.6	60.7	117.9
1941-----	31.7	26.6	67.8	1923-----	66.5	62.6	109.5
1940-----	37.6	32.0	77.3	1922-----	66.4	62.8	106.8
1939-----	40.4	35.3	76.2	1921-----	68.2	64.4	107.7
1938-----	43.5	37.7	84.9	1920-----	79.9	76.0	128.1
1937-----	48.9	43.6	85.8	1919-----	73.7	69.6	124.4
1936-----	56.8	51.2	97.2	1918-----	91.6	88.9	139.3
1935-----	58.2	53.1	94.6	1917-----	66.2	63.2	117.7
1934-----	59.3	54.4	89.7	1916-----	62.2	60.8	117.9
1933-----	61.9	56.4	96.7	1915-----	60.8	60.1	105.8

<sup>1</sup>For 1949 and 1950, deaths classified according to the Sixth Revision of the International Lists, 1948. For discussion of comparability between revisions, see text.

As may be seen from table 8.35, the maternal mortality rate for white women has declined faster than that for nonwhite women since 1936. Because of this, the race differential in mortality risk associated with childbirth has widened even more. The maternal mortality rate for nonwhites in 1950 was 22.2 per 10,000 live births, or more than three times the rate for whites.

**Age.**—In the period 1940 to 1950, there has been a decline in the maternal mortality rate for every age group (table 8.36). The percentage decrease has been greatest for young mothers, 15-19 years. With the increase in the age of the

mother, the decline in the rate has been progressively less. Also, for very young mothers (under 15), the percentage decline in the rate, while substantial, has not been as favorable as those between 15 and 29 years. Despite the large recorded decline, the maternal mortality risk in 1950 remained high

Table 8.36. MATERNAL DEATH RATES BY AGE OF MOTHER: UNITED STATES, 1940 AND 1950, WITH PERCENT DECREASES

(Deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium per 10,000 live births in each specified group)

AGE OF MOTHER	1950	1940	Percent decrease
ALL AGES <sup>1</sup> -----	8.3	37.6	77.9
Under 15 years-----	31.9	138.2	76.9
15-19 years-----	6.8	37.9	82.1
20-24 years-----	4.8	24.0	80.0
25-29 years-----	6.4	30.4	78.9
30-34 years-----	10.8	44.7	75.8
35-39 years-----	19.1	74.5	74.4
40-44 years-----	31.8	95.7	66.8
45 years and over-----	60.0	131.4	54.3

<sup>1</sup>Figures for age not stated included in the total, but not distributed among the specified age groups.

NOTE.—For 1950, deaths classified according to the Sixth Revision of the International Lists; for 1940, according to the Fifth Revision. For discussion of comparability between revisions, see text.

for those under 15 and in the older ages in the reproductive period. The most favorable ages in terms of mortality risks are between 20 and 24 years.

**State.**—In general, maternal mortality rates are lowest in the Pacific and in the Northern States, and highest in the Southern States. By division, the rates ranged from a low of 5.0 per 10,000 live births for the resident mothers of the Pacific Division in 1950 to 15.9 for residents of the East South Central (table 8.55). These rates reflect, to a large extent, the differences in rates between the whites and non-whites.

While maternal health still constitutes a relatively important problem, the recent reductions in rates have brought the level of maternal mortality to such a low point that even comparatively large annual changes in the rates have no particular significance. For example, 9 States and the District of Columbia reported fewer than 10 maternal deaths to residents of their area. Because rates based on small frequencies are subject to relatively large errors, the maternal mortality rates for the smaller States should be interpreted with care. However, there appears to be no question that maternal mortality for many States has dropped to an extremely low level.

Even for States reporting the highest mortality rates in 1950, the levels of mortality were such that they were equal to or lower than the national maternal mortality rate for 1943. In that year, some of these States were recording rates which were almost twice that of the maternal mortality rate for the United States in 1943. The prevention of maternal deaths has been truly remarkable even in areas with a past history of high maternal mortality.

Table 8.37. Crude Death Rates by Place of Occurrence:

(Exclusive of fetal deaths. Rates per 1,000 population in each specified area, estimated as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 when the division, as a whole,

AREA	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928
1 UNITED STATES (death-registration States)--	9.6	9.7	9.9	10.1	10.0	10.6	10.6	10.9	10.3	10.5	10.8	10.6	10.6	11.3	11.6	10.9	11.1	10.7	10.9	11.1	11.3	11.9	12.0
GEOGRAPHIC DIVISIONS																							
2 New England-----	10.4	10.4	10.9	11.0	11.2	11.7	11.9	12.5	11.4	11.4	11.7	11.6	11.5	12.0	12.0	11.7	11.6	12.0	11.8	11.6	11.8	12.6	12.3
3 Middle Atlantic-----	10.4	10.3	10.5	10.9	11.0	12.0	11.8	12.4	11.3	11.0	11.1	11.0	10.9	11.5	11.4	11.1	11.2	11.1	11.2	11.5	11.5	12.3	12.5
4 East North Central-----	10.0	9.9	10.0	10.5	10.3	11.1	11.0	11.5	10.6	10.6	10.9	10.8	10.7	11.3	11.7	11.0	11.1	10.6	10.9	11.0	11.1	11.6	11.9
5 West North Central-----	10.1	10.2	10.2	10.6	10.4	11.0	11.0	11.0	10.2	10.3	10.3	10.2	10.1	10.6	11.4	10.5	10.6	10.2	10.3	10.3	10.4	---	---
6 South Atlantic-----	9.0	9.0	9.2	9.1	8.9	9.3	9.4	9.6	9.5	10.3	10.6	10.3	10.8	11.3	11.9	11.3	11.6	10.7	11.1	11.6	12.1	12.4	12.5
7 East South Central-----	9.2	9.4	9.4	9.4	9.2	9.7	9.9	9.5	9.4	10.2	10.4	10.2	10.5	11.1	11.6	10.6	10.9	10.4	10.5	10.8	11.5	12.3	12.2
8 West South Central-----	8.4	8.5	8.6	8.6	8.3	8.7	8.9	8.9	8.7	9.1	9.6	9.4	9.5	10.2	10.5	9.7	9.7	9.6	---	---	---	---	---
9 Mountain-----	8.8	9.2	9.6	9.8	9.7	10.4	10.3	10.2	10.6	10.3	10.3	10.5	10.7	11.8	11.9	11.6	11.1	10.6	10.9	11.2	12.0	12.1	---
10 Pacific-----	9.3	9.7	9.9	9.9	9.9	10.0	10.5	10.7	11.0	11.2	11.6	11.2	11.3	12.1	12.0	11.6	11.2	11.2	11.2	11.3	11.4	11.5	11.9
NEW ENGLAND																							
11 Maine-----	10.9	11.1	11.4	11.7	12.0	12.4	12.8	15.4	12.3	12.3	12.5	12.8	12.6	13.8	13.7	13.4	13.4	13.7	13.3	13.1	13.9	14.2	13.8
12 New Hampshire-----	11.4	11.4	11.9	12.3	12.4	12.7	13.6	13.6	11.7	12.5	12.7	12.9	13.3	13.7	13.5	13.7	13.5	13.7	13.5	12.7	13.6	14.0	13.8
13 Vermont-----	11.0	11.3	11.3	12.3	12.0	12.5	13.4	13.8	12.2	12.4	12.8	12.7	12.9	14.0	13.9	13.4	13.7	12.9	13.3	12.5	13.0	14.7	13.7
14 Massachusetts-----	10.5	10.8	11.3	11.3	11.5	12.2	12.3	12.8	11.7	11.6	11.9	11.6	11.2	11.8	11.8	11.5	11.7	11.9	11.6	11.5	11.8	12.3	12.1
15 Rhode Island-----	10.5	10.0	10.3	10.7	10.4	10.2	10.5	11.7	10.9	10.8	11.2	11.1	11.9	12.0	11.8	11.6	11.4	11.7	11.9	11.7	11.7	12.0	12.4
16 Connecticut-----	9.4	9.2	9.6	9.6	10.0	10.5	10.5	11.0	10.2	10.3	10.5	10.5	10.5	10.8	10.8	10.7	10.7	10.7	10.4	10.7	10.7	11.5	11.4
MIDDLE ATLANTIC																							
17 New York-----	10.5	10.4	10.9	11.3	11.4	12.3	12.1	12.7	11.5	11.1	11.1	11.1	10.9	11.5	11.5	11.2	11.3	11.4	11.4	11.7	11.7	12.7	13.1
18 New Jersey-----	9.9	9.6	10.0	10.3	10.2	11.4	11.3	11.7	10.7	10.7	10.8	10.6	10.7	11.0	11.0	10.6	10.7	10.6	10.4	10.8	10.7	11.6	11.3
19 Pennsylvania-----	10.5	10.4	10.6	10.8	10.9	11.9	11.9	12.2	11.5	10.9	11.3	11.0	10.8	11.8	11.6	11.1	11.2	10.8	11.2	11.5	11.5	12.1	12.2
EAST NORTH CENTRAL																							
20 Ohio-----	10.1	10.1	10.2	10.6	10.4	11.4	11.5	12.0	11.2	11.2	11.4	11.1	10.9	11.7	11.8	11.3	11.3	10.6	11.3	11.3	11.4	12.3	12.1
21 Indiana-----	10.3	10.1	10.2	10.7	10.5	11.5	11.4	11.9	11.2	11.4	11.8	11.6	11.3	12.1	12.6	11.8	12.2	11.4	11.6	11.9	12.1	12.7	12.6
22 Illinois-----	10.5	10.5	10.5	11.1	10.8	11.7	11.3	11.7	10.8	10.7	11.2	11.0	10.8	11.2	11.9	11.0	11.3	10.7	10.6	11.2	10.9	11.5	11.9
23 Michigan-----	9.0	9.0	9.1	9.4	9.3	9.8	9.9	10.5	9.5	9.6	9.9	10.1	10.0	10.8	11.2	10.6	10.5	10.2	10.4	10.2	10.7	11.7	11.7
24 Wisconsin-----	9.9	9.7	9.9	10.2	10.2	10.8	10.6	10.8	10.1	9.8	10.1	10.1	10.0	10.4	10.9	10.1	10.0	9.6	10.1	10.1	10.4	10.7	10.9
WEST NORTH CENTRAL																							
25 Minnesota-----	9.5	9.6	9.7	10.1	10.1	10.8	10.7	10.6	9.9	9.8	9.6	9.7	9.6	9.9	10.6	9.8	10.0	9.6	9.6	9.6	10.0	10.0	10.0
26 Iowa-----	10.3	10.2	10.3	10.6	10.5	11.2	11.4	11.3	10.3	10.3	10.4	10.5	10.3	10.7	11.4	10.5	10.7	10.3	10.4	10.4	10.6	10.4	10.3
27 Missouri-----	11.1	11.3	11.2	11.6	11.4	12.1	11.9	12.0	11.0	11.3	11.6	11.3	11.4	12.0	13.1	11.6	12.5	11.4	11.6	12.0	11.6	12.2	12.6
28 North Dakota-----	8.3	8.6	8.7	8.9	8.8	9.3	9.5	9.4	8.2	8.6	8.2	8.5	8.1	8.4	8.7	8.9	8.9	8.2	7.7	7.6	7.9	8.0	8.3
29 South Dakota-----	9.0	9.0	9.3	9.5	9.3	9.3	9.8	9.5	8.9	8.8	8.5	8.6	8.4	9.1	9.2	9.4	9.5	8.9	8.3	8.5	8.5	---	---
30 Nebraska-----	9.5	9.6	9.9	10.1	9.8	10.3	10.3	10.4	9.9	9.6	9.6	9.3	9.1	9.9	10.2	9.7	9.6	9.4	9.4	9.4	9.6	9.7	10.0
31 Kansas-----	10.1	9.8	9.9	10.1	10.0	10.7	10.4	10.7	10.4	10.5	10.3	10.1	10.1	10.3	11.6	10.9	10.7	10.5	10.4	9.9	10.4	10.4	11.3
SOUTH ATLANTIC																							
32 Delaware-----	11.2	10.7	11.1	11.1	10.9	11.6	11.8	12.4	11.9	11.8	12.2	12.1	12.4	13.0	13.1	12.8	13.4	13.4	13.0	13.6	13.6	13.3	13.7
33 Maryland-----	9.8	9.7	10.1	10.2	10.0	10.9	10.8	11.5	11.2	11.5	12.1	11.6	11.9	12.6	12.6	12.3	12.2	12.5	13.1	13.2	12.5	13.5	13.5
34 District of Columbia-----	11.1	10.8	10.0	9.5	9.5	10.2	9.9	10.6	10.6	11.3	11.0	12.6	12.5	14.2	14.2	14.0	14.6	14.9	15.5	15.3	15.1	15.4	15.1
35 Virginia-----	8.9	8.9	9.0	9.1	8.7	8.9	8.8	9.2	9.5	9.5	9.3	9.3	9.5	10.3	10.7	9.9	9.8	9.2	10.0	10.0	10.5	10.6	10.4
36 West Virginia-----	8.7	9.0	9.3	9.2	8.9	9.7	9.8	9.9	9.3	8.5	8.3	8.3	8.5	9.0	9.0	9.7	9.9	10.5	9.9	10.5	10.3	11.3	11.8
37 North Carolina-----	7.7	7.9	7.9	8.0	7.8	8.2	8.3	8.3	8.4	9.1	10.5	10.6	10.2	11.1	11.1	11.6	11.1	11.7	10.7	9.5	10.1	11.8	13.8
38 South Carolina-----	8.4	8.6	9.0	8.6	8.4	8.7	9.3	9.4	9.1	10.0	10.4	10.2	10.8	11.2	12.4	11.4	11.8	10.4	10.6	11.2	12.1	12.2	12.4
39 Georgia-----	8.8	8.9	9.1	8.9	8.5	9.2	9.3	9.3	9.1	10.0	10.4	10.2	10.8	11.2	12.4	11.4	11.8	10.4	10.6	11.2	12.1	12.2	12.4
40 Florida-----	10.1	10.0	10.0	10.1	9.9	9.6	10.1	9.9	10.4	11.5	12.1	11.6	11.9	12.3	12.7	12.4	12.8	12.1	12.0	12.1	12.4	12.6	13.2
EAST SOUTH CENTRAL																							
41 Kentucky-----	9.4	9.7	9.9	10.0	9.8	10.5	10.6	10.6	10.0	10.7	10.4	10.5	10.6	11.3	11.9	10.9	11.3	10.7	11.0	11.0	11.3	11.9	11.8
42 Tennessee-----	9.2	9.3	9.3	9.3	9.2	10.0	10.0	9.7	9.4	9.8	10.3	10.0	10.4	10.8	11.7	10.8	10.9	10.3	10.6	10.8	11.5	12.1	12.0
43 Alabama-----	8.7	8.8	8.9	8.8	8.4	9.1	9.3	9.1	8.8	9.9	10.4	10.0	10.5	11.0	11.1	10.3	10.7	10.0	10.3	10.6	11.5	12.3	12.1
44 Mississippi-----	9.5	9.8	9.7	9.4	9.3	9.1	9.4	9.2	9.4	10.3	10.6	10.4	10.6	11.3	11.5	10.2	10.5	10.5	10.0	11.0	12.0	12.9	13.1
WEST SOUTH CENTRAL																							
45 Arkansas-----	8.0	8.4	8.2	8.1	7.8	8.2	8.0	8.3	7.8	8.3	8.7	8.5	8.8	9.6	9.7	8.5	8.9	9.0	8.8	9.6	10.2	10.5	10.8
46 Louisiana-----	8.9	8.9	9.2	9.2	8.7	9.2	9.5	9.5	9.1	9.7	10.8	10.5	10.7	10.9	11.4	10.5	10.4	10.5	10.7	11.0	11.7	11.9	12.1
47 Oklahoma-----	8.5	9.0	8.9	8.8	8.5	9.1	9.0	8.9	8.5	8.8	8.8	8.7	8.6	9.1	9.8	8.8	8.9	8.5	8.0	7.8	8.2	9.0	8.9
48 Texas-----	8.2	8.3	8.4	8.5	8.3	8.6	8.9	8.8	8.8	9.2	9.7	9.5	9.6	10.5	10.7	10.1	9.9	9.9	---	---	---	---	---
MOUNTAIN																							
49 Montana-----	9.8	10.3	10.8	10.7	10.8	11.3	11.9	11.5	10.6	10.4	10.2	10.7	10.4	11.2	11.5	11.6	10.5	9.8	9				



Table 8.38. Crude Death Rates by Place of Residence: United States,  
Each Division and State, 1935-50

(Exclusive of fetal deaths. Rates per 1,000 population in each specified area, estimated as of July 1 for 1935-39 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

AREA	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935
UNITED STATES	9.6	9.7	9.9	10.1	10.0	10.6	10.5	10.9	10.3	10.5	10.8	10.6	10.6	11.3	11.6	10.9
GEOGRAPHIC DIVISIONS																
New England	10.4	10.5	10.9	11.0	11.2	11.7	12.0	12.5	11.4	11.4	11.7	11.6	11.5	12.0	12.0	11.8
Middle Atlantic	10.5	10.3	10.7	11.0	11.1	12.1	11.9	12.4	11.4	11.0	11.2	11.0	10.9	11.5	11.5	11.1
East North Central	10.0	10.0	10.1	10.5	10.4	11.2	11.1	11.5	10.6	10.6	11.0	10.9	10.7	11.3	11.8	11.0
West North Central	10.1	10.1	10.2	10.5	10.3	11.0	11.0	11.0	10.2	10.3	10.3	10.2	10.1	10.6	11.4	10.5
South Atlantic	8.9	8.9	9.1	9.0	8.8	9.2	9.3	9.5	9.4	10.2	10.5	10.2	10.7	11.2	11.8	11.2
East South Central	9.1	9.4	9.4	9.4	9.2	9.7	9.8	9.6	9.4	10.2	10.4	10.2	10.5	11.1	11.6	10.6
West South Central	8.4	8.6	8.6	8.6	8.4	8.8	8.0	9.0	8.7	9.1	9.7	9.4	9.5	10.3	10.5	9.7
Mountain	8.6	9.0	9.4	9.5	9.4	10.1	10.1	9.9	10.3	10.1	10.2	10.4	10.6	11.6	11.8	11.5
Pacific	9.3	9.8	9.9	9.9	9.9	10.0	10.3	10.7	11.0	11.1	11.5	11.1	11.2	12.0	11.9	11.6
NEW ENGLAND																
Maine	10.8	11.2	11.3	11.7	12.1	12.5	12.8	13.5	12.5	12.3	12.5	12.8	12.6	13.8	13.7	13.4
New Hampshire	11.4	11.5	11.9	12.2	12.2	12.7	13.6	13.5	11.8	12.4	12.7	13.0	13.3	13.7	13.4	13.6
Vermont	11.0	11.3	11.4	12.4	12.1	12.7	13.6	14.1	12.4	12.6	13.0	12.9	13.1	14.2	14.1	13.6
Massachusetts	10.5	10.7	11.3	11.3	11.4	12.2	12.3	12.8	11.7	11.5	11.8	11.6	11.2	11.8	11.8	11.4
Rhode Island	10.5	10.1	10.4	10.8	10.5	10.3	10.6	11.7	10.9	10.8	11.2	11.2	11.9	12.1	11.9	11.7
Connecticut	9.5	9.3	9.7	9.7	10.0	10.6	10.6	11.2	10.3	10.4	10.6	10.6	10.6	10.9	10.9	10.8
MIDDLE ATLANTIC																
New York	10.5	10.4	10.9	11.3	11.4	12.3	12.1	12.7	11.5	11.2	11.1	11.1	10.9	11.4	11.4	11.2
New Jersey	10.2	9.8	10.1	10.4	10.3	11.6	11.5	11.9	10.9	10.8	11.0	10.8	10.8	11.2	11.1	10.7
Pennsylvania	10.5	10.4	10.6	10.8	10.9	11.9	12.0	12.3	11.4	11.0	11.3	11.0	10.9	11.9	11.7	11.2
EAST NORTH CENTRAL																
Ohio	10.1	10.1	10.3	10.7	10.4	11.4	11.6	12.0	11.2	11.2	11.4	11.2	10.9	11.7	11.8	11.3
Indiana	10.3	10.1	10.2	10.7	10.5	11.6	11.4	12.0	11.2	11.4	11.8	11.7	11.4	12.1	12.7	11.9
Illinois	10.6	10.7	10.7	11.2	11.0	11.9	11.4	11.9	10.9	10.8	11.3	11.1	10.9	11.3	12.0	11.1
Michigan	9.1	9.1	9.1	9.4	9.4	9.9	9.9	10.6	8.5	8.8	8.9	10.1	10.0	10.8	11.2	10.6
Wisconsin	9.8	9.7	9.8	10.2	10.2	10.8	10.6	10.8	10.2	9.8	10.1	10.1	9.9	10.4	10.9	10.1
WEST NORTH CENTRAL																
Minnesota	9.4	9.4	9.6	9.9	9.9	10.5	10.5	10.5	9.7	9.6	9.4	8.5	9.4	9.7	10.4	9.6
Iowa	10.3	10.1	10.2	10.6	10.4	11.2	11.3	11.2	10.3	10.3	10.4	10.5	10.3	10.7	11.4	10.5
Missouri	11.1	11.3	11.1	11.6	11.3	12.1	11.9	12.0	10.9	11.3	11.8	11.3	11.4	12.0	13.0	11.8
North Dakota	8.4	8.7	8.9	9.1	8.9	9.4	9.6	9.5	8.3	8.6	8.2	8.4	8.2	8.6	8.7	8.9
South Dakota	9.0	9.0	9.5	9.5	9.4	9.5	10.0	9.6	9.2	9.3	8.9	9.0	8.5	9.2	9.4	9.5
Nebraska	9.5	9.7	10.0	10.2	9.9	10.3	10.3	10.5	10.0	9.7	9.8	9.4	9.2	10.1	10.3	9.7
Kansas	10.0	9.8	9.8	10.1	10.0	10.7	10.4	10.6	10.3	10.5	10.3	10.1	10.1	10.4	11.7	10.8
SOUTH ATLANTIC																
Delaware	11.0	10.5	10.9	11.0	10.8	11.4	11.7	12.4	11.9	11.9	12.3	12.0	12.4	12.9	13.1	12.7
Maryland	9.6	9.5	9.9	10.0	9.8	10.8	10.7	11.5	11.1	11.5	12.1	11.6	11.8	12.8	12.7	12.3
District of Columbia	10.7	10.3	9.8	9.3	9.2	9.6	9.3	9.8	9.9	10.5	12.2	11.9	11.9	13.3	13.5	13.2
Virginia	9.0	8.9	9.0	9.1	8.8	9.0	8.8	9.2	9.6	10.8	11.1	10.7	11.1	11.8	12.4	11.7
West Virginia	8.7	9.0	9.3	9.1	8.9	9.7	9.7	9.9	9.3	9.5	9.3	9.3	9.5	10.3	10.7	9.9
North Carolina	7.7	7.9	7.9	8.0	7.8	8.2	8.3	8.2	8.2	8.8	8.9	9.0	9.6	9.8	10.4	9.9
South Carolina	8.5	8.6	9.0	8.8	8.4	8.7	9.3	9.4	9.1	10.5	10.7	10.2	11.1	11.1	11.7	11.2
Georgia	8.8	8.9	9.1	8.8	8.5	9.2	9.3	9.3	9.1	10.0	10.4	10.2	10.9	11.3	12.4	11.4
Florida	9.6	9.5	9.6	9.6	9.4	9.2	9.7	9.6	9.8	10.7	11.4	11.0	11.3	11.7	12.2	11.8
EAST SOUTH CENTRAL																
Kentucky	9.5	9.8	10.0	10.1	9.9	10.6	10.8	10.8	10.1	10.8	10.5	10.6	10.6	11.4	12.0	11.0
Tennessee	8.9	9.0	9.0	9.0	9.0	9.7	9.7	9.4	9.2	9.6	10.1	9.8	10.2	10.6	11.4	10.8
Alabama	8.8	8.9	9.0	9.0	8.5	9.2	9.3	9.1	8.9	9.9	10.4	10.1	10.5	11.0	11.2	10.3
Mississippi	9.5	9.9	9.8	9.8	9.4	9.3	9.5	9.3	9.4	10.5	10.7	10.5	10.7	11.5	11.6	10.3
WEST SOUTH CENTRAL																
Arkansas	8.1	8.5	8.3	8.2	8.0	8.3	8.2	8.4	8.0	8.3	8.8	8.5	8.9	9.9	9.9	8.6
Louisiana	8.8	8.9	9.1	9.1	8.6	9.1	9.4	9.4	9.0	9.6	10.8	10.4	10.7	10.9	11.4	10.5
Oklahoma	8.7	9.2	9.1	9.1	8.8	9.3	9.3	9.2	8.7	9.0	8.9	8.9	8.8	9.3	10.0	9.0
Texas	8.2	8.3	8.4	8.5	8.3	8.6	9.0	8.9	8.8	9.2	9.8	9.5	9.6	10.5	10.7	10.1
MOUNTAIN																
Montana	9.9	10.3	10.9	10.9	10.9	11.4	12.1	11.5	10.6	10.4	10.3	10.8	10.5	11.4	11.6	11.7
Idaho	8.2	8.2	8.9	9.2	9.0	9.1	8.8	9.4	9.7	8.9	9.4	9.3	9.2	9.8	10.5	9.9
Wyoming	8.0	8.6	8.9	9.1	8.4	9.3	9.4	9.0	8.5	8.9	8.6	8.9	9.4	10.2	10.4	9.9
Colorado	9.3	9.6	10.0	10.2	10.0	11.1	10.8	11.1	11.3	10.7	10.9	11.1	11.3	12.7	12.6	12.3
New Mexico	8.0	8.7	9.3	9.4	9.7	10.3	10.4	10.3	10.4	11.1	10.3	11.0	11.3	12.2	12.3	12.9
Arizona	8.6	9.0	9.5	9.2	9.3	10.3	10.2	8.6	10.7	11.1	11.1	11.6	12.1	13.9	13.8	12.6
Utah	7.2	7.3	7.8	7.9	7.5	8.2	8.2	8.0	8.4	8.2	8.8	8.6	9.0	9.3	9.6	9.5
Nevada	9.9	10.3	10.4	10.9	10.5	10.7	10.8	10.7	11.9	11.4	12.7	11.6	12.3	12.9	14.2	13.3
PACIFIC																
Washington	9.5	9.8	9.8	9.9	9.6	9.9	10.4	11.1	10.8	10.7	11.6	10.9	11.1	11.6	12.0	11.5
Oregon	9.2	9.7	10.0	9.9	10.0	10.4	10.7	11.2	11.6	11.2	11.2	10.8	10.9	11.6	12.0	11.3
California	9.3	9.7	9.8	9.8	9.9	9.9	10.2	10.5	11.0	11.2	11.5	11.3	11.3	12.1	11.9	11.6

## NOTES:

For 1940-50, deaths exclude those among armed forces overseas; also population bases exclude armed forces overseas.

For discussion of population bases, see text in chapter 2.



Table 8.39. Age-Adjusted Death Rates by Race and Sex:  
Death-Registration States, 1900-1950

(Rates per 1,000 population. Based on age-specific rates shown in table 8.40. Computed by the direct method using as the standard population the age distribution of the population of the United States as enumerated in 1940)

YEAR	ALL RACES			WHITES			NONWHITES		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
1950	8.4	10.0	6.9	8.0	9.6	6.5	12.2	15.5	10.9
1949	8.5	10.1	7.0	8.1	9.7	6.6	12.2	15.4	11.0
1948	8.6	10.3	7.2	8.4	10.0	6.8	12.4	15.7	11.2
1947	8.0	10.5	7.4	8.6	10.2	7.0	12.5	15.5	11.4
1946	8.1	10.6	7.7	8.7	10.3	7.3	12.4	15.4	11.4
1945	8.4	11.1	7.9	9.0	10.7	7.5	15.1	14.4	11.9
1944	9.7	11.2	8.2	9.2	10.8	7.7	15.7	14.8	12.6
1943	10.1	11.6	8.7	9.6	11.2	8.1	14.4	15.5	13.4
1942	9.9	11.4	8.5	9.4	10.9	7.9	14.4	15.7	13.2
1941	10.3	11.7	8.8	9.7	11.1	8.2	15.5	16.8	14.2
1940	10.7	12.1	9.4	10.2	11.5	8.8	16.2	17.5	14.9
1939	10.7	12.0	9.5	10.2	11.4	8.9	16.0	17.1	14.9
1938	10.9	12.1	9.7	10.3	11.5	9.1	16.6	17.7	15.5
1937	11.7	13.1	10.3	11.1	12.4	9.7	17.8	19.2	16.3
1936	12.2	13.5	10.8	11.5	12.8	10.1	18.5	20.1	17.0
1935	11.6	12.9	10.4	11.1	12.3	9.8	17.3	18.5	16.1
1934	11.9	13.1	10.7	11.3	12.5	10.0	17.9	19.0	16.7
1933	11.6	12.7	10.5	11.0	12.2	9.9	17.2	18.1	16.4
1932	11.9	12.9	10.8	11.3	12.3	10.2	17.8	18.6	17.0
1931	12.1	13.2	11.0	11.4	12.5	10.3	19.0	19.9	18.1
1930	12.5	13.5	11.3	11.7	12.8	10.6	20.1	21.0	19.2
1929	13.2	14.2	12.1	12.4	13.5	11.4	21.0	21.9	20.0
1928	13.4	14.4	12.3	12.6	13.6	11.5	20.9	21.7	20.2
1927	12.6	13.5	11.6	11.9	12.8	10.9	19.8	20.4	19.3
1926	13.5	14.3	12.5	12.7	13.6	11.8	21.4	22.1	20.8
1925	13.0	13.8	12.2	12.3	13.2	11.4	20.9	21.4	20.4
1924	12.9	13.7	12.1	12.2	13.1	11.3	20.5	21.1	20.0
1923	13.5	14.2	12.8	12.9	13.7	12.1	19.8	20.0	19.7
1922	13.0	13.7	12.4	12.6	13.3	11.8	18.3	18.4	18.4
1921	12.7	13.2	12.1	12.2	12.7	11.6	18.2	18.0	18.6
1920	14.2	14.7	13.8	13.7	14.2	13.1	20.6	20.4	21.0
1919	14.0	14.6	13.4	13.4	14.1	12.8	20.5	20.3	20.8
1918	19.0	20.9	17.3	18.4	20.2	16.6	28.0	28.9	27.1
1917	15.3	16.5	14.0	14.7	16.0	13.4	23.4	24.1	22.7
1916	15.1	16.2	13.9	14.7	15.8	13.4	22.2	22.6	21.6
1915	14.4	15.4	13.4	14.1	15.1	13.0	23.1	23.5	22.6
1914	14.5	15.6	13.4	14.1	15.2	13.0	22.6	23.3	21.9
1913	15.0	16.1	13.7	14.6	15.8	13.4	22.7	23.3	22.0
1912	14.8	16.0	13.7	14.6	15.7	13.4	23.1	24.0	22.2
1911	15.2	16.2	14.1	14.9	15.9	13.8	23.7	24.4	22.9
1910	15.8	16.9	14.6	15.6	16.7	14.4	24.1	24.8	23.2
1909	15.3	16.3	14.2	15.0	16.1	14.0	24.1	24.8	23.3
1908	15.8	16.8	14.6	15.5	16.6	14.4	24.7	25.3	24.1
1907	17.1	18.4	15.7	16.8	18.2	15.4	26.6	27.5	25.7
1906	16.7	17.9	15.4	16.4	17.6	15.1	26.2	27.0	25.5
1905	16.7	17.8	15.7	16.5	17.6	15.4	26.3	26.7	26.9
1904	17.3	18.4	16.2	17.1	18.1	16.0	29.1	30.7	27.4
1903	16.5	17.4	15.5	16.2	17.2	15.3	27.2	28.5	25.9
1902	16.2	17.2	15.1	16.0	17.0	14.9	25.9	27.5	24.5
1901	17.2	18.2	16.2	17.0	18.0	16.0	26.9	28.4	25.5
1900	17.8	18.6	17.0	17.6	18.4	16.8	27.8	28.7	27.1

## SUMMARY TABLES

Table 8.40. Death Rates by Age, Race, and Sex: Death-Registration States, 1900-1950

(Exclusive of fetal deaths. Rates per 1,000 population in each specified group, estimated as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
ALL RACES, BOTH SEXES												
1950	9.6	33.0	1.4	0.6	1.3	1.8	3.6	8.5	19.1	40.7	93.3	202.0
1949	9.7	35.2	1.5	0.7	1.3	1.8	3.7	8.8	19.4	40.6	92.5	199.4
1948	9.9	35.7	1.6	0.7	1.5	2.0	3.9	9.1	19.9	41.2	93.9	205.5
1947	10.1	34.5	1.6	0.7	1.6	2.1	4.1	9.4	20.3	42.1	95.2	208.0
1946	10.0	46.3	1.8	0.8	1.7	2.3	4.2	9.4	20.0	41.8	92.7	201.7
1945	10.6	42.5	2.0	0.8	2.0	2.7	4.6	9.8	20.7	42.6	95.3	201.4
1944	10.6	44.2	2.3	0.9	2.1	2.7	4.6	9.8	20.9	43.7	98.1	205.6
1943	10.9	44.0	2.6	0.9	2.1	2.8	4.8	10.3	21.7	45.9	104.5	223.3
1942	10.3	48.8	2.4	0.9	2.0	2.8	4.8	10.2	21.2	44.6	99.6	207.1
1941	10.5	52.6	2.8	1.0	2.0	2.9	5.0	10.4	21.5	45.7	104.1	216.0
1940	10.8	54.9	2.9	1.0	2.0	3.1	5.2	10.6	22.3	48.0	112.0	235.7
1939	10.6	53.7	3.2	1.1	2.1	3.2	5.3	10.7	22.1	47.2	112.5	228.3
1938	10.6	58.0	3.8	1.2	2.3	3.4	5.6	10.9	22.1	47.1	110.9	212.6
1937	11.3	61.3	4.2	1.4	2.6	3.9	6.2	11.9	23.5	49.0	117.0	227.2
1936	11.6	62.9	4.4	1.5	2.8	4.1	6.5	12.1	24.1	50.8	121.7	242.7
1935	10.8	60.9	4.4	1.5	2.7	4.0	6.2	11.6	23.2	49.7	113.1	224.6
1934	11.1	66.8	5.1	1.5	2.8	4.1	6.2	11.9	23.5	49.4	114.1	224.8
1933	10.7	61.3	4.7	1.5	2.7	4.1	6.2	11.4	23.2	49.0	111.3	222.3
1932	10.9	61.3	4.6	1.5	2.9	4.2	6.3	11.6	23.4	50.0	114.3	233.3
1931	11.1	64.4	5.3	1.7	3.2	4.5	6.7	12.0	23.6	49.9	110.5	222.8
1930	11.3	69.0	5.6	1.7	3.3	4.7	6.9	12.2	24.0	51.4	112.7	228.0
1929	11.9	71.6	6.3	1.9	3.6	5.0	7.3	12.7	24.5	54.0	122.2	254.3
1928	12.0	73.1	6.5	1.9	3.7	5.0	7.5	12.8	24.2	54.3	125.2	268.3
1927	11.3	68.8	5.9	1.9	3.5	4.7	7.1	12.0	22.9	51.2	115.9	250.1
1926	12.1	77.9	7.2	1.9	3.7	4.9	7.4	12.7	24.1	53.8	125.4	279.7
1925	11.7	75.4	6.4	2.0	3.8	4.8	7.2	12.2	23.3	51.7	119.3	272.3
1924	11.6	76.8	6.8	2.0	3.8	4.8	7.1	12.1	23.0	51.0	117.2	261.8
1923	12.1	81.1	8.1	2.1	3.9	5.0	7.3	12.2	23.9	53.3	123.5	279.7
1922	11.7	77.6	7.4	2.1	3.8	5.0	7.1	11.8	23.2	52.2	117.5	259.1
1921	11.5	80.6	8.0	2.5	3.9	4.9	6.8	11.2	22.1	49.0	111.2	239.1
1920	13.0	92.3	9.9	2.6	4.9	6.6	8.1	12.2	23.6	52.5	118.9	248.3
1919	12.9	91.0	9.3	2.7	5.3	7.5	8.6	12.3	23.1	50.0	107.8	222.2
1918	16.1	111.7	15.7	4.1	10.7	16.4	13.4	15.2	26.5	55.0	113.0	222.1
1917	14.0	104.6	10.7	2.6	4.7	6.5	9.0	13.9	26.8	57.3	125.9	245.9
1916	13.8	105.7	11.1	2.5	4.4	6.2	8.8	13.6	26.5	57.2	123.9	250.4
1915	13.2	102.4	9.2	2.3	4.1	5.8	8.3	13.1	25.5	55.6	120.1	240.3
1914	13.3	107.2	10.2	2.5	4.2	6.0	8.5	13.1	25.1	54.1	115.6	231.5
1913	13.8	114.8	11.9	2.7	4.4	6.2	8.7	13.5	25.5	54.1	117.9	235.9
1912	13.6	111.1	10.9	2.5	4.3	6.1	8.6	13.4	25.8	54.5	120.2	242.2
1911	13.9	114.0	11.8	2.7	4.5	6.4	8.9	13.5	25.8	55.0	120.1	246.4
1910	14.7	131.8	14.0	2.9	4.5	6.5	9.0	13.7	26.2	55.6	122.2	250.3
1909	14.2	126.7	13.5	2.8	4.4	6.3	8.7	13.3	25.6	53.9	118.4	244.9
1908	14.7	133.2	14.0	3.0	4.8	6.7	9.0	13.8	26.2	53.8	119.5	246.6
1907	15.9	138.6	14.7	3.2	5.3	7.5	10.2	15.1	28.6	58.8	128.7	269.1
1906	15.7	144.8	15.8	3.3	5.3	7.5	9.8	14.5	27.1	55.0	120.4	255.1
1905	15.9	141.2	15.0	3.4	5.2	7.4	9.8	14.7	27.7	56.2	122.4	261.5
1904	16.4	139.2	15.9	3.7	5.5	7.8	10.2	15.1	28.5	56.2	126.1	270.0
1903	15.6	132.6	15.4	3.4	5.2	7.5	9.8	14.3	27.2	55.0	120.6	253.7
1902	15.5	138.9	16.6	3.3	5.1	7.5	9.6	14.0	25.9	52.9	114.1	235.6
1901	16.4	141.4	16.9	3.5	5.5	8.0	10.3	15.0	27.8	56.2	124.6	260.8
1900	17.2	162.4	19.8	3.9	5.9	8.2	10.2	15.0	27.2	56.4	123.3	260.9

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

MORTALITY RATES

Table 8.40. Death Rates by Age, Race, and Sex: Death-Registration States, 1900-1950—Continued

(See headnote on p. 190)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>ALL RACES, MALE</b>												
1950	11.1	37.3	1.5	0.7	1.7	2.2	4.3	10.7	24.1	49.0	104.3	216.4
1949	11.1	39.6	1.6	0.8	1.7	2.2	4.4	10.9	24.3	48.3	103.5	212.0
1948	11.3	40.2	1.7	0.8	1.9	2.4	4.6	11.3	24.8	48.9	104.1	220.0
1947	11.5	38.8	1.8	0.8	2.0	2.5	4.8	11.5	25.2	49.5	105.1	222.4
1946	11.3	52.1	2.0	0.9	2.2	2.7	4.8	11.5	24.5	47.9	101.7	214.6
1945	12.6	47.6	2.2	1.0	2.9	3.6	5.5	11.8	25.2	49.3	104.4	215.7
1944	12.4	49.1	2.5	1.0	3.0	3.3	5.4	11.8	25.2	50.1	108.7	218.2
1943	12.4	49.3	2.8	1.1	2.8	3.2	5.5	12.3	25.9	52.4	113.8	238.3
1942	11.7	54.4	2.6	1.0	2.4	3.2	5.6	12.3	25.3	51.1	108.7	220.3
1941	11.8	58.6	3.0	1.1	2.4	3.3	5.7	12.3	25.5	52.5	113.5	230.8
1940	12.0	61.9	3.1	1.2	2.3	3.4	5.9	12.5	26.2	54.2	121.3	246.4
1939	11.7	60.3	3.4	1.3	2.4	3.4	6.0	12.5	25.5	52.7	120.7	232.6
1938	11.7	65.2	4.1	1.4	2.5	3.6	6.2	12.6	25.3	52.5	118.8	222.2
1937	12.5	68.7	4.5	1.5	2.9	4.2	7.0	13.8	27.2	54.5	126.4	238.0
1936	12.7	70.7	4.7	1.7	3.0	4.4	7.4	14.1	27.7	56.1	130.6	252.7
1935	12.0	66.9	4.7	1.7	2.9	4.3	7.0	13.3	28.3	53.7	121.7	234.7
1934	12.1	74.8	5.4	1.7	3.0	4.3	6.9	13.5	28.6	54.3	122.2	235.1
1933	11.6	68.3	5.0	1.7	2.9	4.3	6.3	12.9	28.0	53.6	118.3	232.7
1932	11.7	66.5	4.9	1.7	3.0	4.3	6.9	12.9	28.1	54.1	121.1	242.3
1931	12.0	72.2	5.6	1.8	3.4	4.7	7.4	13.4	28.2	54.4	117.5	234.1
1930	12.3	77.0	6.0	1.9	3.5	4.9	7.5	13.6	28.6	55.8	119.1	236.7
1929	12.8	80.0	6.6	2.1	3.7	5.2	8.0	14.1	28.9	58.4	128.9	259.8
1928	12.8	82.3	6.8	2.1	3.8	5.1	8.0	14.1	28.5	58.5	132.3	271.5
1927	12.1	77.5	6.2	2.1	3.5	4.8	7.6	13.2	25.0	55.2	122.6	254.2
1926	12.9	87.1	7.6	2.1	3.7	5.0	7.9	13.9	26.0	57.6	131.8	281.3
1925	12.4	84.6	6.7	2.2	3.8	4.9	7.6	13.3	25.1	55.4	125.3	273.5
1924	12.3	86.2	7.2	2.2	3.8	4.8	7.8	13.1	24.9	54.7	122.9	265.8
1923	12.7	90.2	8.5	2.3	3.9	5.1	7.7	13.1	25.6	56.2	127.4	279.4
1922	12.3	87.0	7.9	2.3	3.8	5.0	7.4	12.5	24.7	55.1	131.8	287.8
1921	11.9	90.1	8.4	2.7	3.8	4.8	6.9	11.6	23.3	51.1	114.4	241.2
1920	13.4	103.6	10.3	2.8	4.8	6.4	8.2	12.6	24.6	54.5	122.1	253.0
1919	13.5	101.9	9.7	2.8	5.3	7.4	9.1	12.9	24.4	51.9	111.0	229.6
1918	19.8	124.5	18.0	4.2	12.2	19.0	15.3	16.7	26.7	58.5	118.1	227.6
1917	15.0	117.4	11.2	2.7	5.0	7.1	10.1	15.5	29.3	61.1	128.0	251.1
1916	14.8	118.2	11.7	2.6	4.5	6.6	9.7	15.1	29.0	60.6	128.7	255.5
1915	14.0	114.5	9.7	2.4	4.2	6.2	9.1	14.4	27.7	58.8	124.6	246.7
1914	14.2	118.9	10.7	2.6	4.4	6.4	9.4	14.5	27.4	57.8	120.5	236.9
1913	14.8	127.6	12.5	2.8	4.7	6.7	9.7	15.0	27.9	57.7	122.8	241.4
1912	14.5	123.3	11.5	2.6	4.5	6.5	9.5	14.9	28.2	57.9	125.2	248.6
1911	14.7	125.9	12.2	2.8	4.7	6.7	9.8	14.9	28.0	58.1	125.1	249.3
1910	15.6	145.5	14.6	3.0	4.8	6.9	10.0	15.2	28.7	58.7	127.4	255.8
1909	15.1	139.9	14.1	2.9	4.6	6.6	9.5	14.8	27.7	57.0	123.9	251.4
1908	15.5	147.0	14.6	3.1	5.0	7.0	9.8	15.2	28.4	56.4	125.9	251.5
1907	17.0	152.9	15.3	3.3	5.8	8.1	11.4	16.8	31.1	62.7	134.0	275.0
1906	16.7	160.2	16.4	3.4	5.7	7.9	10.9	16.0	29.4	58.2	126.5	261.6
1905	16.7	156.6	15.8	3.4	5.3	7.6	10.6	16.0	29.8	59.0	128.8	270.5
1904	17.3	153.9	16.6	3.7	5.5	8.0	11.1	16.4	31.1	61.7	132.6	280.7
1903	16.4	146.6	15.9	3.5	5.3	7.7	10.4	15.5	29.0	58.5	126.8	262.7
1902	16.4	155.4	17.1	3.4	5.2	7.7	10.3	15.1	28.0	56.5	120.5	248.6
1901	17.3	156.4	17.7	3.7	5.7	8.3	11.0	16.1	29.5	59.2	129.7	268.1
1900	17.9	179.1	20.5	3.8	5.9	8.2	10.7	15.7	28.7	59.3	128.3	268.8

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

## SUMMARY TABLES

Table 8.40. Death Rates by Age, Race, and Sex: Death-Registration States, 1900-1950—Continued

(See headnote on p. 190)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>ALL RACES, FEMALE</b>												
1950-----	8.2	28.5	1.3	0.5	0.9	1.4	2.9	6.4	14.1	35.0	84.0	191.9
1949-----	8.3	30.6	1.4	0.5	1.0	1.5	3.0	6.6	14.4	35.3	83.2	190.6
1948-----	8.5	31.0	1.5	0.5	1.1	1.6	3.2	6.9	14.9	34.0	85.1	195.4
1947-----	8.7	30.0	1.5	0.5	1.2	1.8	3.3	7.2	15.4	35.1	86.6	197.9
1946-----	8.6	40.1	1.7	0.6	1.3	1.9	3.5	7.3	15.5	35.0	84.9	192.5
1945-----	8.8	37.2	1.9	0.7	1.4	2.1	3.8	7.7	16.1	36.2	87.4	191.1
1944-----	9.0	39.0	2.2	0.7	1.5	2.2	3.9	7.8	16.5	37.5	90.5	196.5
1943-----	9.4	38.5	2.4	0.8	1.6	2.4	4.1	8.3	17.3	39.6	96.3	212.4
1942-----	9.0	42.9	2.3	0.7	1.6	2.4	4.1	8.1	16.8	38.3	91.5	197.4
1941-----	9.2	46.3	2.6	0.8	1.7	2.6	4.3	8.3	17.3	39.4	95.7	205.0
1940-----	9.5	47.7	2.7	0.9	1.8	2.7	4.5	8.6	18.1	41.9	103.7	227.6
1939-----	9.5	46.8	2.9	0.9	1.9	2.9	4.6	8.9	18.6	41.7	105.1	218.3
1938-----	9.6	50.7	3.6	1.1	2.1	3.1	4.9	9.1	18.6	41.8	103.7	205.4
1937-----	10.0	55.6	3.9	1.2	2.3	3.5	5.4	9.7	19.6	43.4	108.4	219.0
1936-----	10.4	54.9	4.1	1.3	2.5	3.8	5.6	10.0	20.3	45.4	113.5	235.3
1935-----	9.9	52.8	4.1	1.4	2.5	3.6	5.4	9.8	19.8	45.7	105.1	217.0
1934-----	10.0	59.5	4.7	1.4	2.5	3.8	5.5	9.9	20.2	44.4	106.5	217.1
1933-----	9.7	54.0	4.4	1.3	2.6	3.9	5.5	9.8	20.1	44.3	104.7	214.4
1932-----	10.0	53.9	4.4	1.4	2.7	4.0	5.7	10.1	20.6	45.8	108.0	226.6
1931-----	10.1	56.5	4.9	1.5	3.0	4.3	6.0	10.4	20.7	45.4	104.0	214.3
1930-----	10.4	60.7	5.2	1.5	3.2	4.4	6.1	10.6	21.2	46.8	106.6	221.4
1929-----	11.0	62.9	5.9	1.7	3.5	4.8	6.6	11.1	21.8	49.4	116.0	250.2
1928-----	11.1	65.6	6.1	1.7	3.6	4.8	6.9	11.3	21.8	49.9	118.6	265.8
1927-----	10.5	60.0	5.6	1.7	3.4	4.6	6.5	10.8	20.6	47.0	109.6	247.0
1926-----	11.3	69.4	6.8	1.7	3.7	4.8	6.8	11.4	22.0	49.9	119.5	278.4
1925-----	10.9	66.0	6.1	1.8	3.6	4.8	6.7	11.0	21.2	47.9	113.8	271.3
1924-----	10.9	67.0	6.4	1.8	3.8	4.7	6.6	11.1	21.0	47.1	112.0	260.3
1923-----	11.5	71.6	7.7	2.0	3.9	5.0	6.9	11.2	22.0	50.4	119.6	279.9
1922-----	11.1	67.9	6.9	2.0	3.6	5.1	6.8	11.0	21.5	49.2	113.7	258.4
1921-----	11.0	70.8	7.6	2.3	3.9	5.0	6.6	10.7	20.8	46.8	108.3	237.6
1920-----	12.6	80.7	9.5	2.5	5.0	7.1	8.0	11.7	22.4	50.5	115.9	244.7
1919-----	12.3	79.7	8.8	2.5	5.3	7.6	8.1	11.5	21.6	48.0	105.0	216.9
1918-----	16.4	98.5	15.5	4.1	9.4	14.0	11.3	13.6	24.0	51.5	108.3	218.1
1917-----	12.9	91.5	10.1	2.4	4.4	5.9	7.9	12.0	24.0	53.4	119.2	242.1
1916-----	12.8	92.8	10.5	2.3	4.2	5.7	7.7	11.9	23.9	53.6	119.5	246.6
1915-----	12.3	90.0	8.8	2.2	3.9	5.4	7.4	11.6	23.2	52.5	116.0	235.3
1914-----	12.4	95.1	9.7	2.4	4.0	5.6	7.5	11.6	22.7	50.4	111.0	227.3
1913-----	12.8	101.7	11.4	2.5	4.1	5.7	7.7	11.8	22.9	50.5	113.4	231.7
1912-----	12.7	98.5	10.4	2.3	4.0	5.7	7.6	11.6	23.3	51.1	115.5	237.1
1911-----	13.0	101.8	11.5	2.6	4.3	6.0	7.9	11.9	23.4	51.9	115.5	244.2
1910-----	13.7	117.6	13.4	2.9	4.2	6.1	7.9	12.1	23.7	52.4	117.4	246.0
1909-----	13.4	115.2	12.9	2.7	4.2	6.0	7.8	11.7	23.4	50.8	113.3	239.9
1908-----	13.8	119.1	13.4	2.9	4.5	6.3	8.0	12.2	23.9	51.1	113.7	246.4
1907-----	14.8	123.9	14.1	3.0	4.8	6.9	8.8	13.1	25.9	54.9	124.0	264.7
1906-----	14.7	129.2	15.2	3.2	4.9	7.0	8.5	12.9	24.6	51.8	114.8	250.3
1905-----	15.0	125.5	14.2	3.3	5.1	7.2	8.9	13.3	25.6	53.5	116.7	254.9
1904-----	15.5	124.2	15.2	3.6	5.3	7.6	9.2	13.7	26.0	54.9	120.3	262.1
1903-----	14.8	118.3	14.9	3.4	5.0	7.3	9.0	13.0	25.4	51.8	115.4	247.1
1902-----	14.6	124.1	16.0	3.2	5.1	7.3	8.8	12.8	23.9	49.5	108.3	226.1
1901-----	15.6	126.1	16.2	3.4	5.4	7.8	9.6	13.9	26.0	53.4	120.0	255.6
1900-----	16.5	145.4	19.1	3.9	5.8	8.2	9.8	14.2	25.8	53.6	118.8	255.2

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

MORTALITY RATES

Table 8.40. Death Rates by Age, Race, and Sex: Death-Registration States, 1900-1950—Continued

(See headnote on p. 190)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
WHITE, BOTH SEXES												
1950	9.5	29.9	1.2	0.6	1.1	1.5	5.1	7.7	18.0	40.2	94.2	206.8
1949	9.5	32.2	1.4	0.6	1.2	1.5	3.2	7.8	18.4	40.2	93.5	204.9
1948	9.7	33.0	1.5	0.6	1.5	1.6	3.3	8.2	18.6	41.0	95.0	211.7
1947	9.9	31.9	1.5	0.6	1.5	1.8	3.5	8.5	18.3	42.1	96.5	214.9
1946	9.8	43.6	1.7	0.7	1.5	1.9	3.6	8.5	19.1	41.3	94.2	209.0
1945	10.4	39.3	1.9	0.8	1.7	2.3	3.9	8.9	19.8	42.7	96.7	208.2
1944	10.4	40.7	2.1	0.8	1.8	2.2	3.9	8.8	19.9	43.7	99.4	212.0
1943	10.7	40.5	2.3	0.9	1.8	2.3	4.1	9.3	20.6	45.8	105.9	230.9
1942	10.1	45.2	2.2	0.8	1.6	2.3	4.1	9.2	20.1	44.4	100.9	213.7
1941	10.2	47.6	2.5	0.9	1.7	2.4	4.2	9.3	20.4	45.5	105.1	222.0
1940	10.4	50.3	2.6	1.0	1.7	2.5	4.4	9.5	21.1	47.7	113.0	242.0
1939	10.3	49.2	2.9	1.0	1.8	2.6	4.5	9.7	21.1	47.0	113.9	231.2
1938	10.3	53.4	3.5	1.1	1.9	2.7	4.7	9.8	21.0	46.7	112.2	219.1
1937	10.8	58.4	3.8	1.3	2.2	3.2	5.3	10.6	22.4	48.5	118.3	233.8
1936	11.1	58.0	4.1	1.4	2.3	3.4	5.5	10.9	22.9	50.3	123.0	249.0
1935	10.6	56.5	4.1	1.5	2.3	3.4	5.3	10.5	22.1	49.5	114.4	230.2
1934	10.6	61.6	4.7	1.5	2.3	3.4	5.3	10.6	22.5	49.0	115.2	230.5
1933	10.3	56.8	4.4	1.4	2.3	3.4	5.4	10.3	22.1	48.7	112.5	228.2
1932	10.5	57.0	4.3	1.5	2.4	3.5	5.5	10.5	22.3	49.6	115.3	238.9
1931	10.6	59.8	4.8	1.6	2.6	3.7	5.8	10.8	22.5	49.4	111.2	227.7
1930	10.8	63.9	5.2	1.6	2.8	3.8	5.9	10.8	22.8	50.6	113.2	230.5
1929	11.3	66.0	5.8	1.8	3.0	4.1	6.3	11.3	23.3	53.3	122.6	237.1
1928	11.4	67.5	6.0	1.8	3.1	4.1	6.5	11.4	23.1	53.6	125.9	271.6
1927	10.8	63.7	5.4	1.8	2.9	4.0	6.2	10.9	22.0	50.6	116.5	232.1
1926	11.6	72.5	6.7	1.8	3.1	4.1	6.5	11.5	23.2	53.2	126.0	231.9
1925	11.1	70.0	5.9	1.9	3.1	4.1	6.3	11.1	22.5	51.1	119.6	272.4
1924	11.0	71.0	6.2	1.9	3.1	4.1	6.3	11.1	22.2	50.3	117.5	281.4
1923	11.7	76.2	7.5	2.1	3.3	4.4	6.6	11.5	23.2	53.0	124.2	281.4
1922	11.3	73.5	7.1	2.1	3.3	4.5	6.4	11.0	22.6	52.0	118.4	280.7
1921	11.1	76.5	7.7	2.4	3.3	4.4	6.1	10.5	21.6	48.7	111.7	241.3
1920	12.6	87.3	9.4	2.6	4.3	6.2	7.5	11.5	23.0	52.1	119.3	249.8
1919	12.4	86.8	8.7	2.5	4.6	6.9	7.9	11.5	22.5	49.6	108.1	224.8
1918	17.5	107.1	14.7	3.9	9.9	15.8	12.7	14.5	25.7	54.5	113.0	222.7
1917	13.5	100.4	10.0	2.4	4.1	5.9	8.3	13.2	26.1	56.7	124.0	246.8
1916	13.4	102.2	10.6	2.3	4.0	5.7	8.2	13.1	25.9	56.8	124.0	251.6
1915	12.9	99.9	8.9	2.2	3.8	5.5	7.9	12.6	25.0	55.2	120.1	241.3
1914	13.0	104.5	9.8	2.4	3.9	5.7	8.1	12.6	24.6	53.8	115.8	232.8
1913	13.5	112.2	11.6	2.6	4.1	5.9	8.3	13.0	25.0	53.8	116.2	236.0
1912	13.4	109.0	10.7	2.4	4.0	5.8	8.3	13.0	25.4	54.2	120.3	244.0
1911	13.7	111.8	11.4	2.6	4.3	6.1	8.6	13.1	25.4	54.7	120.4	247.6
1910	14.5	129.3	13.7	2.9	4.4	6.3	8.7	13.5	26.0	55.4	122.5	252.5
1909	14.0	124.0	13.1	2.7	4.2	6.1	8.5	13.0	25.3	53.7	118.6	246.3
1908	14.8	130.4	13.6	2.9	4.6	6.8	8.7	13.5	25.8	53.6	119.8	250.7
1907	15.7	135.2	14.2	3.1	5.1	7.3	9.9	14.8	28.2	59.6	126.9	271.3
1906	15.5	141.5	15.3	3.1	5.1	7.2	9.5	14.2	26.7	54.8	120.5	256.9
1905	15.7	138.2	14.6	3.3	5.0	7.2	9.6	14.4	27.5	56.0	122.6	262.8
1904	16.2	136.1	15.3	3.6	5.3	7.6	10.0	14.9	28.2	58.0	126.1	271.0
1903	15.4	129.6	15.0	3.4	5.0	7.3	9.6	14.1	26.9	54.8	120.9	254.0
1902	15.3	135.9	16.2	3.2	5.0	7.3	9.5	13.8	25.7	52.7	114.2	236.4
1901	16.2	138.4	16.6	3.5	5.4	7.9	10.1	14.8	27.5	56.1	124.8	261.7
1900	17.0	159.4	19.4	3.8	5.7	8.1	10.1	14.8	27.0	56.2	123.3	262.0

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

## SUMMARY TABLES

Table 8.40. Death Rates by Age, Race, and Sex: Death-Registration States, 1900-1950—Continued

(See headnote on p. 190)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
WHITE, MALE												
1950-----	10.9	34.0	1.4	0.7	1.5	1.9	3.8	9.8	23.0	48.6	105.3	221.2
1949-----	11.0	36.4	1.5	0.7	1.6	1.9	3.9	10.0	23.4	48.2	104.7	217.3
1948-----	11.2	37.2	1.6	0.7	1.7	2.0	4.1	10.4	23.8	48.8	105.4	226.1
1947-----	11.4	36.1	1.6	0.8	1.8	2.1	4.3	10.7	24.4	49.7	106.6	229.1
1946-----	11.2	49.4	1.8	0.9	2.0	2.3	4.3	10.6	23.7	48.1	103.5	222.1
1945-----	12.5	44.1	2.0	1.0	2.8	3.1	4.8	11.0	24.5	49.6	106.1	222.7
1944-----	12.2	45.6	2.3	1.0	2.7	2.8	4.7	10.9	24.4	50.3	109.2	224.6
1943-----	12.2	45.5	2.5	1.0	2.5	2.8	4.8	11.4	25.0	52.5	115.3	246.0
1942-----	11.4	50.6	2.4	1.0	2.1	2.7	4.9	11.2	24.5	51.0	110.0	226.2
1941-----	11.4	53.3	2.7	1.0	2.1	2.7	5.0	11.2	24.6	52.1	114.3	236.1
1940-----	11.6	56.7	2.8	1.1	2.0	2.8	5.1	11.4	25.2	54.0	122.0	251.4
1939-----	11.3	55.3	3.1	1.2	2.0	2.8	5.1	11.4	24.6	52.6	121.8	239.6
1938-----	11.3	60.1	3.7	1.3	2.1	3.0	5.5	11.5	24.4	52.1	120.0	227.5
1937-----	12.0	63.4	4.1	1.5	2.3	3.5	6.0	12.6	26.2	54.1	127.4	245.5
1936-----	12.3	65.3	4.4	1.6	2.6	3.6	6.3	12.8	26.6	55.6	131.6	257.3
1935-----	11.6	64.0	4.4	1.6	2.6	3.6	6.0	12.2	25.4	53.5	122.7	239.3
1934-----	11.7	69.2	5.0	1.6	2.8	3.6	6.0	12.4	25.7	54.1	123.2	239.4
1933-----	11.2	63.5	4.7	1.6	2.5	3.6	6.0	11.9	25.1	53.5	119.4	237.1
1932-----	11.3	63.9	4.6	1.6	2.6	3.6	6.1	11.9	25.1	53.8	121.7	246.2
1931-----	11.5	67.1	5.2	1.8	2.9	3.9	6.5	12.3	25.2	53.9	117.7	237.6
1930-----	11.7	71.5	5.5	1.8	3.0	4.1	6.5	12.3	25.5	55.1	119.2	237.6
1929-----	12.2	73.9	6.1	2.0	3.2	4.3	7.0	12.8	25.9	57.8	126.8	239.9
1928-----	12.3	76.2	6.3	2.0	3.2	4.3	7.1	12.8	25.5	58.0	132.7	271.9
1927-----	11.6	71.8	5.7	2.0	3.0	4.0	6.7	12.1	24.3	54.8	123.1	235.5
1926-----	12.3	81.1	7.0	2.0	3.2	4.2	7.0	12.7	25.2	57.2	132.1	279.8
1925-----	11.8	78.6	6.2	2.1	3.2	4.2	6.8	12.2	24.5	54.9	125.3	269.5
1924-----	11.8	79.9	6.6	2.1	3.2	4.2	6.8	12.1	24.2	54.2	122.7	259.4
1923-----	12.3	85.0	7.9	2.3	3.4	4.5	7.0	12.3	25.1	56.0	127.8	277.8
1922-----	11.9	82.6	7.5	2.3	3.3	4.5	6.9	11.7	24.4	55.0	122.4	257.9
1921-----	11.6	85.7	8.1	2.6	3.4	4.3	6.4	11.0	22.9	51.0	114.8	242.5
1920-----	13.0	98.1	9.8	2.7	4.2	5.9	7.7	12.0	24.2	54.2	122.5	253.6
1919-----	13.0	87.4	9.2	2.7	4.7	6.9	8.5	12.3	24.0	51.7	111.1	231.7
1918-----	19.3	119.8	15.0	3.9	11.4	18.6	14.7	16.0	29.1	58.0	117.9	227.8
1917-----	14.6	112.8	10.5	2.6	4.5	6.6	9.4	14.9	26.8	60.5	129.0	251.6
1916-----	14.4	114.3	11.2	2.5	4.2	6.2	9.2	14.6	26.5	60.3	128.6	255.9
1915-----	13.7	111.8	9.4	2.4	4.0	5.9	8.7	13.9	27.2	58.3	124.5	247.3
1914-----	13.9	116.1	10.4	2.6	4.1	6.0	9.0	14.0	26.9	57.4	120.6	238.3
1913-----	14.5	124.6	12.1	2.7	4.4	6.3	9.3	14.6	27.5	57.4	122.9	245.2
1912-----	14.3	121.3	11.2	2.5	4.3	6.2	9.2	14.6	27.8	57.6	125.2	249.9
1911-----	14.5	123.5	11.8	2.7	4.5	6.4	9.5	14.6	27.7	57.8	125.4	250.7
1910-----	15.4	143.0	14.2	3.0	4.7	6.7	9.7	15.0	28.4	58.6	127.6	257.9
1909-----	14.9	137.2	13.7	2.9	4.4	6.4	9.3	14.5	27.5	56.8	124.1	252.2
1908-----	15.3	144.0	14.2	3.0	4.9	6.8	9.6	14.9	28.2	56.2	126.1	253.1
1907-----	16.8	149.4	14.8	3.2	5.6	7.9	11.2	16.6	30.8	62.5	134.1	277.3
1906-----	16.5	156.7	15.8	3.3	5.5	7.6	10.7	15.7	29.1	58.0	126.7	262.8
1905-----	16.5	153.4	15.4	3.4	5.1	7.4	10.5	15.7	29.6	58.8	128.8	271.6
1904-----	17.1	150.7	16.2	3.6	5.3	7.8	10.9	16.2	30.7	61.5	132.4	281.2
1903-----	16.2	143.5	15.5	3.5	5.2	7.5	10.3	15.3	28.7	58.2	126.7	263.4
1902-----	16.2	150.0	16.9	3.4	5.1	7.5	10.2	14.9	27.8	56.4	120.4	249.5
1901-----	17.1	153.3	17.4	3.6	5.6	8.2	10.8	15.9	29.3	59.1	129.8	268.6
1900-----	17.7	175.9	20.2	3.8	5.8	8.1	10.6	15.5	28.5	59.1	128.2	269.2

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

MORTALITY RATES

Table 8.40. Death Rates by Age, Race, and Sex: Death-Registration States, 1900-1950—Continued

(See headnote on p. 190)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>WHITE, FEMALE</b>												
1950	8.0	25.7	1.1	0.5	0.7	1.1	2.4	5.5	12.9	32.4	84.8	196.8
1949	8.1	27.8	1.2	0.5	0.8	1.2	2.4	5.6	15.3	32.8	84.0	196.2
1948	8.3	28.5	1.3	0.5	0.8	1.3	2.6	5.9	15.8	33.7	86.1	201.7
1947	8.5	27.5	1.3	0.5	0.9	1.4	2.8	6.2	14.2	34.9	87.9	204.8
1946	8.5	37.6	1.5	0.6	1.1	1.6	2.9	6.4	14.4	34.9	86.3	199.7
1945	8.6	34.3	1.7	0.6	1.1	1.7	3.1	6.7	15.0	36.1	88.6	197.9
1944	8.8	35.6	1.9	0.6	1.2	1.8	3.2	6.8	15.4	37.4	91.7	205.0
1943	9.2	35.2	2.1	0.7	1.2	1.9	3.4	7.2	16.1	39.4	97.6	219.9
1942	8.7	39.5	2.0	0.6	1.2	1.9	3.3	7.0	15.7	38.1	92.9	204.4
1941	8.9	41.7	2.3	0.7	1.3	2.0	3.4	7.2	16.1	39.1	96.9	211.5
1940	9.2	45.6	2.4	0.8	1.4	2.2	3.7	7.5	16.8	41.5	104.8	235.0
1939	9.2	42.9	2.6	0.8	1.5	2.3	3.8	7.8	17.4	41.4	106.6	224.9
1938	9.2	46.5	3.3	1.0	1.6	2.5	4.0	7.9	17.4	41.4	105.0	212.8
1937	9.6	49.1	3.6	1.1	1.9	2.9	4.4	8.5	18.4	45.0	109.9	226.5
1936	9.9	50.5	3.8	1.2	2.0	3.1	4.7	8.8	19.0	44.9	115.0	242.8
1935	9.5	48.8	3.8	1.3	2.0	3.1	4.6	8.7	18.6	43.4	106.6	223.4
1934	9.6	53.8	4.4	1.3	2.0	3.1	4.6	8.8	19.1	43.9	107.8	223.8
1933	9.3	49.9	4.1	1.2	2.1	3.2	4.7	8.7	19.0	43.8	106.0	221.5
1932	9.6	49.8	4.1	1.3	2.2	3.3	4.9	8.9	19.4	45.4	109.3	235.5
1931	9.6	52.2	4.5	1.4	2.4	3.5	5.1	9.1	19.6	44.7	105.1	220.2
1930	9.8	56.0	4.8	1.4	2.5	3.6	5.2	9.2	19.9	46.0	107.6	225.1
1929	10.4	57.9	5.5	1.6	2.8	4.0	5.6	9.8	20.6	48.8	116.9	255.1
1928	10.5	58.4	5.6	1.6	2.9	4.0	5.8	9.9	20.6	49.2	119.7	271.4
1927	10.0	55.3	5.1	1.6	2.8	3.9	5.5	9.6	19.6	46.4	110.4	251.0
1926	10.8	63.6	6.3	1.6	3.0	4.1	5.9	10.2	21.1	49.2	120.3	283.5
1925	10.4	61.0	5.6	1.6	3.0	4.1	5.8	9.9	20.3	47.2	114.3	274.6
1924	10.3	61.7	5.8	1.7	3.1	4.0	5.8	9.9	20.0	46.3	112.6	262.9
1923	11.0	67.1	7.1	1.9	3.2	4.4	6.1	10.2	21.1	49.8	120.9	284.2
1922	10.7	65.9	6.6	1.9	3.2	4.5	6.1	10.1	20.7	48.8	114.8	262.9
1921	10.6	66.8	7.2	2.2	3.3	4.4	5.9	10.0	20.1	46.3	108.9	240.3
1920	12.1	78.1	9.0	2.3	4.3	6.5	7.3	10.9	21.7	49.9	116.4	247.0
1919	11.8	76.0	8.3	2.3	4.6	6.9	7.4	10.7	20.9	47.5	105.4	219.6
1918	15.8	94.0	14.5	3.8	8.7	13.4	10.6	12.7	25.2	50.8	108.5	218.9
1917	12.4	87.6	9.4	2.2	3.8	5.3	7.2	11.3	23.1	52.8	119.5	242.9
1916	12.4	89.7	10.1	2.1	3.7	5.2	7.2	11.3	23.2	53.2	119.8	248.3
1915	12.0	87.7	8.4	2.1	3.6	5.1	7.0	11.1	22.6	52.0	118.0	236.7
1914	12.1	92.6	9.4	2.3	3.7	5.2	7.1	11.1	22.1	50.1	111.3	228.6
1913	12.5	99.2	11.1	2.4	3.7	5.4	7.3	11.3	22.3	50.2	113.8	233.8
1912	12.4	96.5	10.1	2.3	3.8	5.5	7.3	11.2	22.9	50.9	115.9	239.3
1911	12.8	99.7	10.9	2.5	4.0	5.8	7.6	11.5	23.0	51.7	115.8	245.6
1910	13.5	115.2	13.0	2.8	4.1	5.9	7.7	11.8	23.4	52.2	117.8	248.1
1909	13.2	110.6	12.5	2.6	4.0	5.8	7.6	11.5	23.0	50.6	113.7	241.7
1908	13.6	116.4	13.0	2.8	4.3	6.1	7.8	11.9	23.5	50.9	114.0	248.8
1907	14.5	120.6	13.6	2.9	4.6	6.6	8.5	12.8	25.6	54.7	124.3	266.7
1906	14.4	126.0	14.7	3.0	4.7	6.8	8.3	12.6	24.3	51.6	115.0	252.4
1905	14.8	122.7	13.8	3.2	4.9	7.0	8.7	13.0	25.4	53.3	117.0	256.2
1904	15.3	121.2	14.8	3.6	5.3	7.4	9.1	13.5	25.7	54.7	120.4	263.4
1903	14.6	118.5	14.5	3.3	4.9	7.1	8.9	12.9	25.2	51.6	115.7	247.1
1902	14.4	121.4	15.6	3.1	4.9	7.1	8.7	12.6	23.7	49.3	108.6	226.7
1901	15.4	123.2	15.9	3.3	5.2	7.7	9.4	13.6	25.8	53.3	120.2	256.6
1900	16.3	142.6	18.7	3.8	5.6	8.1	9.6	14.0	25.5	53.4	118.9	256.7

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

## SUMMARY TABLES

Table 8.40. Death Rates by Age, Race, and Sex: Death-Registration States, 1900-1950—Continued

(See headnote on p. 190)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>NONWHITE, BOTH SEXES</b>												
1950-----	11.2	53.7	2.5	0.9	2.5	4.4	8.1	17.1	33.7	46.0	80.4	144.7
1949-----	11.2	55.8	2.5	0.9	2.7	4.5	8.3	17.6	33.1	44.6	78.2	135.4
1948-----	11.4	56.0	2.6	0.9	3.0	4.8	8.8	18.3	33.7	44.1	77.4	134.5
1947-----	11.4	56.4	2.6	1.0	3.4	5.1	8.8	18.6	33.2	42.9	75.6	132.0
1946-----	11.1	66.1	2.9	1.1	3.5	5.4	9.1	18.2	32.0	40.5	68.9	122.3
1945-----	11.9	65.8	3.3	1.2	4.0	6.3	10.1	18.9	33.1	41.8	73.8	128.6
1944-----	12.4	70.8	3.9	1.3	4.2	6.4	10.5	19.5	34.0	44.1	76.6	138.5
1943-----	12.8	72.6	4.2	1.3	4.4	6.5	11.0	20.6	35.8	46.7	83.1	145.9
1942-----	12.7	75.5	4.1	1.4	4.5	7.0	11.4	20.9	34.8	46.4	78.1	141.4
1941-----	13.5	89.2	5.0	1.5	4.9	7.5	12.0	22.0	38.1	48.4	87.2	157.5
1940-----	13.8	89.2	4.8	1.5	5.0	7.9	12.4	22.9	37.7	51.6	96.1	176.7
1939-----	13.5	86.5	5.3	1.6	5.1	8.2	12.5	22.4	36.8	50.2	90.7	152.9
1938-----	14.0	92.1	6.3	1.8	5.6	8.7	13.4	23.1	36.8	52.1	89.3	154.4
1937-----	14.9	97.1	6.6	1.9	6.2	9.7	14.8	24.3	38.6	55.4	95.0	168.4
1936-----	15.4	98.3	6.6	2.1	6.5	10.3	15.6	24.7	40.3	57.8	101.1	186.7
1935-----	14.3	92.9	6.7	2.1	6.1	9.7	14.5	23.1	37.5	52.5	92.3	174.2
1934-----	14.8	103.9	8.1	2.2	6.3	10.0	14.4	23.7	37.8	55.0	95.3	174.7
1933-----	14.1	93.5	7.0	2.2	6.2	9.7	13.9	22.5	37.1	54.4	92.4	169.7
1932-----	14.5	94.6	6.9	2.2	6.7	10.1	14.5	22.9	38.1	53.7	97.8	181.9
1931-----	15.5	101.4	8.6	2.4	7.7	11.3	15.7	24.2	38.7	59.2	99.6	178.1
1930-----	16.3	110.0	9.3	2.6	8.0	11.6	16.1	25.8	40.8	63.9	104.2	204.9
1929-----	16.9	120.6	9.7	2.7	8.4	12.2	17.2	26.4	40.3	64.9	116.2	228.9
1928-----	17.1	121.2	10.5	2.8	8.6	12.1	17.2	26.5	36.7	65.1	113.9	239.2
1927-----	16.4	116.3	10.4	2.8	8.4	11.4	16.4	24.9	35.8	60.9	105.0	230.7
1926-----	17.8	128.6	12.5	2.9	9.2	12.2	17.2	26.9	37.4	65.2	116.8	257.5
1925-----	17.4	130.8	11.0	3.0	9.5	11.8	16.8	25.5	35.5	63.8	114.9	271.1
1924-----	17.1	134.1	12.6	2.9	9.3	11.1	16.0	24.9	34.9	62.6	112.8	265.9
1923-----	16.5	129.2	13.4	2.9	8.8	11.0	15.2	23.1	33.8	59.7	110.8	263.1
1922-----	15.2	117.4	10.7	2.7	8.3	10.5	14.1	21.2	31.7	56.1	103.6	233.6
1921-----	15.5	126.8	11.8	3.1	8.9	10.6	13.5	19.7	31.0	54.3	101.7	216.5
1920-----	17.7	149.2	14.6	3.8	10.4	12.8	15.2	21.5	33.2	60.2	111.2	232.5
1919-----	17.9	135.0	15.0	4.4	11.6	14.0	15.9	21.2	32.5	56.4	102.7	197.3
1918-----	25.6	167.7	28.4	7.0	19.1	22.6	22.4	26.2	40.6	66.6	112.7	215.4
1917-----	20.4	157.7	19.7	4.3	11.2	14.0	16.1	24.0	40.9	68.9	120.0	237.1
1916-----	19.1	152.5	17.8	3.8	10.0	12.9	16.6	22.8	39.5	68.0	120.9	233.8
1915-----	20.2	161.2	17.8	4.4	10.3	12.5	17.0	24.5	42.9	70.6	120.1	219.2
1914-----	20.2	169.9	19.1	4.6	10.4	12.7	16.8	24.4	40.0	69.4	109.2	204.5
1913-----	20.3	176.3	20.2	4.7	10.5	12.5	16.8	24.2	39.5	65.0	109.9	195.4
1912-----	20.6	182.7	21.6	5.0	10.6	12.0	16.8	24.9	40.6	65.7	112.8	195.1
1911-----	21.3	197.1	25.4	5.7	11.1	12.5	17.0	24.4	39.7	65.8	104.9	209.0
1910-----	21.7	239.8	28.3	5.7	10.3	12.2	17.0	24.6	38.5	64.3	103.2	176.4
1909-----	21.8	237.0	28.9	6.3	10.6	12.1	15.9	24.1	36.5	65.0	102.3	200.3
1908-----	22.4	247.5	30.3	6.9	11.1	12.8	16.1	24.6	36.6	64.2	105.1	184.0
1907-----	24.3	267.5	33.7	6.8	12.2	14.0	18.1	25.0	41.5	69.1	116.5	203.5
1906-----	24.2	270.9	36.4	7.8	12.1	13.8	16.9	23.3	40.6	64.1	111.3	201.7
1905-----	25.5	310.2	38.7	8.1	13.1	13.9	16.5	26.8	43.6	73.2	111.0	204.6
1904-----	26.1	315.7	39.8	8.1	12.8	14.1	17.4	25.4	49.0	71.8	126.8	225.4
1903-----	24.5	301.1	39.4	7.2	11.2	13.5	16.0	23.6	43.1	73.3	108.8	236.8
1902-----	23.6	308.9	37.4	7.1	11.4	12.1	15.5	23.0	38.0	65.5	109.2	203.1
1901-----	24.3	309.7	34.8	7.4	11.4	12.9	16.5	26.1	42.7	64.8	112.5	226.2
1900-----	25.0	333.9	43.5	9.0	11.5	12.1	14.8	24.3	42.1	68.9	120.9	215.2

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.



Table 8.40. Death Rates by Age, Race, and Sex: Death-Registration States, 1900-1950—Continued

(See headnote on p. 190)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>NONWHITE, MALE</b>												
1950	12.5	59.9	2.7	1.0	2.9	5.0	8.6	16.6	36.9	52.5	90.3	160.2
1949	12.5	62.4	2.7	1.0	3.1	5.0	8.9	19.2	35.8	50.0	86.0	151.7
1948	12.7	62.5	2.7	1.0	3.3	5.3	9.5	20.1	36.8	49.6	86.2	151.1
1947	12.5	62.4	2.7	1.1	3.7	5.5	9.3	20.0	35.3	48.0	85.0	149.0
1946	12.2	75.0	3.1	1.2	3.8	5.9	9.6	19.8	34.0	44.9	76.4	134.6
1945	13.5	73.5	3.5	1.2	4.6	7.6	10.8	20.4	34.8	46.5	80.9	143.3
1944	13.8	77.0	4.1	1.4	4.6	7.0	11.1	21.2	35.7	48.8	84.2	152.9
1943	14.0	80.3	4.5	1.4	4.7	7.0	11.6	22.2	37.1	51.5	91.1	160.6
1942	14.0	85.1	4.4	1.5	4.7	7.8	12.2	22.8	35.6	51.4	87.6	161.2
1941	14.8	98.7	5.2	1.6	5.0	8.2	12.7	23.6	37.9	53.7	99.2	178.5
1940	15.1	101.2	5.3	1.6	5.0	8.5	13.2	24.5	39.5	56.5	108.8	199.7
1939	14.7	98.6	5.7	1.8	5.0	8.7	13.4	23.6	37.6	54.1	102.3	169.8
1938	15.2	104.0	6.7	1.9	5.6	9.2	14.3	24.5	37.4	56.5	98.5	174.0
1937	16.4	109.0	7.1	2.0	6.3	10.5	16.3	26.1	39.8	60.8	109.0	188.6
1936	16.9	110.8	7.1	2.2	6.6	11.3	17.5	26.9	41.3	62.5	113.1	211.1
1935	15.6	104.8	7.1	2.2	6.1	10.4	16.0	24.5	38.0	55.9	104.9	192.8
1934	16.0	116.5	8.8	2.2	6.4	10.7	15.8	25.0	38.2	58.3	106.2	196.8
1933	15.1	103.9	7.4	2.2	6.3	10.2	15.1	23.0	37.2	56.3	101.6	193.3
1932	15.4	105.3	7.2	2.3	6.6	10.6	15.4	23.3	37.8	58.3	110.5	206.9
1931	16.5	113.4	9.1	2.5	7.6	11.8	16.7	24.6	38.6	61.7	113.9	201.7
1930	17.4	122.3	10.0	2.7	7.8	12.1	17.0	26.3	40.4	67.3	117.6	228.5
1929	18.0	136.8	10.3	2.8	8.1	12.6	18.0	27.0	39.7	68.5	130.4	259.2
1928	18.0	136.9	11.1	2.9	8.3	12.4	17.6	26.9	37.9	67.5	125.9	267.5
1927	17.2	131.2	11.0	2.9	7.9	11.6	16.7	25.0	35.3	62.6	114.7	261.5
1926	18.7	146.5	13.1	3.0	8.7	12.6	17.6	27.1	36.9	65.9	128.2	297.2
1925	18.2	146.5	11.4	3.1	8.9	12.2	17.0	25.7	34.5	64.6	124.5	317.6
1924	17.9	150.5	13.2	2.9	8.9	11.5	16.2	24.3	34.2	62.8	124.4	311.3
1923	17.0	143.2	13.9	2.8	8.3	11.3	15.3	22.5	31.5	59.3	120.5	296.9
1922	15.7	130.2	11.4	2.7	7.9	10.5	14.0	20.5	28.2	55.8	111.8	257.2
1921	15.7	139.7	12.2	3.1	8.3	10.3	13.1	18.4	28.0	53.4	107.5	226.8
1920	17.8	167.7	15.0	3.7	9.9	12.2	14.4	20.1	31.1	60.2	118.0	247.1
1919	18.1	148.8	15.6	4.1	11.1	13.2	15.4	19.9	30.5	56.2	108.2	209.0
1918	26.7	185.6	28.8	6.6	20.7	24.3	23.3	25.5	39.5	67.5	121.7	225.1
1917	21.4	176.5	20.5	4.1	11.1	14.8	18.9	23.6	39.9	71.8	128.0	244.1
1916	19.8	171.2	18.8	3.6	9.5	13.1	16.9	22.4	38.8	67.8	130.1	248.6
1915	20.8	179.2	18.1	4.3	10.0	12.9	17.7	23.7	42.3	72.0	125.9	234.5
1914	20.9	187.0	19.5	4.4	10.3	13.2	17.4	23.9	40.4	69.8	117.5	206.5
1913	21.0	193.0	20.9	4.4	10.1	12.9	17.4	24.2	39.1	68.3	119.6	201.3
1912	21.3	198.8	22.2	4.7	10.3	12.5	17.8	25.0	41.5	68.9	127.2	211.2
1911	21.9	214.0	26.7	5.5	10.7	13.0	17.5	24.5	40.1	70.1	109.6	209.6
1910	22.3	257.8	30.1	5.4	10.0	12.6	17.5	24.8	38.7	66.3	115.8	174.1
1909	22.3	252.7	29.6	5.7	10.4	12.4	16.4	25.0	37.6	67.8	114.7	223.6
1908	22.8	255.1	31.7	6.8	10.8	12.8	16.6	24.6	38.6	65.8	112.1	195.5
1907	25.0	286.5	35.2	6.5	12.0	15.0	18.3	25.1	42.1	70.8	128.0	197.0
1906	24.7	292.5	38.3	7.3	11.5	14.2	17.5	23.2	41.1	66.6	118.7	218.4
1905	26.8	339.4	41.1	6.9	13.3	14.3	17.4	28.1	45.4	76.2	131.0	213.5
1904	27.8	337.8	42.4	7.4	12.8	15.3	18.2	26.3	52.3	75.4	145.3	255.0
1903	25.5	327.5	41.6	6.5	11.5	14.1	15.7	24.3	45.3	79.7	127.1	223.8
1902	24.8	345.3	39.4	7.1	11.5	12.6	15.8	23.6	40.9	67.1	130.6	204.0
1901	25.6	332.7	36.0	7.2	11.8	14.0	17.4	27.0	45.1	69.8	119.3	240.8
1900	25.7	369.3	43.4	7.8	11.8	12.5	14.2	24.7	42.1	71.6	131.4	243.3

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

## SUMMARY TABLES

Table 8.40. Death Rates by Age, Race, and Sex: Death-Registration States, 1900-1950—Continued

(See headnote on p. 190)

RACE, SEX, AND YEAR	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>NONWHITE, FEMALE</b>												
1950-----	9.9	47.5	2.3	0.7	2.2	3.9	7.5	15.5	30.4	59.8	70.6	133.7
1949-----	10.0	49.3	2.3	0.8	2.4	4.1	7.8	16.1	30.2	59.3	70.6	123.7
1948-----	10.1	49.5	2.4	0.9	2.7	4.4	8.1	16.5	30.5	58.7	68.7	122.5
1947-----	10.3	50.4	2.4	0.9	3.1	4.9	8.2	17.1	31.0	57.8	68.2	119.6
1946-----	10.0	59.1	2.6	1.0	3.3	5.0	8.6	16.6	29.9	58.1	63.4	113.1
1945-----	10.5	58.0	3.1	1.1	3.6	5.5	9.4	17.3	31.2	56.9	66.3	117.7
1944-----	11.1	64.5	3.7	1.2	3.9	5.9	10.0	17.8	32.2	59.2	69.1	127.8
1943-----	11.6	64.6	3.9	1.2	4.2	6.2	10.4	19.0	34.3	41.7	75.2	135.1
1942-----	11.4	67.8	3.9	1.2	4.4	6.4	10.6	18.8	32.8	41.1	69.0	127.0
1941-----	12.2	79.6	4.8	1.4	4.8	6.9	11.3	20.2	34.1	42.8	75.9	142.1
1940-----	12.6	77.4	4.4	1.4	5.0	7.4	11.7	21.1	35.7	46.3	84.1	159.7
1939-----	12.4	74.8	4.9	1.5	5.2	7.7	11.6	20.9	35.9	46.0	79.8	140.5
1938-----	12.9	80.5	5.8	1.7	5.7	8.2	12.4	21.6	36.0	47.3	80.5	140.0
1937-----	13.4	85.6	6.1	1.8	6.0	9.0	13.4	22.3	37.3	49.5	81.6	153.4
1936-----	13.9	86.1	6.1	1.9	6.4	9.4	13.8	22.4	39.2	52.8	89.7	168.6
1935-----	13.0	81.2	6.3	2.0	6.0	9.0	13.0	21.6	36.9	48.8	80.4	160.4
1934-----	13.5	91.6	7.4	2.1	6.2	9.3	13.1	22.2	37.3	51.3	85.1	158.2
1933-----	13.1	83.3	6.6	2.1	6.2	9.3	12.7	21.9	37.0	52.2	83.6	152.0
1932-----	13.5	84.0	6.5	2.1	6.8	9.8	13.6	22.5	38.5	52.8	85.9	163.2
1931-----	14.5	89.7	8.0	2.4	7.8	10.9	14.6	23.8	39.0	56.5	86.0	160.3
1930-----	15.3	97.9	8.7	2.6	8.2	11.1	15.3	25.2	41.4	60.0	91.4	187.2
1929-----	15.8	105.1	9.2	2.5	8.6	11.8	16.4	25.7	41.1	60.8	102.4	206.6
1928-----	16.2	105.9	9.9	2.8	9.0	11.7	16.8	26.0	39.6	62.2	102.1	219.0
1927-----	15.6	102.0	9.7	2.7	8.8	11.3	16.2	24.7	36.5	59.0	95.3	209.2
1926-----	16.9	113.1	11.9	2.9	9.6	11.8	16.8	26.6	38.1	64.4	105.5	230.7
1925-----	16.6	115.0	10.6	2.9	10.0	11.4	16.6	25.3	36.7	62.8	105.2	240.2
1924-----	16.3	117.9	12.0	2.9	9.6	10.8	15.7	25.3	35.9	62.3	101.2	236.0
1923-----	16.0	115.5	12.8	2.9	9.2	10.8	15.0	23.9	36.8	60.1	101.0	240.5
1922-----	14.8	104.8	9.9	2.7	8.7	10.5	14.2	22.1	35.0	56.5	95.5	217.7
1921-----	15.4	113.7	11.5	3.1	9.4	11.0	13.9	21.5	33.7	55.5	95.9	209.1
1920-----	17.5	131.1	14.2	3.9	10.8	13.5	16.0	23.4	35.8	60.4	106.4	221.2
1919-----	17.8	117.4	14.3	4.6	12.0	14.8	16.5	22.9	35.1	56.6	97.3	188.8
1918-----	24.4	152.1	27.9	7.4	17.7	21.0	21.4	27.1	42.1	65.4	103.9	208.6
1917-----	19.4	139.3	18.9	4.5	11.2	13.3	17.1	24.6	42.2	65.5	112.2	232.1
1916-----	18.4	134.1	16.8	4.0	10.3	12.7	16.4	23.2	40.2	63.9	112.0	223.1
1915-----	19.5	143.4	17.4	4.5	10.7	12.1	16.0	25.5	43.6	69.1	114.6	208.6
1914-----	19.4	152.9	18.8	4.8	10.5	12.1	16.2	25.1	39.5	60.5	101.3	203.2
1913-----	19.6	159.8	19.4	5.0	10.8	12.0	16.0	24.1	40.0	61.3	100.9	191.4
1912-----	19.7	168.8	20.9	5.2	10.9	11.4	15.7	24.7	39.6	62.0	99.9	184.2
1911-----	20.6	180.2	24.2	5.9	11.6	11.9	16.3	24.2	39.0	60.9	100.7	208.6
1910-----	21.0	221.4	26.6	5.9	10.5	11.6	16.4	24.3	36.2	61.9	93.9	177.9
1909-----	21.2	220.8	28.2	6.8	10.7	11.7	15.3	22.8	39.6	61.7	91.6	165.0
1908-----	22.0	229.5	29.1	6.9	11.7	12.7	15.4	24.6	38.7	62.5	99.3	176.8
1907-----	23.5	248.1	32.2	7.1	12.3	12.8	17.8	24.9	40.6	65.0	107.3	207.5
1906-----	23.6	249.1	34.5	8.3	12.7	13.3	16.2	23.5	39.9	61.3	105.4	191.7
1905-----	24.3	261.0	36.4	9.3	12.9	13.5	15.5	25.4	41.6	70.3	95.4	200.0
1904-----	24.7	293.8	37.3	8.7	12.7	12.9	16.5	24.3	45.4	66.3	112.5	208.9
1903-----	23.4	274.9	37.4	8.0	11.0	12.9	16.3	22.8	40.7	67.1	94.9	247.2
1902-----	22.3	273.1	36.4	7.2	11.4	11.7	15.1	22.4	34.8	63.9	93.0	202.6
1901-----	23.1	267.2	33.8	7.5	11.2	11.8	15.6	25.0	40.1	60.2	107.5	217.9
1900-----	24.4	299.5	43.5	10.1	11.2	11.7	15.6	23.9	42.1	66.4	113.2	185.8

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

NOTE.—For 1940-50, deaths exclude those among armed forces overseas; also, population bases exclude armed forces overseas.

Table 8.41. Age-Adjusted Death Rates by Race and Sex: United States,  
Each Division and State, 1950

(By place of residence. Based on age-specific rates shown in table 8.42. Computed by the direct method using as the standard population the age distribution of the population of the United States as enumerated in 1940)

AREA	ALL RACES			WHITE			NONWHITE		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
UNITED STATES	8.4	10.0	6.9	8.0	9.6	6.5	12.2	15.5	10.9
GEOGRAPHIC DIVISIONS									
New England	7.9	9.4	6.5	7.9	9.4	6.4	10.9	11.9	9.9
Middle Atlantic	8.8	10.3	7.3	8.5	10.1	7.1	12.6	14.3	11.0
East North Central	8.4	9.9	6.9	8.1	9.7	6.6	12.4	13.8	11.1
West North Central	7.6	9.0	6.1	7.4	8.8	6.0	13.4	15.0	11.8
South Atlantic	9.1	10.9	7.4	8.0	9.8	6.2	13.0	14.6	11.4
East South Central	8.9	10.4	7.5	7.9	9.5	6.4	12.4	13.5	11.4
West South Central	8.1	9.6	6.5	7.5	9.2	5.8	11.0	12.0	10.0
Mountain	8.2	9.7	6.4	8.0	9.6	6.2	11.7	12.5	10.8
Pacific	7.9	9.7	6.0	7.8	9.7	5.9	9.2	10.3	7.8
NEW ENGLAND									
Maine	8.0	9.2	6.8	7.9	9.2	6.8	8.9	8.9	9.2
New Hampshire	8.0	9.7	6.5	8.0	9.6	6.5	16.1	13.6	19.7
Vermont	7.9	9.6	6.5	7.9	9.6	6.5	6.4	11.3	0
Massachusetts	7.8	9.4	6.4	7.8	9.4	6.4	10.4	11.4	9.3
Rhode Island	8.5	10.2	7.1	8.4	10.1	7.0	14.3	14.2	14.3
Connecticut	7.7	9.2	6.3	7.6	9.1	6.2	10.7	12.0	9.5
MIDDLE ATLANTIC									
New York	8.7	10.3	7.2	8.5	10.1	7.0	12.1	13.9	10.6
New Jersey	8.6	10.1	7.3	8.4	9.8	7.0	12.8	14.3	11.3
Pennsylvania	8.9	10.5	7.4	8.7	10.2	7.2	13.1	14.8	11.5
EAST NORTH CENTRAL									
Ohio	8.2	9.8	6.7	8.0	9.5	6.5	12.1	13.6	10.6
Indiana	8.3	9.8	6.8	8.1	9.6	6.6	13.5	14.3	12.8
Illinois	8.7	10.4	7.1	8.4	10.1	6.8	12.8	14.5	11.3
Michigan	8.4	9.9	6.8	8.1	9.7	6.5	11.4	12.6	10.3
Wisconsin	7.8	9.1	6.5	7.7	9.0	6.5	12.5	13.3	11.5
WEST NORTH CENTRAL									
Minnesota	7.3	8.7	6.0	7.3	8.6	5.9	12.3	14.5	9.8
Iowa	7.3	8.7	5.9	7.3	8.7	5.9	11.5	12.6	10.3
Missouri	8.2	9.8	6.6	7.7	9.3	6.2	13.9	15.7	12.2
North Dakota	7.5	8.7	6.1	7.4	8.6	6.1	11.8	11.5	12.1
South Dakota	7.5	8.7	6.2	7.2	8.4	5.9	14.4	15.5	13.2
Nebraska	7.1	8.4	5.7	7.0	8.3	5.6	12.2	13.4	10.9
Kansas	7.3	8.8	5.9	7.1	8.6	5.7	12.3	13.7	10.8
SOUTH ATLANTIC									
Delaware	9.5	11.2	7.8	8.8	10.5	7.1	13.8	15.5	12.1
Maryland	9.2	11.0	7.6	8.4	10.2	6.8	13.6	15.1	11.9
District of Columbia	9.9	12.4	7.9	8.4	11.1	6.4	13.3	15.2	11.7
Virginia	9.2	11.0	7.5	8.0	9.8	6.3	13.7	15.2	12.2
West Virginia	8.6	10.1	7.0	8.3	9.8	6.7	12.6	14.4	10.4
North Carolina	8.7	10.4	7.2	7.6	9.4	6.0	12.3	13.5	11.1
South Carolina	10.0	12.1	8.0	8.3	10.8	6.3	13.3	15.3	11.8
Georgia	9.3	11.1	7.6	7.8	9.8	6.1	13.1	14.9	11.5
Florida	8.4	10.3	6.6	7.3	9.2	5.6	12.8	14.7	10.8
EAST SOUTH CENTRAL									
Kentucky	8.5	10.0	7.1	8.1	9.5	6.6	14.1	15.4	12.7
Tennessee	8.7	10.2	7.3	7.9	9.5	6.5	12.7	13.7	11.7
Alabama	9.1	10.7	7.7	7.8	9.5	6.2	12.4	13.7	11.1
Mississippi	9.5	10.8	8.2	7.8	9.5	6.2	11.8	12.6	11.0
WEST SOUTH CENTRAL									
Arkansas	7.5	8.8	6.3	6.9	8.3	5.5	9.8	10.6	9.0
Louisiana	9.0	10.7	7.4	7.8	9.8	6.0	11.6	12.8	10.4
Oklahoma	7.4	8.9	5.8	7.0	8.6	5.5	10.5	11.6	9.4
Texas	8.1	9.7	6.5	7.7	9.4	6.0	11.1	12.1	10.1
MOUNTAIN									
Montana	8.4	9.9	6.5	8.2	9.8	6.4	12.4	13.2	11.3
Idaho	7.7	9.3	6.0	7.7	9.2	6.0	11.4	13.1	9.4
Wyoming	8.2	9.8	6.2	8.1	9.8	6.1	13.3	13.2	14.7
Colorado	7.6	9.0	6.3	7.6	9.0	6.2	9.3	8.9	9.6
New Mexico	8.7	9.9	7.4	8.4	9.6	7.1	12.6	13.4	11.6
Arizona	8.8	11.0	6.5	8.3	10.6	5.9	11.8	13.0	10.3
Utah	7.5	9.2	5.9	7.5	9.2	5.8	11.0	11.3	11.1
Nevada	9.5	11.6	6.7	9.4	11.5	6.3	11.4	11.9	11.1
PACIFIC									
Washington	7.8	9.5	6.0	7.7	9.4	5.9	11.6	12.8	10.0
Oregon	7.6	9.2	5.9	7.5	9.2	5.8	10.5	11.0	9.8
California	7.9	9.8	6.1	7.8	9.8	6.0	8.9	10.0	7.5

Table 8.42. Death Rates by Age, Race, and Sex: United States,  
Each Division and State, 1950

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE, SEX, AND AREA	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-94 years	85 years and over
<b>ALL RACES, BOTH SEXES</b>												
UNITED STATES-----	9.6	33.0	1.4	0.6	1.3	1.8	3.6	8.5	19.1	40.7	93.3	202.0
<b>GEOGRAPHIC DIVISIONS</b>												
New England-----	10.4	27.5	1.1	0.5	0.8	1.3	2.9	7.8	18.7	41.6	91.4	190.7
Middle Atlantic-----	10.5	29.8	1.1	0.5	1.0	1.5	3.4	8.8	20.9	45.5	101.0	209.9
East North Central-----	10.0	29.5	1.2	0.6	1.2	1.8	3.4	8.3	19.0	41.6	97.0	211.9
West North Central-----	10.1	29.7	1.4	0.6	1.2	1.5	2.8	5.8	15.8	37.0	92.9	212.4
South Atlantic-----	8.9	37.9	1.5	0.6	1.5	2.4	4.6	10.3	21.8	40.3	88.3	189.9
East South Central-----	9.1	41.1	1.8	0.7	1.7	2.5	4.4	9.2	19.7	39.3	92.4	205.6
West South Central-----	8.4	38.7	1.8	0.7	1.5	2.1	3.7	8.4	17.7	36.2	85.1	178.9
Mountain-----	8.6	40.8	1.9	0.8	1.7	2.1	3.6	7.6	16.7	37.3	89.0	200.2
Pacific-----	9.3	27.9	1.2	0.6	1.3	1.6	3.4	8.1	17.7	38.2	88.1	191.3
<b>NEW ENGLAND</b>												
Maine-----	10.8	33.6	1.5	0.7	1.1	1.3	2.7	7.7	17.8	39.9	91.5	215.8
New Hampshire-----	11.4	27.8	1.1	0.6	1.0	1.3	3.5	7.4	18.6	42.3	91.0	184.2
Vermont-----	11.0	27.0	1.6	0.5	1.1	1.6	2.9	7.4	17.1	45.1	91.2	205.5
Massachusetts-----	10.5	26.7	1.0	0.4	0.8	1.3	2.9	7.9	18.5	41.4	90.3	184.6
Rhode Island-----	10.5	31.4	1.0	0.5	0.6	1.0	3.2	6.3	20.7	46.1	89.3	198.9
Connecticut-----	9.5	24.5	0.9	0.4	0.8	1.2	2.8	7.5	16.8	40.6	91.3	187.6
<b>MIDDLE ATLANTIC</b>												
New York-----	10.5	28.8	1.1	0.5	1.0	1.5	3.4	8.8	20.7	45.4	101.0	207.1
New Jersey-----	10.2	29.1	1.1	0.5	0.9	1.4	3.3	8.7	20.8	45.5	99.6	205.8
Pennsylvania-----	10.5	31.5	1.2	0.5	1.0	1.6	3.5	9.0	21.2	45.7	101.6	215.5
<b>EAST NORTH CENTRAL</b>												
Ohio-----	10.1	29.5	1.3	0.6	1.2	1.6	3.3	8.2	18.3	40.9	96.2	210.5
Indiana-----	10.3	30.3	1.4	0.7	1.3	1.6	3.5	8.1	18.4	40.0	97.1	217.2
Illinois-----	10.6	29.3	1.2	0.6	1.2	1.7	3.6	9.1	20.4	43.6	98.5	205.7
Michigan-----	9.1	29.9	1.2	0.6	1.2	1.6	3.3	8.3	19.2	41.6	96.3	211.6
Wisconsin-----	9.8	28.3	1.1	0.6	1.1	1.3	2.8	7.0	16.7	39.7	96.2	223.0
<b>WEST NORTH CENTRAL</b>												
Minnesota-----	9.4	27.8	1.2	0.5	1.0	1.2	2.5	6.4	15.2	37.8	92.9	213.3
Iowa-----	10.3	27.5	1.2	0.6	1.1	1.4	2.6	6.2	15.1	36.3	92.2	223.4
Missouri-----	11.1	35.5	1.5	0.6	1.3	1.7	3.4	8.1	18.0	38.8	94.3	210.0
North Dakota-----	9.4	30.6	1.4	0.6	1.2	1.4	2.6	6.0	25.7	35.9	100.4	213.1
South Dakota-----	9.0	30.0	1.9	0.7	1.4	1.5	2.6	6.3	15.0	35.8	95.9	206.2
Nebraska-----	9.5	28.2	1.4	0.7	1.0	1.4	2.8	6.1	14.3	34.3	89.3	194.4
Kansas-----	10.0	29.1	1.3	0.6	1.3	1.6	2.8	6.4	14.6	35.4	91.0	214.2
<b>SOUTH ATLANTIC</b>												
Delaware-----	11.0	37.4	1.4	0.7	1.5	1.8	3.9	10.1	22.2	46.3	103.5	203.5
Maryland-----	9.6	30.1	1.2	0.6	1.2	2.0	4.0	9.8	22.5	45.9	99.8	206.9
District of Columbia-----	10.7	40.1	1.2	0.6	1.4	2.3	5.3	10.6	23.6	47.2	99.2	202.2
Virginia-----	9.0	39.4	1.5	0.7	1.4	2.2	4.3	9.7	21.8	43.5	94.7	202.5
West Virginia-----	8.7	39.4	1.6	0.6	1.4	2.1	4.1	8.5	18.0	39.6	93.5	218.5
North Carolina-----	7.7	39.1	1.5	0.7	1.4	2.4	4.4	9.3	20.9	39.6	85.3	180.9
South Carolina-----	8.5	41.6	1.9	0.7	1.7	3.1	5.9	13.4	27.4	38.2	77.8	167.4
Georgia-----	8.8	37.0	1.6	0.6	1.6	2.9	5.1	11.7	23.1	38.2	64.4	179.4
Florida-----	9.6	36.9	1.5	0.7	1.5	2.3	4.6	10.5	20.0	35.4	77.2	168.8
<b>EAST SOUTH CENTRAL</b>												
Kentucky-----	9.5	39.6	1.8	0.7	1.6	2.3	3.9	8.2	17.2	38.0	94.8	227.9
Tennessee-----	8.9	40.8	1.7	0.7	1.5	2.3	4.1	8.5	19.0	39.1	96.0	204.7
Alabama-----	8.8	41.2	1.7	0.7	1.8	2.7	4.7	10.3	22.3	39.0	85.5	173.8
Mississippi-----	9.5	43.1	2.1	0.8	1.9	3.1	5.0	10.3	20.8	41.9	91.2	199.7
<b>WEST SOUTH CENTRAL</b>												
Arkansas-----	8.1	27.9	1.7	0.6	1.5	2.1	3.6	7.6	17.0	33.7	81.9	168.7
Louisiana-----	8.8	39.7	1.7	0.6	1.5	2.2	4.3	10.3	22.1	41.1	85.4	174.6
Oklahoma-----	8.7	32.8	1.6	0.6	1.3	1.8	3.1	7.1	14.9	34.0	84.7	204.8
Texas-----	8.2	42.5	2.0	0.7	1.6	2.2	3.7	8.3	17.3	36.0	82.0	172.9
<b>MOUNTAIN</b>												
Montana-----	9.9	32.8	1.7	0.7	1.7	1.9	3.7	7.9	17.3	40.5	96.4	203.1
Idaho-----	8.2	30.1	1.6	0.7	1.6	1.9	3.0	7.0	18.1	37.5	85.6	209.9
Wyoming-----	8.0	35.3	1.4	1.0	2.2	2.0	3.7	7.1	18.0	38.3	93.4	196.9
Colorado-----	9.3	38.5	1.5	0.7	1.3	1.6	3.1	7.3	15.6	35.8	85.3	207.9
New Mexico-----	8.0	63.9	2.8	0.9	2.2	2.6	5.8	7.3	17.1	35.9	87.8	196.0
Arizona-----	8.6	51.6	2.9	0.9	2.1	3.1	4.8	8.8	18.7	37.3	77.8	166.7
Utah-----	7.2	26.2	1.4	0.7	1.3	1.8	2.9	6.4	16.3	36.4	93.0	201.6
Nevada-----	9.9	42.1	1.3	0.7	1.8	3.0	4.5	10.2	18.8	43.4	104.5	203.7
<b>PACIFIC</b>												
Washington-----	9.5	29.1	1.2	0.7	1.1	1.6	3.2	7.5	16.9	38.4	90.0	207.8
Oregon-----	9.2	24.7	1.1	0.6	1.5	1.8	3.1	7.4	15.7	36.8	89.4	198.1
California-----	9.3	28.1	1.2	0.5	1.3	1.6	3.5	8.4	18.2	36.3	87.4	186.4

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

MORTALITY RATES

Table 8.42. Death Rates by Age, Race, and Sex: United States, Each Division and State, 1950—Continued

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE, SEX, AND AREA	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>ALL RACES, MALE</b>												
UNITED STATES	11.1	37.3	1.5	0.7	1.7	2.2	4.3	10.7	24.1	49.0	104.3	216.4
<b>GEOGRAPHIC DIVISIONS</b>												
New England	11.5	30.7	1.2	0.5	1.1	1.5	3.6	10.0	23.6	50.7	101.6	202.0
Middle Atlantic	11.8	33.6	1.2	0.6	1.3	1.7	4.0	11.1	26.0	54.2	111.6	223.8
East North Central	11.5	33.6	1.4	0.7	1.6	1.9	4.1	10.3	23.8	49.5	108.1	228.3
West North Central	11.6	33.6	1.5	0.7	1.6	1.9	3.4	8.7	19.9	44.4	104.1	226.0
South Atlantic	10.2	42.9	1.7	0.8	1.9	2.9	5.6	12.8	27.5	48.8	99.4	202.7
East South Central	10.4	46.2	1.9	0.8	2.1	3.0	5.1	11.0	23.9	46.3	102.8	219.6
West South Central	9.8	43.2	2.0	0.8	2.0	2.6	4.3	10.3	22.5	44.0	94.2	194.9
Mountain	10.3	45.6	2.1	0.9	2.2	2.7	4.3	9.7	20.9	45.5	98.4	210.5
Pacific	11.0	32.3	1.3	0.7	1.7	2.1	4.2	10.5	23.5	48.2	100.9	206.2
<b>NEW ENGLAND</b>												
Maine	11.8	37.9	1.7	0.8	1.5	1.4	3.2	9.4	21.8	46.7	96.9	226.3
New Hampshire	12.8	32.7	1.3	0.8	1.3	1.7	3.9	9.7	24.9	51.0	101.4	187.6
Vermont	12.3	29.9	2.0	0.6	1.5	2.2	3.3	9.5	22.7	52.0	102.3	210.8
Massachusetts	11.6	30.5	1.2	0.5	1.0	1.4	3.7	10.3	23.4	50.8	101.5	195.1
Rhode Island	11.5	30.6	1.2	0.6	0.8	1.2	4.0	10.6	25.9	56.8	113.5	212.2
Connecticut	10.7	27.2	1.0	0.5	1.1	1.4	3.3	9.6	23.7	49.9	100.3	205.3
<b>MIDDLE ATLANTIC</b>												
New York	12.0	32.5	1.2	0.6	1.3	1.7	4.0	11.1	25.9	54.4	112.3	218.5
New Jersey	11.3	33.2	1.2	0.6	1.1	1.5	3.8	10.8	26.2	54.0	107.4	222.4
Pennsylvania	11.9	35.3	1.2	0.6	1.4	1.9	4.2	11.2	26.2	53.9	112.3	232.1
<b>EAST NORTH CENTRAL</b>												
Ohio	11.6	33.9	1.4	0.7	1.6	1.9	4.0	10.1	23.0	49.4	108.0	223.2
Indiana	11.8	34.1	1.6	0.8	1.7	1.9	4.1	10.1	23.1	47.0	108.8	237.3
Illinois	12.2	33.5	1.3	0.7	1.6	2.0	4.4	11.6	25.6	51.9	110.2	218.3
Michigan	10.5	33.8	1.3	0.7	1.6	1.8	4.0	10.0	24.2	50.0	106.8	231.3
Wisconsin	11.2	31.8	1.3	0.7	1.6	1.6	3.3	8.4	20.4	46.3	104.8	244.4
<b>WEST NORTH CENTRAL</b>												
Minnesota	10.9	30.2	1.3	0.6	1.5	1.6	3.2	8.0	19.1	44.9	104.3	228.0
Iowa	11.7	32.9	1.4	0.7	1.4	1.8	3.0	7.9	18.8	44.5	102.0	233.7
Missouri	12.8	39.0	1.5	0.7	1.8	2.1	4.0	10.3	23.2	48.7	108.7	226.5
North Dakota	9.9	33.8	1.7	0.7	1.6	1.8	3.5	7.4	18.8	41.3	107.3	217.6
South Dakota	10.4	34.2	2.0	0.8	1.8	2.0	3.2	7.9	17.8	41.4	105.4	207.9
Nebraska	11.0	32.0	1.6	0.8	1.4	1.7	3.3	8.0	16.6	40.4	99.8	211.3
Kansas	11.5	33.3	1.4	0.7	1.7	2.1	3.3	8.4	18.3	43.5	103.1	222.3
<b>SOUTH ATLANTIC</b>												
Delaware	12.5	43.3	1.8	0.9	2.2	2.3	4.7	12.7	26.7	56.2	114.1	191.5
Maryland	10.7	33.1	1.2	0.7	1.5	2.3	4.8	12.3	26.0	56.0	112.9	226.8
District of Columbia	12.3	45.6	1.2	0.8	1.6	2.7	6.9	13.9	31.6	60.5	118.8	219.2
Virginia	10.1	45.1	1.6	0.8	1.8	2.7	5.2	11.9	27.2	52.1	107.5	211.7
West Virginia	10.3	46.5	1.6	0.7	2.0	2.8	5.0	10.5	22.6	45.6	102.5	235.0
North Carolina	8.8	43.5	1.6	0.7	1.8	3.0	5.4	11.4	26.2	46.6	97.1	195.0
South Carolina	9.9	47.0	2.2	0.7	2.2	3.9	7.0	16.5	33.9	47.5	91.6	189.0
Georgia	10.1	42.0	1.7	0.8	2.1	3.4	6.0	14.5	28.9	47.3	94.0	190.2
Florida	11.6	41.5	1.8	0.9	2.1	2.7	5.4	13.2	26.3	44.2	86.5	180.2
<b>EAST SOUTH CENTRAL</b>												
Kentucky	10.7	45.6	1.9	0.8	2.0	2.8	4.6	10.2	21.5	44.3	103.7	246.5
Tennessee	10.2	45.0	1.8	0.8	1.9	2.6	4.9	10.5	23.1	46.1	107.7	214.1
Alabama	10.1	46.5	1.9	0.8	2.4	3.1	5.5	12.2	26.8	46.2	97.4	191.6
Mississippi	10.7	46.2	2.3	0.9	2.3	3.4	5.3	11.4	24.9	49.4	100.4	218.1
<b>WEST SOUTH CENTRAL</b>												
Arkansas	9.5	32.7	1.8	0.8	1.7	2.5	4.3	8.9	21.1	38.6	89.3	193.3
Louisiana	10.2	42.5	1.8	0.8	2.0	2.7	4.8	12.7	27.6	49.5	99.4	176.0
Oklahoma	10.4	37.1	1.8	0.6	1.8	2.0	3.9	9.1	19.4	42.0	94.7	219.8
Texas	9.6	47.6	2.1	0.8	2.1	2.7	4.3	10.2	22.3	44.6	93.8	189.9
<b>MOUNTAIN</b>												
Montana	12.0	35.5	1.7	0.9	2.2	2.6	4.9	10.1	21.5	47.3	105.4	216.4
Idaho	10.1	34.7	1.9	0.8	2.5	2.6	4.0	8.9	20.4	44.7	92.6	206.8
Wyoming	9.8	42.4	1.4	1.2	2.5	2.6	4.5	9.6	19.0	44.5	105.9	267.9
Colorado	10.6	43.9	1.9	0.8	1.6	1.9	3.6	8.9	19.3	44.6	95.5	210.7
New Mexico	9.2	66.6	3.1	1.1	2.6	3.0	4.3	8.1	19.1	43.2	95.0	205.6
Arizona	10.7	57.0	2.9	0.9	2.7	4.1	5.7	12.0	25.0	47.2	93.0	174.7
Utah	8.5	32.0	1.5	0.9	1.7	2.3	3.5	8.5	21.1	44.5	105.2	227.4
Nevada	12.8	53.1	1.7	0.6	2.4	4.0	5.9	13.2	24.6	53.2	114.9	214.0
<b>PACIFIC</b>												
Washington	11.3	33.6	1.3	0.8	1.4	2.2	4.0	9.7	22.0	46.8	101.7	224.0
Oregon	11.0	29.1	1.2	0.7	2.3	2.5	4.0	9.2	20.2	44.8	89.3	221.6
California	10.9	32.7	1.3	0.6	1.7	2.0	4.2	10.9	24.3	49.1	100.9	198.3

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 8.42. Death Rates by Age, Race, and Sex: United States,  
Each Division and State, 1950—Continued

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE, SEX, AND AREA	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>ALL RACES, FEMALE</b>												
UNITED STATES-----	8.2	28.5	1.3	0.5	0.9	1.4	2.9	6.4	14.1	33.0	64.0	191.9
<b>GEOGRAPHIC DIVISIONS</b>												
New England-----	9.4	24.1	0.9	0.4	0.6	1.1	2.3	5.7	14.0	34.0	83.7	184.1
Middle Atlantic-----	9.1	25.8	1.0	0.4	0.7	1.3	2.8	6.6	15.8	37.8	82.8	201.3
East North Central-----	8.8	25.3	1.1	0.5	0.8	1.3	2.7	6.3	14.0	34.0	87.4	200.3
West North Central-----	8.5	25.5	1.2	0.5	0.7	1.1	2.5	5.0	11.7	29.7	82.5	201.6
South Atlantic-----	7.5	32.8	1.4	0.5	1.0	1.9	3.7	7.9	16.4	32.7	78.7	181.2
East South Central-----	7.9	35.9	1.7	0.6	1.3	2.1	3.7	7.5	15.5	32.7	82.7	191.7
West South Central-----	7.0	34.1	1.7	0.5	1.1	1.6	3.1	6.4	12.8	28.8	72.7	166.5
Mountain-----	6.9	35.7	1.7	0.6	1.2	1.5	2.7	5.2	12.0	28.4	77.5	190.8
Pacific-----	7.6	25.3	1.1	0.4	0.8	1.2	2.6	5.6	11.8	28.8	77.6	181.0
<b>NEW ENGLAND</b>												
Maine-----	9.8	28.1	1.4	0.5	0.6	1.2	2.3	5.9	13.9	33.4	86.8	208.7
New Hampshire-----	10.0	22.4	0.9	0.4	0.7	1.2	3.2	5.2	13.1	34.5	82.4	182.1
Vermont-----	9.8	24.0	1.2	0.5	0.8	1.1	2.6	5.3	11.7	35.1	82.3	201.9
Massachusetts-----	9.5	22.9	0.9	0.3	0.6	1.1	2.2	5.7	14.0	34.0	82.4	178.9
Rhode Island-----	9.5	32.1	0.7	0.5	0.4	0.8	2.5	6.2	15.9	37.4	89.0	191.2
Connecticut-----	8.4	21.6	0.8	0.4	0.5	1.0	2.2	5.4	13.9	32.4	84.5	178.3
<b>MIDDLE ATLANTIC</b>												
New York-----	9.2	24.9	0.9	0.4	0.7	1.2	2.9	6.5	15.6	37.5	92.5	200.3
New Jersey-----	9.0	24.8	0.9	0.4	0.8	1.2	2.8	6.6	15.5	38.0	93.8	198.1
Pennsylvania-----	9.2	27.6	1.1	0.4	0.7	1.3	2.9	6.8	16.3	38.1	92.8	205.1
<b>EAST NORTH CENTRAL</b>												
Ohio-----	8.7	25.0	1.1	0.5	0.7	1.3	2.7	6.3	13.6	33.1	86.3	202.0
Indiana-----	8.9	26.3	1.2	0.5	0.9	1.3	2.9	6.0	13.7	33.3	86.8	202.7
Illinois-----	9.1	25.0	1.1	0.4	0.8	1.4	2.9	6.7	15.1	35.8	88.8	197.2
Michigan-----	7.6	25.8	1.1	0.5	0.9	1.3	2.7	6.5	13.5	33.3	87.0	197.0
Wisconsin-----	8.5	24.6	1.0	0.4	0.6	1.0	2.2	5.5	12.9	33.1	88.1	205.9
<b>WEST NORTH CENTRAL</b>												
Minnesota-----	7.8	25.3	1.1	0.5	0.6	0.8	1.9	4.8	11.1	30.5	81.7	201.1
Iowa-----	8.9	21.8	1.0	0.4	0.7	1.0	2.2	4.5	11.4	28.5	83.4	211.8
Missouri-----	9.4	26.8	1.4	0.4	0.8	1.3	2.8	6.0	13.1	31.7	85.4	197.6
North Dakota-----	6.7	27.7	1.0	0.5	0.6	0.9	1.6	4.5	12.1	28.3	91.9	208.1
South Dakota-----	7.5	25.6	1.9	0.5	1.1	1.0	1.9	4.6	11.7	28.9	85.4	204.6
Nebraska-----	8.0	24.2	1.2	0.6	0.6	1.0	2.3	4.2	10.0	28.1	78.3	180.6
Kansas-----	8.5	24.8	1.3	0.5	0.9	1.1	2.2	4.5	10.9	27.7	80.0	207.8
<b>SOUTH ATLANTIC</b>												
Delaware-----	9.6	31.1	1.1	0.5	0.8	1.2	3.1	7.6	17.8	37.8	94.5	212.0
Maryland-----	8.4	27.0	1.1	0.5	0.9	1.7	3.1	7.2	17.1	37.5	89.8	195.2
District of Columbia-----	9.2	34.6	1.1	0.4	1.2	2.0	3.9	7.6	16.7	37.6	88.0	194.3
Virginia-----	7.7	33.6	1.3	0.5	1.0	1.8	3.3	7.5	16.5	35.8	85.7	186.2
West Virginia-----	7.0	32.1	1.6	0.6	0.8	1.5	3.1	6.4	13.0	33.2	84.2	204.6
North Carolina-----	6.6	34.6	1.4	0.6	1.1	1.8	3.4	7.4	15.8	33.4	75.1	172.6
South Carolina-----	7.2	36.1	1.7	0.6	1.1	2.4	4.9	10.5	21.2	30.3	68.5	154.9
Georgia-----	7.6	31.9	1.6	0.5	1.2	2.4	4.2	9.1	17.8	30.5	76.3	172.6
Florida-----	7.6	32.1	1.3	0.4	1.0	1.8	3.8	7.8	13.9	27.1	67.9	159.1
<b>EAST SOUTH CENTRAL</b>												
Kentucky-----	8.2	33.8	1.6	0.6	1.2	1.8	3.2	8.3	12.9	31.9	86.5	213.8
Tennessee-----	7.7	36.4	1.5	0.6	1.1	1.8	3.4	8.7	15.1	32.7	85.3	197.5
Alabama-----	7.5	35.8	1.6	0.5	1.3	2.3	4.0	8.5	18.0	32.3	74.9	160.9
Mississippi-----	8.4	38.0	2.0	0.6	1.5	2.8	4.6	9.4	16.6	34.6	82.3	186.4
<b>WEST SOUTH CENTRAL</b>												
Arkansas-----	6.7	23.0	1.6	0.5	1.2	1.6	2.9	8.3	12.6	28.6	74.0	148.0
Louisiana-----	7.5	36.8	1.5	0.5	1.1	1.7	3.7	7.9	16.2	33.6	73.6	173.6
Oklahoma-----	7.0	28.2	1.4	0.5	0.9	1.3	2.4	5.1	10.4	26.1	74.5	190.4
Texas-----	6.8	37.2	1.9	0.5	1.1	1.7	3.0	6.4	12.3	28.1	71.4	180.2
<b>MOUNTAIN</b>												
Montana-----	7.5	30.0	1.6	0.5	1.2	1.1	2.4	5.4	12.1	31.5	85.6	189.0
Idaho-----	6.3	25.5	1.3	0.6	1.1	1.2	1.9	4.8	11.2	28.8	77.4	213.5
Wyoming-----	6.0	27.8	1.4	0.7	1.7	1.5	2.7	4.2	11.9	30.2	78.5	128.2
Colorado-----	8.0	32.9	1.2	0.6	1.0	1.3	2.7	5.7	11.9	27.5	76.3	205.6
New Mexico-----	6.8	61.2	2.4	0.8	1.7	2.1	3.3	5.4	14.8	27.6	80.0	188.3
Arizona-----	6.3	46.1	2.9	0.8	1.5	2.1	3.5	5.4	11.5	26.4	61.2	158.9
Utah-----	5.9	20.1	1.3	0.5	0.9	1.2	2.3	4.3	11.3	28.6	62.6	182.0
Nevada-----	6.6	30.2	0.9	0.9	1.1	2.0	3.0	6.2	10.2	29.3	91.2	193.7
<b>PACIFIC</b>												
Washington-----	7.5	24.5	1.1	0.5	0.8	1.1	2.4	5.2	11.3	29.4	78.3	183.4
Oregon-----	7.2	21.1	1.1	0.5	0.8	1.2	2.2	5.4	10.6	28.1	80.0	177.9
California-----	7.7	23.3	1.1	0.4	0.9	1.2	2.7	5.7	12.1	28.7	77.1	178.8

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 8.42. Death Rates by Age, Race, and Sex: United States,  
Each Division and State, 1950—Continued

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE, SEX, AND AREA	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>WHITE, BOTH SEXES</b>												
UNITED STATES	9.5	29.9	1.2	0.6	1.1	1.5	3.1	7.7	19.0	40.2	94.2	206.8
<b>GEOGRAPHIC DIVISIONS</b>												
New England	10.4	27.1	1.1	0.5	0.8	1.2	2.9	7.7	18.6	41.5	91.4	190.9
Middle Atlantic	10.4	27.6	1.0	0.5	0.9	1.3	3.1	8.3	20.4	45.3	101.0	211.9
East North Central	10.0	28.2	1.2	0.6	1.1	1.4	3.1	7.8	18.4	41.2	97.1	213.7
West North Central	9.9	28.4	1.2	0.6	1.1	1.4	2.6	6.4	15.5	36.6	92.7	213.7
South Atlantic	8.1	30.8	1.2	0.6	1.1	1.6	3.3	7.7	17.8	39.0	92.0	204.4
East South Central	8.3	35.9	1.5	0.6	1.4	1.9	3.3	7.0	16.0	37.2	95.1	218.7
West South Central	7.9	36.0	1.7	0.6	1.4	1.7	3.0	7.0	15.6	35.2	84.6	191.4
Mountain	8.5	37.2	1.6	0.7	1.5	2.0	3.4	7.4	16.6	37.2	88.7	205.6
Pacific	9.4	27.0	1.2	0.6	1.2	1.6	3.2	8.0	17.5	39.1	88.2	193.5
<b>NEW ENGLAND</b>												
Maine	10.8	33.6	1.5	0.6	1.1	1.3	2.7	7.6	17.8	39.9	91.6	216.4
New Hampshire	11.4	27.5	1.1	0.5	1.0	1.5	3.5	7.4	16.9	42.2	91.0	184.6
Vermont	11.0	27.0	1.6	0.5	1.1	1.6	2.9	7.4	17.1	43.1	91.1	206.1
Massachusetts	10.5	29.3	1.0	0.4	0.8	1.2	2.9	7.8	18.4	41.4	90.4	184.8
Rhode Island	10.4	30.6	1.0	0.5	0.6	1.0	3.1	8.2	20.4	45.9	99.1	199.2
Connecticut	9.5	25.7	0.9	0.4	0.8	1.1	2.6	7.3	18.7	40.5	91.3	187.6
<b>MIDDLE ATLANTIC</b>												
New York	10.6	26.7	1.0	0.5	0.9	1.3	3.0	8.4	20.3	45.3	101.1	208.9
New Jersey	10.1	25.9	0.9	0.5	0.9	1.2	3.0	8.2	20.4	45.1	99.3	207.7
Pennsylvania	10.4	29.4	1.1	0.5	1.0	1.4	3.2	8.3	20.6	45.3	101.6	218.0
<b>EAST NORTH CENTRAL</b>												
Ohio	10.1	28.0	1.2	0.6	1.1	1.4	3.0	7.6	17.7	40.5	96.2	212.2
Indiana	10.2	28.2	1.3	0.7	1.2	1.5	3.1	7.5	17.8	39.5	96.8	218.5
Illinois	10.5	27.6	1.1	0.5	1.1	1.4	3.2	8.5	19.7	45.1	98.7	207.8
Michigan	9.0	28.8	1.2	0.6	1.1	1.3	3.0	7.7	18.6	41.6	96.6	214.6
Wisconsin	9.8	27.8	1.1	0.6	1.1	1.3	2.7	6.9	16.7	39.6	96.2	223.2
<b>WEST NORTH CENTRAL</b>												
Minnesota	9.4	27.6	1.2	0.5	1.0	1.2	2.5	6.3	15.1	37.7	92.7	214.3
Iowa	10.3	27.5	1.2	0.5	1.1	1.4	2.6	6.1	15.0	36.1	92.2	223.8
Missouri	10.7	30.7	1.3	0.5	1.1	1.5	2.9	7.1	16.7	38.0	94.0	213.3
North Dakota	8.3	28.7	1.2	0.5	1.1	1.4	2.6	5.9	15.8	35.3	100.4	212.4
South Dakota	8.8	28.3	1.2	0.6	1.3	1.3	2.4	6.2	14.7	35.5	94.6	208.5
Nebraska	9.5	27.6	1.3	0.7	1.0	1.3	2.7	5.9	14.2	34.1	89.5	194.2
Kansas	9.8	27.8	1.3	0.6	1.2	1.5	2.6	6.1	14.0	35.0	90.4	214.5
<b>SOUTH ATLANTIC</b>												
Delaware	10.6	33.1	0.8	0.7	1.3	1.3	3.2	7.9	20.7	45.5	105.4	206.0
Maryland	9.1	24.6	1.0	0.5	0.9	1.4	3.2	8.2	20.3	44.1	100.2	212.3
District of Columbia	10.4	39.3	0.9	0.3	0.8	1.4	3.5	7.9	20.0	43.1	96.1	200.0
Virginia	7.9	31.9	1.2	0.6	1.2	1.6	3.1	7.3	16.9	40.1	87.4	217.4
West Virginia	8.5	39.6	1.6	0.8	1.4	2.0	3.8	7.9	17.0	38.8	95.3	220.3
North Carolina	6.8	29.3	1.1	0.6	1.1	1.6	3.2	7.0	16.9	37.0	80.3	200.3
South Carolina	7.3	30.8	1.3	0.6	1.2	1.8	3.5	8.3	19.5	39.7	82.2	205.3
Georgia	7.6	28.8	1.3	0.5	1.2	1.7	3.1	7.3	17.5	38.8	82.5	206.4
Florida	9.0	29.9	1.2	0.6	1.2	1.5	3.3	8.0	16.4	34.7	78.5	176.8
<b>EAST SOUTH CENTRAL</b>												
Kentucky	8.9	39.5	1.7	0.7	1.6	2.1	3.4	7.2	15.6	36.6	94.4	232.3
Tennessee	8.2	37.4	1.6	0.6	1.2	1.8	3.3	6.8	16.1	36.8	99.6	217.0
Alabama	7.5	32.8	1.4	0.6	1.4	1.7	3.3	7.0	16.4	38.2	92.1	197.4
Mississippi	8.1	31.4	1.4	0.6	1.2	1.9	3.1	7.0	16.2	38.4	92.8	213.9
<b>WEST SOUTH CENTRAL</b>												
Arkansas	7.5	26.5	1.4	0.6	1.1	1.6	3.0	6.2	14.6	32.2	84.8	184.4
Louisiana	7.6	29.1	1.3	0.5	1.2	1.5	3.0	7.8	18.1	39.6	88.2	187.1
Oklahoma	8.4	29.4	1.4	0.5	1.2	1.4	2.8	6.5	14.3	33.6	84.6	207.6
Texas	7.8	41.5	2.0	0.7	1.5	1.9	3.1	7.0	15.7	35.4	85.7	187.3
<b>MOUNTAIN</b>												
Montana	9.8	29.9	1.4	0.7	1.5	1.8	3.7	7.8	17.3	40.4	96.0	204.8
Idaho	8.2	29.9	1.5	0.6	1.8	1.8	3.0	7.0	16.0	37.3	85.9	212.2
Wyoming	8.0	33.4	1.4	0.9	2.1	2.0	3.5	7.0	15.8	38.0	94.0	196.3
Colorado	9.3	39.8	1.5	0.7	1.3	1.6	3.0	7.2	15.5	35.7	85.5	209.4
New Mexico	7.7	59.3	2.1	0.8	1.9	2.4	3.5	7.0	17.1	35.3	89.3	210.6
Arizona	8.0	39.7	1.7	0.6	1.6	2.6	4.1	8.5	18.5	37.6	81.1	186.5
Utah	7.2	25.2	1.3	0.7	1.3	1.7	2.8	6.4	16.2	36.2	92.8	203.4
Nevada	9.8	37.0	1.3	0.7	1.6	2.8	4.4	10.2	18.9	43.3	105.1	212.8
<b>PACIFIC</b>												
Washington	9.4	27.8	1.2	0.6	1.1	1.5	3.1	7.4	16.8	38.3	89.8	208.9
Oregon	9.1	24.1	1.2	0.5	1.5	1.8	3.1	7.3	15.5	36.7	89.6	199.3
California	8.4	27.2	1.1	0.5	1.2	1.5	3.3	8.2	18.0	38.2	87.7	186.9

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 8.42. Death Rates by Age, Race, and Sex: United States,  
Each Division and State, 1950—Continued

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE, SEX, AND AREA	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>WHITE, MALE</b>												
UNITED STATES-----	10.9	34.0	1.4	0.7	1.5	1.9	3.8	9.8	23.0	48.6	105.3	221.2
<b>GEOGRAPHIC DIVISIONS</b>												
New England-----	11.5	30.4	1.2	0.5	1.1	1.4	3.5	9.9	25.5	50.8	101.7	202.4
Middle Atlantic-----	11.8	31.1	1.1	0.6	1.2	1.6	3.7	10.6	25.5	54.0	111.4	225.8
East North Central-----	11.5	32.1	1.3	0.7	1.5	1.7	3.7	9.8	23.3	49.1	108.2	230.1
West North Central-----	11.4	32.1	1.4	0.7	1.5	1.9	3.2	8.2	19.4	44.1	105.7	227.5
South Atlantic-----	9.5	35.3	1.3	0.7	1.6	2.1	4.5	10.2	25.6	47.8	105.9	216.4
East South Central-----	9.6	40.5	1.6	0.7	1.8	2.4	4.2	9.1	20.6	44.6	105.9	233.1
West South Central-----	9.4	40.8	1.8	0.7	1.8	2.2	3.8	9.1	20.9	45.4	96.4	206.2
Mountain-----	10.1	41.8	1.8	0.8	2.0	2.5	4.2	9.6	20.9	45.5	99.5	216.7
Pacific-----	11.1	31.5	1.3	0.7	1.7	2.0	4.1	10.5	25.4	48.2	101.1	208.9
<b>NEW ENGLAND</b>												
Maine-----	11.8	37.8	1.6	0.7	1.5	1.4	3.2	9.5	21.8	46.7	97.1	226.8
New Hampshire-----	12.8	32.8	1.3	0.7	1.3	1.7	3.9	9.6	24.8	51.1	101.6	189.6
Vermont-----	12.3	29.9	2.0	0.6	1.5	2.2	3.3	9.5	22.7	52.0	102.1	211.5
Massachusetts-----	11.6	30.1	1.2	0.5	1.0	1.4	3.6	10.3	23.4	50.7	101.7	185.4
Rhode Island-----	11.4	30.1	1.2	0.6	0.8	1.2	3.9	10.5	25.7	56.4	115.7	215.8
Connecticut-----	10.8	26.7	1.0	0.5	1.1	1.3	3.2	9.4	23.7	49.8	100.1	203.4
<b>MIDDLE ATLANTIC</b>												
New York-----	12.0	30.2	1.1	0.6	1.1	1.5	3.7	10.7	25.4	54.4	112.3	219.9
New Jersey-----	11.2	29.2	1.0	0.5	1.0	1.4	3.5	10.2	25.7	55.8	105.6	223.3
Pennsylvania-----	11.7	33.0	1.2	0.6	1.3	1.7	3.9	10.5	25.6	53.5	112.1	235.2
<b>EAST NORTH CENTRAL</b>												
Ohio-----	11.5	32.3	1.3	0.7	1.5	1.7	3.7	9.5	22.4	48.9	108.1	224.9
Indiana-----	11.7	33.1	1.5	0.8	1.6	1.8	3.7	9.6	22.7	46.7	108.6	239.9
Illinois-----	12.1	31.5	1.2	0.7	1.4	1.7	4.1	11.0	25.0	51.3	110.0	220.2
Michigan-----	10.6	32.5	1.3	0.7	1.5	1.6	3.6	9.4	23.8	49.9	107.1	234.5
Wisconsin-----	11.2	31.4	1.2	0.7	1.6	1.5	3.3	8.4	20.3	46.2	105.0	244.7
<b>WEST NORTH CENTRAL</b>												
Minnesota-----	10.9	29.8	1.3	0.5	1.4	1.5	3.1	7.9	19.9	44.7	104.0	250.0
Iowa-----	11.7	32.9	1.4	0.7	1.4	1.7	2.9	7.9	19.7	44.5	101.9	239.3
Missouri-----	12.4	34.5	1.4	0.6	1.6	1.8	3.4	9.2	21.8	45.9	106.6	229.1
North Dakota-----	9.9	32.7	1.5	0.7	1.6	1.9	3.5	7.4	19.7	41.4	107.2	218.6
South Dakota-----	10.2	30.3	1.3	0.8	1.6	1.9	3.1	7.9	17.6	41.4	103.2	210.5
Nebraska-----	11.0	31.3	1.6	0.8	1.4	1.6	3.2	7.8	19.4	40.3	99.6	211.2
Kansas-----	11.3	31.8	1.5	0.7	1.7	2.0	3.2	8.0	17.6	43.2	102.5	222.5
<b>SOUTH ATLANTIC</b>												
Delaware-----	11.9	37.6	0.9	0.8	1.8	1.6	4.3	10.6	25.5	56.1	115.7	192.3
Maryland-----	10.2	27.5	1.0	0.6	1.1	1.7	4.1	10.7	26.0	54.3	113.5	234.4
District of Columbia-----	12.1	45.8	1.0	0.5	1.0	1.7	5.2	11.1	29.6	58.4	117.8	208.7
Virginia-----	9.1	36.7	1.3	0.7	1.6	2.0	4.0	9.7	22.4	49.1	111.3	227.1
West Virginia-----	10.1	45.9	1.6	0.7	2.0	2.6	4.7	10.0	21.4	44.6	102.0	237.3
North Carolina-----	8.0	33.0	1.1	0.7	1.5	2.1	4.4	9.2	22.6	44.6	103.0	214.8
South Carolina-----	8.7	35.4	1.5	0.6	1.8	2.5	4.6	11.5	27.0	50.0	109.3	222.9
Georgia-----	8.9	33.7	1.4	0.7	1.6	2.3	4.1	10.2	23.6	48.5	104.8	216.9
Florida-----	11.0	33.5	1.4	0.8	1.6	2.0	4.1	10.8	22.6	43.7	88.1	185.6
<b>EAST SOUTH CENTRAL</b>												
Kentucky-----	10.2	44.4	1.8	0.7	2.0	2.6	4.2	9.2	19.6	42.9	103.2	252.6
Tennessee-----	9.5	41.1	1.6	0.7	1.6	2.4	4.2	8.9	20.6	44.1	110.5	239.2
Alabama-----	8.9	37.7	1.5	0.7	1.9	2.2	4.2	9.2	21.2	46.2	105.4	209.3
Mississippi-----	9.5	34.4	1.4	0.7	1.8	2.3	4.0	9.0	21.8	47.2	103.5	218.9
<b>WEST SOUTH CENTRAL</b>												
Arkansas-----	9.0	31.8	1.4	0.7	1.5	2.0	3.9	7.9	19.3	37.4	92.8	208.3
Louisiana-----	9.1	32.3	1.4	0.8	1.8	2.1	3.7	10.7	24.7	49.6	103.9	178.0
Oklahoma-----	10.2	34.1	1.6	0.8	1.8	1.8	3.6	6.6	19.0	41.5	95.1	220.3
Texas-----	9.3	46.6	2.1	0.8	2.0	2.4	3.8	9.2	21.0	44.3	86.2	205.2
<b>MOUNTAIN</b>												
Montana-----	12.0	35.2	1.5	0.8	2.0	2.4	4.8	10.0	21.6	47.1	105.2	217.0
Idaho-----	10.0	34.0	1.8	0.8	2.5	2.5	4.0	8.9	20.3	44.4	92.9	211.4
Wyoming-----	9.8	41.3	1.4	1.1	2.6	2.5	4.3	9.5	19.0	44.2	107.0	263.4
Colorado-----	10.6	44.1	1.9	0.8	1.6	1.9	3.6	8.9	19.3	44.6	95.9	212.6
New Mexico-----	8.8	31.1	2.5	0.9	2.3	3.0	4.1	8.8	19.1	42.7	96.7	220.0
Arizona-----	10.3	42.7	1.8	0.7	2.3	3.5	5.2	11.9	25.4	48.5	98.6	195.9
Utah-----	8.5	30.5	1.4	0.9	1.7	2.2	3.5	8.4	21.1	44.5	105.0	230.8
Nevada-----	12.9	48.2	1.7	0.6	2.3	3.6	5.7	13.5	25.0	53.0	116.3	218.3
<b>PACIFIC</b>												
Washington-----	11.3	31.9	1.3	0.8	1.4	2.1	3.8	9.6	21.9	46.6	101.2	225.2
Oregon-----	11.0	27.8	1.2	0.7	2.3	2.4	3.9	9.1	20.2	44.8	99.6	222.6
California-----	11.1	32.0	1.3	0.6	1.7	1.9	4.1	10.9	24.3	49.2	101.3	201.5

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.



Table 8.42. Death Rates by Age, Race, and Sex: United States,  
Each Division and State, 1950—Continued

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE, SEX, AND AREA	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>WHITE, FEMALE</b>												
UNITED STATES	8.0	25.7	1.1	0.5	0.7	1.1	2.4	5.5	12.9	32.4	64.8	136.8
<b>GEOGRAPHIC DIVISIONS</b>												
New England	9.3	23.6	0.9	0.4	0.5	1.0	2.2	5.6	13.9	33.9	63.8	134.3
Middle Atlantic	9.1	23.9	0.9	0.4	0.6	1.1	2.5	6.2	15.3	37.4	62.9	203.3
East North Central	8.5	24.1	1.0	0.5	0.7	1.1	2.4	5.7	13.3	33.6	67.5	202.1
West North Central	8.4	24.4	1.1	0.5	0.7	1.0	2.1	4.6	11.1	29.3	62.5	202.8
South Atlantic	6.7	26.1	1.1	0.4	0.7	1.2	2.3	5.2	12.2	31.1	62.0	196.1
East South Central	6.9	31.1	1.4	0.5	0.9	1.4	2.4	5.0	11.5	30.4	65.2	208.0
West South Central	6.4	31.1	1.6	0.5	0.9	1.3	2.2	4.8	10.8	27.4	73.9	179.7
Mountain	6.7	32.4	1.4	0.6	1.1	1.4	2.5	5.0	11.7	28.1	77.9	195.6
Pacific	7.7	22.3	1.0	0.4	0.7	1.1	2.4	5.4	11.7	26.7	77.8	185.0
<b>NEW ENGLAND</b>												
Maine	9.8	29.2	1.3	0.5	0.6	1.2	2.3	5.9	13.9	35.4	66.9	209.3
New Hampshire	10.0	22.1	0.9	0.4	0.7	1.2	3.2	5.2	15.2	34.3	62.4	182.2
Vermont	9.8	24.0	1.2	0.5	0.8	1.1	2.6	5.3	11.7	35.2	62.4	202.5
Massachusetts	9.5	22.4	0.9	0.3	0.6	1.1	2.2	5.6	13.9	34.0	62.5	179.1
Rhode Island	9.5	31.1	0.7	0.5	0.4	0.7	2.4	6.1	15.6	37.1	68.6	190.6
Connecticut	8.3	20.5	0.8	0.4	0.5	1.0	2.1	5.2	13.7	32.3	64.6	178.2
<b>MIDDLE ATLANTIC</b>												
New York	9.2	23.1	0.8	0.4	0.6	1.0	2.5	6.1	15.2	37.2	62.6	202.1
New Jersey	9.0	22.4	0.9	0.4	0.6	1.0	2.4	6.1	15.1	37.4	63.7	192.5
Pennsylvania	9.1	25.6	1.1	0.4	0.6	1.1	2.6	6.2	15.7	37.8	63.0	207.2
<b>EAST NORTH CENTRAL</b>												
Ohio	8.7	23.6	1.1	0.5	0.7	1.1	2.4	5.7	13.0	32.7	66.2	203.7
Indiana	8.7	25.1	1.2	0.5	0.8	1.1	2.5	5.5	13.0	32.8	66.2	203.8
Illinois	9.0	23.6	1.0	0.4	0.7	1.2	2.4	6.0	14.2	35.4	69.3	199.3
Michigan	7.5	24.8	1.0	0.5	0.7	1.0	2.3	5.8	12.9	33.2	67.4	199.7
Wisconsin	8.5	24.0	1.0	0.4	0.6	1.0	2.2	5.4	12.9	33.1	68.0	208.1
<b>WEST NORTH CENTRAL</b>												
Minnesota	7.8	25.2	1.0	0.5	0.6	0.8	1.8	4.7	11.0	30.3	61.7	201.3
Iowa	8.9	21.7	1.0	0.4	0.7	1.0	2.2	4.4	11.3	28.3	63.5	211.8
Missouri	9.1	26.7	1.3	0.4	0.7	1.1	2.5	5.0	11.8	30.9	65.3	201.4
North Dakota	6.6	26.5	0.9	0.4	0.6	0.9	1.6	4.4	11.9	29.2	62.0	205.5
South Dakota	7.3	22.2	1.0	0.5	0.8	0.8	1.7	4.3	11.5	28.8	65.1	206.9
Nebraska	7.9	23.7	1.1	0.6	0.6	0.9	2.2	4.0	9.8	27.8	79.8	180.4
Kansas	8.4	23.6	1.2	0.5	0.8	1.1	2.0	4.1	10.4	27.3	79.4	208.0
<b>SOUTH ATLANTIC</b>												
Delaware	9.2	29.3	0.7	0.6	0.8	1.0	2.1	5.3	16.0	36.6	66.9	215.2
Maryland	8.1	21.5	1.0	0.4	0.7	1.2	2.3	5.6	14.9	35.9	66.6	199.8
District of Columbia	8.8	34.7	0.7	0.2	0.7	1.1	2.1	5.2	12.8	32.4	64.3	196.1
Virginia	6.8	26.9	1.2	0.5	0.6	1.1	2.2	5.1	11.6	32.3	65.9	211.0
West Virginia	6.9	31.0	1.5	0.5	0.8	1.4	2.9	5.9	12.4	32.8	64.3	205.9
North Carolina	5.6	25.3	1.0	0.5	0.6	1.1	2.0	4.6	11.4	30.2	79.6	190.3
South Carolina	5.8	25.9	1.2	0.5	0.7	1.2	2.4	5.3	12.5	30.9	79.2	194.9
Georgia	6.2	23.7	1.1	0.4	0.8	1.2	2.1	4.6	11.8	30.2	62.8	200.1
Florida	7.0	26.2	1.0	0.4	0.7	1.1	2.5	5.2	10.5	26.3	69.3	169.3
<b>EAST SOUTH CENTRAL</b>												
Kentucky	7.7	32.5	1.6	0.6	1.1	1.6	2.6	5.1	11.4	30.5	66.2	217.1
Tennessee	6.9	33.6	1.5	0.5	0.8	1.3	2.4	4.8	11.8	30.0	69.0	207.8
Alabama	6.2	27.6	1.2	0.4	0.9	1.3	2.4	5.0	11.8	30.8	60.7	189.5
Mississippi	6.7	28.3	1.4	0.4	0.7	1.4	2.1	5.1	10.6	30.0	63.0	210.3
<b>WEST SOUTH CENTRAL</b>												
Arkansas	6.0	21.1	1.3	0.4	0.7	1.2	2.1	4.5	9.8	26.8	76.5	165.6
Louisiana	6.2	25.8	1.3	0.4	0.8	0.9	2.3	4.9	11.8	30.7	75.8	193.1
Oklahoma	6.7	24.6	1.1	0.5	0.7	1.1	2.0	4.4	9.6	25.8	74.1	195.4
Texas	6.4	36.3	1.8	0.5	1.0	1.4	2.3	4.9	10.4	27.2	72.8	173.9
<b>MOUNTAIN</b>												
Montana	7.5	26.6	1.3	0.5	1.0	1.0	2.4	5.1	12.1	31.6	65.0	191.8
Idaho	6.2	25.8	1.2	0.5	1.1	1.1	1.9	4.8	11.1	28.7	77.8	213.1
Wyoming	5.8	25.2	1.3	0.7	1.6	1.5	2.5	4.1	11.6	30.0	78.7	130.0
Colorado	7.9	33.2	1.2	0.5	1.0	1.3	2.5	5.6	11.7	27.3	76.3	206.8
New Mexico	6.5	55.3	2.0	0.7	1.4	1.8	3.0	5.0	14.8	26.9	61.3	201.4
Arizona	5.8	36.6	1.7	0.5	0.9	1.6	3.1	5.0	10.9	25.9	62.9	177.9
Utah	5.8	19.6	1.3	0.5	0.9	1.2	2.3	4.2	11.1	28.4	62.4	182.9
Nevada	6.3	25.0	1.0	0.7	0.9	2.0	2.9	5.6	9.7	29.3	60.5	206.7
<b>PACIFIC</b>												
Washington	7.5	23.6	1.1	0.5	0.7	1.0	2.3	5.0	11.2	29.3	78.3	194.6
Oregon	7.2	20.6	1.1	0.5	0.7	1.2	2.2	5.4	10.4	28.0	79.9	179.2
California	7.8	22.3	1.0	0.4	0.7	1.1	2.5	5.5	11.9	28.6	77.4	181.1

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 8.42. Death Rates by Age, Race, and Sex: United States,  
Each Division and State, 1950—Continued

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE, SEX, AND AREA	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>NONWHITE, BOTH SEXES</b>												
UNITED STATES	11.2	53.7	2.5	0.9	2.5	4.4	8.1	17.1	33.7	46.0	80.4	144.7
<b>GEOGRAPHIC DIVISIONS</b>												
New England	10.6	46.8	1.1	0.6	1.8	3.4	6.6	13.9	27.2	49.5	83.7	161.6
Middle Atlantic	10.9	56.9	2.1	0.8	2.5	3.7	7.7	16.7	32.7	53.1	100.9	149.0
East North Central	11.1	46.7	2.4	0.7	2.6	4.1	7.9	16.9	32.4	51.6	84.2	157.0
West North Central	14.3	62.4	4.4	1.0	2.9	4.2	8.2	18.5	35.0	50.2	103.3	184.8
South Atlantic	11.2	55.5	2.4	0.8	2.4	5.1	9.1	19.6	39.6	45.3	70.7	141.0
East South Central	12.0	54.6	2.5	0.9	2.7	5.0	8.2	16.6	34.1	46.1	82.1	164.0
West South Central	10.9	49.5	2.5	0.9	2.4	4.2	7.2	15.5	29.4	41.0	74.1	125.6
Mountain	11.9	101.6	7.8	2.0	4.5	5.6	8.1	11.5	20.4	41.3	89.5	107.1
Pacific	8.0	41.0	1.9	0.8	1.7	2.8	5.6	11.1	22.1	41.0	80.4	116.9
<b>NEW ENGLAND</b>												
Maine	8.9	39.0	7.6	4.7	0	7.5	10.2	15.3	13.0	35.1	32.8	56.6
New Hampshire	15.5	125.0	0	9.7	6.2	0	9.9	26.3	32.8	75.2	45.5	0
Vermont	8.9	0	0	0	0	0	0	14.7	16.9	21.3	133.3	0
Massachusetts	10.9	45.2	1.1	0.2	2.1	3.4	6.0	12.6	27.5	47.3	78.4	162.9
Rhode Island	13.9	61.2	0.7	0.7	2.1	4.0	8.7	17.8	38.9	67.9	112.0	180.0
Connecticut	9.3	44.9	1.0	0.6	1.5	3.4	7.0	14.7	25.8	48.7	89.3	189.2
<b>MIDDLE ATLANTIC</b>												
New York	10.1	52.6	2.0	0.8	2.7	3.5	7.9	15.6	31.6	50.5	97.2	142.9
New Jersey	11.3	63.1	2.6	0.6	2.4	3.4	7.7	16.3	31.1	55.1	109.2	163.6
Pennsylvania	11.9	59.9	2.0	0.8	2.4	4.1	7.6	18.5	34.7	55.3	100.6	147.4
<b>EAST NORTH CENTRAL</b>												
Ohio	11.2	48.6	2.3	0.7	2.2	3.7	7.7	16.5	30.0	51.8	96.4	166.4
Indiana	13.1	51.4	2.5	0.6	3.4	4.0	9.6	18.5	33.8	54.8	106.3	172.4
Illinois	11.7	46.1	2.7	0.9	2.7	4.4	8.1	17.3	34.6	53.9	93.0	155.5
Michigan	9.2	42.6	1.9	0.6	2.8	3.8	7.5	16.4	31.7	43.4	83.6	123.4
Wisconsin	10.9	57.5	4.7	1.4	3.3	4.8	5.0	13.6	29.4	57.4	97.3	200.0
<b>WEST NORTH CENTRAL</b>												
Minnesota	12.3	45.7	4.9	1.6	2.4	3.3	7.8	13.5	29.9	54.5	120.4	102.9
Iowa	12.9	33.8	1.1	0.3	0.6	4.2	5.5	14.6	31.4	63.0	86.4	161.3
Missouri	14.9	62.5	3.2	1.0	2.9	4.2	6.8	20.3	38.7	51.6	99.6	150.7
North Dakota	11.2	71.8	6.7	2.1	4.1	5.1	4.9	13.1	29.9	37.2	97.6	240.7
South Dakota	14.4	106.7	17.4	1.4	5.3	7.5	7.6	10.2	25.2	37.8	159.4	127.9
Nebraska	12.6	56.1	3.5	1.0	2.4	4.3	7.9	20.0	26.2	49.7	73.6	212.5
Kansas	14.2	60.5	3.3	0.6	2.9	3.9	7.0	15.5	29.3	45.3	111.7	207.4
<b>SOUTH ATLANTIC</b>												
Delaware	13.7	61.5	4.8	0.9	2.5	4.9	8.1	23.3	34.6	52.2	83.1	180.5
Maryland	11.9	52.4	2.1	0.8	2.5	4.9	6.2	18.1	37.7	59.3	98.8	166.1
District of Columbia	11.2	41.2	1.6	0.9	2.3	3.8	6.3	16.6	35.7	60.1	112.4	210.0
Virginia	12.5	62.8	2.3	0.8	2.4	4.9	6.9	18.2	41.0	55.6	82.1	152.0
West Virginia	12.0	53.3	2.1	0.7	1.8	4.2	6.5	15.3	35.2	53.5	100.4	182.5
North Carolina	10.0	59.9	2.3	0.8	2.3	4.9	8.0	16.8	36.2	48.9	65.6	129.5
South Carolina	10.4	54.8	2.7	0.8	2.3	5.7	10.7	25.4	45.0	35.6	49.8	122.5
Georgia	11.6	51.3	2.4	0.8	2.6	5.9	10.1	22.4	40.3	37.3	62.6	135.3
Florida	11.7	55.6	2.5	0.9	2.6	4.8	9.1	20.2	41.3	39.2	67.0	127.5
<b>EAST SOUTH CENTRAL</b>												
Kentucky	16.5	57.9	2.7	1.1	2.6	5.0	10.2	19.6	37.0	53.8	100.0	183.9
Tennessee	12.9	55.7	2.2	0.9	2.8	4.9	8.2	16.4	35.6	51.5	80.4	155.9
Alabama	11.4	55.6	2.3	0.9	2.7	5.3	8.2	17.6	38.3	40.5	70.2	140.0
Mississippi	11.3	52.7	2.8	1.0	2.7	4.9	7.6	14.9	28.2	46.4	88.9	186.3
<b>WEST SOUTH CENTRAL</b>												
Arkansas	10.1	31.4	2.7	0.9	2.6	4.1	6.1	12.2	26.2	39.8	70.6	126.2
Louisiana	11.3	56.8	2.3	0.8	2.2	4.0	7.2	15.9	31.8	43.9	79.2	154.5
Oklahoma	11.5	59.9	3.4	0.9	2.9	3.7	6.7	13.3	22.1	38.1	65.5	177.0
Texas	10.8	48.5	2.3	0.8	2.4	4.4	7.7	16.9	30.4	40.2	68.3	87.1
<b>MOUNTAIN</b>												
Montana	12.9	87.7	8.2	1.2	5.3	6.4	5.5	13.2	19.4	44.3	113.3	153.8
Idaho	13.3	42.7	7.5	2.9	5.9	7.1	4.0	8.9	23.5	54.4	64.1	122.4
Wyoming	12.0	113.1	4.8	2.7	3.6	1.8	15.3	11.8	26.2	54.1	54.8	222.2
Colorado	9.6	28.4	0.8	1.2	2.0	2.4	7.8	10.5	22.6	42.2	73.6	130.4
New Mexico	12.4	130.6	9.6	2.2	5.2	5.1	8.3	12.9	18.1	45.1	69.4	103.1
Arizona	12.2	111.4	9.3	2.2	5.0	7.5	9.1	11.2	20.2	34.3	51.5	79.0
Utah	11.1	85.2	4.7	0.9	2.9	3.5	3.9	11.7	22.8	44.9	114.3	83.8
Nevada	11.8	103.6	1.0	1.4	3.5	6.5	6.4	11.3	17.4	45.5	94.0	147.5
<b>PACIFIC</b>												
Washington	10.7	67.1	1.9	1.5	2.7	3.9	7.8	13.2	22.4	47.6	110.6	150.6
Oregon	9.9	49.6	0.4	1.9	3.1	3.9	6.5	12.6	28.0	40.1	74.2	115.8
California	7.7	36.0	1.9	0.7	1.5	2.6	5.4	10.8	21.9	40.3	77.2	112.3

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 8.42. Death Rates by Age, Race, and Sex: United States,  
Each Division and State, 1950—Continued

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE, SEX, AND AREA	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>NONWHITE, MALE</b>												
UNITED STATES	12.5	59.9	2.7	1.0	2.9	5.0	8.6	18.6	36.9	52.5	90.3	160.2
<b>GEOGRAPHIC DIVISIONS</b>												
New England	11.2	45.1	1.3	0.9	2.2	3.4	7.9	14.5	28.2	59.8	99.9	158.5
Middle Atlantic	12.4	65.2	2.2	0.9	2.9	4.0	8.7	19.0	37.6	59.9	117.5	161.2
East North Central	12.4	52.9	2.5	0.9	3.0	4.6	8.4	18.1	34.9	60.1	107.4	170.2
West North Central	16.3	73.2	4.0	1.1	3.4	4.9	9.4	20.2	39.8	56.6	120.2	174.6
South Atlantic	12.6	62.1	2.6	0.9	2.9	5.8	10.0	22.0	44.1	52.5	79.7	155.9
East South Central	13.2	61.2	2.8	1.0	3.1	5.4	8.4	17.6	36.4	51.8	91.5	165.9
West South Central	12.1	53.2	2.7	1.0	2.8	4.8	7.3	16.3	31.5	46.8	82.5	144.6
Mountain	13.1	111.6	8.3	1.9	4.6	6.4	8.5	12.1	20.9	45.6	72.4	112.9
Pacific	9.2	44.4	2.1	0.8	1.8	3.2	5.7	11.9	25.3	47.1	92.3	130.4
<b>NEW ENGLAND</b>												
Maine	9.1	76.9	7.1	5.8	0	4.5	11.8	6.6	7.8	35.9	29.4	111.1
New Hampshire	12.7	0	0	16.8	0	0	16.8	27.4	64.5	0	0	0
Vermont	16.8	0	0	0	0	0	0	27.8	28.6	38.5	222.2	0
Massachusetts	11.7	46.8	1.2	0.3	2.5	3.1	8.0	12.9	28.3	58.0	82.5	170.0
Rhode Island	13.7	51.1	1.4	0.7	2.6	3.7	7.5	16.9	39.7	78.7	96.5	193.4
Connecticut	10.0	40.1	1.2	0.9	1.8	3.6	7.4	16.0	24.8	59.7	111.1	195.1
<b>MIDDLE ATLANTIC</b>												
New York	11.5	59.9	1.8	0.8	3.4	4.0	9.0	17.8	37.2	56.5	113.6	152.7
New Jersey	12.7	77.6	3.6	0.8	2.2	3.3	7.8	19.5	36.9	58.1	123.2	202.7
Pennsylvania	13.6	66.8	2.1	1.0	2.5	4.5	8.5	20.5	38.5	64.5	117.7	146.1
<b>EAST NORTH CENTRAL</b>												
Ohio	12.8	54.3	2.3	0.7	2.8	4.4	8.4	18.1	35.8	60.2	103.9	181.5
Indiana	14.0	54.2	2.5	0.8	3.8	4.1	10.8	19.3	34.7	59.0	106.9	182.2
Illinois	13.2	56.2	2.6	1.1	3.0	5.2	8.7	18.9	36.8	63.3	115.7	170.5
Michigan	10.2	49.0	2.2	0.8	3.0	4.0	7.4	16.7	33.4	52.8	99.6	133.1
Wisconsin	11.6	54.8	6.9	1.8	4.3	5.1	3.7	12.4	35.1	66.4	87.6	210.5
<b>WEST NORTH CENTRAL</b>												
Minnesota	14.4	57.0	4.5	1.7	3.1	3.7	9.7	15.7	38.1	58.4	154.8	41.7
Iowa	14.2	31.3	1.1	0.5	1.1	5.2	5.8	12.6	33.8	74.1	106.7	174.6
Missouri	17.3	75.7	2.7	1.2	3.8	4.8	9.8	22.4	42.4	58.7	112.3	180.9
North Dakota	11.1	76.1	9.0	1.8	4.1	0	5.6	12.3	28.1	37.0	114.3	172.4
South Dakota	15.4	121.4	14.8	1.6	5.5	7.8	7.9	7.2	26.8	42.5	206.1	133.3
Nebraska	14.1	63.1	0.9	0.9	2.7	3.9	8.6	21.8	30.0	47.1	115.8	222.2
Kansas	16.0	67.6	4.4	0.5	2.2	5.8	6.7	17.5	33.7	51.9	122.2	216.0
<b>SOUTH ATLANTIC</b>												
Delaware	15.8	76.3	6.1	1.6	4.2	7.0	7.2	24.8	35.7	56.8	98.8	185.7
Maryland	13.4	56.0	2.4	0.8	3.0	5.4	8.8	20.1	41.3	67.0	108.7	178.8
District of Columbia	12.5	48.1	1.5	1.2	2.7	4.3	8.7	19.6	41.1	66.7	122.5	252.5
Virginia	13.9	72.1	2.7	0.9	2.5	5.4	8.7	20.1	45.4	85.2	91.7	163.7
West Virginia	14.5	57.3	1.9	0.7	1.9	5.8	8.8	17.3	38.8	61.5	115.6	187.5
North Carolina	10.9	66.1	2.5	0.8	2.6	5.8	8.7	18.3	39.5	53.4	75.1	134.8
South Carolina	11.7	61.6	3.0	0.9	2.8	6.7	12.0	27.1	49.3	43.2	60.7	147.2
Georgia	12.9	57.0	2.3	1.0	3.2	6.8	11.2	25.7	45.4	44.7	68.2	148.7
Florida	13.7	63.6	3.0	1.2	3.4	5.3	9.9	22.7	47.3	46.9	75.6	150.2
<b>EAST SOUTH CENTRAL</b>												
Kentucky	16.0	63.6	3.0	1.5	2.9	5.7	10.4	20.6	41.7	60.0	109.4	187.2
Tennessee	14.0	63.0	2.7	0.9	3.0	5.2	8.7	17.9	36.4	56.5	92.1	158.3
Alabama	12.6	61.6	2.5	0.9	3.3	5.7	8.6	19.4	41.6	46.4	79.9	165.1
Mississippi	12.3	59.8	3.1	1.1	3.0	5.2	7.4	14.7	29.6	52.1	96.2	217.5
<b>WEST SOUTH CENTRAL</b>												
Arkansas	11.2	34.8	3.1	1.0	2.6	4.8	6.4	12.4	28.2	42.7	76.5	149.6
Louisiana	12.5	59.2	2.6	1.1	2.7	4.6	7.6	17.5	34.6	49.2	90.4	172.7
Oklahoma	12.9	62.1	3.6	1.1	3.2	4.1	6.8	14.3	24.1	47.0	90.4	215.0
Texas	11.9	54.0	2.4	1.0	2.9	5.1	7.6	17.4	32.5	46.8	76.6	99.7
<b>MOUNTAIN</b>												
Montana	13.7	62.1	7.3	1.6	5.4	8.3	6.0	10.4	20.0	56.4	114.3	194.4
Idaho	15.8	85.1	7.5	0	6.5	8.1	2.3	13.4	27.4	66.7	74.5	82.5
Wyoming	10.6	64.2	3.1	3.4	2.5	3.0	12.6	13.7	18.6	58.4	47.6	600.0
Colorado	9.3	33.4	1.6	0.5	1.1	2.4	6.3	10.5	23.2	44.8	70.0	106.4
New Mexico	13.7	129.2	12.1	2.6	6.0	4.2	8.5	13.4	20.2	49.3	76.3	112.0
Arizona	13.9	129.5	9.2	2.1	5.4	9.0	10.6	13.2	20.8	36.4	54.9	93.6
Utah	13.0	124.2	4.4	0.9	2.8	4.8	2.7	10.2	21.4	43.8	113.2	95.2
Nevada	12.1	109.5	2.1	0	3.2	10.2	8.3	6.6	14.9	57.0	85.7	166.7
<b>PACIFIC</b>												
Washington	12.1	85.2	2.2	1.5	2.6	3.8	7.5	13.1	24.9	53.0	134.5	172.7
Oregon	11.0	53.4	0	1.3	3.6	4.9	7.1	14.5	27.7	41.5	66.7	146.3
California	8.8	40.0	2.1	0.9	1.7	3.1	5.5	11.7	25.3	46.7	88.5	122.6

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 8.42. Death Rates by Age, Race, and Sex: United States,  
Each Division and State, 1950—Continued

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE, SEX, AND AREA	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
<b>NONWHITE, FEMALE</b>												
UNITED STATES-----	9.9	47.5	2.3	0.7	2.2	3.9	7.5	15.5	30.4	39.8	70.6	135.7
<b>GEOGRAPHIC DIVISIONS</b>												
New England-----	9.9	48.5	0.8	0.3	1.5	3.5	5.4	13.4	26.1	39.7	78.4	165.6
Middle Atlantic-----	9.5	48.5	2.0	0.8	2.2	3.3	8.9	14.4	27.5	47.1	88.0	142.0
East North Central-----	9.8	40.6	2.3	0.6	2.3	3.8	7.4	15.6	29.6	43.5	82.6	147.9
West North Central-----	12.4	51.7	4.7	0.9	2.5	3.7	7.4	16.9	30.6	43.9	86.0	156.3
South Atlantic-----	9.9	48.9	2.1	0.7	2.0	4.4	8.2	17.3	35.2	38.8	62.0	130.9
East South Central-----	10.9	48.0	2.2	0.8	2.4	4.8	8.0	15.7	31.8	40.7	72.5	149.5
West South Central-----	9.8	45.8	2.2	0.7	2.1	3.6	7.1	14.7	27.0	35.5	65.3	111.4
Mountain-----	10.7	51.2	7.3	2.0	4.4	4.7	7.6	10.9	19.7	35.1	65.7	100.9
Pacific-----	6.5	37.4	1.7	0.6	1.5	2.3	5.5	10.0	17.8	32.0	65.0	104.6
<b>NEW ENGLAND</b>												
Maine-----	8.6	0	6.1	3.3	0	0	8.1	27.3	19.8	32.3	37.0	0
New Hampshire-----	19.3	222.2	0	0	16.4	0	0	24.4	0	176.5	111.1	0
Vermont-----	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts-----	10.0	43.5	0.9	0	1.6	3.7	3.9	12.2	26.7	37.0	74.8	159.5
Rhode Island-----	14.2	71.9	0	0.7	1.6	4.3	9.8	18.7	37.9	55.9	126.0	222.2
Connecticut-----	6.6	48.8	0.8	0.2	1.1	3.3	6.5	13.3	22.8	36.6	71.6	185.7
<b>MIDDLE ATLANTIC</b>												
New York-----	8.8	45.3	2.3	0.8	2.1	3.1	6.8	13.4	26.2	45.6	86.2	137.9
New Jersey-----	10.0	49.1	1.6	0.9	2.5	3.5	7.7	13.2	24.9	52.2	97.1	139.9
Pennsylvania-----	10.3	55.1	1.8	0.7	2.2	3.7	6.8	16.4	30.5	46.4	85.5	148.2
<b>EAST NORTH CENTRAL</b>												
Ohio-----	9.6	42.9	2.3	0.6	1.6	3.2	7.0	14.8	25.5	43.5	89.2	155.6
Indiana-----	12.3	48.8	2.4	0.5	3.1	3.9	8.5	17.5	32.9	50.7	105.8	185.6
Illinois-----	10.3	39.3	2.8	0.7	2.4	3.8	7.5	15.5	32.2	45.3	74.6	146.1
Michigan-----	8.3	36.2	1.7	0.4	2.6	3.6	7.5	16.0	29.5	34.5	70.5	116.3
Wisconsin-----	10.0	60.0	2.4	1.1	2.3	4.5	6.4	15.2	21.3	47.6	108.7	191.8
<b>WEST NORTH CENTRAL</b>												
Minnesota-----	10.0	35.2	5.3	1.4	1.8	2.8	5.7	10.7	19.3	50.3	82.6	171.9
Iowa-----	11.5	36.4	1.0	0	0	3.2	5.2	16.7	28.5	51.4	65.1	211.5
Missouri-----	12.7	49.6	3.6	0.8	2.2	3.8	7.8	18.1	34.5	44.7	86.8	126.0
North Dakota-----	11.3	68.0	4.3	2.6	4.0	6.3	4.1	14.1	29.7	37.5	75.5	320.0
South Dakota-----	13.2	92.9	19.9	1.3	5.2	7.2	7.2	13.7	23.0	32.3	101.4	122.0
Nebraska-----	11.1	48.0	6.2	1.0	2.1	4.6	7.1	18.0	21.7	50.6	34.3	204.5
Kansas-----	12.5	52.7	2.2	0.6	3.7	2.1	7.2	13.6	24.5	39.4	101.3	200.9
<b>SOUTH ATLANTIC</b>												
Delaware-----	11.6	46.7	3.5	0.3	0.9	2.9	9.1	21.9	33.4	47.1	66.9	174.6
Maryland-----	10.4	49.7	1.9	0.7	1.9	4.3	7.5	15.8	33.8	49.6	83.3	156.4
District of Columbia-----	10.0	34.4	1.7	0.7	1.9	3.4	7.0	13.6	30.6	54.9	105.4	186.0
Virginia-----	11.1	53.7	1.9	0.6	2.3	4.3	7.8	16.3	36.4	49.8	72.3	144.1
West Virginia-----	9.5	49.2	2.3	0.7	1.6	2.8	7.4	13.1	25.4	43.0	82.0	178.3
North Carolina-----	9.1	55.7	2.1	0.9	2.1	4.1	7.4	15.4	32.9	44.7	56.8	126.0
South Carolina-----	9.2	49.1	2.3	0.8	1.8	4.8	9.6	20.3	41.0	29.2	39.7	108.8
Georgia-----	10.4	45.7	2.4	0.7	2.1	5.2	9.1	19.5	35.7	31.2	57.2	126.5
Florida-----	9.8	47.7	2.0	0.6	1.9	4.3	8.4	17.7	35.0	31.6	57.2	110.6
<b>EAST SOUTH CENTRAL</b>												
Kentucky-----	14.8	52.2	2.5	0.7	2.2	4.3	10.1	18.6	32.0	47.8	90.1	181.3
Tennessee-----	11.8	48.7	1.6	0.8	2.6	4.7	7.7	15.0	34.7	46.9	68.6	155.7
Alabama-----	10.2	49.5	2.2	0.8	2.2	4.9	7.8	16.0	35.1	35.2	60.7	122.5
Mississippi-----	10.3	45.7	2.5	0.8	2.4	4.7	7.9	15.0	26.6	40.7	81.1	164.0
<b>WEST SOUTH CENTRAL</b>												
Arkansas-----	9.0	28.1	2.4	0.7	2.7	3.6	6.0	12.1	24.0	34.6	63.7	108.6
Louisiana-----	10.1	54.4	1.9	0.6	1.8	3.5	6.9	14.5	29.1	39.9	68.4	142.0
Oklahoma-----	10.0	57.6	3.2	0.8	2.6	3.4	6.6	12.4	20.1	29.2	79.6	142.5
Texas-----	9.7	43.2	2.1	0.7	2.0	3.8	7.8	16.4	38.1	34.0	59.6	77.5
<b>MOUNTAIN</b>												
Montana-----	11.9	83.0	9.1	0.9	5.1	4.4	4.9	16.4	16.2	26.5	112.0	119.0
Idaho-----	10.2	8.5	7.5	6.0	5.3	5.9	6.2	3.3	18.3	34.2	48.4	255.3
Wyoming-----	14.1	150.7	6.6	1.8	6.2	0	19.5	9.2	39.1	47.1	64.5	76.9
Colorado-----	10.0	22.7	0	2.0	3.2	2.3	9.2	10.7	22.0	39.0	77.2	147.1
New Mexico-----	11.1	132.1	7.1	1.7	4.5	6.0	8.1	12.4	15.1	39.7	59.9	91.8
Arizona-----	10.4	92.9	9.4	2.3	4.8	5.9	7.4	8.7	19.4	31.3	47.5	61.0
Utah-----	8.8	48.8	5.1	0.9	3.0	2.0	5.7	13.5	25.2	48.3	117.6	30.9
Nevada-----	11.4	96.5	0	2.9	4.0	2.7	4.4	17.6	21.0	29.8	101.3	139.5
<b>PACIFIC</b>												
Washington-----	8.8	46.8	1.6	1.6	2.7	4.0	8.3	13.4	18.4	37.8	76.7	123.6
Oregon-----	8.6	45.5	0.9	2.5	2.6	2.8	5.6	9.5	28.5	37.3	84.6	92.6
California-----	6.3	36.0	1.7	0.5	1.4	2.1	5.4	9.8	17.4	31.4	62.8	105.5

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 8.43. Death Rates for 64 Selected Causes, by Age, Race, and Sex: United States, 1950

(Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population in each specified group, enumerated as of April 1. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

Abbreviated list number <sup>1</sup>	CAUSE OF DEATH, RACE, AND SEX	Total <sup>2</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
	ALL CAUSES-----	963.8	3,299.2	139.4	60.1	128.1	178.7	358.7	855.9	1,911.7	4,067.7	9,331.1	20,196.9
	Male-----	1,106.1	3,729.0	151.7	70.9	167.9	216.5	428.8	1,067.1	2,405.9	4,895.4	10,426.0	21,636.0
	Female-----	825.5	2,854.6	126.7	48.9	89.1	142.7	290.3	641.5	1,414.4	3,299.6	8,399.6	19,189.7
	White-----	945.7	2,992.6	124.1	56.4	111.7	149.3	307.6	785.0	1,799.6	4,023.1	9,416.5	20,678.8
	Male-----	1,089.5	3,400.5	135.6	67.2	152.4	185.3	390.9	994.5	2,304.4	4,864.9	10,526.3	22,116.3
	Female-----	805.3	2,586.8	112.2	45.1	71.5	112.8	235.8	546.4	1,293.8	3,242.8	8,481.5	19,679.5
	Nonwhite-----	1,119.4	5,388.4	250.8	86.0	251.3	440.2	805.3	1,706.1	3,374.1	4,602.3	8,039.7	14,473.6
	Male-----	1,251.1	5,991.6	271.2	97.1	289.9	496.3	860.7	1,857.3	3,692.2	5,253.8	9,023.6	16,022.1
	Female-----	995.5	4,749.0	230.3	75.0	216.4	390.4	754.0	1,554.9	3,036.0	3,978.8	7,064.7	15,366.8
	Tuberculosis, all forms (001-019)-----	22.5	8.5	6.3	1.8	11.5	19.1	26.1	35.9	47.7	57.7	63.2	47.7
	Male-----	30.1	8.6	6.4	1.6	9.0	18.7	33.5	55.7	75.7	89.9	69.7	69.4
	Female-----	15.1	8.5	6.3	2.0	13.8	19.5	18.9	16.2	18.6	27.8	41.5	33.2
	White-----	17.9	5.4	4.6	1.1	5.5	11.7	19.1	28.4	41.8	54.2	61.4	46.4
	Male-----	25.0	5.1	4.4	1.1	4.3	11.4	25.4	45.4	68.6	84.8	85.7	67.4
	Female-----	10.8	5.7	4.9	1.2	6.6	12.0	13.0	11.5	15.0	25.9	41.0	31.9
	Nonwhite-----	62.3	29.3	18.7	6.6	55.3	83.0	87.1	107.8	124.5	99.1	89.5	82.5
	Male-----	74.7	32.1	21.2	5.4	46.3	84.2	107.1	153.8	178.6	149.2	129.8	80.4
	Female-----	50.6	26.5	16.2	7.7	63.5	82.0	68.6	61.8	66.9	51.1	49.8	49.8
B 1	Tuberculosis of respiratory system (001-008)-----	20.6	3.4	2.1	0.9	10.0	17.7	24.7	34.1	45.2	54.7	80.3	44.5
	Male-----	27.9	3.6	2.2	0.6	7.7	17.2	31.8	53.2	73.1	85.9	85.4	66.0
	Female-----	13.5	3.3	2.0	1.2	12.3	18.3	17.7	15.1	17.1	25.7	38.8	30.3
	White-----	16.6	2.1	1.4	0.5	4.8	11.0	18.3	27.2	39.9	51.4	58.7	45.6
	Male-----	23.5	2.1	1.2	0.4	3.6	10.6	22.3	43.8	65.9	81.0	82.7	64.2
	Female-----	9.7	2.1	1.5	0.5	6.0	11.4	12.4	10.8	15.8	24.0	36.6	29.5
	Nonwhite-----	55.4	12.3	7.1	3.9	49.2	75.5	80.8	100.0	114.2	95.8	85.1	55.8
	Male-----	66.6	13.3	9.1	2.2	39.8	75.9	99.8	143.4	164.1	142.6	123.9	75.0
	Female-----	44.8	11.3	5.1	5.6	57.7	75.2	63.4	56.8	61.3	47.2	43.0	42.1
B 2	Tuberculosis, other forms (010-019)-----	1.9	5.1	4.3	0.9	1.3	1.4	1.4	1.8	2.5	3.0	2.9	5.1
	Male-----	2.2	5.0	4.2	1.0	1.3	1.5	1.7	2.5	3.6	4.0	3.3	3.4
	Female-----	1.6	5.2	4.3	0.8	1.2	1.3	1.1	1.1	1.5	2.0	2.7	2.8
	White-----	1.3	3.3	3.3	0.7	0.6	0.7	0.9	1.2	2.0	2.8	3.1	2.8
	Male-----	1.5	3.0	3.2	0.7	0.8	0.7	1.1	1.7	2.7	3.8	3.7	3.2
	Female-----	1.1	3.7	3.3	0.7	0.6	0.6	0.7	1.2	1.9	2.4	2.4	2.5
	Nonwhite-----	6.9	17.0	11.8	2.6	6.1	7.5	6.2	7.8	10.3	5.2	6.4	6.7
	Male-----	8.1	18.8	12.0	3.2	6.5	8.3	7.4	10.4	14.6	6.6	5.9	5.4
	Female-----	5.8	15.2	11.1	2.1	5.8	6.7	5.2	5.1	5.7	3.9	6.8	7.7
B 3	Syphilis and its sequelae (020-029)-----	5.0	6.4	0.1	0.0	0.3	0.7	3.3	9.3	15.9	21.8	22.7	16.6
	Male-----	7.4	7.1	0.1	0.0	0.3	0.8	4.3	13.8	25.2	34.8	33.8	20.7
	Female-----	2.7	5.6	0.0	0.0	0.2	0.6	2.4	4.8	6.6	9.8	13.2	15.8
	White-----	3.7	2.7	0	0.0	0.2	0.3	1.5	5.3	12.1	19.4	20.7	15.6
	Male-----	5.6	3.1	0	0.0	0.2	0.3	1.9	8.0	19.6	31.3	30.9	18.8
	Female-----	1.9	2.3	0	0	0.2	0.2	1.1	2.7	4.7	8.3	12.0	13.4
	Nonwhite-----	16.1	31.3	0.6	0.3	0.8	4.6	19.1	47.1	65.1	51.6	53.1	29.0
	Male-----	23.2	35.1	0.9	0.2	0.7	5.9	25.4	69.1	95.8	76.6	74.3	42.9
	Female-----	9.4	27.5	0.3	0.3	0.9	3.4	13.3	25.1	32.5	27.5	32.2	19.1
B 4	Typhoid fever (040)-----	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0
	Male-----	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0
	Female-----	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0
	White-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0
	Male-----	0.0	0.1	0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.4	0
	Female-----	0.0	0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0
	Nonwhite-----	0.3	0.5	0.2	0.1	0.2	0.2	0.5	0.4	0.4	0.3	0	0
	Male-----	0.3	0.5	0.3	0	0.2	0.3	0.7	0.6	0.2	0.6	0	0
	Female-----	0.2	0.5	0.1	0.1	0.3	0.1	0.3	0.1	0.7	0	0	0
B 6	Dysentery, all forms (045-049)-----	0.6	16.6	0.9	0.1	0.0	0.1	0.1	0.2	0.4	0.6	1.3	3.5
	Male-----	0.7	19.1	0.9	0.1	0.0	0.1	0.2	0.2	0.5	0.7	1.3	4.6
	Female-----	0.5	13.9	0.8	0.1	0.0	0.1	0.1	0.1	0.3	0.5	1.3	2.6
	White-----	0.5	14.8	0.7	0.1	0.0	0.1	0.1	0.1	0.3	0.5	1.1	3.0
	Male-----	0.6	17.0	0.8	0.1	0.1	0.1	0.1	0.1	0.4	0.5	1.1	3.2
	Female-----	0.4	12.2	0.7	0.1	0.0	0.1	0.1	0.1	0.2	0.4	1.2	2.9
	Nonwhite-----	1.5	29.5	2.0	0.2	0.1	0.3	0.5	1.0	1.3	2.3	3.4	8.9
	Male-----	1.8	35.6	2.3	0.3	0	0.4	0.7	1.3	1.4	3.2	4.0	21.4
	Female-----	1.1	25.5	1.7	0.1	0.2	0.2	0.3	0.6	1.1	1.5	2.9	0
B 7	Scarlet fever and streptococcal sore throat (050,051)-----	0.2	0.9	0.5	0.3	0.1	0.1	0.1	0.1	0.2	0.3	0.7	1.4
	Male-----	0.2	1.2	0.6	0.3	0.1	0.1	0.2	0.2	0.1	0.2	0.5	1.3
	Female-----	0.2	0.6	0.5	0.3	0.2	0.1	0.1	0.1	0.2	0.3	0.9	1.5
	White-----	0.2	0.8	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.3	0.7	1.5
	Male-----	0.2	1.1	0.6	0.3	0.1	0.1	0.2	0.1	0.1	0.2	0.5	1.4
	Female-----	0.2	0.5	0.4	0.3	0.1	0.0	0.1	0.1	0.2	0.3	1.0	1.6
	Nonwhite-----	0.3	1.5	0.7	0.2	0.3	0.2	0.4	0.2	0.3	0.2	0	0
	Male-----	0.3	2.0	0.9	0.1	0.2	0	0.5	0.2	0	0	0	0
	Female-----	0.4	1.0	0.6	0.3	0.4	0.4	0.3	0.2	0.7	0.3	0	0
B 8	Diphtheria (055)-----	0.3	0.7	1.6	0.5	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.2
	Male-----	0.3	0.7	1.6	0.5	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.4
	Female-----	0.3	0.6	1.6	0.5	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0
	White-----	0.2	0.6	1.4	0.4	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.2
	Male-----	0.3	0.7	1.4	0.4	0.0	0.0	0.1	0.2	0.0	0.2	0.1	0.5
	Female-----	0.2	0.5	1.4	0.4	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0
	Nonwhite-----	0.6	1.0	3.4	0.9	0.1	0.0	0	0	0	0	0	0
	Male-----	0.6	1.0	3.3	0.9	0	0.1	0	0	0	0	0	0
	Female-----	0.5	1.0	3.6	0.8	0.1	0	0	0	0	0	0	0

See footnotes on p. 216.

## SUMMARY TABLES

Table 8.43. Death Rates for 64 Selected Causes, by Age, Race, and Sex:  
United States, 1950—Continued

(See headnote on p. 209)

Abbreviated list number <sup>1</sup>	CAUSE OF DEATH, RACE, AND SEX	Total <sup>2</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
B 9	Whooping cough (086)-----	0.7	23.7	2.5	0.2	0.0	0	0	0	0	0.0	0.0	0
	Male-----	0.7	21.8	1.9	0.1	0.0	0	0	0	0	0.0	0	0
	Female--	0.6	25.6	3.2	0.2	0.0	0	0	0	0	0.0	0.1	0
	White-----	0.5	17.4	1.7	0.1	0.0	0	0	0	0	0.0	0.0	0
	Male-----	0.5	15.9	1.2	0.1	0.0	0	0	0	0	0.0	0	0
	Female--	0.6	18.9	2.4	0.1	0.0	0	0	0	0	0.0	0.1	0
	Nonwhite-----	2.6	66.2	8.1	0.5	0.0	0	0	0	0	0	0	0
	Male-----	2.5	63.2	7.1	0.4	0.1	0	0	0	0	0	0	0
Female--	2.8	69.2	9.2	0.6	0	0	0	0	0	0	0	0	
B 10	Meningococcal infections (087)-----	0.6	8.0	2.5	0.5	0.3	0.1	0.2	0.3	0.3	0.4	0.2	0.5
	Male-----	0.7	8.7	3.1	0.5	0.3	0.2	0.2	0.3	0.3	0.4	0.2	0.4
	Female--	0.5	7.3	2.2	0.5	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.6
	White-----	0.6	8.0	2.7	0.5	0.3	0.1	0.2	0.2	0.2	0.3	0.2	0.6
	Male-----	0.7	8.5	3.2	0.5	0.3	0.1	0.2	0.2	0.3	0.4	0.2	0.5
	Female--	0.5	7.4	2.3	0.5	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.6
	Nonwhite-----	1.8	8.4	2.0	0.6	0.5	0.2	0.3	0.5	0.7	0.5	0	0
	Male-----	2.1	9.9	2.4	0.9	0.5	0.4	0.4	1.2	1.0	0.9	0	0
Female--	0.6	6.9	1.5	0.2	0.5	0	0.3	0.5	0.4	0.6	0	0	
B 12	Acute poliomyelitis (080)-----	1.3	2.6	2.0	2.5	1.8	1.7	0.6	0.2	0.1	0.0	0.0	0
	Male-----	1.5	3.1	2.2	2.9	2.1	2.0	0.7	0.3	0.2	0.1	0.1	0
	Female--	1.0	2.0	1.7	2.0	1.4	1.4	0.5	0.1	0.0	0.0	0	0
	White-----	1.3	2.7	2.1	2.7	1.9	1.9	0.6	0.2	0.1	0.1	0.0	0
	Male-----	1.6	3.2	2.3	3.3	2.3	2.1	0.8	0.3	0.2	0.1	0.1	0
	Female--	1.1	2.1	1.8	2.1	1.5	1.5	0.5	0.1	0.0	0.0	0	0
	Nonwhite-----	0.6	2.0	1.6	0.8	0.6	0.6	0.3	0.1	0	0	0	0
	Male-----	0.6	2.0	1.6	0.8	0.6	0.6	0.3	0.1	0	0	0	0
Female--	0.6	2.5	1.5	0.6	0.9	0.6	0.2	0.1	0	0	0	0	
B 13	Smallpox (084)-----	0.0	0	0	0	0	0	0	0	0	0	0	0
	Male-----	0.0	0	0	0	0	0	0	0	0	0	0	0
	Female--	0	0	0	0	0	0	0	0	0	0	0	0
	White-----	0.0	0	0	0	0	0	0	0	0	0	0	0
	Male-----	0.0	0	0	0	0	0	0	0	0	0	0	0
	Female--	0	0	0	0	0	0	0	0	0	0	0	0
	Nonwhite-----	0	0	0	0	0	0	0	0	0	0	0	0
	Male-----	0	0	0	0	0	0	0	0	0	0	0	0
Female--	0	0	0	0	0	0	0	0	0	0	0	0	
B 14	Measles (085)-----	0.3	3.6	1.4	0.4	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.2
	Male-----	0.3	3.3	1.5	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.4
	Female--	0.3	3.9	1.3	0.4	0.1	0.1	0.0	0.0	0.0	0.1	0.3	0
	White-----	0.3	3.1	1.2	0.4	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.2
	Male-----	0.3	3.0	1.3	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.5
	Female--	0.3	3.2	1.2	0.4	0.1	0.1	0.0	0.0	0.0	0.1	0.3	0
	Nonwhite-----	0.6	6.9	2.6	0.5	0.2	0.1	0	0	0	0	0	0
	Male-----	0.5	5.4	2.8	0.5	0.2	0	0	0	0	0	0	0
Female--	0.6	8.3	2.4	0.6	0.3	0.2	0	0	0	0	0	0	
B 15	Typhus and other rickettsial diseases (100-108)-----	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0
	Male-----	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0
	Female--	0.0	0	0.1	0.0	0.0	0	0	0.0	0.0	0.1	0	0
	White-----	0.0	0.0	0.1	0.0	0.0	0.0	0	0.0	0.0	0.1	0.0	0
	Male-----	0.0	0.1	0.1	0.0	0.0	0.0	0	0.0	0.1	0.1	0.1	0
	Female--	0.0	0	0.1	0.0	0.0	0	0	0.0	0.0	0.1	0	0
	Nonwhite-----	0.1	0	0	0.1	0	0.0	0.0	0.1	0.1	0.6	0	0
	Male-----	0.1	0	0	0.1	0	0.1	0.1	0	0	0.6	0	0
Female--	0.1	0	0	0.1	0	0	0	0.2	0.2	0.6	0	0	
B 16	Malaria (110-117)-----	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2
	Male-----	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0
	Female--	0.0	0	0.0	0	0.0	0	0.0	0.1	0.1	0.1	0.2	0.3
	White-----	0.0	0	0.0	0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2
	Male-----	0.0	0	0.0	0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0
	Female--	0.0	0	0	0	0.0	0	0.0	0.0	0.0	0.0	0.2	0.3
	Nonwhite-----	0.2	0.5	0.2	0.0	0.0	0.1	0.2	0.5	0.6	0.9	1.0	0
	Male-----	0.2	1.0	0.1	0.1	0.1	0.2	0.2	0.4	0.2	1.3	2.0	0
Female--	0.2	0	0.3	0	0	0	0.2	0.7	1.1	0.6	0	0	
B 17	All other infective and parasitic diseases (080-089,041,042,044,049,052-054, 059-074,081-085,086-086,120-139)	2.5	17.3	3.0	1.1	1.0	1.3	1.8	2.8	3.3	4.8	8.2	16.5
	Male-----	2.8	18.8	3.4	1.2	1.1	1.2	1.9	3.2	4.3	5.9	9.7	16.9
	Female--	2.2	15.8	2.6	0.9	0.9	1.3	1.7	2.1	2.5	3.7	6.9	16.2
	White-----	2.2	14.8	2.7	0.9	0.8	1.0	1.5	2.2	3.0	4.5	7.9	17.3
	Male-----	2.5	15.7	3.1	1.1	0.8	0.9	1.7	2.8	4.0	5.6	9.2	18.3
	Female--	1.8	13.4	2.3	0.8	0.7	1.0	1.3	1.7	2.1	3.4	6.8	16.6
	Nonwhite-----	5.2	35.7	5.3	2.0	2.8	3.8	4.4	6.5	7.1	8.2	12.3	6.7
	Male-----	5.5	40.0	5.7	2.0	3.3	3.7	3.7	7.3	8.8	9.1	15.9	0
Female--	4.8	31.4	5.0	2.0	2.4	4.0	5.1	5.7	5.2	7.3	8.6	11.5	
B 18	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-205)-----	139.8	8.7	11.7	6.7	8.6	20.0	62.7	175.1	392.9	692.5	1,153.3	1,451.0
	Male-----	142.9	9.7	12.5	7.4	9.7	17.7	45.6	156.2	414.9	785.7	1,332.6	1,688.3
	Female--	136.8	7.6	10.8	6.0	7.6	22.2	79.3	194.0	370.7	805.9	1,000.7	1,289.7
	White-----	143.5	8.7	12.2	7.0	8.7	19.3	59.7	168.3	386.0	704.2	1,182.6	1,505.9
	Male-----	147.2	9.6	13.1	7.6	9.9	17.7	44.5	150.8	409.4	798.7	1,367.6	1,732.7
	Female--	139.9	7.8	11.3	6.3	7.5	20.9	74.5	185.8	362.5	618.5	1,026.6	1,348.3
	Nonwhite-----	106.1	8.6	7.7	4.9	8.2	26.1	88.9	240.4	483.0	853.2	710.6	799.4
	Male-----	106.1	10.4	8.2	5.7	7.7	17.9	56.0	207.4	484.8	832.7	844.4	816.0
Female--	110.1	6.9	7.1	4.0	8.6	33.5	119.3	273.3	481.0	476.9	578.8	716.0	

See footnotes on p. 216.

Table 8.43. Death Rates for 64 Selected Causes, by Age, Race, and Sex:  
United States, 1950—Continued

(See headnote on p. 209)

Abbreviated List number <sup>1</sup>	CAUSE OF DEATH, RACE, AND SEX	Total <sup>2</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues—Continued													
	Malignant neoplasm of buccal cavity and pharynx (160-168)-----	3.4	0.0	0.0	0.1	0.1	0.2	1.1	4.0	9.8	17.7	32.5	43.5
	Male-----	5.4	0.1	0.0	0.1	0.1	0.2	1.6	6.3	16.2	30.0	54.8	75.2
	Female-----	1.4	0	0.0	0.0	0.1	0.2	0.5	1.8	3.3	6.4	15.6	21.5
	White-----	3.5	0.0	0.0	0.1	0.1	0.2	1.0	3.8	9.5	18.3	33.6	44.9
	Male-----	5.7	0.1	0.0	0.1	0.2	0.2	1.5	6.1	15.9	31.1	57.4	76.4
	Female-----	1.4	0	0.0	0.0	0.1	0.2	0.5	1.6	5.1	6.4	15.8	21.7
	Nonwhite-----	2.4	0	0	0	0.1	0.2	1.6	6.3	15.5	11.0	15.8	26.8
	Male-----	3.5	0	0	0	0.1	0.3	2.4	8.4	20.1	16.4	17.8	37.5
	Female-----	1.4	0	0	0	0.1	0.2	1.0	4.2	6.1	5.7	9.8	19.1
	Malignant neoplasm of digestive organs and peritoneum (150-156A,157-159)-----	54.2	0.5	0.4	0.2	0.8	3.4	14.3	53.4	150.9	310.7	554.8	870.7
	Male-----	60.1	0.5	0.4	0.2	0.8	3.7	14.9	59.9	175.6	366.3	623.6	706.4
	Female-----	49.4	0.6	0.4	0.2	0.6	3.1	13.8	47.0	126.0	289.1	496.3	645.7
	White-----	55.8	0.5	0.3	0.2	0.7	3.1	13.5	49.9	146.8	316.1	569.5	696.5
	Male-----	61.3	0.6	0.3	0.2	0.9	3.4	14.0	55.7	170.7	370.4	639.4	750.2
	Female-----	50.3	0.4	0.4	0.1	0.6	2.9	13.0	44.1	125.0	285.8	510.7	675.0
	Nonwhite-----	41.0	0.7	0.4	0.1	0.9	5.8	21.7	87.4	205.3	246.4	332.0	358.0
	Male-----	49.6	0	0.5	0.1	1.0	6.4	25.4	100.3	237.7	317.9	405.4	426.5
	Female-----	32.7	1.5	0.4	0.2	0.9	5.2	20.1	74.5	166.8	177.8	261.6	317.8
	Malignant neoplasm of respiratory system (160-164)-----	14.1	0.1	0.1	0.1	0.2	0.9	5.1	22.9	55.2	69.3	69.3	64.0
	Male-----	23.1	0.2	0.1	0.1	0.3	1.3	8.1	39.3	94.7	115.4	105.1	95.4
	Female-----	5.2	0	0.1	0.1	0.2	0.6	2.3	6.7	15.5	26.5	38.8	42.0
	White-----	14.7	0.1	0.1	0.1	0.2	0.9	5.1	22.8	55.7	71.6	71.6	68.0
	Male-----	24.1	0.2	0.1	0.1	0.3	1.2	7.8	39.1	95.9	119.4	109.1	102.7
	Female-----	5.4	0	0.1	0.1	0.2	0.5	2.2	6.5	15.5	27.2	40.0	44.0
	Nonwhite-----	8.8	0	0	0.1	0.3	1.6	5.9	24.6	48.2	42.3	33.9	15.6
	Male-----	14.5	0	0	0.1	0.4	2.1	8.4	40.6	79.0	67.8	48.6	10.7
	Female-----	3.4	0	0	0	0.3	1.1	2.6	8.7	15.5	17.8	19.5	19.1
	Malignant neoplasm of breast (170)-----	12.6	0	0	0.0	0.1	1.9	10.6	23.7	35.5	49.6	76.8	116.7
	Male-----	0.3	0	0	0	0	0.0	0.2	0.4	0.8	1.9	2.7	5.4
	Female-----	24.7	0	0	0.0	0.2	3.8	20.8	46.9	70.4	94.0	139.8	193.5
	White-----	13.1	0	0	0.0	0.1	1.9	10.6	23.9	35.8	50.9	79.2	121.9
	Male-----	0.3	0	0	0	0	0.0	0.1	0.4	0.8	1.9	2.8	3.2
	Female-----	25.7	0	0	0.0	0.2	3.7	20.8	47.1	70.9	96.3	143.6	204.2
	Nonwhite-----	8.3	0	0	0	0.1	2.5	10.9	22.8	31.9	34.4	39.8	55.8
	Male-----	0.3	0	0	0	0	0.1	0.3	0.4	1.8	1.6	1.0	5.4
	Female-----	16.0	0	0	0	0.1	4.7	20.8	45.3	63.9	65.9	78.1	91.9
	Malignant neoplasm of genital organs (171-179)-----	23.1	0	0.2	0.2	1.0	4.3	14.2	31.9	57.0	106.2	207.9	262.4
	Male-----	16.4	0	0.2	0.1	0.8	2.0	1.7	4.8	26.3	103.1	231.4	435.2
	Female-----	29.6	0	0.1	0.2	1.2	6.4	26.3	59.0	88.0	109.0	136.9	141.4
	White-----	22.7	0	0.2	0.2	0.9	3.9	12.4	29.0	53.4	104.5	209.2	286.5
	Male-----	16.6	0	0.2	0.1	0.9	2.1	1.7	3.7	23.7	101.7	294.5	447.8
	Female-----	26.6	0	0.1	0.2	1.0	5.5	22.9	54.3	85.1	107.1	137.3	140.5
	Nonwhite-----	26.8	0	0.2	0.0	1.4	7.9	29.4	60.0	104.7	126.1	188.8	214.4
	Male-----	14.8	0	0.1	0	0.2	0.5	1.9	15.4	59.5	120.2	247.8	300.0
	Female-----	37.6	0	0.3	0.1	2.4	14.5	54.9	104.6	152.8	181.9	130.8	153.2
	Malignant neoplasm of urinary organs (180,181)-----	6.7	0.9	1.2	0.3	0.1	0.3	1.6	6.2	19.2	37.6	64.2	75.1
	Male-----	8.8	0.9	1.2	0.2	0.2	0.3	1.9	8.7	27.0	51.7	84.8	115.3
	Female-----	4.5	1.0	1.2	0.4	0.1	0.2	1.2	3.8	11.3	24.5	46.6	47.0
	White-----	7.0	0.9	1.2	0.3	0.1	0.2	1.4	6.1	19.3	33.7	66.7	78.0
	Male-----	9.3	0.8	1.2	0.2	0.2	0.3	1.8	8.7	27.6	53.6	88.1	120.1
	Female-----	4.7	1.1	1.1	0.5	0.1	0.2	1.0	3.5	11.0	24.8	48.7	48.7
	Nonwhite-----	4.0	0.7	1.3	0.3	0.2	0.7	2.8	7.4	17.5	25.2	26.1	40.2
	Male-----	4.8	1.5	1.3	0.3	0.2	0.5	2.7	8.9	19.5	30.0	39.6	58.9
	Female-----	5.3	0	1.3	0.3	0.2	0.8	2.8	6.0	15.5	20.6	12.7	26.8
	Malignant neoplasm of other and unspecified sites (158B,165,190-199)-----	14.7	2.5	3.2	2.3	2.8	3.8	8.6	19.3	38.2	59.8	97.7	181.3
	Male-----	15.6	2.7	3.4	2.4	3.2	4.0	8.8	20.5	41.9	66.2	109.0	189.6
	Female-----	15.8	2.3	3.0	2.1	2.4	3.5	8.4	18.1	34.5	53.8	88.1	175.6
	White-----	15.2	2.6	3.3	2.3	2.8	3.9	8.5	19.3	37.9	60.8	100.1	190.0
	Male-----	16.1	2.8	3.5	2.4	3.2	4.2	8.9	20.6	41.8	67.4	112.2	199.4
	Female-----	14.2	2.4	3.1	2.2	2.5	3.6	8.1	17.9	33.9	54.6	90.0	183.5
	Nonwhite-----	10.6	2.2	2.9	2.1	2.7	3.1	9.5	19.9	42.2	48.2	60.5	78.2
	Male-----	10.9	2.5	3.0	2.6	3.3	2.8	8.0	19.4	42.0	52.4	64.4	75.0
	Female-----	10.3	2.0	2.7	1.5	2.1	3.4	10.8	20.4	42.3	44.2	56.6	80.4
	Leukemia and aleukemia (204)-----	5.9	4.0	5.9	2.8	1.9	2.4	3.4	5.8	12.2	21.5	29.7	24.3
	Male-----	6.8	4.7	6.3	3.1	2.1	2.6	3.5	6.5	14.2	27.7	36.4	33.4
	Female-----	5.0	3.4	5.4	2.5	1.6	2.1	3.3	5.1	10.1	15.7	24.0	17.9
	White-----	6.2	4.0	6.4	3.0	1.9	2.5	3.4	6.0	12.4	22.6	31.2	26.1
	Male-----	7.1	4.6	6.8	3.4	2.2	2.7	3.5	6.7	14.4	29.1	36.4	36.2
	Female-----	5.3	3.4	5.9	2.7	1.6	2.2	3.3	5.2	10.3	16.5	25.2	19.1
	Nonwhite-----	3.1	4.2	2.4	1.6	1.4	1.6	3.4	4.7	9.7	6.0	6.4	2.2
	Male-----	3.6	5.4	2.8	1.6	1.3	1.9	3.6	5.0	11.7	11.0	7.9	0
	Female-----	2.6	2.9	1.9	1.6	1.4	1.4	3.2	4.4	7.6	5.1	4.9	3.6
	Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues (200-203,205)-----	5.2	0.5	0.7	0.8	1.6	2.8	3.8	7.7	15.0	20.0	20.4	13.2
	Male-----	6.4	0.7	0.9	1.1	2.0	3.6	4.9	9.7	18.3	23.4	25.0	13.5
	Female-----	4.1	0.4	0.6	0.4	1.2	2.1	2.7	5.7	11.6	17.0	16.8	12.9
	White-----	5.5	0.5	0.8	0.8	1.7	2.8	3.8	7.8	15.2	20.8	21.2	14.1
	Male-----	6.6	0.6	0.9	1.2	2.1	3.8	5.0	9.8	18.7	24.0	25.7	14.7
	Female-----	4.3	0.4	0.6	0.5	1.3	2.1	2.7	5.7	11.7	17.7	17.3	13.7
	Nonwhite-----	3.4	0.7	0.6	0.7	1.2	2.7	3.6	7.2	12.0	11.6	9.3	2.2
	Male-----	4.2	1.0	0.5	0.9	1.2	3.3	4.3	9.0	15.5	15.5	13.9	0
	Female-----	2.6	0.5	0.6	0.4	1.1	2.1	3.0	5.4	10.5	7.9	4.9	3.8

See footnotes on p. 215.

Table 8.43. Death Rates for 64 Selected Causes, by Age, Race, and Sex:  
United States, 1950—Continued

(See headnote on p. 209)

Abbreviated List number <sup>1</sup>	CAUSE OF DEATH, RACE, AND SEX	Total <sup>2</sup>	Under	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85 years
			1 year	years	years	years	years	years	years	years	years	years	and over
B 19	Benign neoplasms and neoplasms of unspecified nature (210-239)-----	3.6	4.4	1.1	0.8	0.9	1.7	4.1	5.9	7.9	9.1	13.5	21.8
	Male-----	2.8	4.6	1.2	0.8	0.9	1.1	2.2	4.0	7.2	9.0	11.5	15.6
	Female-----	4.3	4.1	1.1	0.7	0.9	2.3	5.9	7.7	8.7	9.2	15.1	26.2
	White-----	3.4	4.5	1.1	0.8	0.9	1.5	3.3	5.4	7.6	8.9	13.8	22.7
	Male-----	2.9	4.7	1.1	0.9	0.8	1.1	2.2	3.9	7.1	9.1	12.2	15.6
	Female-----	3.9	4.2	1.1	0.7	0.9	1.8	4.5	6.9	8.1	8.8	15.2	27.7
	Nonwhite-----	5.1	3.7	1.2	0.6	1.2	4.0	10.5	10.6	11.9	11.6	8.4	11.2
	Male-----	2.6	4.0	1.6	0.7	0.9	1.5	2.1	5.6	8.0	8.5	3.0	16.1
	Female-----	7.5	3.4	0.8	0.6	1.4	6.3	18.4	15.6	16.1	14.5	13.7	7.7
	B 20	Diabetes mellitus (260)-----	16.2	0.7	0.3	0.6	1.1	2.2	4.2	12.4	42.4	100.3	166.7
Male-----		12.5	1.0	0.2	0.5	0.8	2.1	4.3	10.2	30.4	75.7	141.9	140.6
Female-----		19.9	0.5	0.4	0.7	1.4	2.2	4.1	14.5	54.5	125.1	187.9	157.0
White-----		16.4	0.8	0.3	0.5	1.0	2.0	3.3	10.5	41.0	102.0	171.3	154.9
Male-----		12.8	1.0	0.2	0.5	0.8	2.0	3.9	9.4	30.0	77.0	145.7	147.6
Female-----		20.0	0.5	0.3	0.6	1.2	1.9	2.8	11.5	52.0	125.2	192.7	159.9
Nonwhite-----		14.4	0.5	0.4	0.7	2.2	3.6	11.5	30.5	80.9	79.8	98.4	96.0
Male-----		10.0	1.0	0.1	0.3	1.7	3.0	6.3	18.1	35.3	60.9	88.2	58.9
Female-----		18.7	0	0.8	1.1	2.6	4.2	14.5	43.0	88.1	98.0	108.4	122.5
B 21		Anemias (290-293)-----	2.7	3.9	0.8	0.4	0.4	0.5	0.6	1.4	3.7	12.7	38.3
	Male-----	2.6	4.2	0.9	0.3	0.3	0.3	0.5	1.2	3.5	13.5	41.0	62.1
	Female-----	2.8	3.6	0.7	0.4	0.5	0.6	0.8	1.5	3.9	12.0	36.1	62.3
	White-----	2.7	3.2	0.5	0.3	0.3	0.3	0.5	1.2	3.6	13.1	39.8	65.7
	Male-----	2.6	3.2	0.6	0.3	0.3	0.2	0.4	1.1	3.4	13.8	42.6	65.5
	Female-----	2.8	3.1	0.5	0.3	0.3	0.4	0.6	1.3	3.7	12.4	37.4	65.9
	Nonwhite-----	2.7	8.6	2.7	0.8	1.3	2.0	1.7	3.2	5.7	8.0	16.7	8.9
	Male-----	2.6	10.9	3.4	0.9	0.9	1.3	1.3	2.8	4.9	9.5	18.8	10.7
	Female-----	2.8	6.4	2.0	1.0	1.7	2.6	2.0	3.7	6.5	6.7	14.6	7.7
	B 23	Meningitis, except meningococcal and tuberculous (340)-----	1.2	18.2	2.8	0.6	0.4	0.4	0.5	0.8	1.1	1.3	1.4
Male-----		1.5	20.2	3.2	0.7	0.5	0.4	0.7	1.1	1.5	1.8	1.7	3.4
Female-----		1.0	16.2	2.4	0.5	0.3	0.3	0.4	0.6	0.7	0.9	1.1	0.9
White-----		1.0	14.0	2.4	0.5	0.3	0.3	0.4	0.7	0.9	1.3	1.2	1.9
Male-----		1.2	16.2	2.6	0.6	0.4	0.3	0.5	0.9	1.2	1.7	1.4	3.2
Female-----		0.8	11.7	2.1	0.4	0.3	0.3	0.3	0.5	0.6	0.8	1.0	1.0
Nonwhite-----		3.3	46.5	6.2	1.1	0.8	1.2	1.9	2.7	3.7	2.3	3.9	2.2
Male-----		3.9	47.4	7.6	1.1	1.1	1.5	2.6	3.4	5.3	2.8	5.0	5.4
Female-----		2.7	45.6	4.7	1.1	0.6	0.9	1.2	2.0	2.0	1.8	2.9	0
		Major cardiovascular-renal diseases (330-334,400-468,592-594)-----	510.8	11.4	3.8	5.5	13.5	32.4	122.4	411.5	1,074.3	2,585.8	6,522.8
	Male-----	580.0	13.9	4.1	5.1	13.8	35.9	154.2	545.4	1,394.2	3,106.8	7,163.8	15,402.3
	Female-----	442.6	8.9	3.5	6.0	13.3	29.2	91.4	278.1	752.4	2,101.8	5,977.6	14,084.6
	White-----	512.3	10.0	3.4	5.0	11.6	26.4	101.7	362.4	1,001.2	2,552.9	6,593.2	15,053.1
	Male-----	585.9	12.7	3.7	4.7	12.2	31.0	136.6	509.1	1,337.3	3,091.8	7,251.5	15,840.2
	Female-----	439.4	7.2	3.2	5.3	11.0	22.0	65.5	217.3	684.5	2,053.3	6,039.5	14,506.2
	Nonwhite-----	498.0	21.2	6.4	9.2	28.0	84.1	303.1	882.6	2,027.6	2,980.4	5,460.3	9,545.6
	Male-----	528.4	22.2	7.0	7.9	26.3	79.0	294.4	902.6	2,115.9	3,280.4	5,942.4	10,285.0
	Female-----	468.8	20.1	5.7	10.5	29.6	88.6	311.1	862.5	1,933.7	2,692.8	4,985.4	9,017.1
		Diseases of cardiovascular system (330-334,400-468)-----	494.4	10.7	2.8	4.6	11.0	27.9	114.1	395.2	1,045.3	2,516.6	6,348.6
Male-----		562.5	12.8	3.0	4.1	10.8	31.0	145.5	527.8	1,359.9	3,029.4	6,964.4	14,954.9
Female-----		427.3	8.5	2.6	5.0	11.1	25.0	83.6	263.1	724.6	2,040.0	5,824.7	13,712.9
White-----		487.6	9.6	2.5	4.0	9.1	22.6	95.4	349.7	975.9	2,492.6	6,430.7	14,655.8
Male-----		570.1	12.1	2.6	3.7	9.3	26.7	131.2	493.4	1,302.5	3,025.0	7,068.8	15,385.6
Female-----		425.9	7.1	2.3	4.4	9.0	18.7	60.2	208.6	662.4	1,899.1	5,894.7	14,141.8
Nonwhite-----		466.8	17.7	5.2	8.4	24.8	73.6	278.0	831.5	1,922.4	2,804.4	5,107.2	8,971.8
Male-----		496.3	17.8	5.6	7.3	23.0	70.3	273.6	856.7	2,009.4	3,081.0	5,537.1	9,551.1
Female-----		438.6	17.7	4.9	9.6	26.6	76.6	282.0	806.2	1,829.9	2,539.2	4,883.8	8,557.6
B 22		Vascular lesions affecting central nervous system (330-334)-----	104.0	5.1	0.9	0.5	1.6	4.2	16.7	70.4	195.3	549.7	1,498.6
	Male-----	102.5	6.4	1.1	0.5	1.8	4.2	17.5	67.9	206.1	585.3	1,543.6	3,048.6
	Female-----	105.6	3.7	0.7	0.4	1.5	4.3	19.9	72.9	184.3	516.7	1,462.2	2,949.4
	White-----	101.9	4.4	0.9	0.4	1.4	3.1	13.3	54.4	169.6	532.5	1,510.2	3,062.7
	Male-----	100.5	5.9	1.1	0.5	1.6	3.4	13.1	53.7	182.2	569.7	1,556.3	3,127.1
	Female-----	103.3	2.9	0.6	0.4	1.2	2.9	13.6	55.0	156.9	498.1	1,471.3	3,017.9
	Nonwhite-----	122.3	9.6	1.2	0.7	3.6	13.7	65.9	224.3	530.5	755.7	1,339.6	2,127.9
	Male-----	119.5	10.4	1.0	0.7	3.3	11.9	57.4	204.2	508.4	768.6	1,365.7	2,132.0
	Female-----	124.9	8.9	1.4	0.6	4.0	15.2	73.7	244.3	554.0	743.4	1,314.0	2,125.1
	B 24	Rheumatic fever (400-402)-----	1.3	0.6	0.3	1.6	1.5	1.5	2.0	0.6	0.7	0.8	0.9
Male-----		1.3	0.7	0.3	1.6	1.5	1.5	2.0	0.7	0.9	1.0	0.8	1.7
Female-----		1.3	0.5	0.4	2.1	1.5	1.5	1.9	0.6	0.5	0.7	1.0	2.1
White-----		1.2	0.4	0.2	1.6	1.3	1.4	2.0	0.5	0.7	0.9	0.9	2.1
Male-----		1.2	0.5	0.2	1.4	1.2	1.4	2.0	0.6	0.9	1.0	0.7	1.8
Female-----		1.2	0.2	0.3	1.8	1.3	1.4	1.8	0.4	0.5	0.7	1.0	2.2
Nonwhite-----		2.3	2.2	1.1	3.8	3.1	2.3	2.0	1.5	0.6	0.5	1.0	0
Male-----		2.2	2.5	1.1	2.9	3.1	2.5	2.3	1.5	0.8	0.9	2.0	0
Female-----		2.3	2.0	1.1	4.6	3.1	2.1	1.8	1.6	0.4	0	0	0
		Diseases of heart (410-443)-----	355.5	3.5	1.3	2.1	6.8	19.4	86.4	308.6	808.1	1,839.8	4,310.1
	Male-----	423.4	4.0	1.4	2.0	6.8	22.9	118.4	440.5	1,104.5	2,292.3	4,825.0	9,659.8
	Female-----	288.4	2.9	1.2	2.2	6.7	16.2	55.1	177.2	510.0	1,419.3	3,872.0	8,796.1
	White-----	360.8	3.4	1.1	1.8	5.6	16.1	75.2	282.5	771.2	1,837.4	4,374.5	9,439.7
	Male-----	433.0	4.1	1.1	1.7	5.8	20.1	110.6	423.6	1,081.7	2,308.3	4,907.5	9,950.5
	Female-----	289.4	2.7	1.1	1.9	5.3	12.2	40.5	141.9	460.2	1,400.9	3,925.2	9,064.7
	Nonwhite-----	309.6	3.9	2.5	3.9	15.7	48.3	184.3	559.5	1,289.8	1,869.9	3,339.2	5,716.2
	Male-----	339.7	3.5	3.2	3.4	14.8	47.7	189.2	605.0	1,385.6	2,105.3	3,677.8	6,282.1
	Female-----	280.7	4.4	1.9	4.3	16.5	48.8	179.8	516.0	1,179.5	1,844.0	3,005.7	5,326.0

See footnotes on p. 216.



MORTALITY RATES

Table 8.43. Death Rates for 64 Selected Causes, by Age, Race, and Sex:  
United States, 1950—Continued

(See headnote on p. 209)

Abbre- viated List number <sup>1</sup>	CAUSE OF DEATH, RACE, AND SEX	Total <sup>2</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
Major cardiovascular-renal diseases—Continued													
Diseases of cardiovascular system—Continued													
Diseases of heart—Continued													
B 25	Chronic rheumatic heart disease (410-418)-----	13.5	...	0.1	1.1	3.1	6.3	13.5	23.4	32.3	41.1	73.1	134.5
	Male-----	13.8	...	0.1	1.0	3.0	6.7	13.6	23.7	34.3	45.0	78.0	129.2
	Female-----	13.3	...	0.2	1.2	3.3	6.0	13.4	23.2	30.2	37.5	69.8	139.2
	White-----	13.6	...	0.1	0.9	2.6	6.2	13.5	23.5	31.9	40.9	71.8	132.7
	Male-----	13.9	...	0.1	0.9	2.7	6.6	13.6	23.7	33.7	44.8	75.9	129.7
	Female-----	13.4	...	0.1	1.0	2.9	5.8	13.3	23.3	30.1	37.3	68.3	134.7
	Nonwhite-----	12.7	...	0.5	2.3	5.6	7.8	14.1	22.7	37.2	44.0	92.5	156.3
	Male-----	13.1	...	0.5	2.0	5.0	7.9	13.7	23.0	42.0	47.6	108.0	123.2
	Female-----	12.3	...	0.5	2.6	6.2	7.8	14.4	22.5	32.0	40.5	77.1	180.0
B 26 pt.	Arteriosclerotic heart disease, including coronary disease (420)-----	213.0	1.2	0.1	0.1	1.1	6.4	46.7	196.0	537.4	1,170.4	2,423.9	4,426.0
	Male-----	277.8	1.6	0.2	0.1	1.3	9.7	77.2	316.6	796.4	1,549.3	2,873.5	4,907.8
	Female-----	149.1	0.8	0.1	0.1	0.8	3.4	16.9	76.0	276.8	818.2	2,041.4	4,087.1
	White-----	224.6	1.2	0.1	0.1	0.9	5.7	45.1	184.6	540.4	1,208.9	2,502.7	4,634.5
	Male-----	294.0	1.6	0.2	0.1	1.1	9.0	77.5	323.1	812.9	1,608.2	2,978.7	5,138.8
	Female-----	156.0	0.9	0.1	0.1	0.7	2.6	13.2	86.6	287.5	839.9	2,101.6	4,283.4
	Nonwhite-----	113.4	1.2	0.2	0.2	2.3	12.5	60.7	209.9	498.2	707.9	1,232.9	1,922.5
	Male-----	136.6	2.0	0.3	0.3	3.1	15.2	74.3	234.2	587.8	855.0	1,407.3	2,196.3
	Female-----	91.2	0.5	0.1	0.1	1.6	10.2	46.1	165.7	402.9	566.8	1,061.1	1,726.8
B 26 pt.	Nonrheumatic chronic endocarditis and other myocardial degeneration (421,422)-----	56.5	...	0.3	0.3	0.9	1.9	7.4	24.8	79.9	254.4	818.2	2,849.2
	Male-----	59.4	...	0.3	0.3	0.8	1.8	8.4	31.1	97.7	300.8	986.2	2,901.3
	Female-----	53.7	...	0.3	0.3	1.0	1.9	6.4	18.5	59.9	211.2	860.4	2,812.9
	White-----	56.5	...	0.2	0.3	0.7	1.3	5.3	19.4	66.5	245.4	826.1	2,945.0
	Male-----	59.2	...	0.2	0.2	0.7	1.3	6.7	25.4	87.4	292.6	994.6	2,993.2
	Female-----	53.9	...	0.2	0.3	0.8	1.4	4.0	13.4	49.6	201.6	686.5	2,911.6
	Nonwhite-----	56.3	...	0.8	0.4	2.5	7.3	25.6	77.1	213.6	362.3	798.7	1,710.4
	Male-----	61.0	...	1.1	0.3	2.0	7.8	24.1	86.4	228.9	398.0	870.2	1,828.7
	Female-----	51.8	...	0.5	0.5	2.9	6.8	26.9	67.8	197.3	328.1	728.2	1,627.3
B 27	Other diseases of heart (430-434)-----	15.9	2.2	0.7	0.5	1.2	2.4	6.2	16.0	35.3	73.8	169.3	369.3
	Male-----	19.3	2.4	0.7	0.5	1.3	2.6	7.9	21.2	47.3	96.7	201.8	451.8
	Female-----	12.5	2.1	0.7	0.5	1.1	2.3	4.6	10.8	23.2	52.4	141.7	340.8
	White-----	14.6	2.2	0.7	0.5	0.9	1.7	4.8	12.3	30.2	68.2	165.1	385.4
	Male-----	18.1	2.5	0.6	0.5	1.1	2.1	6.2	17.5	41.9	90.3	197.0	447.4
	Female-----	11.2	1.6	0.7	0.4	0.7	1.4	3.0	7.0	18.4	47.7	138.1	342.4
	Nonwhite-----	26.6	2.7	0.9	0.9	3.7	8.5	20.8	31.4	101.9	140.2	233.6	397.5
	Male-----	30.3	1.5	1.1	0.7	3.3	7.0	23.3	36.1	115.3	172.2	267.6	503.5
	Female-----	23.2	3.9	0.6	1.1	4.0	9.8	18.3	46.8	87.6	109.5	200.1	321.6
B 28	Hypertension with heart disease (440-443)-----	56.5	0	0.0	0.0	0.4	2.3	12.6	49.3	124.3	300.2	726.6	1,356.6
	Male-----	53.1	0	0.0	0.0	0.4	2.0	11.3	48.0	126.8	300.4	695.5	1,269.7
	Female-----	59.9	0	0.0	0.0	0.4	2.5	13.8	48.7	119.8	300.0	759.7	1,417.0
	White-----	51.4	0	0	0.0	0.2	1.1	8.8	32.7	100.2	274.0	708.7	1,342.0
	Male-----	47.9	0	0	0.0	0.3	1.1	6.6	33.8	105.8	272.4	661.2	1,240.4
	Female-----	54.8	0	0	0.0	0.2	1.1	7.0	31.6	94.5	275.5	748.7	1,412.6
	Nonwhite-----	100.5	0	0.1	0.0	1.6	12.1	63.2	198.4	439.0	614.5	981.6	1,528.5
	Male-----	98.7	0	0.1	0.1	1.4	9.8	53.8	183.5	419.6	630.5	1,024.8	1,612.4
	Female-----	102.2	0	0.1	0	1.8	14.2	71.9	213.4	459.6	599.1	939.1	1,470.3
B 29	Hypertension without mention of heart (444-447)-----	8.3	0	0.0	0.0	0.2	1.3	4.1	7.7	15.9	34.6	109.6	280.5
	Male-----	8.5	0	0	0.0	0.2	1.3	4.2	8.8	15.5	38.1	112.6	298.1
	Female-----	8.1	0	0.0	0.0	0.2	1.3	3.9	6.6	12.3	31.4	106.9	268.2
	White-----	7.6	0	0.0	0.0	0.2	0.7	2.4	5.5	11.3	32.0	108.1	285.3
	Male-----	7.8	0	0	0.0	0.2	0.8	2.7	6.7	13.3	35.2	110.6	305.7
	Female-----	7.4	0	0.0	0.0	0.2	0.7	2.1	4.3	9.3	29.2	106.0	271.1
	Nonwhite-----	14.7	0	0	0	0.7	6.3	18.7	29.9	49.0	85.3	132.3	233.3
	Male-----	14.8	0	0	0	0.7	6.2	17.9	29.2	43.3	72.5	142.7	208.9
	Female-----	14.6	0	0	0	0.7	6.4	19.5	29.6	53.0	58.4	122.0	233.6
B 46 pt.	General arteriosclerosis (450)-----	20.4	0	0	0	0.0	0.1	0.3	2.0	12.3	69.4	392.0	1,727.7
	Male-----	20.9	0	0	0	0	0.1	0.3	2.5	15.7	83.4	436.6	1,856.2
	Female-----	19.8	0	0	0	0.0	0.0	0.2	1.4	8.9	56.3	354.0	1,638.2
	White-----	21.3	0	0	0	0.0	0.0	0.2	1.5	10.6	67.2	400.2	1,800.9
	Male-----	21.7	0	0	0	0	0.1	0.3	2.0	13.9	80.9	445.3	1,937.6
	Female-----	20.9	0	0	0	0.0	0	0.1	0.9	7.4	54.4	362.2	1,706.0
	Nonwhite-----	12.8	0	0	0	0.0	0.3	1.0	6.8	34.6	95.4	267.5	857.4
	Male-----	14.4	0	0	0	0	0.2	0.9	7.1	39.6	112.9	315.2	905.3
	Female-----	11.3	0	0	0	0.1	0.4	1.2	6.6	29.2	78.6	220.6	823.2
B 46 pt.	Other diseases of circulatory system (451-468)-----	4.9	1.5	0.3	0.2	0.9	1.4	2.7	5.9	12.9	22.3	36.5	63.8
	Male-----	5.8	1.6	0.2	0.1	0.5	1.0	3.0	7.3	17.2	29.3	45.7	70.5
	Female-----	4.0	1.4	0.3	0.2	1.2	1.7	2.5	4.5	8.6	15.7	28.6	59.1
	White-----	4.9	1.5	0.2	0.2	0.7	1.2	2.3	5.4	12.4	22.6	37.0	65.2
	Male-----	5.9	1.6	0.2	0.1	0.4	0.9	2.6	6.8	16.7	29.9	46.5	72.9
	Female-----	3.9	1.3	0.3	0.3	1.0	1.5	2.1	4.0	8.2	15.8	29.1	59.9
	Nonwhite-----	5.2	2.0	0.3	0.1	1.7	2.9	6.0	10.4	18.9	18.7	27.5	46.9
	Male-----	5.7	1.5	0.3	0.2	1.2	1.9	6.1	11.7	23.8	22.7	33.7	42.9
	Female-----	4.7	2.5	0.4	0.1	2.2	3.7	5.9	9.2	13.7	14.8	21.5	49.8
B 38 pt.	Chronic and unspecified nephritis and other renal sclerosis (592-594)-----	16.4	0.8	1.0	1.0	2.6	4.5	8.2	16.3	31.0	69.2	174.3	411.0
	Male-----	17.5	1.1	1.1	1.0	3.0	4.9	8.7	17.7	34.3	77.1	199.4	467.4
	Female-----	15.3	0.4	0.9	0.9	2.2	4.2	7.8	15.0	27.8	61.8	152.9	371.7
	White-----	14.6	0.4	1.0	1.0	2.5	3.8	6.3	12.7	25.4	60.3	162.5	397.3
	Male-----	15.8	0.6	1.0	1.0	2.9	4.4	7.4	14.7	28.6	66.8	184.7	444.6
	Female-----	13.5	0.1	0.9	0.9	2.0	3.2	5.3	10.7	22.1	54.3	143.8	364.4
	Nonwhite-----	31.2	3.4	1.1	0.8	3.1	10.4	25.1	51.1	105.2	176.0	353.1	575.9
	Male-----	32.1	4.4	1.4	0.7	3.3	8.7	20.8	45.9	106.4	199.3	405.3	735.9
	Female-----	30.3	2.5	0.9	0.9	3.0	12.0	29.1	56.3	103.8	153.6	301.6	459.5

See footnotes on p. 216.

Table 8.43. Death Rates for 64 Selected Causes, by Age, Race, and Sex:  
United States, 1950—Continued

(See headnote on p. 209)

Abbreviated List number <sup>1</sup>	CAUSE OF DEATH, RACE, AND SEX	Total <sup>2</sup>	Under	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85 years	
			1 year	years	years	years	years	years	years	years	years	years	and over	
B 30	Influenza and pneumonia, except pneumonia of newborn (480-493)-----	31.3	288.1	18.9	3.2	3.2	4.2	9.0	19.3	39.4	96.3	296.5	954.4	
	Male----	35.2	293.0	20.1	3.3	3.5	4.2	10.9	25.3	50.8	119.3	331.2	1,028.6	
	Female----	27.4	242.2	17.8	3.0	3.0	4.1	7.1	13.3	25.8	74.9	266.9	902.7	
	White-----	28.0	211.3	14.6	2.7	2.7	2.9	6.7	14.6	31.9	89.3	283.8	966.0	
	Male----	31.6	232.1	15.3	2.8	3.0	3.0	8.6	20.3	43.6	111.8	329.2	1,034.1	
	Female----	24.5	189.5	13.9	2.6	2.4	2.7	4.8	8.9	20.2	68.4	264.0	818.6	
	Nonwhite-----	59.0	651.4	50.4	6.4	7.2	15.2	29.8	64.6	123.0	180.0	356.4	817.2	
	Male----	66.1	714.1	55.1	6.9	7.2	14.7	32.3	73.5	143.2	208.2	358.6	964.2	
	Female----	52.3	589.0	45.6	6.1	7.2	15.7	27.0	55.7	101.6	153.0	314.3	712.2	
	Influenza (480-483)-----	4.4	23.3	2.3	0.5	0.5	0.6	1.1	2.4	5.3	14.2	50.2	170.4	
	Male----	4.4	24.7	2.3	0.5	0.5	0.5	1.1	2.7	5.9	15.6	52.0	175.7	
	Female----	4.4	21.9	2.3	0.5	0.5	0.8	1.1	2.1	4.8	12.8	48.7	166.7	
White-----	3.8	17.4	1.8	0.4	0.4	0.4	0.7	1.4	3.7	12.2	49.0	166.0		
Male----	3.8	18.1	1.8	0.5	0.4	0.5	0.8	1.8	4.2	15.8	51.1	172.4		
Female----	3.7	16.8	1.8	0.4	0.4	0.5	0.5	1.0	3.1	10.7	47.2	165.0		
Nonwhite-----	9.7	63.0	5.7	1.4	1.4	2.7	5.0	11.8	27.2	38.1	69.3	198.7		
Male----	8.6	70.6	5.8	1.6	1.3	1.8	4.2	10.7	27.7	37.2	65.4	214.3		
Female----	9.8	55.5	5.6	1.3	1.5	3.5	5.7	12.8	26.6	39.0	73.2	187.6		
B 31	Pneumonia, except pneumonia of newborn (490-493)-----	26.9	244.7	16.7	2.7	2.7	3.5	7.9	16.9	33.0	82.1	246.2	784.0	
	Male----	30.8	266.3	17.9	2.9	3.0	3.7	9.6	22.7	44.9	103.7	278.1	852.9	
	Female----	23.1	220.3	15.5	2.5	2.5	3.3	6.1	11.2	21.1	62.0	218.2	736.0	
	White-----	24.3	193.8	12.8	2.3	2.3	2.5	6.0	13.2	28.2	77.1	244.8	797.9	
	Male----	27.8	214.1	13.5	2.5	2.6	2.7	7.8	18.5	39.4	99.0	278.1	861.8	
	Female----	20.7	172.7	12.1	2.1	2.1	2.2	4.3	7.9	17.1	57.7	216.8	753.6	
	Nonwhite-----	49.3	588.4	44.6	5.0	5.8	12.5	24.6	52.8	95.9	141.9	267.0	616.5	
	Male----	56.5	643.5	49.3	5.2	5.9	12.9	28.2	62.8	115.5	170.9	293.4	749.9	
	Female----	42.4	533.6	40.0	4.8	5.7	12.2	21.3	42.8	75.0	114.0	241.1	524.6	
	Bronchitis (500-502)-----	2.0	18.6	2.5	0.3	0.1	0.2	0.3	0.8	2.7	6.1	15.9	58.6	
	Male----	2.4	22.0	2.8	0.4	0.1	0.1	0.4	1.1	4.2	8.2	17.0	70.9	
	Female----	1.6	15.0	2.2	0.2	0.1	0.2	0.2	0.6	1.3	4.1	14.9	50.0	
White-----	1.9	16.7	2.4	0.3	0.1	0.1	0.2	0.7	2.6	6.0	16.3	60.7		
Male----	2.4	20.0	2.7	0.4	0.1	0.1	0.3	1.0	4.2	8.2	17.6	74.3		
Female----	1.5	13.2	2.1	0.2	0.1	0.1	0.2	0.4	1.0	4.0	15.2	51.3		
Nonwhite-----	2.4	31.3	3.4	0.4	0.2	0.5	1.0	1.8	4.1	6.3	8.9	33.5		
Male----	2.6	35.6	4.2	0.5	0.2	0.4	1.3	1.5	3.7	7.3	7.9	32.1		
Female----	2.2	27.0	2.6	0.3	0.2	0.5	0.8	2.1	4.6	5.4	9.8	34.5		
B 33	Ulcer of stomach and duodenum (540,541)-----	5.5	1.6	0.0	0.1	0.3	0.9	3.4	8.6	16.8	24.6	34.6	38.3	
	Male----	6.9	2.2	0.1	0.1	0.4	1.5	5.7	14.3	28.7	40.7	55.8	57.8	
	Female----	2.1	0.9	0.0	0.0	0.2	0.2	1.3	2.9	4.9	9.5	16.5	24.7	
	White-----	5.6	1.4	0.0	0.1	0.2	0.8	3.2	8.3	18.8	25.2	35.4	41.0	
	Male----	9.1	1.9	0.1	0.1	0.3	1.4	5.4	14.1	28.6	42.1	57.3	61.4	
	Female----	2.1	0.8	0.0	0.0	0.1	0.2	1.1	2.6	4.9	9.6	15.9	28.8	
	Nonwhite-----	4.4	3.0	0.1	0.1	0.7	1.7	5.5	10.7	17.1	16.4	25.1	6.7	
	Male----	7.0	4.4	0.1	0.1	0.8	3.1	8.4	16.0	29.5	24.3	35.7	16.1	
	Female----	1.9	1.5	0	0	0.6	0.4	2.8	5.4	3.9	8.8	10.7	0	
	Appendicitis (550-553)-----	2.0	0.6	1.3	1.0	1.0	0.9	1.5	2.5	4.0	6.8	8.7	13.0	
	Male----	2.6	0.8	1.3	1.1	1.2	1.2	2.1	3.3	5.4	9.1	12.1	17.3	
	Female----	1.58	0.4	1.2	0.9	0.8	0.7	0.8	1.6	2.7	4.8	5.9	10.0	
White-----	1.9	0.5	1.3	0.9	0.9	0.8	1.2	2.1	3.8	6.8	6.8	13.5		
Male----	2.5	0.7	1.4	1.0	1.1	1.0	1.9	3.0	5.1	8.9	12.2	17.9		
Female----	1.4	0.4	1.2	0.9	0.7	0.5	0.6	1.3	2.8	4.9	6.0	10.5		
Nonwhite-----	3.0	1.0	1.6	2.0	2.1	3.6	5.6	6.6	7.1	7.4	7.4	6.7		
Male----	3.6	1.5	0.8	1.8	2.2	2.5	4.2	6.1	8.8	11.4	10.9	10.7		
Female----	2.4	0.5	1.1	1.3	1.9	1.9	3.1	5.1	4.1	3.0	3.9	3.8		
B 35	Hernia and intestinal obstruction (560,561,570)-----	5.9	30.5	1.0	0.3	0.4	1.0	2.1	5.4	10.9	24.2	56.1	111.3	
	Male----	6.2	36.4	1.3	0.4	0.5	0.8	2.0	5.1	12.2	26.6	62.8	127.1	
	Female----	5.6	24.4	0.6	0.2	0.4	1.1	2.3	5.7	9.6	21.9	54.0	100.3	
	White-----	5.7	29.0	0.8	0.3	0.3	0.7	1.7	4.5	9.9	24.1	58.6	117.6	
	Male----	5.9	34.4	1.1	0.3	0.3	0.5	1.6	4.2	10.9	28.2	63.0	133.8	
	Female----	5.5	23.3	0.5	0.2	0.3	0.8	1.8	4.7	8.9	22.1	54.9	108.4	
	Nonwhite-----	7.6	40.6	2.0	0.5	1.4	3.3	5.8	14.3	23.8	25.8	49.7	35.7	
	Male----	8.7	49.9	2.7	0.7	2.0	3.1	5.4	13.4	28.3	31.5	59.5	48.2	
	Female----	6.6	31.4	1.4	0.3	1.0	3.6	6.1	15.1	19.0	20.0	40.0	26.8	
	B 36	Gastritis, duodenitis, enteritis, and colitis, except diarrhoea of newborn (543,571,572)-----	5.1	119.1	5.3	0.4	0.6	0.7	1.0	2.1	3.9	8.7	20.5	49.4
		Male----	5.4	132.0	5.4	0.4	0.6	0.7	1.0	2.5	4.5	8.6	18.6	47.3
		Female----	4.7	105.7	5.2	0.4	0.6	0.7	1.0	1.7	3.4	8.8	22.0	50.9
White-----		4.4	96.7	4.4	0.3	0.6	0.7	0.9	1.9	3.6	8.6	20.1	50.0	
Male----		4.6	107.0	4.4	0.3	0.6	0.6	0.9	2.3	4.1	8.5	18.1	47.2	
Female----		4.2	85.9	4.4	0.4	0.6	0.7	0.6	1.4	3.1	8.7	21.7	51.9	
Nonwhite-----		10.7	270.3	12.0	0.7	0.5	1.1	2.1	4.3	6.0	10.3	26.6	42.4	
Male----		12.1	304.7	13.0	0.9	0.4	1.5	2.1	4.6	9.2	10.4	25.0	46.2	
Female----		9.3	258.1	10.9	0.5	0.5	0.8	2.1	4.0	6.8	10.3	27.3	38.3	
B 37		Cirrhosis of liver (581)-----	9.2	1.2	0.1	0.1	0.3	2.1	9.3	19.1	27.3	35.5	36.9	39.0
		Male----	12.1	1.4	0.1	0.1	0.2	2.1	11.7	25.6	38.3	47.7	45.9	43.9
		Female----	6.3	0.9	0.2	0.1	0.5	2.0	6.9	12.6	16.2	20.3	29.2	35.6
	White-----	9.5	1.1	0.1	0.1	0.3	1.9	9.3	19.3	27.6	34.4	37.8	41.2	
	Male----	12.6	1.3	0.1	0.1	0.2	2.0	11.9	26.3	38.8	49.8	47.2	47.2	
	Female----	6.5	0.9	0.2	0.1	0.5	1.8	6.7	12.4	16.4	21.0	29.9	36.9	
	Nonwhite-----	6.5	1.7	0.2	0.3	0.4	3.2	9.6	17.0	23.4	25.8	23.1	13.4	
	Male----	7.8	2.5	0.1	0.3	0.2	2.7	10.0	19.4	32.0	33.4	29.7	5.4	
	Female----	5.2	1.0	0.3	0.3	0.5	3.6	9.2	14.6	14.2	12.7	17.6	19.1	

See footnotes on p. 216.

Table 8.43. Death Rates for 64 Selected Causes, by Age, Race, and Sex:  
United States, 1950—Continued

(See headnote on p. 209)

Abbreviated list number <sup>1</sup>	CAUSE OF DEATH, RACE, AND SEX	Total <sup>2</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
B 38 pt.	Acute nephritis and nephritis with edema, including nephrosis (590,591)-----	2.3	2.0	1.5	0.7	0.9	1.0	1.7	2.4	4.0	7.2	15.0	31.2
	Male-----	2.6	2.2	1.7	0.8	1.2	1.2	1.9	3.2	4.6	7.5	16.5	40.5
	Female--	2.0	1.7	1.2	0.6	0.6	0.9	1.5	1.7	3.5	6.8	13.8	24.7
	White-----	2.0	1.6	1.4	0.8	0.8	1.1	1.3	1.8	3.3	6.3	14.2	30.8
	Male-----	2.3	1.8	1.5	0.8	1.1	1.0	1.4	2.4	3.9	6.6	15.5	39.9
	Female--	1.7	1.3	1.2	0.5	0.5	0.6	0.9	1.3	2.7	6.0	13.1	24.5
	Nonwhite-----	5.7	4.7	2.4	1.2	1.9	3.3	6.6	7.9	13.1	17.8	27.0	55.7
	Male-----	5.7	4.9	3.4	1.2	2.0	3.4	6.5	10.7	12.7	19.2	29.7	46.2
	Female--	4.6	4.4	1.4	1.2	1.9	3.3	6.7	5.1	13.5	16.3	24.4	26.8
	B 39	Hyperplasia of prostate (610)-----	4.2	0	0	0	0.0	0	0.1	0.4	4.7	22.9	79.3
Male-----		8.5	0	0	0	0.0	0	0.1	0.8	9.3	47.6	172.4	473.5
White-----		4.2	0	0	0	0.0	0	0.0	0.2	3.8	21.4	78.1	200.5
Male-----		8.4	0	0	0	0.0	0	0.1	0.5	7.6	44.4	170.8	489.1
Female--		4.5	0	0	0	0	0	0.3	2.1	15.9	41.7	96.9	120.6
Nonwhite-----		9.3	0	0	0	0	0	0.7	4.3	30.8	85.2	195.2	289.3
B 40	Deliveries and complications of pregnancy, childbirth, and the puerperium (640-689)-----	2.0	...	...	0.1	3.7	5.4	3.7	0.2	0.0	...	...	...
	Female--	3.9	...	...	0.1	7.4	10.6	7.4	0.3	0.0	...	...	...
	White-----	1.4	...	...	0.0	2.5	3.8	2.8	0.1	0.0	...	...	...
	Female--	2.8	...	...	0.0	5.0	7.5	5.6	0.2	0.0	...	...	...
	Nonwhite-----	6.9	...	...	0.4	12.9	19.3	11.5	0.5	0	...	...	...
	Female--	13.5	...	...	0.9	24.6	36.5	22.1	1.0	0	...	...	...
	Abortion (650-652)-----	0.2	...	...	0.0	0.5	0.6	0.3	0	0	...	...	...
	Female--	0.4	...	...	0.0	1.0	1.1	0.7	0	0	...	...	...
	White-----	0.1	...	...	0	0.3	0.4	0.3	0	0	...	...	...
	Female--	0.3	...	...	0	0.7	0.7	0.5	0	0	...	...	...
	Nonwhite-----	0.8	...	...	0.1	1.7	2.3	0.9	0	0	...	...	...
	Female--	1.5	...	...	0.2	3.2	4.3	1.7	0	0	...	...	...
	All other complications (640-649,660-689)-----	1.8	...	...	0.1	3.2	4.9	3.4	0.2	0.0	...	...	...
	Female--	3.5	...	...	0.1	6.4	9.5	6.7	0.3	0.0	...	...	...
White-----	1.2	...	...	0.0	2.2	3.5	2.6	0.1	0.0	...	...	...	
Female--	2.5	...	...	0.0	4.3	6.8	5.1	0.2	0.0	...	...	...	
Nonwhite-----	6.1	...	...	0.3	11.2	17.0	10.6	0.5	0	...	...	...	
Female--	12.0	...	...	0.7	21.3	32.2	20.5	1.0	0	...	...	...	
B 41	Congenital malformations (750-759)-----	12.2	447.2	11.1	2.4	1.8	1.9	2.2	2.6	2.5	2.0	2.0	1.9
	Male-----	13.4	477.4	11.6	2.6	2.0	2.1	2.5	2.7	2.9	2.3	2.1	2.5
	Female--	11.1	416.0	10.5	2.1	1.6	1.7	1.9	2.5	1.8	1.7	2.0	1.5
	White-----	12.3	463.9	11.2	2.4	1.8	1.9	2.2	2.6	2.4	2.0	2.1	1.9
	Male-----	13.5	493.5	11.6	2.6	2.0	2.1	2.5	2.8	2.9	2.3	2.1	2.3
	Female--	11.2	433.0	10.7	2.1	1.6	1.7	1.9	2.5	1.9	1.8	2.1	1.6
	Nonwhite-----	11.5	334.8	10.3	2.2	1.7	1.5	2.5	2.5	1.9	2.0	1.5	2.2
	Male-----	12.8	386.0	11.8	2.6	1.5	1.4	3.0	2.3	2.7	2.8	2.0	5.4
	Female--	10.2	303.8	8.8	1.9	2.0	1.7	1.9	2.7	1.1	1.2	1.0	0
	Certain diseases of early infancy (760-776)-----	40.5	1,937.3	0.1	0.0	0	0	0	0	0	0	0	0
	Male-----	47.8	2,234.0	0.2	0.0	0	0	0	0	0	0	0	0
	Female--	35.2	1,629.7	0.1	0.0	0	0	0	0	0	0	0	0
	White-----	36.6	1,802.1	0.2	0.0	0	0	0	0	0	0	0	0
	Male-----	43.7	2,094.2	0.2	0.0	0	0	0	0	0	0	0	0
Female--	29.6	1,497.3	0.1	0.0	0	0	0	0	0	0	0	0	
Nonwhite-----	73.5	2,849.6	0.1	0	0	0	0	0	0	0	0	0	
Male-----	84.1	3,200.3	0.1	0	0	0	0	0	0	0	0	0	
Female--	63.5	2,501.4	0	0	0	0	0	0	0	0	0	0	
B 42	Birth injuries, postnatal asphyxia, and atelectasis (760-762)-----	16.6	796.8	0.0	0	0	0	0	0	0	0	0	0
	Male-----	20.4	951.0	0.0	0	0	0	0	0	0	0	0	0
	Female--	13.0	636.9	0	0	0	0	0	0	0	0	0	0
	White-----	15.8	778.8	0.0	0	0	0	0	0	0	0	0	0
	Male-----	19.5	934.7	0.0	0	0	0	0	0	0	0	0	0
	Female--	12.2	615.1	0	0	0	0	0	0	0	0	0	0
	Nonwhite-----	23.7	918.2	0	0	0	0	0	0	0	0	0	0
	Male-----	28.0	1,063.8	0	0	0	0	0	0	0	0	0	0
	Female--	19.6	773.6	0	0	0	0	0	0	0	0	0	0
	B 43	Infections of newborn (763-769)-----	2.6	122.2	0	0	0	0	0	0	0	0	0
Male-----		2.9	137.8	0	0	0	0	0	0	0	0	0	0
Female--		2.2	106.1	0	0	0	0	0	0	0	0	0	0
White-----		2.1	101.3	0	0	0	0	0	0	0	0	0	0
Male-----		2.4	116.0	0	0	0	0	0	0	0	0	0	0
Female--		1.7	86.0	0	0	0	0	0	0	0	0	0	0
Nonwhite-----		6.8	263.2	0	0	0	0	0	0	0	0	0	0
Male-----		7.6	297.9	0	0	0	0	0	0	0	0	0	0
Female--		6.0	239.6	0	0	0	0	0	0	0	0	0	0
B 44		Other diseases peculiar to early infancy, and immaturity unqualified (769-776)-----	21.3	1,018.3	0.1	0.0	0	0	0	0	0	0	0
	Male-----	24.5	1,145.2	0.2	0.0	0	0	0	0	0	0	0	0
	Female--	18.1	886.7	0.1	0.0	0	0	0	0	0	0	0	0
	White-----	18.7	922.0	0.1	0.0	0	0	0	0	0	0	0	0
	Male-----	21.8	1,043.5	0.2	0.0	0	0	0	0	0	0	0	0
	Female--	15.7	788.2	0.1	0.0	0	0	0	0	0	0	0	0
	Nonwhite-----	43.0	1,668.3	0.1	0	0	0	0	0	0	0	0	0
	Male-----	48.6	1,848.6	0.1	0	0	0	0	0	0	0	0	0
	Female--	37.7	1,489.2	0	0	0	0	0	0	0	0	0	0

See footnotes on p. 215.

Table 8.43. Death Rates for 64 Selected Causes, by Age, Race, and Sex:  
United States, 1950—Continued

(See headnote on p. 209)

Abbreviated List number <sup>1</sup>	CAUSE OF DEATH, RACE, AND SEX	Total <sup>2</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
B 45	Symptoms, senility, and ill-defined conditions (780-795)---	14.9	115.5	3.9	0.6	1.6	2.5	4.9	10.4	17.5	41.9	130.7	721.1
	Male----	17.1	128.2	4.0	0.9	1.8	2.6	5.8	13.6	24.1	55.4	154.5	782.4
	Female--	12.8	102.4	3.7	0.7	1.4	2.4	4.0	7.1	10.8	29.3	110.5	678.4
	White-----	10.7	60.9	2.3	0.5	0.9	1.4	3.2	6.5	11.9	29.0	104.5	618.7
	Male----	12.5	67.5	2.6	0.6	1.1	1.7	4.1	9.3	17.5	40.7	122.0	663.3
	Female--	8.9	53.9	2.1	0.4	0.7	1.2	2.3	3.6	6.2	16.2	89.8	587.7
	Nonwhite-----	51.4	464.5	15.1	3.2	6.5	11.4	20.3	47.8	90.0	195.6	527.2	1,938.1
	Male----	57.9	547.7	14.8	3.4	6.9	10.6	21.4	54.8	106.6	229.3	607.5	2,174.6
	Female--	45.2	421.6	15.3	3.1	6.2	12.0	19.2	41.0	72.4	164.2	449.1	1,769.0
	B 46 pt.	All other diseases (Residual)-----	41.0	103.2	14.7	5.4	8.4	12.9	23.6	44.1	86.4	157.2	290.5
Male----		45.8	119.0	16.1	5.8	8.8	12.5	25.6	51.5	105.9	187.3	327.6	655.3
Female--		36.2	86.9	13.3	5.1	8.0	13.2	21.7	36.7	68.9	129.3	256.9	529.6
White-----		40.3	94.7	13.8	5.3	7.3	11.1	20.7	41.1	85.8	158.3	293.4	595.7
Male----		45.1	109.2	15.1	5.6	7.8	10.9	22.8	48.3	101.0	188.4	329.9	670.6
Female--		35.6	79.5	12.5	5.1	6.7	11.3	18.6	35.9	66.5	130.4	262.7	543.7
Nonwhite-----		46.8	161.0	21.2	6.3	16.6	26.2	49.6	75.2	121.2	144.4	246.9	408.6
Male----		52.2	186.7	22.9	7.1	16.4	26.9	50.6	82.1	139.9	175.5	297.5	476.8
Female--		41.7	155.5	19.4	5.5	16.8	29.4	48.6	64.3	101.4	116.4	197.2	359.9
Accidents (E80Q-E9E2)-----		60.6	114.2	36.8	22.7	54.8	45.7	45.7	53.0	71.2	115.9	315.7	972.6
Male----	84.7	128.4	42.6	31.5	92.4	77.6	75.0	85.9	107.4	154.4	319.7	822.5	
Female--	36.7	99.6	30.9	13.5	18.2	15.3	17.1	22.3	34.8	80.0	312.3	1,077.1	
White-----	59.3	97.6	33.4	21.5	54.4	43.4	42.6	50.2	68.7	115.9	323.7	1,018.4	
Male----	82.5	111.5	39.5	30.1	81.8	74.0	70.1	79.1	103.8	154.6	326.6	855.3	
Female--	36.3	83.1	27.0	12.5	17.6	14.0	15.7	21.5	35.5	79.9	321.2	1,131.7	
Nonwhite-----	71.2	226.5	61.7	31.1	57.9	65.5	72.4	80.3	105.9	115.2	194.3	426.7	
Male----	103.9	245.5	65.0	41.9	97.4	110.1	119.1	129.8	152.2	150.1	223.0	439.3	
Female--	39.9	207.6	59.3	20.4	22.1	25.8	29.0	30.9	52.5	81.7	166.0	421.2	
BE 47	Motor-vehicle accidents (E810-E9E5)-----	23.1	8.4	11.5	8.8	34.4	24.6	20.3	22.2	29.2	56.8	52.7	45.1
	Male----	35.4	9.1	13.0	11.9	56.7	40.8	32.5	33.6	45.3	58.6	95.0	78.1
	Female--	10.9	7.6	10.0	5.7	12.6	9.3	8.5	10.9	15.0	20.3	25.2	22.1
	White-----	22.9	8.5	11.7	8.9	35.3	23.8	19.4	21.2	28.5	59.3	53.2	45.7
	Male----	35.1	9.1	13.2	12.0	56.3	39.1	30.9	31.6	41.9	59.1	96.4	79.5
	Female--	10.9	7.8	10.1	5.6	12.6	9.0	6.1	10.8	15.0	20.9	25.4	22.3
	Nonwhite-----	24.2	7.9	10.6	8.6	27.4	32.1	28.5	31.8	38.6	32.9	44.3	39.0
	Male----	38.2	8.9	11.7	10.8	44.3	55.4	46.9	52.0	60.5	55.3	66.4	64.5
	Female--	10.8	6.9	9.4	6.4	12.1	11.4	11.5	11.1	15.3	13.3	22.6	19.1
	BE 48	All other accidents (E800-E802, E840-E9E2)-----	37.5	105.8	25.3	13.8	20.4	21.1	25.4	30.9	42.0	77.1	263.0
Male----		49.3	119.3	29.5	19.7	35.7	36.9	42.5	50.3	64.1	95.8	254.7	744.4
Female--		25.8	91.9	20.9	7.8	5.6	6.0	8.6	11.8	19.8	59.7	287.1	1,055.1
White-----		36.4	88.1	21.7	12.6	19.1	19.7	23.2	29.0	40.2	76.6	270.5	972.7
Male----		47.4	102.3	26.3	18.1	33.4	34.9	39.2	47.4	61.9	95.7	240.3	776.0
Female--		25.4	75.4	17.0	6.9	5.0	5.0	7.6	10.6	18.5	59.0	295.8	1,109.4
Nonwhite-----		47.0	219.6	51.1	22.5	30.5	33.4	43.8	49.8	65.3	82.3	150.0	380.8
Male----		65.7	256.6	55.3	31.0	55.1	54.7	72.3	77.8	91.7	96.8	156.6	375.0
Female--		29.1	200.8	46.9	14.0	10.0	14.4	17.5	19.8	37.3	68.3	143.5	402.0
BE 49		Suicide (E965, E970-E975)-----	11.4	0	0	0.2	4.5	9.1	14.3	20.9	27.0	25.3	31.1
	Male----	17.8	0	0	0.3	6.5	13.4	21.3	32.0	43.6	50.1	58.3	58.3
	Female--	5.1	0	0	0.1	2.6	4.9	7.5	9.9	10.0	10.0	8.1	8.2
	White-----	12.2	0	0	0.2	4.7	9.4	15.2	22.5	28.3	31.1	32.8	30.6
	Male----	19.0	0	0	0.3	6.6	13.8	22.4	34.1	45.9	53.2	61.8	61.9
	Female--	5.5	0	0	0.1	2.7	5.2	8.2	10.5	10.7	10.6	8.4	8.9
	Nonwhite-----	4.3	0	0	0.1	3.4	6.3	6.6	7.9	9.8	7.7	5.4	6.7
	Male----	7.0	0	0	0.1	5.3	10.1	11.3	11.7	17.6	13.6	7.8	16.1
	Female--	1.7	0	0	0.1	1.7	2.8	2.2	4.0	1.3	2.1	2.9	0
	BE 50 pt.	Homicide (E964, E980-E985)-----	5.3	4.4	0.6	0.5	6.3	9.9	8.8	6.1	4.0	3.2	2.6
Male----		8.1	4.5	0.5	0.6	9.6	15.5	13.8	9.9	6.5	5.3	4.0	2.5
Female--		2.4	4.2	0.7	0.5	3.1	4.5	3.8	2.3	1.4	1.3	1.4	2.1
White-----		2.6	4.1	0.5	0.4	2.5	3.6	4.3	3.5	2.8	2.6	2.2	1.9
Male----		3.9	4.3	0.4	0.4	3.7	5.4	6.4	5.5	4.4	4.1	3.5	1.8
Female--		1.4	3.9	0.6	0.4	1.3	1.9	2.2	1.6	1.3	1.1	1.2	1.9
Nonwhite-----		28.0	6.2	1.2	1.5	35.1	53.4	47.8	30.7	19.3	11.0	7.9	6.7
Male----		45.5	5.9	0.9	1.8	56.5	105.6	80.4	52.8	34.2	18.9	11.9	10.7
Female--		11.2	6.4	1.5	1.2	15.8	25.8	17.7	8.7	3.5	3.3	3.9	3.8
BE 50 pt.		Injury resulting from operations of war (E965, E990-E999)-----	0.0	0	0	0	0.0	0.1	0.0	0.0	0.1	0.0	0
	Male----	0.1	0	0	0	0.1	0.1	0.0	0.0	0.1	0.0	0	0
	Female--	0	0	0	0	0	0	0	0	0	0	0	0
	White-----	0.0	0	0	0	0.0	0.1	0.0	0.0	0.1	0.0	0	0
	Male----	0.1	0	0	0	0.1	0.1	0.0	0.0	0.1	0.1	0	0
	Female--	0	0	0	0	0	0	0	0	0	0	0	0
	Nonwhite-----	0.0	0	0	0	0.0	0.0	0.0	0	0.1	0	0	0
	Male----	0.1	0	0	0	0.1	0.1	0.1	0	0.2	0	0	0
	Female--	0	0	0	0	0	0	0	0	0	0	0	0

<sup>1</sup>See Abbreviated List of 50 Causes for Tabulation of Mortality, "Manual of International Statistical Classification of Diseases, Injuries, and Causes of Death," Volume 1, World Health Organization, Geneva, Switzerland, 1949.

<sup>2</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

NOTE.—The 64 selected cause list includes Cholera (043) and Plague (058). There were no deaths reported from Cholera, and 1 death from Plague was reported—a white male between 15 and 19 years of age (rate 0.0)—which is included in totals.

Table 8.44. Provisional Death Rates, Based on the Sixth Revision, for 64 Selected Causes of Death: United States, 1939-50

(Exclusive of fetal deaths. Rates per 100,000 population, estimated as of July 1 for 1939, 1941-49, and enumerated as of April 1 for 1940 and 1950. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

CAUSE OF DEATH	1950 (final)	1949 (final)	COMPARABLE DEATH RATES BASED ON THE SIXTH REVISION OF THE INTERNATIONAL LISTS (PROVISIONAL) <sup>1</sup>									
			1948	1947	1946	1945	1944	1943	1942	1941	1940	1939
			965.8	971.0	988.6	1,007.6	986.5	1,058.1	1,062.1	1,087.2	1,054.3	1,049.9
ALL CAUSES	965.8	971.0	988.6	1,007.6	986.5	1,058.1	1,062.1	1,087.2	1,054.3	1,049.9	1,076.4	1,060.4
Tuberculosis, all forms	22.5	26.3	28.8	32.1	34.9	38.3	39.5	40.7	41.3	42.7	44.0	45.2
Tuberculosis of respiratory system	20.6	24.2	26.5	29.7	32.1	35.4	36.6	37.4	37.9	39.1	40.4	41.3
Tuberculosis, other forms	1.9	2.1	2.3	2.4	2.7	3.0	2.9	3.3	3.4	3.6	3.6	3.9
Syphilis and its sequelae	5.0	5.8	5.9	6.6	6.9	7.9	8.4	9.0	9.1	9.9	10.8	11.2
Typhoid fever	0.1	0.1	0.1	0.2	0.2	0.4	0.4	0.5	0.5	0.8	1.0	1.5
Cholera	0	0	0	0	0	0	0	0	0	0	0	0
Dysentery, all forms	0.6	1.0	0.8	0.7	0.7	1.3	1.5	1.6	1.5	2.0	2.0	2.1
Scarlet fever and streptococcal sore throat	0.2	0.3	0.4	0.4	0.6	0.9	1.0	0.9	1.2	1.4	1.9	2.2
Diphtheria	0.3	0.4	0.4	0.6	0.9	1.2	0.9	0.9	1.0	1.0	1.1	1.5
Whooping cough	0.7	0.5	0.8	1.4	0.9	1.3	1.4	2.5	1.9	2.8	2.2	2.3
Meningococcal infections	0.6	0.6	0.6	0.6	0.9	1.3	2.1	2.2	0.7	0.5	0.5	0.7
Plague	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acute poliomyelitis	1.3	1.8	1.3	0.4	1.3	0.9	1.0	0.6	0.4	0.6	0.8	0.6
Smallpox	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Measles	0.3	0.6	0.6	0.3	0.9	0.2	1.4	0.9	0.9	1.6	0.5	0.9
Typhus and other rickettsial diseases	0.0	0.0	20.1	20.2	20.2	20.3	20.3	20.3	20.2	20.2	20.2	20.2
Malaria	0.1	0.1	20.1	20.1	20.2	20.3	20.4	20.5	20.6	20.9	21.1	21.3
All other infective and parasitic dis.	2.5	2.6	2.9	2.9	3.1	3.6	3.6	4.0	4.0	4.2	4.3	4.6
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	139.8	138.8	136.2	133.5	131.0	134.9	129.7	125.2	123.2	120.9	121.1	118.3
Malignant neoplasm of buccal cavity and pharynx	3.4	3.4	3.3	3.3	3.3	3.5	3.3	3.3	3.2	3.2	3.2	3.1
Malignant neoplasm of digestive organs and peritoneum	54.2	55.3	55.5	55.2	55.0	57.7	55.9	54.4	53.2	52.3	52.7	52.2
Malignant neoplasm of respiratory system	14.1	13.1	12.3	11.4	10.3	9.9	9.0	8.3	7.7	7.3	6.9	6.3
Malignant neoplasm of breast	12.6	12.5	12.3	11.8	11.7	12.1	11.5	11.3	11.2	10.9	11.0	10.6
Malignant neoplasm of genital organs	23.1	23.2	22.8	22.8	22.6	23.4	22.6	21.7	21.3	21.8	21.8	21.3
Malignant neoplasm of urinary organs	6.7	6.6	6.8	6.4	6.1	6.1	5.9	5.6	5.6	5.7	5.6	5.4
Malignant neoplasm of other and unspecified sites	14.7	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
Leukemia and leukemia	5.9	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues	5.2	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Benign neoplasms and neoplasms of unspecified nature	3.6	3.9	3.8	4.2	4.5	4.8	5.1	5.1	4.7	4.9	5.2	5.2
Diabetes mellitus	16.2	16.9	15.1	14.9	14.1	15.1	15.0	15.4	14.4	14.5	15.1	14.5
Anemia	2.7	3.0	2.9	3.1	3.2	3.9	3.9	4.3	3.9	3.7	3.8	3.8
Meningitis, except meningococcal and tuberculous	1.2	1.4	1.6	1.7	1.8	1.9	2.3	2.4	2.1	2.0	2.1	2.0
Major cardiovascular-renal diseases	510.8	502.1	506.1	507.2	490.0	519.8	508.7	516.6	492.9	475.7	481.7	459.0
Diseases of cardiovascular system	494.4	484.6	487.8	488.0	469.9	496.8	485.1	491.2	458.1	449.9	453.8	430.6
Vascular lesions affecting central nervous system	104.0	100.9	101.7	103.6	101.7	110.5	106.0	107.5	102.2	101.0	103.1	99.6
Rheumatic fever	1.3	1.5	1.7	1.9	2.1	2.7	3.0	3.0	3.0	3.3	3.5	3.5
Diseases of heart	335.5	348.8	350.7	348.7	332.7	347.5	341.1	344.3	319.6	314.2	316.7	298.2
Arteriosclerotic heart disease, including coronary disease	13.5	13.7	14.5	15.1	15.3	17.0	17.4	18.4	17.1	17.9	18.9	18.2
Nonrheumatic chronic endocarditis and other myocardial degeneration	421.422	56.5	61.5	336.2	333.6	317.4	330.5	323.7	325.9	302.5	296.2	297.8
Other diseases of heart	430-434	15.9	16.0									
Hypertension with heart disease	440-443	56.5	56.4									
Hypertension without mention of heart	444-447	8.3	8.2	8.7	8.7	8.5	8.2	8.6	8.9	8.3	7.7	6.8
General arteriosclerosis	450	20.4	20.5	20.1	20.2	20.3	22.4	22.0	23.2	20.8	19.7	19.4
Other diseases of circulatory system	451-466	4.9	4.7	5.0	4.8	4.5	4.5	4.3	4.3	4.2	4.1	3.9
Chronic and unspecified nephritis and other renal sclerosis	592-594	16.4	17.4	18.2	19.5	20.0	22.8	23.6	25.3	24.8	25.8	28.0
Influenza and pneumonia, except pneumonia of newborn	460-493	51.3	30.0	34.2	38.7	40.3	46.9	57.5	62.1	50.5	65.8	70.8
Influenza	460-463	4.4	5.1	4.3	6.7	7.9	9.6	16.3	16.1	10.2	19.8	19.2
Pneumonia, except pneumonia of newborn	490-493	26.9	26.9	29.8	32.0	32.4	37.2	41.1	46.0	40.3	46.0	50.3
Bronchitis	500-502	2.0	2.2	2.2	2.3	2.1	2.2	2.5	2.6	2.5	2.5	2.8
Ulcer of stomach and duodenum	540,541	5.5	5.3	5.1	5.1	5.0	5.8	5.6	5.9	5.9	5.7	5.8
Appendicitis	550-553	2.0	2.5	2.6	3.1	3.5	4.6	5.4	5.5	7.4	8.1	9.9
Hernia and intestinal obstruction	560,561,570	5.9	6.6	7.3	8.0	8.5	9.3	9.6	9.9	9.1	9.2	8.6
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	543,571,572	5.1	6.7	6.1	5.7	5.8	8.8	10.0	9.7	8.9	10.6	11.7
Cirrhosis of liver	581	9.2	9.2	9.2	8.5	7.8	7.7	7.1	7.6	7.7	7.3	7.0
Acute nephritis and nephritis with edema, including nephrosis	850,891	2.3	2.4	2.6	2.6	3.1	3.9	4.0	4.2	4.0	4.5	4.5
Hypertrophy of prostate	610	4.2	4.6	4.7	5.0	5.3	5.7	5.9	6.3	6.1	6.5	6.7
Deliveries and complications of pregnancy, childbirth, and the puerperium	640-689	2.0	2.2	2.6	3.2	3.3	3.9	4.4	4.9	4.9	5.4	6.1
Abortion	650-652	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.8	0.8	0.9	1.1
All other complications	640-649,660-689	1.8	1.9	2.3	2.8	2.9	3.3	3.7	4.1	4.1	4.5	5.0
Congenital malformations	750-759	12.2	12.7	12.8	13.8	12.4	11.9	12.2	12.2	11.6	10.2	9.7
Certain diseases of early infancy	760-776	40.5	43.2	44.4	48.0	48.5	40.4	41.9	43.6	43.6	42.3	41.0
Birth injuries, postnatal asphyxia, and atelectasis	760-762	16.6	17.2	17.4	18.9	17.8	15.3	15.8	16.5	16.6	15.9	15.4
Infections of newborn	763-788	2.6	3.0	2.9	3.5	3.2	3.3	3.4	3.5	3.3	3.1	3.0
Other diseases peculiar to early infancy, and immaturity unqualified	769-776	21.5	25.0	24.2	26.1	26.0	22.9	23.8	24.8	24.6	24.2	23.8
Symptoms, senility, and ill-defined conditions	780-795	14.9	15.8	18.6	19.1	19.6	21.7	22.1	22.2	22.2	22.2	23.6
All other diseases	Residual	41.0	43.8	47.1	50.0	52.7	61.7	65.2	71.1	71.4	74.4	84.0
Accidents	E800-E962	60.6	60.6	65.6	65.8	66.3	68.3	67.3	69.3	67.5	72.5	67.0
Motor-vehicle accidents	E810-E835	23.1	21.3	22.1	22.8	23.8	21.2	18.3	17.7	21.1	30.0	26.2
All other accidents	E800-E802, E840-E962	37.5	39.3	43.5	43.0	42.5	47.1	49.1	51.6	46.4	42.5	40.8
Suicide	E963, E970-E979	11.4	11.4	11.2	11.6	11.6	11.2	10.0	10.2	12.1	12.9	14.4
Homicide	E964-E969, E985	3.3	3.4	3.9	6.1	6.4	5.7	5.0	5.1	5.9	6.1	6.3
Injury resulting from operations of war	E965, E990-E999	0.0	0.0	0	0	0.0	0.1	0.0	0.0	0.0	0	0.0

<sup>1</sup>Based on estimated deaths computed by applying the provisional comparability ratio (table 2.02) to deaths coded by the Fifth Revision.  
<sup>2</sup>Based on deaths coded by the Fifth Revision. No comparability ratio available.  
<sup>3</sup>Based on estimated deaths under 1 year derived from detailed tabulations by cause, and comparability ratios computed for deaths under 1 year of age. Subdivisions of certain diseases of early infancy do not add to total.  
<sup>4</sup>Computed from the difference between total deaths and sum of estimated deaths for specified causes.  
 NOTE.—For 1940-50, deaths exclude those among armed forces overseas; also, population bases exclude armed forces overseas.

Table 8.45. Death Rates for 32 Selected Causes, by Race

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated)

RACE, SEX, AND YEAR	Total	Tuber- culosis, all forms	Syph- illis and its seque- lae <sup>1</sup>	Ty- phoid fever <sup>2</sup>	Dysen- tery, all forms	Diph- theria	Whoop- ing cough	Menin- gococ- cal infec- tions	Acute polio- mye- litis	Meas- les	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemo- poietic tissues	Dia- betes mel- litus	Menin- gitis, except menin- gococ- cal and tuber- culous	Major cardio- vascular diseases	Diseases of cardio- vascular system	CATEGORY NUMBERS: SIXTH REVISION										
																	001- 019	020- 029	040	045- 049	055	056	057	060	065	030-039, 041-044, 049-054, 058-074, 081-084, 086-139	140-205
1 1960-----	965.8	22.5	5.0	0.1	0.6	0.3	0.7	0.6	1.3	0.3	2.8	139.8	16.2	1.2	510.8	484.4											
2 1949-----	971.0	26.3	5.8	0.1	1.0	0.4	0.5	0.6	1.8	0.6	3.1	158.8	16.9	1.4	502.1	484.6											
CATEGORY NUMBERS: FIFTH REVISION																											
		13-22	30	1	27	10	9	8	36	35	2-5, 7, 8, 11, 12, 23-26, 28, 29, 31, 32, 34, 37-44, 115b, 177	45-55	61	61	59, 83, 90-103, 131, 132	58, 63, 90-105											
3 1949 <sup>10</sup> -----	971.0	27.4	7.7	...	0.9	0.4	0.5	0.6	1.9	0.7	4.0	137.2	26.7	1.2	483.2	433.9											
4 1948-----	986.6	30.0	8.0	0.1	0.7	0.4	0.8	0.6	1.3	0.6	4.4	134.9	26.4	1.3	488.0	436.5											
5 1947-----	1,007.6	33.5	8.8	0.2	0.6	0.6	1.4	0.6	0.4	0.3	4.6	132.3	26.2	1.4	481.0	436.5											
6 1946-----	996.5	36.4	9.3	0.2	0.7	0.9	0.9	0.9	1.3	0.9	5.2	130.0	24.8	1.4	476.8	420.2											
7 1945-----	1,058.1	39.9	10.6	0.4	1.2	1.2	1.3	1.3	0.9	0.2	6.3	134.0	26.5	1.5	508.2	443.8											
8 1944-----	1,062.1	41.2	11.2	0.4	1.4	0.9	1.4	2.1	1.0	1.4	6.6	128.8	26.3	1.9	500.5	433.7											
9 1943-----	1,087.2	42.5	12.1	0.5	1.4	0.9	2.5	2.2	0.9	1.0	7.2	124.3	27.1	1.9	510.8	439.2											
10 1942-----	1,034.3	43.1	12.2	0.5	1.4	1.0	1.9	0.7	0.4	1.0	7.4	122.0	25.4	1.7	479.5	408.4											
11 1941-----	1,049.9	44.5	13.3	0.8	1.8	1.0	2.8	0.5	0.6	1.7	8.0	120.1	25.4	1.6	475.3	402.5											
12 1940-----	1,076.4	45.9	14.4	1.0	1.9	1.1	2.2	0.5	0.8	0.5	8.8	120.3	26.6	1.7	485.7	406.6											
13 1939-----	1,060.4	47.1	15.0	1.5	1.9	1.5	2.3	0.7	0.6	0.9	9.8	117.5	25.5	1.6	466.3	386.0											
14 1938-----	1,064.0	49.1	15.9	1.8	2.3	2.0	3.7	0.8	0.4	2.5	---	114.9	23.9	1.9	451.8	377.1											
15 1937-----	1,125.9	53.8	18.1	2.1	2.3	2.0	3.9	1.7	1.1	1.2	---	112.4	23.7	2.1	454.6	377.9											
16 1936-----	1,155.2	55.9	18.2	2.4	2.4	2.4	2.1	2.4	0.6	1.0	---	111.4	23.7	2.3	461.1	380.9											
17 1935-----	1,094.5	55.1	15.4	2.7	1.9	3.1	3.7	2.1	0.8	3.1	---	108.2	22.3	2.2	431.2	353.4											
18 1934-----	1,105.4	56.7	15.9	3.3	2.7	3.3	5.9	1.0	0.7	5.5	---	106.4	22.2	1.9	430.0	349.2											
19 1933-----	1,066.7	59.6	15.1	3.5	2.2	3.9	3.6	1.2	0.6	2.2	---	102.3	21.4	1.9	413.6	334.3											
20 1932-----	1,087.7	62.5	15.4	3.6	1.7	4.4	4.5	1.4	0.7	1.6	---	102.3	22.0	2.0	418.2	334.4											
21 1931-----	1,106.5	67.8	15.4	4.4	2.0	4.8	3.9	2.4	1.8	3.0	---	99.0	20.4	2.3	407.1	323.5											
22 1930-----	1,132.1	71.1	15.7	4.7	2.6	4.9	4.8	3.6	1.2	3.2	---	97.4	19.1	2.6	414.4	327.8											
23 1929-----	1,187.8	75.3	15.6	4.1	2.4	6.5	6.2	4.5	0.7	2.5	---	95.8	18.8	3.1	418.9	332.4											
24 1928-----	1,196.6	78.3	16.4	4.8	2.8	7.2	5.4	2.6	1.2	5.2	---	95.7	19.0	2.8	419.1	328.9											
25 1927-----	1,131.5	79.6	16.4	5.3	2.4	7.7	6.8	1.6	1.8	4.1	---	95.2	17.4	2.8	398.3	311.3											
26 1926-----	1,211.0	85.5	17.1	6.3	2.7	7.4	8.8	1.3	0.8	6.3	---	94.6	17.9	3.0	410.6	318.3											
27 1925-----	1,166.1	84.8	17.3	7.8	3.1	7.8	6.7	1.0	1.5	2.3	---	92.0	16.8	3.3	391.5	301.8											
28 1924-----	1,159.0	87.9	17.8	6.5	2.9	9.3	8.1	0.9	1.1	8.2	---	90.4	16.4	3.3	383.4	301.5											
29 1923-----	1,213.0	91.7	17.9	6.6	3.1	12.0	9.6	1.0	0.9	10.7	---	88.4	17.7	3.7	380.8	297.9											
30 1922-----	1,169.3	93.5	18.0	7.3	2.9	14.6	5.3	0.9	0.8	4.3	---	86.2	18.3	3.6	366.8	284.9											
31 1921-----	1,149.8	97.6	17.5	8.8	3.9	17.7	9.1	1.4	1.8	4.2	---	85.5	16.7	4.1	351.2	273.1											
32 1920-----	1,296.9	113.1	16.5	7.6	4.0	15.3	12.5	1.6	0.8	6.6	---	83.4	16.1	4.4	364.9	282.5											
33 1919-----	1,289.4	125.6	16.2	9.2	4.3	14.9	5.8	1.8	0.8	3.9	---	81.0	15.0	4.8	346.8	266.8											
34 1918-----	1,810.0	149.8	16.7	12.3	5.6	14.0	17.0	3.4	1.2	10.8	---	80.8	16.1	6.5	367.0	296.8											
35 1917-----	1,397.1	143.5	19.1	13.3	5.9	15.6	10.5	3.8	1.4	14.1	---	80.8	16.9	5.1	396.4	293.4											
36 1916-----	1,381.1	138.4	18.6	13.2	4.9	13.9	10.5	2.1	10.5	11.4	---	81.0	16.9	4.9	369.4	294.3											
37 1915-----	1,317.6	140.1	17.7	11.8	3.4	15.2	6.2	1.4	1.0	5.2	---	80.7	17.6	6.0	363.5	290.5											
38 1914-----	1,330.2	141.7	16.7	14.7	4.3	17.2	10.2	1.7	1.1	6.8	---	78.7	16.2	7.1	374.5	283.8											
39 1913-----	1,390.6	143.5	16.2	17.5	4.8	19.1	10.1	1.5	1.4	12.8	---	78.5	15.4	8.5	370.6	280.8											
40 1912-----	1,359.7	145.4	15.1	16.1	3.9	17.6	9.2	2.0	2.0	7.2	---	77.0	15.1	8.9	375.7	286.0											
41 1911-----	1,390.5	153.1	15.3	20.1	4.7	19.4	11.0	0.8	1.8	9.9	---	74.2	15.1	11.2	366.5	281.9											
42 1910-----	1,466.0	153.8	13.5	22.5	6.0	21.1	11.6	0.3	2.9	12.4	---	76.2	15.3	13.5	371.9	287.2											
43 1909-----	1,424.7	156.3	12.9	20.2	5.4	19.9	10.0	0.3	---	10.0	---	74.0	14.1	15.0	362.0	279.1											
44 1908-----	1,468.2	162.1	12.4	23.4	6.1	21.9	10.7	---	---	10.6	---	71.5	13.8	---	356.7	275.6											
45 1907-----	1,592.5	174.2	12.4	28.2	6.1	24.2	11.3	---	---	9.6	---	71.4	14.2	---	369.8	299.2											
46 1906-----	1,571.8	175.6	14.1	30.9	8.0	26.3	16.1	---	---	12.9	---	69.3	13.4	---	364.3	278.0											
47 1905-----	1,588.9	179.9	13.8	22.4	6.3	23.5	8.9	---	---	7.4	---	73.4	14.1	---	384.0	293.3											
48 1904-----	1,640.0	169.1	13.9	23.9	6.1	29.3	5.8	---	---	11.3	---	71.5	14.2	---	388.8	297.0											
49 1903-----	1,562.8	177.2	13.2	24.6	7.3	31.1	14.3	---	---	8.8	---	70.0	12.7	---	364.4	278.3											
50 1902-----	1,546.1	174.2	12.9	26.4	10.1	29.8	12.4	---	---	9.3	---	66.3	11.7	---	349.8	269.2											
51 1901-----	1,641.5	169.9	12.5	27.6	11.1	33.5	8.7	---	---	7.4	---	66.4	11.6	---	347.7	266.4											
52 1900-----	1,719.4	194.4	12.0	31.3	12.0	40.3	12.2	---	---	13.3	---	64.0	11.0	---	345.2	264.3											

<sup>1</sup>Excludes aneurysms of the aorta for 1900-1920.

<sup>2</sup>Excludes paratyphoid fever for 1900-1920.

<sup>3</sup>Excludes all embolisms and thromboses, except puerperal for 1900-1920.

<sup>4</sup>Excludes diseases of coronary arteries for 1900-1929.

<sup>5</sup>Excludes capillary bronchitis for 1900-1920.

and Sex: Death-Registration States, 1900-1950

as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

Vascular lesions of central nervous system <sup>3</sup>	Rheumatic fever	Dis-eases of heart <sup>4</sup>	Hypertension without mention of heart and general arterio-sclerosis	Other dis-eases of circulatory system	Chronic and un-spec-ified nephritis and other renal scler-osis	Influenza and pneu-monia, except pneu-monia of newborn <sup>5</sup>	Ulcer of stom-ach and duo-denum <sup>6</sup>	Gastritis, duo-dentitis, and colitis, except diarrhoea of newborn <sup>7</sup>	Cir-rhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and compli-cations of pregnancy, childbirth, and the puerperium	Con-genital mal-form-ations	Symptoms, senility, and ill-defined conditions	Motor-vehicle acci-dents <sup>8</sup>	All other acci-dents <sup>9</sup>	Suicide	Homi-cide	All other causes
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OF THE INTERNATIONAL LISTS, 1948

330-334	400-402	410-443	444-450	451-458	592-594	480-495	540, 541	543, 571, 572	581	590, 591	640-689	750-759	780-795	E810-E835	E800-E802, E840-E862	E863, E870-E879	E864, E880-E885	Resid-ual	
104.0 100.9	1.3 1.5	355.5 348.8	28.7 28.7	4.9 4.7	16.4 17.4	31.3 30.0	5.5 5.3	5.1 6.7	9.2 9.2	2.3 2.4	2.0 2.2	12.2 12.7	14.9 15.8	23.1 21.5	37.5 39.3	11.4 11.4	5.3 5.4	101.9 109.9	1 2

OF THE INTERNATIONAL LIST, 1938

85	88	90-95	97,102	96,98-101,103	131,132	53,107-109	117	119,120	124	130	140-150	157	162, 199, 200	170	169, 171-176, 178-195	163,164	165-169, 198	All other dis-eases	
89.9 89.7 91.4 89.7 97.5	0.6 0.6 0.7 0.8 1.0	320.9 322.7 321.1 306.5 320.3	19.1 18.9 19.0 19.1 21.0	4.3 4.6 4.4 4.1 4.0	49.3 51.5 54.5 56.6 64.3	34.2 38.7 45.1 44.5 51.6	6.1 6.0 6.0 5.8 6.8	6.6 6.0 5.6 5.8 8.7	11.3 11.3 10.4 9.6 9.5	1.4 1.5 1.5 1.7 2.2	2.4 2.8 3.5 3.7 4.3	15.0 15.2 14.2 12.7 12.2	15.9 18.7 19.2 19.7 21.9	21.3 22.1 22.8 23.9 21.2	42.4 44.8 46.4 45.9 50.9	11.4 11.2 11.5 11.5 11.2	5.4 5.9 8.1 8.4 5.7	104.2 109.0 115.4 115.7 118.5	3 4 5 6 7
85.5 94.8 90.1 89.1 90.9	1.1 1.1 1.1 1.2 1.3	314.6 317.6 294.9 290.1 292.5	20.6 21.6 19.4 18.4 18.3	3.9 3.9 3.8 3.7 3.5	66.8 71.6 70.1 72.8 79.0	61.6 67.1 55.7 63.8 70.3	6.6 7.0 6.9 8.7 6.8	9.9 9.6 8.8 10.5 10.3	8.3 8.3 9.4 8.9 8.6	2.2 2.3 2.3 2.3 2.5	4.8 5.4 5.4 6.0 6.7	12.6 12.5 11.8 10.5 10.0	22.2 23.2 22.3 22.3 23.7	18.3 17.7 21.1 30.0 26.2	53.0 55.7 50.1 45.9 47.0	10.0 10.2 12.0 12.8 14.4	5.0 5.9 6.9 5.9 6.3	122.4 127.0 124.4 126.6 132.2	8 9 10 11 12
87.8 85.9 86.7 91.0 85.7	1.3 1.6 1.5 1.7 1.8	275.5 269.7 268.9 266.6 245.4	17.9 17.1 17.3 18.7 17.5	3.3 2.8 2.8 3.0 2.9	80.4 74.7 76.7 80.2 77.8	75.7 80.4 114.9 119.6 104.2	6.8 6.5 6.8 6.7 6.6	11.6 14.3 14.7 16.4 14.1	8.3 8.3 8.5 8.3 7.9	2.5 2.8 3.1 3.2 3.5	7.0 7.7 8.4 9.5 9.9	9.5 9.3 9.2 9.2 9.3	22.3 22.3 23.7 25.4 24.0	24.7 25.1 30.8 29.7 28.6	45.6 46.7 50.4 53.7 49.3	14.1 15.3 15.0 14.3 14.3	6.5 6.5 8.1 8.1 6.5	133.4 147.6 153.7 165.0 162.6	13 14 15 16 17
85.5 94.0 87.5 86.8 89.0	1.8 2.1 2.2 2.2 2.5	240.3 226.0 224.1 213.4 214.2	18.5 17.3 17.6 18.1 19.0	3.0 2.9 3.0 3.0 3.1	80.8 79.3 85.8 85.6 86.7	86.9 85.7 107.3 107.5 102.5	6.1 6.1 6.0 6.1 6.2	18.4 17.3 16.1 20.5 26.0	7.4 7.4 7.2 3.8 7.2	3.6 3.8 3.6 3.8 4.3	10.2 10.3 11.0 11.9 12.7	10.0 9.6 10.3 11.9 11.2	25.2 26.6 25.8 27.1 30.4	28.6 25.0 23.8 27.1 26.7	50.8 46.9 47.2 50.7 53.1	14.9 15.9 17.4 16.8 15.6	9.7 9.8 9.1 9.3 8.9	168.1 165.4 168.9 173.1 181.7	18 19 20 21 22
90.8 92.0 88.1 91.3 89.5	2.5 2.5 2.6 2.7 2.7	211.2 207.7 195.3 198.6 184.8	27.9 26.7 25.4 25.7 24.9	27.9 26.7 25.4 25.7 24.9	86.5 90.1 87.0 92.3 89.7	146.5 142.5 102.2 141.7 121.7	6.4 6.4 6.3 6.0 5.9	23.3 28.4 27.1 32.9 38.6	7.2 7.5 7.4 7.2 7.2	4.6 4.8 4.7 5.0 5.4	13.1 13.6 13.5 14.1 14.5	11.4 11.8 12.5 13.3 13.7	51.0 51.6 27.6 18.9 28.8	25.5 23.2 23.6 18.9 16.8	54.2 54.9 55.5 57.3 59.7	13.9 13.5 13.2 12.6 12.0	8.4 8.7 8.5 8.5 6.4	187.9 193.2 192.2 193.4 199.6	23 24 25 26 27
97.2 95.7 92.1 89.2 93.0	3.3 3.0 3.2 3.7 3.8	175.7 174.0 165.0 156.2 159.6	25.4 25.2 24.7 24.1 26.2	25.4 25.2 24.7 24.1 26.2	81.9 83.0 81.7 78.0 82.4	115.2 151.7 132.3 98.7 207.3	5.2 5.2 5.0 4.8 3.6	33.7 39.1 38.9 50.7 53.7	7.3 7.1 7.4 7.3 7.1	5.9 6.0 6.0 6.3 6.3	15.1 15.3 15.4 16.6 19.0	14.0 14.3 14.4 15.5 15.2	29.4 30.1 30.2 27.9 31.8	15.3 14.6 12.4 11.3 10.3	56.5 59.7 55.9 55.5 59.7	11.9 11.5 11.7 12.4 10.2	8.2 7.9 8.1 8.1 6.8	202.8 202.8 206.2 215.2 218.8	28 29 30 31 32
89.9 94.0 96.9 94.7 94.5	3.4 3.9 4.5 4.5 4.8	147.9 171.6 169.9 167.2 163.9	25.5 27.3 29.0 27.9 27.3	25.5 27.3 29.0 27.9 27.3	81.8 90.2 97.0 95.1 95.0	223.0 598.5 164.5 163.3 145.9	3.5 3.9 4.3 4.4 4.2	55.2 72.2 75.2 75.5 87.5	7.9 9.6 10.9 11.8 12.1	6.4 7.2 7.8 8.0 8.5	16.9 22.3 16.4 15.9 14.7	14.5 15.0 15.7 15.9 14.9	32.7 34.0 34.2 32.9 29.0	9.3 9.3 8.6 7.1 5.8	61.8 72.2 77.4 74.5 67.7	11.5 12.3 13.0 13.7 16.2	6.2 6.5 6.9 6.3 5.9	245.4 232.9 235.8 235.9 233.3	33 34 35 36 37
95.6 91.1 91.9 91.8 95.8	5.3 5.7 5.3 5.9 6.2	158.2 154.6 158.7 156.4 158.9	26.8 29.4 30.2 27.9 26.4	26.8 29.4 30.2 27.9 26.4	90.7 89.8 89.6 84.7 84.6	132.4 140.8 138.4 145.4 155.9	4.0 3.8 3.8 3.5 4.0	75.1 86.7 79.6 86.8 115.4	12.5 12.9 13.1 13.6 13.3	8.5 8.9 10.0 8.6 10.2	15.3 15.4 14.4 14.5 15.3	15.7 14.9 14.6 14.5 15.2	51.3 35.9 34.8 35.1 47.5	4.2 3.8 2.8 2.1 1.8	72.5 79.8 78.0 81.5 82.4	16.1 15.4 15.6 16.0 15.3	6.2 6.1 5.4 5.5 4.8	245.4 256.1 254.1 257.1 263.8	38 39 40 41 42
95.5 95.6 104.5 98.6 105.9	4.9 5.3 5.5 5.6 5.8	153.0 152.0 166.6 154.2 161.9	25.8 22.8 22.6 19.6 19.7	25.8 22.8 22.6 19.6 19.7	82.9 81.1 90.5 86.2 90.6	148.1 150.9 190.0 156.3 169.3	3.4 3.2 3.2 3.3 3.0	101.8 112.5 115.0 123.6 118.4	13.4 13.5 14.8 14.1 14.0	9.6 9.9 10.3 9.7 10.6	15.1 15.6 15.6 15.2 14.8	15.7 15.7 16.1 16.0 14.0	50.3 56.0 64.0 71.3 75.5	1.2 0.8 0.7 0.4 ---	77.5 82.1 84.1 84.0 81.3	16.0 16.8 14.5 12.8 13.5	4.2 4.8 4.9 3.9 3.9	268.4 295.2 317.6 320.4 336.6	43 44 45 46 47
108.6 105.2 103.9 106.3 106.9	6.4 4.7 4.3 4.9 5.3	183.7 151.8 145.4 140.0 137.4	18.3 18.5 15.5 14.6 14.7	18.3 18.5 15.5 14.6 14.7	91.8 86.1 80.7 81.3 81.0	192.1 189.3 181.3 197.2 202.2	3.0 2.7 3.0 2.8 2.7	111.5 100.3 104.9 116.5 142.7	13.9 13.5 13.0 13.1 12.5	10.7 10.1 8.8 8.6 7.7	15.1 13.3 12.8 13.4 13.4	14.0 12.9 11.9 12.0 12.0	79.8 82.3 91.6 100.3 117.5	---	85.4 81.4 78.5 83.8 72.3	12.2 11.3 10.3 10.4 10.2	1.3 1.1 1.2 1.2 1.2	346.1 341.0 332.7 364.0 388.9	48 49 50 51 52

<sup>3</sup>Excludes ulcer of duodenum for 1900-1920.

<sup>4</sup>Excludes ulcer of duodenum for 1900-1920.

<sup>5</sup>Excludes automobile collisions with trains and streetcars, and motorcycle accidents for 1906-25.

<sup>6</sup>Excludes legal executions for 1900-1921, and food poisoning for 1900-1908.

<sup>7</sup>Estimated by dividing the number of deaths according to the Sixth Revision by the comparability ratio. See table 2.02 in chapter 2.

SUMMARY TABLES

Table 8.45. Death Rates for 32 Selected Causes, by Race

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated)

RACE, SEX, AND YEAR		Total	Tuber- culosis, all forms	Syph- illis and its seque- lae <sup>1</sup>	Ty- phoid fever <sup>2</sup>	Dysen- tery, all forms	Diph- ther- ia	Whoop- ing cough	Menin- gococ- cal infec- tions	Acute polio- mye- litis	Mea- sles	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemo- poietic tissues	Dia- betes mel- litus	Menin- gitis, except menin- gococ- cal and tuber- culous	Major cardio- vascular diseases	Diseases of cardio- vascular system
		CATEGORY NUMBERS: SIXTH REVISION															
			001- 019	020- 029	040	045- 048	055	056	057	060	065	050-039, 041-044, 049-054, 058-074, 081-084, 086-139	140-205	260	340	330-334, 400-468, 592-594	330-334, 400-468
ALL RACES, MALE																	
1	1950	1,106.1	30.1	7.4	0.1	0.7	0.3	0.7	0.7	1.5	0.3	5.2	142.9	12.5	1.5	580.0	562.5
2	1949	1,112.6	34.6	8.5	0.1	1.1	0.4	0.5	0.7	2.3	0.6	5.5	140.9	12.8	1.7	589.5	551.0
		CATEGORY NUMBERS: FIFTH REVISION															
			15-22	30	1	27	10	9	6	36	35	2-5, 7, 8, 11, 12, 23-26, 28, 29, 31, 32, 34, 37-44, 115b, 177	45-55	61	81	58, 85, 90-105, 131, 132	59, 83, 90-105
3	1948	1,130.9	39.3	11.7	0.2	0.8	0.5	0.7	0.7	1.6	0.6	5.3	134.9	19.8	1.5	556.7	501.3
4	1947	1,148.1	42.9	15.0	0.2	0.7	0.6	1.3	0.7	0.5	0.3	5.5	151.3	19.5	1.7	556.9	496.3
5	1946	1,133.7	46.0	13.8	0.3	0.8	1.0	0.8	1.1	1.6	0.9	6.3	128.1	18.3	1.7	538.9	478.0
6	1945	1,258.1	52.6	16.6	0.5	1.4	1.4	1.3	1.7	1.1	0.3	7.8	157.0	20.6	2.0	602.7	530.0
7	1944	1,236.1	52.8	17.1	0.5	1.5	1.0	1.4	2.7	1.3	1.4	7.9	129.6	20.1	2.4	580.4	506.4
8	1943	1,237.5	52.7	16.2	0.5	1.6	1.0	2.4	2.9	1.1	1.0	8.2	120.1	20.4	2.4	576.9	499.1
9	1942	1,170.9	52.2	17.8	0.6	1.6	1.1	1.8	1.0	0.5	1.0	9.5	116.9	19.2	2.1	539.5	464.1
10	1941	1,178.0	52.5	19.3	0.9	1.9	1.0	2.7	0.6	0.7	1.7	9.0	114.6	19.8	2.0	530.9	452.8
11	1940	1,197.4	54.2	20.8	1.2	2.1	1.2	2.1	0.7	1.0	0.6	9.8	114.1	20.0	2.1	538.8	452.9
12	1939	1,168.2	54.0	21.4	1.7	2.0	1.6	2.2	0.9	0.7	0.9	10.8	110.0	19.1	2.0	510.4	425.7
13	1938	1,170.8	56.0	22.4	2.1	2.4	2.1	3.4	0.9	0.4	2.6	---	106.9	17.8	2.3	493.6	414.8
14	1937	1,246.8	61.3	22.9	2.4	2.3	2.2	3.6	2.2	1.3	1.2	---	103.8	18.0	2.5	497.7	416.2
15	1936	1,273.0	63.4	23.0	2.8	2.6	2.5	2.0	3.1	1.7	1.0	---	101.6	18.3	2.8	502.1	416.9
16	1935	1,202.1	62.1	21.8	3.0	2.0	3.2	3.5	2.8	1.0	3.2	---	98.1	17.2	2.6	466.6	385.9
17	1934	1,211.6	63.1	22.5	3.7	2.8	3.4	5.5	1.3	0.8	5.6	---	96.6	17.2	2.2	466.1	380.7
18	1933	1,162.8	65.4	21.2	4.0	2.4	4.0	3.1	1.5	0.7	2.3	---	92.4	17.0	2.3	445.8	362.1
19	1932	1,172.9	68.0	21.7	4.2	1.8	4.4	4.0	1.7	0.8	1.7	---	91.4	17.3	2.2	446.2	358.5
20	1931	1,201.5	73.5	21.6	4.9	2.1	4.8	3.5	3.0	2.1	3.1	---	87.9	16.1	2.7	436.1	347.9
21	1930	1,225.3	76.2	21.9	5.3	2.8	5.1	4.4	4.5	1.4	3.3	---	86.5	15.0	3.0	441.8	349.9
22	1929	1,276.9	79.3	22.0	4.5	2.4	6.8	5.6	5.7	0.8	2.7	---	84.5	15.1	3.7	445.1	355.6
23	1928	1,263.4	82.5	22.9	5.4	2.8	7.2	4.8	3.3	1.3	5.2	---	84.1	15.2	3.3	442.6	347.3
24	1927	1,209.4	82.9	23.3	5.9	2.4	7.8	6.4	1.9	2.0	4.1	---	82.5	14.0	3.1	418.8	327.6
25	1926	1,265.7	89.1	24.2	6.9	2.7	7.6	8.0	1.6	0.9	8.5	---	82.7	14.7	3.5	428.9	332.5
26	1925	1,239.4	88.0	24.4	8.4	3.1	8.0	6.2	1.2	1.6	2.4	---	79.6	13.8	3.7	407.0	313.5
27	1924	1,230.4	91.5	25.2	7.1	2.9	9.4	7.4	1.0	1.2	8.3	---	78.0	13.5	3.7	397.5	311.8
28	1923	1,274.5	95.4	25.2	7.4	5.2	12.0	8.8	1.2	1.0	11.0	---	76.3	15.3	4.2	391.3	304.9
29	1922	1,226.3	99.5	25.0	8.2	2.9	14.7	5.1	1.1	0.9	4.6	---	75.8	15.9	4.2	374.3	289.0
30	1921	1,194.7	101.1	24.6	9.6	3.9	17.9	8.2	1.7	2.0	4.4	---	71.7	14.5	4.5	352.5	272.4
31	1920	1,538.1	116.6	23.1	8.4	4.0	15.8	11.3	1.8	1.0	8.9	---	69.6	14.4	4.8	366.7	280.3
32	1919	1,545.8	134.2	22.3	10.0	4.4	15.2	5.1	2.2	0.9	4.0	---	66.7	13.4	5.3	354.4	267.3
33	1918	1,990.5	167.7	26.3	13.8	5.8	14.8	15.3	4.4	1.3	11.8	---	66.0	15.0	7.6	404.7	305.0
34	1917	1,504.6	159.7	26.3	15.2	5.8	15.9	9.6	4.8	1.4	14.5	---	65.3	15.4	5.9	415.9	309.7
35	1916	1,475.4	152.9	25.5	15.1	4.9	13.7	9.4	2.4	11.8	11.6	---	64.8	15.0	5.5	406.9	302.7
36	1915	1,399.6	155.9	24.0	13.9	5.2	15.1	7.4	1.6	1.1	5.4	---	64.9	15.5	6.5	396.4	297.1
37	1914	1,419.0	158.5	22.5	17.1	4.2	17.2	8.0	1.9	1.2	6.7	---	62.3	14.6	7.7	381.0	291.9
38	1913	1,476.0	158.7	21.9	20.1	4.6	18.5	8.8	1.7	1.5	12.8	---	61.4	14.0	9.4	397.1	288.3
39	1912	1,448.6	159.6	20.3	18.6	3.8	17.8	8.1	2.5	2.1	7.4	---	59.5	13.7	9.7	393.7	285.3
40	1911	1,472.7	168.2	20.5	23.3	4.6	18.5	10.0	0.9	1.8	9.8	---	57.7	14.1	12.0	381.7	288.8
41	1910	1,556.4	167.1	18.4	26.9	5.7	21.3	10.2	0.4	3.0	12.6	---	59.0	14.0	14.2	386.0	294.1
42	1909	1,506.4	169.5	17.5	23.1	5.1	20.2	9.1	0.2	---	10.2	---	56.8	13.0	16.0	378.8	286.2
43	1908	1,552.4	177.3	16.6	27.3	5.5	22.1	9.4	---	---	10.7	---	54.1	12.5	---	370.5	281.8
44	1907	1,702.2	188.8	16.8	33.8	5.8	24.8	10.5	---	---	9.7	---	53.5	12.9	---	409.6	310.2
45	1906	1,672.6	187.7	18.2	36.5	7.4	26.9	14.1	---	---	15.2	---	51.3	12.2	---	380.1	285.8
46	1905	1,674.4	190.8	18.3	25.3	8.0	23.7	8.1	---	---	7.5	---	53.8	13.3	---	397.9	299.6
47	1904	1,727.6	197.4	17.9	27.8	7.7	29.5	4.9	---	---	11.3	---	52.6	13.8	---	406.4	305.6
48	1903	1,645.6	184.9	17.3	28.5	7.1	31.4	13.1	---	---	8.9	---	51.3	12.2	---	383.5	288.3
49	1902	1,635.3	183.5	17.7	30.5	9.4	30.7	10.9	---	---	9.9	---	48.0	11.4	---	368.9	279.2
50	1901	1,725.9	201.3	16.8	32.4	10.3	33.2	7.8	---	---	8.0	---	49.2	11.4	---	365.7	276.2
51	1900	1,791.1	201.0	15.8	36.0	11.5	40.8	11.1	---	---	13.0	---	47.1	11.2	---	358.2	269.3

<sup>1</sup>Excludes aneurysm of the aorta for 1900-1920.  
<sup>2</sup>Includes paratyphoid fever for 1900-1920.  
<sup>3</sup>Includes all emboliisms and thromboses for 1900-1920.  
<sup>4</sup>Excludes diseases of coronary arteries for 1900-1929.  
<sup>5</sup>Excludes capillary bronchitis for 1900-1920.



MORTALITY RATES

and Sex: Death-Registration States, 1900-1950—Continued

as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

Vascular lesions affecting central nervous system <sup>3</sup>	Rheumatic fever	Diseases of heart <sup>4</sup>	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic and unspecified nephritis and other renal occlusions	Influenza and pneumonia, except pneumonia of newborn <sup>5</sup>	Ulcer of stomach and duodenum <sup>6</sup>	Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn <sup>7</sup>	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Congenital malformations	Symptoms, semilitary, and ill-defined conditions	Motor-vehicle accidents <sup>8</sup>	All other accidents <sup>9</sup>	Suicide	Homicide	All other causes
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OF THE INTERNATIONAL LISTS, 1948

330-334	400-402	410-443	444-450	451-468	592-594	480-493	540, 541	543, 571, 572	581	590, 591	640-689	750-759	780-795	E810-E835	E800-E802, E840-E862	E965, E970-E979	E964, E980-E985	Residual
102.5	1.3	423.4	29.5	5.8	17.5	35.2	8.9	5.4	12.1	2.6	...	13.4	17.1	35.4	49.3	17.8	8.1	118.9
99.2	1.6	415.7	29.1	5.4	16.5	34.3	8.6	7.0	12.3	2.7	...	14.1	18.1	32.9	51.7	17.9	8.4	127.4

OF THE INTERNATIONAL LIST, 1938

85	59	90-95	97,102	96,98-101,103	151,152	33,107-109	117	119,120	124	130	140-150	157	162, 199, 200	170	169, 171-176, 178-195	165,164	168-169	All other diseases
88.3	0.8	387.5	19.5	5.4	55.3	44.2	9.8	6.6	15.0	1.7	...	14.7	21.1	54.3	57.9	17.2	9.3	124.7
89.6	0.7	383.1	19.7	5.2	58.6	49.0	9.9	6.2	13.7	1.7	...	15.7	21.7	35.6	60.9	17.6	9.6	131.3
88.1	0.8	364.6	19.8	4.7	60.9	49.8	9.6	6.5	12.8	1.9	...	14.0	21.9	37.5	60.5	17.4	10.1	131.9
100.5	1.0	400.1	23.4	5.0	72.8	61.8	11.8	10.1	13.1	2.6	...	14.1	25.4	34.9	70.6	17.2	9.5	140.2
94.6	1.2	393.6	22.4	4.7	74.0	72.4	11.3	11.1	11.6	2.5	...	14.3	25.1	29.8	74.7	14.9	8.2	141.3
94.1	1.1	375.9	23.4	4.7	77.8	77.9	11.6	10.3	12.4	2.6	...	13.8	25.6	28.8	77.7	15.2	8.1	144.2
89.9	1.1	348.6	21.0	4.4	75.4	63.3	11.5	9.5	12.5	2.4	...	13.1	24.6	33.7	68.6	18.3	9.4	140.2
88.4	1.2	339.2	19.8	4.2	78.1	71.4	11.0	11.4	11.8	2.5	...	11.3	24.3	46.4	61.4	19.4	9.6	140.9
90.2	1.3	338.1	19.3	4.0	83.9	77.1	11.2	11.1	11.5	2.8	...	10.9	25.8	40.3	61.5	21.9	10.1	146.6
86.9	1.3	314.6	19.1	3.8	84.8	83.1	10.9	12.4	11.1	2.7	...	10.4	24.0	37.9	59.8	21.7	10.3	146.1
85.1	1.5	306.7	18.4	3.1	77.8	89.7	10.5	15.1	11.0	3.0	...	10.2	24.0	38.4	61.1	23.5	10.9	160.5
85.7	1.5	306.8	19.2	3.0	81.6	129.0	11.0	15.9	11.2	3.5	...	10.0	25.5	47.0	67.8	22.8	12.1	169.5
89.9	1.6	302.1	20.1	3.3	85.3	134.5	10.7	17.4	11.0	3.5	...	10.5	27.1	45.4	73.9	21.7	12.9	178.7
85.1	1.7	277.0	18.8	3.3	82.7	117.0	10.5	15.1	10.5	3.9	...	10.3	25.7	43.6	65.8	21.7	13.6	175.3
84.6	1.8	270.6	20.3	3.4	85.3	108.4	9.5	19.7	10.1	3.8	...	11.0	26.6	45.7	68.7	22.8	15.7	180.9
85.5	2.0	254.5	18.8	3.2	85.8	103.8	9.3	18.5	9.5	4.1	...	10.5	27.6	37.7	63.1	24.9	15.8	175.8
87.4	2.1	246.7	19.1	3.2	97.7	113.8	9.3	17.1	8.3	3.9	...	11.2	26.8	35.2	64.0	27.4	14.6	174.8
87.3	2.1	235.3	19.7	3.4	88.2	118.4	9.2	21.8	8.5	4.1	...	12.0	28.1	40.4	70.3	26.2	14.9	185.4
88.8	2.4	234.6	20.7	3.4	91.9	115.5	9.4	28.3	9.2	4.7	...	12.4	31.3	39.8	74.6	24.1	14.1	182.5
91.3	2.4	228.0	31.9	...	91.5	157.2	9.6	25.0	9.1	4.9	...	12.6	31.9	37.9	77.0	21.1	13.1	199.3
92.1	2.4	222.6	30.3	...	95.3	153.8	9.4	28.5	9.7	5.3	...	13.1	32.3	34.1	78.1	20.7	13.7	204.3
87.9	2.4	208.6	28.7	...	91.2	112.5	9.2	29.1	9.5	5.0	...	13.8	27.8	31.6	79.8	19.9	13.2	202.8
91.0	2.5	210.5	28.5	...	96.4	151.7	8.7	35.2	9.2	5.3	...	14.6	28.6	29.0	81.5	18.8	13.4	210.5
87.6	2.4	195.9	27.6	...	93.5	132.2	8.5	41.5	9.2	5.8	...	15.4	28.4	24.3	85.1	18.0	13.2	210.6
95.3	3.1	185.4	28.0	...	85.7	126.5	7.8	36.4	9.5	6.3	...	15.8	29.3	22.3	83.0	18.1	12.7	215.9
93.4	2.7	181.3	27.4	...	86.4	158.1	7.2	41.9	9.3	6.3	...	15.9	29.3	21.5	85.6	17.0	12.4	217.7
88.8	3.0	170.7	26.6	...	85.3	139.0	6.7	42.1	9.4	6.5	...	16.2	30.0	18.4	79.4	17.6	12.8	218.1
85.1	3.4	158.5	25.5	...	80.0	104.9	6.5	54.0	9.2	6.6	...	17.2	27.2	16.6	78.7	18.9	12.7	225.8
87.9	3.5	160.1	28.7	...	86.4	213.8	4.4	58.0	9.0	6.6	...	16.9	30.7	15.2	84.4	14.5	10.6	227.7
86.2	3.3	150.0	27.8	...	87.2	230.0	4.3	59.4	10.3	6.8	...	16.2	31.4	13.8	89.5	16.5	11.4	217.9
92.8	3.7	177.8	30.6	...	99.8	669.0	5.1	78.2	12.9	7.7	...	18.2	33.5	14.2	107.6	18.2	10.4	250.9
94.3	4.5	178.1	32.9	...	106.2	182.4	5.4	80.8	14.3	8.6	...	17.6	33.1	13.2	113.7	19.2	10.9	250.8
93.4	4.3	173.5	31.5	...	104.2	173.1	5.4	80.2	15.7	8.6	...	17.6	31.6	11.0	111.2	20.7	10.0	250.9
93.1	4.7	168.6	30.7	...	101.3	152.7	5.1	71.5	15.9	9.0	...	16.7	26.9	8.8	100.2	24.3	8.9	246.6
92.6	5.0	163.7	30.6	...	99.2	141.0	4.5	79.6	16.7	9.0	...	17.2	29.7	6.5	107.8	24.1	9.6	259.4
89.9	5.5	159.5	33.3	...	98.9	150.6	4.4	81.1	17.1	10.3	...	16.7	33.9	5.9	120.7	23.2	9.4	272.2
91.2	5.0	164.9	34.2	...	98.4	147.2	4.4	83.0	17.3	10.7	...	16.3	32.0	4.3	117.0	23.4	8.2	267.9
90.4	5.5	161.3	31.6	...	92.9	152.4	3.9	90.6	17.9	9.9	...	15.7	32.7	3.3	121.3	23.9	8.6	269.4
94.1	5.9	164.1	30.0	...	91.9	164.0	4.5	120.7	17.2	10.5	...	16.9	45.1	2.7	126.4	23.0	6.8	279.6
94.2	4.8	158.0	29.3	...	90.6	154.5	3.8	106.3	17.5	10.1	...	17.5	48.0	1.8	117.3	24.2	6.2	281.7
94.0	5.3	156.5	26.0	...	88.7	157.0	3.5	116.9	17.3	10.5	...	17.1	55.3	1.3	124.5	25.5	7.2	310.3
103.1	5.5	175.6	26.1	...	99.3	169.1	3.5	120.7	19.1	11.1	...	18.0	61.4	1.1	145.6	21.9	7.6	337.1
97.2	5.3	160.8	22.5	...	94.3	168.0	3.3	129.6	17.9	10.0	...	17.7	68.9	0.7	145.0	19.6	5.9	338.5
103.5	6.0	167.4	22.7	...	98.3	176.8	3.2	126.3	18.0	11.0	...	15.9	72.3	---	122.8	20.2	3.1	359.1
107.1	6.6	170.4	21.5	...	100.8	206.6	3.0	117.2	17.2	10.9	...	15.7	76.2	---	125.1	18.5	1.8	366.1
104.8	4.6	159.3	19.6	...	95.2	174.1	2.8	106.1	17.0	10.4	...	14.9	79.5	---	123.0	17.2	1.7	359.5
102.7	4.4	153.7	18.5	...	89.6	170.8	2.9	110.3	16.8	10.4	...	13.4	88.0	---	110.2	15.4	1.6	374.4
107.1	5.0	147.4	16.7	...	89.5	201.7	2.7	124.9	16.6	9.0	...	13.7	95.3	---	124.0	15.5	1.5	394.9
106.2	5.2	141.0	16.9	...	88.9	206.8	2.7	150.5	15.5	7.4	...	13.3	113.7	---	110.3	15.7	1.7	408.9

<sup>6</sup>Excludes ulcer of duodenum for 1900-1920.

<sup>7</sup>Includes ulcer of duodenum for 1900-1920.

<sup>8</sup>Includes automobile collisions with trains and streetcars, and motorcycle accidents for 1906-25.

<sup>9</sup>Includes legal executions for 1900-1929, and food poisoning for 1900-1908.

SUMMARY TABLES

Table 8.45. Death Rates for 32 Selected Causes, by Race

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated)

RACE, SEX, AND YEAR		Total	Tuber- culosis, all forms	Syph- illis and its sequelae <sup>1</sup>	Ty- phoid fever <sup>2</sup>	Dysen- tery, all forms	Diph- theria	Whoop- ing cough	Menin- gococ- cal infect- ions	Acute polio- mye- litis	Meas- les	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemato- poietic tissues	Diab- etes melli- tus	Menin- gitis, except menin- gococ- cal and tuber- culous	Major cardio- vascular- renal diseases	Diseases of cardio- vascular system
			001- 019	020- 029	040	045- 048	055	056	057	060	085	050-059, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	260	340	330-334, 400-468, 592-594	330-334, 400-468
ALL RACES, FEMALE																	
1	1950-----	823.5	15.1	2.7	0.1	0.5	0.3	0.8	0.5	1.0	0.3	2.4	136.8	19.9	1.0	442.6	427.3
2	1949-----	831.4	18.1	3.0	0.1	0.9	0.4	0.5	0.5	1.4	0.6	2.7	136.7	20.9	1.2	435.6	419.2
			13-22	30	1	27	10	9	6	36	35	2-5, 7, 8, 11, 12, 23-26, 28, 29, 31, 32, 34, 37-44, 115b, 177	45-55	61	81	58, 83, 90-103, 151, 132	58, 85, 90-103
3	1946-----	848.2	20.8	4.3	0.1	0.7	0.4	0.8	0.5	1.0	0.6	3.5	134.8	33.0	1.0	420.2	372.5
4	1947-----	868.9	24.2	4.7	0.2	0.5	0.5	1.4	0.5	0.3	0.3	3.7	133.3	32.7	1.1	425.9	375.5
5	1946-----	862.1	26.9	4.8	0.2	0.6	0.8	1.0	0.7	1.0	0.9	4.2	131.7	31.2	1.1	415.9	363.5
6	1945-----	878.6	28.6	5.2	0.3	1.1	1.1	1.3	0.9	0.7	0.2	5.0	131.2	31.9	1.1	423.4	366.6
7	1944-----	900.9	30.5	5.8	0.3	1.2	0.8	1.5	1.6	0.8	1.4	5.4	129.0	32.0	1.4	426.4	366.3
8	1943-----	941.7	32.6	6.2	0.4	1.3	0.8	2.6	1.5	0.6	1.0	6.2	128.4	33.5	1.5	446.7	381.0
9	1942-----	899.1	34.0	6.7	0.4	1.2	0.8	2.0	0.5	0.3	1.0	6.3	127.1	31.5	1.3	420.0	355.2
10	1941-----	921.5	36.5	7.3	0.6	1.8	0.9	3.0	0.4	0.5	1.7	7.0	126.7	32.1	1.3	419.6	352.0
11	1940-----	954.6	37.5	8.0	0.9	1.7	1.0	2.3	0.4	0.6	0.5	7.7	126.4	33.2	1.3	434.2	360.1
12	1939-----	951.4	40.1	8.5	1.2	1.9	1.4	2.4	0.5	0.5	0.9	8.7	125.2	32.0	1.3	421.7	345.8
13	1938-----	955.9	42.1	9.3	1.5	2.1	1.9	4.0	0.6	0.3	2.5	---	123.0	30.1	1.5	409.3	336.8
14	1937-----	1,003.2	46.2	9.3	1.7	2.3	1.9	4.1	1.3	0.9	1.1	---	121.1	29.6	1.7	410.8	339.0
15	1936-----	1,035.5	46.2	9.2	2.1	2.3	2.3	2.2	1.7	0.5	1.0	---	121.3	29.3	1.8	419.5	344.4
16	1935-----	965.1	47.9	8.8	2.4	1.8	3.0	4.0	1.4	0.6	2.9	---	118.4	27.5	1.7	393.2	320.3
17	1934-----	997.2	50.1	9.2	2.9	2.5	3.2	6.4	0.7	0.6	5.4	---	116.3	27.2	1.6	393.3	317.2
18	1933-----	972.8	53.7	8.9	2.9	2.1	3.8	4.0	0.9	0.5	2.2	---	112.4	25.8	1.5	380.7	306.0
19	1932-----	1,000.7	56.8	9.0	3.0	1.6	4.5	5.0	1.1	0.6	1.5	---	113.4	26.8	1.6	389.6	309.7
20	1931-----	1,009.3	62.0	9.1	3.9	1.9	4.7	4.3	1.8	1.4	2.9	---	110.4	24.9	1.9	377.4	298.6
21	1930-----	1,036.7	65.9	9.5	4.1	2.8	4.7	5.2	2.5	1.0	3.2	---	108.6	23.2	2.1	386.4	305.1
22	1929-----	1,096.4	71.3	9.1	3.6	2.3	6.3	6.9	3.2	0.8	2.4	---	107.4	22.5	2.4	392.2	310.7
23	1928-----	1,111.4	74.1	9.8	4.2	2.7	7.2	6.0	1.8	1.1	5.2	---	107.7	22.8	2.3	394.9	310.1
24	1927-----	1,051.3	76.1	9.4	4.6	2.4	7.6	7.3	1.2	1.6	4.0	---	108.3	21.0	2.4	377.2	294.6
25	1926-----	1,134.0	81.7	9.9	5.7	2.7	7.2	9.6	1.0	0.7	8.0	---	106.8	21.2	2.6	391.7	305.6
26	1925-----	1,094.7	81.4	10.0	7.1	3.0	7.6	7.2	0.9	1.3	2.2	---	104.9	19.8	2.8	375.4	289.7
27	1924-----	1,085.5	84.3	10.1	5.8	2.8	9.2	8.8	0.8	1.0	8.2	---	103.2	19.4	2.8	368.9	290.9
28	1923-----	1,149.6	87.9	10.4	5.8	3.0	12.1	10.4	0.9	0.7	10.3	---	100.8	20.2	3.1	370.1	290.6
29	1922-----	1,110.7	91.0	10.8	6.5	2.8	14.5	6.0	0.8	0.8	4.1	---	98.9	20.8	3.0	358.7	280.6
30	1921-----	1,103.4	94.1	10.2	7.9	4.0	17.5	10.0	1.1	1.6	4.0	---	99.8	19.0	3.8	349.8	273.8
31	1920-----	1,256.2	109.5	9.7	6.9	4.0	14.9	13.7	1.4	0.8	6.7	---	97.7	18.0	3.9	363.2	264.8
32	1919-----	1,231.5	116.9	9.9	8.3	4.3	14.6	6.0	1.4	0.8	3.8	---	95.7	18.6	4.0	342.6	266.3
33	1918-----	1,638.7	131.8	11.1	10.8	5.5	13.3	18.7	2.4	1.1	9.8	---	95.7	17.1	5.4	369.2	288.6
34	1917-----	1,285.4	127.7	11.5	11.3	6.1	15.3	11.4	2.9	1.3	13.7	---	97.0	18.4	4.3	376.1	288.6
35	1916-----	1,282.7	123.3	11.4	11.1	5.0	14.1	11.7	1.8	9.1	11.3	---	98.0	18.9	4.3	371.0	285.4
36	1915-----	1,231.5	123.5	11.1	9.6	3.6	15.3	8.9	1.2	1.0	5.1	---	97.3	19.9	5.4	367.7	283.5
37	1914-----	1,236.6	123.9	10.7	12.2	4.4	17.2	11.4	1.4	1.0	6.9	---	96.0	17.9	6.5	357.2	275.4
38	1913-----	1,280.1	127.4	10.3	14.8	5.1	17.8	11.5	1.3	1.4	12.8	---	96.4	16.9	7.8	353.3	273.0
39	1912-----	1,265.9	130.3	9.7	13.4	4.1	17.4	10.3	1.4	1.8	7.1	---	95.5	18.5	8.0	356.6	276.3
40	1911-----	1,305.7	141.3	9.8	16.7	4.8	18.3	12.1	1.9	1.9	10.0	---	91.6	18.2	10.3	350.5	274.5
41	1910-----	1,374.3	139.6	8.3	17.9	6.3	20.9	13.1	0.3	2.7	12.2	---	94.5	16.6	12.8	356.9	280.0
42	1909-----	1,338.8	142.3	8.0	17.0	5.7	19.6	10.9	0.3	---	9.8	---	92.0	15.4	13.9	346.4	271.7
43	1908-----	1,379.8	146.2	8.0	19.3	6.7	21.7	12.0	---	---	10.4	---	89.8	15.1	---	342.2	289.2
44	1907-----	1,478.4	159.1	7.9	22.4	6.4	23.6	12.2	---	---	8.5	---	90.0	15.6	---	369.1	287.8
45	1906-----	1,467.3	163.5	9.8	25.0	8.6	25.7	18.2	---	---	12.6	---	87.9	14.7	---	347.8	270.0
46	1905-----	1,502.5	189.0	9.3	19.4	8.6	23.4	9.8	---	---	7.3	---	83.2	14.9	---	369.9	287.0
47	1904-----	1,551.8	176.7	9.9	19.9	8.4	29.2	6.7	---	---	11.3	---	90.5	14.7	---	371.0	288.4
48	1903-----	1,481.4	169.4	9.1	20.8	7.5	30.9	15.6	---	---	8.7	---	88.7	13.1	---	345.2	266.2
49	1902-----	1,460.5	164.9	8.0	22.2	10.8	28.8	13.9	---	---	8.7	---	84.7	12.0	---	330.8	259.1
50	1901-----	1,556.9	176.5	8.2	22.7	11.9	33.8	9.5	---	---	6.8	---	83.7	11.7	---	329.6	256.5
51	1900-----	1,646.9	187.6	8.4	26.6	12.6	39.9	13.4	---	---	13.7	---	80.9	10.7	---	332.3	259.2

<sup>1</sup>Excludes aneurysm of the aorta for 1900-1920.  
<sup>2</sup>Includes paratyphoid fever for 1900-1920.  
<sup>3</sup>Includes all embolisms and thromboses, except puerperal for 1900-1920.  
<sup>4</sup>Excludes diseases of coronary arteries for 1900-1929.  
<sup>5</sup>Excludes capillary bronchitis for 1900-1920.

and Sex: Death-Registration States, 1900-1950—Continued

as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

Vascular lesions affecting central nervous system <sup>5</sup>	Rheumatic fever	Mis-eases of heart <sup>6</sup>	Hypertension without mention of heart and general arterio-sclerosis	Other diseases of circulatory system	Chronic and un-specified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn <sup>5</sup>	Ulcer of stomach and duodenum <sup>5</sup>	Gastritis, duodenitis, and colitis, except diarrhea of newborn <sup>7</sup>	Cir-rhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Con-genital mal-formations	Symp-toms, sequel-ity, and ill-defined con-ditions	Motor-vehicle accidents <sup>8</sup>	All other acci-dents <sup>9</sup>	Suicide	Homi-cide	All other causes
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OF THE INTERNATIONAL LISTS, 1948

330-334	400-402	410-445	444-450	451-468	592-594	480-485	540, 541	543, 571, 572	581	590, 591	640-639	750-759	780-795	E910-E935	E800-E802, E840-E962	E963, E970-E979	E964, E980-E985	Residual
105.6	1.3	288.4	28.0	4.0	15.3	27.4	2.1	4.7	6.3	2.0	3.9	11.1	12.8	10.9	25.8	5.1	2.4	85.1
102.6	1.5	282.8	26.2	4.1	16.4	25.8	1.9	6.4	6.2	2.2	4.3	11.3	13.6	9.9	27.0	5.1	2.4	92.6

OF THE INTERNATIONAL LIST, 1938

83	88	90-95	97, 102	96, 98-101, 103	131, 132	35, 107-109	117	119, 120	124	130	140-150	157	162, 199, 200	170	169, 171-176, 178-195	163, 164	165-168, 198	All other dis-eases
81.0	0.7	258.8	18.3	3.7	47.7	35.2	2.2	5.5	7.6	1.3	5.6	11.7	16.3	10.0	31.9	5.2	2.6	93.5
83.1	0.7	259.8	18.3	3.6	50.4	37.3	2.2	5.0	7.2	1.3	6.9	12.7	16.7	10.2	32.1	5.5	2.6	99.7
81.3	0.8	249.5	18.4	3.4	52.4	39.3	2.1	5.1	6.4	1.5	7.3	11.4	17.6	10.5	31.5	5.8	2.7	99.8
84.8	1.0	248.7	18.8	3.2	58.8	42.5	2.2	7.4	6.2	1.7	8.1	10.5	18.7	8.9	33.1	5.8	2.3	99.1
92.5	1.0	250.7	18.9	3.1	60.1	51.5	2.2	8.7	5.9	2.0	9.2	10.9	19.5	7.6	32.9	5.4	2.1	104.9
95.5	1.1	261.2	20.0	3.2	65.6	56.7	2.4	8.8	6.4	2.1	10.6	11.2	21.0	7.0	34.3	5.4	2.1	110.4
91.2	1.2	244.7	17.9	3.2	64.8	48.1	2.5	8.1	6.3	2.1	10.8	10.6	20.1	8.6	31.8	5.8	2.4	108.8
89.7	1.3	240.9	17.0	3.2	67.6	56.3	2.3	9.6	6.0	2.0	12.0	9.6	20.3	13.6	30.3	6.3	2.5	112.3
91.7	1.4	246.6	17.3	3.0	74.1	63.4	2.4	9.5	5.6	2.2	13.5	9.1	21.6	12.0	32.3	6.8	2.6	117.8
88.8	1.4	236.1	16.7	2.8	75.9	68.2	2.6	10.7	6.5	2.4	14.1	8.6	20.6	11.4	31.3	6.5	2.7	120.6
86.7	1.6	232.2	15.8	2.4	70.5	71.1	2.4	13.4	5.7	2.5	15.4	8.4	20.5	11.6	32.1	6.9	2.9	134.8
87.8	1.6	230.5	16.5	2.6	71.8	100.6	2.5	13.5	5.7	2.8	16.8	8.3	21.8	14.3	32.7	7.0	3.3	141.7
82.2	1.8	230.5	17.2	2.7	75.1	104.5	2.7	15.3	5.3	3.0	19.2	5.4	25.6	13.9	37.2	6.8	3.3	151.0
86.4	1.8	213.3	16.3	2.5	72.8	81.2	2.7	13.1	5.3	3.1	19.9	8.3	22.3	13.3	32.4	6.8	3.2	149.7
86.5	1.9	209.5	16.7	2.5	76.1	85.2	2.6	17.0	5.3	3.5	20.5	9.0	23.8	13.1	32.4	6.8	3.5	155.1
84.6	2.1	201.1	15.7	2.6	74.7	87.4	2.7	16.0	5.4	3.4	20.7	8.8	25.5	12.0	30.4	6.8	3.6	150.9
87.5	2.3	201.2	16.1	2.7	79.8	100.7	2.6	15.0	5.1	3.2	22.3	9.3	24.8	11.7	30.0	7.1	3.5	150.7
86.2	2.3	190.9	15.5	2.7	78.8	95.4	2.9	19.1	5.2	3.5	24.0	10.0	26.1	13.6	30.6	7.1	3.6	160.6
89.2	2.5	195.4	17.2	2.9	81.3	91.2	3.0	23.7	5.2	4.0	25.7	10.0	29.4	13.3	31.0	6.9	3.6	170.6
90.3	2.7	195.9	23.8	3.1	81.5	135.6	3.0	21.5	5.2	4.2	26.5	10.2	30.0	12.8	31.1	6.6	3.5	176.1
91.9	2.6	192.5	23.1	3.1	84.9	130.9	3.3	24.3	5.2	4.2	27.6	10.5	30.9	12.0	31.4	6.2	3.4	181.9
88.3	2.8	181.5	22.1	3.1	82.6	91.6	3.3	25.0	5.3	4.4	27.4	11.2	27.4	11.3	30.8	6.2	3.5	181.2
91.6	3.0	195.3	22.8	3.2	88.0	131.5	3.3	30.6	5.1	4.7	28.6	11.9	29.1	10.5	32.6	6.2	3.3	187.9
91.4	2.9	173.4	22.1	3.2	85.7	110.8	3.2	35.6	5.3	5.0	29.4	12.0	29.2	9.1	33.9	5.8	3.2	188.4
99.1	3.4	165.6	22.8	3.1	78.0	103.6	3.1	30.9	5.0	5.5	30.5	12.2	29.4	8.2	35.5	5.6	3.3	199.4
99.1	3.3	166.5	22.8	3.1	79.4	145.2	3.1	36.1	5.0	5.8	31.0	12.6	31.0	7.6	35.4	5.8	3.1	194.4
95.4	3.4	159.2	22.7	3.1	78.0	125.4	3.3	35.7	5.3	5.6	31.4	12.6	30.5	6.2	32.0	5.7	3.0	195.4
93.5	3.9	153.8	22.6	3.1	75.9	92.2	3.1	47.4	5.4	6.0	33.7	13.6	28.2	5.8	31.4	5.7	3.3	204.5
98.2	4.0	159.1	23.6	3.1	78.3	200.6	2.8	49.3	5.1	6.1	38.6	13.4	32.8	5.2	34.0	5.7	2.7	209.5
93.7	3.6	145.8	23.2	3.1	76.3	215.8	2.6	50.9	5.4	6.0	34.3	12.8	33.9	4.7	33.3	6.3	2.8	197.6
95.2	4.0	185.4	24.1	3.1	80.6	507.5	2.7	66.2	6.2	6.7	44.7	13.8	34.6	4.3	36.6	6.2	2.6	214.9
97.6	4.6	161.3	25.1	3.1	87.5	145.9	3.3	69.4	7.3	7.2	33.4	13.7	35.3	3.9	39.6	6.6	2.8	220.2
95.9	4.7	160.5	24.3	3.1	85.6	153.0	3.4	70.6	7.7	7.4	32.5	14.2	34.3	3.0	36.2	6.4	2.5	220.3
95.9	5.0	158.9	23.7	3.1	84.3	138.9	3.3	65.2	8.1	8.0	30.1	13.0	31.2	2.6	33.6	7.6	2.7	219.4
94.5	5.7	152.4	22.8	3.1	81.8	123.3	3.4	70.5	8.0	8.1	31.5	14.1	33.0	1.8	35.4	7.7	2.6	230.6
92.4	5.9	149.3	25.3	3.1	80.3	130.4	3.3	82.1	8.5	9.4	31.6	13.0	38.0	1.7	36.9	7.1	2.5	239.0
92.6	5.6	152.1	26.0	3.1	80.3	129.1	3.1	75.9	8.6	9.4	29.7	12.7	37.9	1.3	36.8	7.3	2.4	239.5
93.3	6.3	151.1	23.9	3.1	75.9	138.0	3.1	82.8	9.1	9.2	31.9	13.2	37.8	0.9	39.4	7.5	2.3	244.2
97.5	6.4	153.4	22.7	3.1	76.9	147.2	3.5	109.9	9.2	9.9	31.6	13.4	50.1	0.8	35.9	7.2	2.1	251.2
97.0	5.0	147.7	22.0	3.1	74.8	141.4	3.0	97.0	9.2	9.0	31.0	13.8	52.8	0.6	35.6	7.3	2.1	254.4
97.2	5.2	147.3	19.5	3.1	73.0	144.4	2.8	107.8	9.6	9.3	32.1	14.2	60.9	0.4	37.5	7.8	2.3	279.4
106.0	5.6	157.2	19.0	3.1	81.4	170.6	3.0	109.1	10.4	9.6	31.8	14.2	66.8	0.3	40.6	6.8	2.2	297.3
100.1	5.9	147.4	16.7	3.1	77.8	144.1	3.2	117.3	10.1	9.4	30.9	14.2	73.9	0.1	41.0	5.8	1.8	301.7
108.4	5.5	156.5	16.6	3.1	82.9	161.8	2.7	110.4	9.9	10.2	29.7	12.2	78.7	---	39.4	6.8	1.1	314.8
110.1	6.2	157.0	15.1	3.1	82.6	177.5	3.0	105.8	10.6	10.5	30.3	12.2	83.3	---	45.5	6.0	0.8	326.0
105.6	4.9	144.3	13.4	3.1	77.0	164.4	2.6	94.4	10.0	9.8	26.6	10.9	85.0	---	39.5	5.4	0.8	323.4
105.1	4.3	137.1	12.6	3.1	71.7	151.9	3.0	99.5	9.2	9.4	25.6	10.4	95.1	---	34.5	5.2	0.8	330.9
106.8	4.7	132.6	12.4	3.1	73.0	192.7	2.9	112.1	9.5	8.2	26.8	10.2	105.2	---	43.5	5.3	0.8	343.1
107.7	5.4	133.7	12.4	3.1	73.0	198.5	2.7	134.9	9.5	9.0	26.9	10.6	121.4	---	34.1	4.7	0.6	368.7

<sup>5</sup>Excludes ulcer of duodenum for 1900-1920.

<sup>7</sup>Includes ulcer of duodenum for 1900-1920.

<sup>8</sup>Excludes automobile collisions with trains and streetcars, and motorcycle accidents for 1906-25.

<sup>9</sup>Includes legal executions for 1900-1925, and food poisoning for 1900-1908.

Table 8.45. Death Rates for 32 Selected Causes, by Race

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated)

RACE, SEX, AND YEAR	Total	Tuber- culo- sis, all forma	Syph- illis and its seque- lae <sup>1</sup>	Ty- phoid fever <sup>2</sup>	Dysen- tery, all forma	Diph- theria	Whoop- ing cough	Menin- gococ- cal infec- tions	Acute polio- mye- litis	Meas- les	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemo- poietic tissues	Diab- etes mel- litus	Menin- gococ- cal and tuber- culous	Major cardio- vascular- renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 048	055	056	057	080	085	080-089, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	260	340	330-334, 400-468, 592-594	330-334, 400-468
CATEGORY NUMBERS: SIXTH REVISION																
1 1950-----	945.7	17.9	3.7	0.0	0.5	0.2	0.5	0.6	1.3	0.3	2.5	145.5	16.4	1.0	512.3	497.6
2 1949-----	953.2	20.8	4.2	0.1	0.9	0.3	0.4	0.6	2.0	0.6	2.7	142.9	17.2	1.2	503.6	487.8
CATEGORY NUMBERS: FIFTH REVISION																
		13-22	30	1	27	10	9	6	36	35	2-5, 7, 8, 11, 12, 23-26, 28, 29, 31, 32, 34, 37-44, 115b, 177	45-55	61	61	58, 63, 90-103, 131, 132	58, 63, 90-103
3 1948-----	971.3	24.3	5.7	0.1	0.7	0.4	0.6	0.6	1.4	0.6	4.1	159.0	27.4	1.1	489.3	441.2
4 1947-----	992.7	27.1	6.4	0.2	0.5	0.5	1.0	0.6	0.4	0.3	4.3	156.9	27.1	1.2	494.2	443.0
5 1946-----	983.3	29.8	6.6	0.2	0.8	0.9	0.7	0.9	1.4	0.8	4.9	134.8	25.8	1.2	481.0	427.6
6 1945-----	1,041.9	32.6	7.5	0.3	1.1	1.2	1.1	1.2	0.9	0.2	5.8	139.4	27.6	1.4	512.6	452.0
7 1944-----	1,041.7	33.6	7.9	0.3	1.2	0.8	1.1	2.0	1.1	1.4	6.0	134.1	27.1	1.7	503.3	440.4
8 1943-----	1,065.0	34.3	8.6	0.3	1.2	0.9	2.1	2.1	0.9	1.0	6.8	129.4	28.1	1.7	512.7	445.3
9 1942-----	1,007.5	34.4	8.6	0.4	1.2	0.9	1.5	0.7	0.4	0.8	6.6	126.9	26.3	1.5	479.6	413.6
10 1941-----	1,016.9	35.4	9.3	0.6	1.5	0.9	2.3	0.5	0.8	1.5	7.0	124.9	26.5	1.5	473.7	405.4
11 1940-----	1,041.5	36.6	9.9	0.8	1.6	1.0	1.8	0.5	0.8	0.5	7.8	125.0	27.6	1.5	484.2	409.6
12 1939-----	1,027.2	37.7	10.4	1.2	1.7	1.4	1.8	0.6	0.6	0.8	8.7	122.6	26.4	1.5	466.0	389.5
13 1938-----	1,025.5	39.1	11.1	1.4	2.0	1.9	3.0	0.7	0.4	2.5	---	119.8	24.8	1.7	449.8	378.3
14 1937-----	1,084.7	43.4	11.4	1.6	2.0	2.0	3.4	1.6	1.1	1.1	---	117.4	24.7	2.0	452.9	379.4
15 1936-----	1,111.7	45.0	11.5	1.8	2.1	2.3	1.8	2.2	0.6	1.0	---	116.5	24.8	2.2	459.3	382.2
16 1935-----	1,056.4	44.9	11.0	2.1	1.7	3.0	3.2	2.0	0.8	3.0	---	113.0	23.3	2.0	430.3	355.1
17 1934-----	1,063.5	46.2	11.3	2.6	2.3	3.3	5.0	1.0	0.7	5.2	---	111.2	23.1	1.8	427.9	360.2
18 1933-----	1,030.3	48.5	10.9	2.8	2.0	3.9	2.9	1.1	0.6	2.2	---	107.0	22.2	1.8	413.0	336.1
19 1932-----	1,048.2	50.2	11.3	2.8	1.5	4.5	3.9	1.3	0.7	1.7	---	106.9	22.9	1.9	416.8	335.7
20 1931-----	1,057.6	54.2	11.3	3.4	1.7	4.7	3.3	2.2	1.9	3.0	---	103.5	21.3	2.2	402.8	322.8
21 1930-----	1,076.8	57.7	11.7	3.6	2.4	4.9	4.1	3.2	1.2	3.2	---	101.9	19.8	2.4	407.2	324.8
22 1929-----	1,132.4	62.4	11.8	3.2	1.9	6.6	5.4	4.3	0.7	2.6	---	100.2	19.5	3.0	413.4	330.7
23 1928-----	1,142.2	64.9	12.5	3.7	2.2	7.3	4.6	2.6	1.2	4.8	---	100.1	19.7	2.7	413.9	327.6
24 1927-----	1,080.0	66.5	12.9	4.1	1.9	7.8	5.6	1.5	1.9	3.9	---	98.9	18.0	2.7	393.9	310.3
25 1926-----	1,153.9	72.0	13.7	4.9	2.2	7.5	8.0	1.3	0.8	8.4	---	98.1	18.5	2.9	405.2	316.3
26 1925-----	1,113.1	71.6	14.1	6.1	2.6	7.9	5.9	1.0	1.5	2.4	---	95.5	17.4	3.2	385.8	299.6
27 1924-----	1,104.4	74.9	14.7	4.9	2.2	9.6	6.7	0.9	1.1	7.6	---	94.0	17.0	3.2	378.3	299.6
28 1923-----	1,169.1	79.5	15.1	5.4	2.5	12.5	8.3	1.1	0.9	10.3	---	92.1	16.6	3.6	379.6	288.5
29 1922-----	1,132.5	82.6	15.2	5.9	2.3	15.1	4.9	1.0	0.8	4.5	---	90.0	19.3	3.6	366.9	286.7
30 1921-----	1,112.9	84.7	15.2	7.5	3.4	18.4	8.0	1.4	1.9	4.3	---	88.8	17.5	4.1	350.2	273.8
31 1920-----	1,236.1	99.5	14.3	6.6	3.3	16.0	11.7	1.6	0.9	9.3	---	86.5	16.9	4.3	364.5	263.4
32 1919-----	1,242.5	110.9	14.4	7.8	3.6	15.6	4.9	1.8	0.9	4.1	---	84.1	15.8	4.6	347.9	267.5
33 1918-----	1,751.1	134.3	16.8	10.7	4.6	14.6	14.9	3.3	1.2	10.6	---	83.3	16.7	6.5	383.0	295.2
34 1917-----	1,349.5	129.6	17.2	11.8	4.8	16.1	9.3	3.7	1.4	13.6	---	83.1	17.6	5.1	391.9	297.1
35 1916-----	1,344.5	123.7	17.0	11.8	4.1	14.3	9.5	2.1	10.9	11.5	---	83.2	17.5	4.8	386.8	293.2
36 1915-----	1,296.3	128.5	16.3	11.1	3.1	15.4	7.7	1.4	1.0	5.3	---	81.7	17.9	5.8	378.3	287.2
37 1914-----	1,299.6	130.3	15.5	14.0	4.1	17.5	9.1	1.6	1.1	6.9	---	79.7	16.6	7.0	369.6	280.6
38 1913-----	1,351.4	132.6	15.2	16.8	4.6	18.5	9.6	1.5	1.4	12.8	---	79.5	15.7	8.4	366.4	278.2
39 1912-----	1,336.6	136.0	14.4	15.6	3.9	17.9	8.7	1.8	2.0	7.4	---	77.7	15.2	8.9	371.5	283.4
40 1911-----	1,366.1	145.0	14.6	19.5	4.6	18.7	10.5	0.8	1.8	9.9	---	74.8	15.4	11.1	362.9	279.5
41 1910-----	1,446.6	145.9	13.0	22.2	6.0	21.4	11.0	0.3	2.9	12.5	---	76.9	15.5	13.4	369.2	285.7

<sup>1</sup>Excludes aneurysm of the aorta for 1910-20.<sup>2</sup>Includes paratyphoid fever for 1910-20.<sup>3</sup>Includes all embolisms and thromboses, except puerperal for 1910-20.<sup>4</sup>Excludes diseases of coronary arteries for 1910-29.<sup>5</sup>Excludes capillary bronchitis for 1910-20.

and Sex: Death-Registration States, 1900-1950—Continued

as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

Vascular lesions affecting central nervous system <sup>3</sup>	Rheumatic fever	Diseases of heart <sup>4</sup>	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic and unspecified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn <sup>5</sup>	Ulcer of stomach and duodenum <sup>6</sup>	Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn <sup>7</sup>	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Congenital malformations	Syphilis, and ill-defined conditions	Motor-vehicle accidents <sup>8</sup>	All other accidents <sup>9</sup>	Suicide	Homicide	All other causes
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OF THE INTERNATIONAL LISTS, 1948

330-334	400-402	410-443	444-450	451-468	592-594	480-493	540, 541	543, 571, 572	581	590, 591	640-699	750-759	760-795	E810-E835	E800-E802, E840-E882	E863, E870-E879	E864, E890-E895	Residual <sup>10</sup>
101.9 98.7	1.2 1.4	360.8 364.1	28.9 28.8	4.9 4.7	14.5 15.8	28.0 26.9	5.6 5.4	4.4 6.0	9.5 9.6	2.0 2.1	1.4 1.6	12.3 12.9	10.7 11.4	22.9 21.5	36.4 36.6	12.2 12.5	2.6 2.7	96.8 105.1

OF THE INTERNATIONAL LIST, 1938

83	88	90-95	97,102	96,98-101,103	131,132	35,107-109	117	119,120	124	130	140-150	157	162, 199, 200	170	169, 171-176, 178-198	163,164	165-168, 198	All other diseases	
67.3	0.5	329.5	19.3	4.6	48.1	35.4	6.1	5.5	11.8	1.2	2.1	13.4	14.1	22.2	44.2	12.0	3.0	105.1	3
69.3	0.6	329.2	19.5	4.4	51.2	39.9	6.1	5.1	10.9	1.2	2.8	14.6	14.7	23.1	45.9	12.4	3.1	112.3	4
88.2	0.7	315.0	19.6	4.1	55.4	41.1	6.0	5.3	10.1	1.4	3.0	13.2	15.3	24.2	45.5	12.4	3.2	115.1	5
95.7	0.9	329.7	21.7	4.0	60.7	47.2	6.9	7.7	9.9	1.7	3.5	12.7	16.8	21.5	50.9	12.1	3.0	115.2	6
91.6	1.0	322.7	21.2	3.9	62.9	56.6	6.7	8.7	9.0	1.8	3.9	13.0	16.7	18.3	53.1	10.8	2.5	119.0	7
92.9	1.0	325.3	22.3	3.9	67.4	62.0	7.0	8.5	8.8	1.9	4.5	13.0	17.2	17.8	55.9	11.1	2.7	123.7	8
87.9	1.0	301.0	19.9	3.8	66.1	50.8	7.0	7.6	8.8	1.8	4.6	12.3	16.1	21.2	49.9	13.0	2.8	120.7	9
86.7	1.1	295.1	18.8	3.7	68.4	57.5	6.7	8.9	9.4	1.8	4.9	10.9	15.4	30.1	45.5	13.8	2.9	121.7	10
88.6	1.2	297.6	18.8	3.5	74.6	64.0	6.8	9.1	8.9	2.0	5.8	10.4	16.1	26.5	46.4	15.5	3.2	127.5	11
85.4	1.2	281.0	18.4	3.3	76.7	69.3	6.8	10.3	8.6	2.0	6.0	9.9	15.2	24.9	45.2	15.3	3.3	128.8	12
83.5	1.4	273.1	17.5	2.7	71.5	73.1	6.5	12.5	8.6	2.1	6.5	9.7	14.7	25.3	46.3	18.4	3.8	141.6	13
84.5	1.4	272.2	18.4	2.8	73.6	105.1	6.9	13.2	8.8	2.5	7.3	9.6	15.8	31.2	49.8	16.1	4.3	149.6	14
88.9	1.5	269.6	19.3	2.9	77.0	109.2	6.8	14.8	9.5	2.6	8.4	9.9	17.1	30.0	55.0	15.4	4.4	158.7	15
83.8	1.7	248.7	18.1	2.9	75.3	96.6	6.7	12.7	8.2	2.8	8.8	9.7	16.1	29.0	48.7	15.4	4.9	156.7	16
83.8	1.7	242.6	19.1	2.9	77.8	89.4	6.1	16.5	7.9	2.8	9.1	10.5	17.1	29.0	50.0	16.1	5.7	161.6	17
82.8	1.9	230.6	17.9	2.9	76.9	89.3	6.0	15.8	7.6	3.1	9.2	10.1	18.2	25.4	46.2	17.2	6.1	157.0	18
86.1	2.0	226.4	18.2	2.9	81.1	100.6	6.0	14.8	7.4	3.0	9.9	10.8	17.0	24.0	46.5	18.7	5.8	157.2	19
85.3	2.0	213.8	18.7	3.0	80.0	98.9	6.1	18.7	7.5	3.0	10.6	11.5	17.8	27.6	50.1	18.0	5.9	166.5	20
86.9	2.3	213.1	19.5	3.1	82.3	94.4	6.2	24.0	7.3	3.4	11.3	11.8	19.9	27.2	52.1	16.8	5.7	173.5	21
89.1	2.3	210.3	28.9		82.7	135.7	6.4	21.3	7.2	3.6	11.7	12.0	20.7	26.0	53.0	14.9	5.2	179.6	22
90.5	2.3	207.1	27.7		86.3	133.1	6.5	24.2	7.6	3.8	12.1	12.4	20.9	23.7	53.6	14.5	5.3	184.2	23
87.1	2.4	194.5	28.3		83.6	94.5	6.3	24.8	7.5	3.9	12.1	13.1	18.4	22.0	53.9	14.0	5.2	184.7	24
90.0	2.5	197.3	28.5		88.9	131.2	6.1	30.5	7.2	4.1	12.8	13.8	19.4	20.2	55.7	13.4	5.2	192.6	25
89.5	2.5	192.9	25.7		86.2	112.2	6.0	36.1	7.3	4.5	13.0	14.2	19.4	17.1	59.3	12.7	5.3	192.2	26
96.4	3.0	174.0	28.2		78.7	105.6	5.6	30.9	7.3	4.9	13.5	14.6	20.7	15.6	57.1	12.7	5.2	195.6	27
95.8	2.8	173.8	28.1		81.1	142.6	5.2	37.1	7.2	5.2	14.0	15.0	21.9	15.1	58.7	12.2	5.0	200.4	28
92.3	3.0	165.7	25.7		80.2	127.3	5.1	37.4	7.5	5.1	14.2	15.2	21.8	12.9	55.2	12.5	5.5	200.8	29
89.5	3.5	155.8	25.0		76.4	94.7	4.8	49.1	7.3	5.5	15.4	16.0	20.5	11.8	54.7	13.1	6.0	208.3	30
93.4	3.6	159.5	26.8		81.1	198.4	3.6	52.1	7.1	5.6	17.7	15.7	23.7	10.8	59.6	10.8	4.8	211.6	31
90.5	3.3	147.5	26.2		80.4	211.1	3.5	53.8	8.0	5.7	15.7	15.2	24.5	9.8	61.0	12.2	5.2	200.4	32
93.9	3.7	169.8	27.7		87.8	572.3	3.9	69.7	9.7	6.4	21.3	16.5	27.1	9.5	71.4	12.8	4.8	225.1	33
95.4	4.3	167.9	28.5		94.9	157.1	4.3	72.6	11.1	7.2	15.5	16.2	27.8	8.9	76.3	13.6	5.3	228.4	34
94.4	4.4	166.1	28.4		95.5	158.3	4.4	74.0	12.0	7.4	15.1	16.4	27.5	7.3	74.0	14.3	4.9	229.4	35
95.7	4.7	161.5	27.3		91.0	141.5	4.2	66.5	12.1	8.0	14.4	15.2	27.0	5.9	67.1	16.5	4.8	229.5	36
95.0	5.2	155.7	26.8		89.0	128.4	4.0	74.3	12.5	8.1	14.9	16.0	29.3	4.3	71.8	16.4	5.1	241.5	37
90.5	5.6	152.5	29.6		88.2	137.3	3.8	66.0	12.9	9.5	15.0	15.2	32.7	3.9	79.2	15.6	4.9	252.5	38
91.6	5.2	156.4	30.2		88.1	135.0	3.7	79.0	13.1	9.7	14.2	14.8	34.0	2.9	77.5	15.8	4.6	251.5	39
91.5	5.8	154.3	27.8		83.4	141.9	3.5	86.1	13.7	9.3	15.3	14.7	34.0	2.1	80.9	16.1	4.7	254.1	40
95.6	6.1	157.6	26.4		83.5	152.6	4.0	114.6	13.4	9.9	15.2	15.3	46.7	1.8	82.2	15.4	4.1	263.4	41

<sup>5</sup>Excludes ulcer of duodenum for 1910-20.

<sup>7</sup>Includes ulcer of duodenum for 1910-20.

<sup>8</sup>Excludes automobile collisions with trains and streetcars, and motorcycle accidents for 1910-25.

<sup>9</sup>Includes legal executions for 1910-21.

Table 8.45. Death Rates for 32 Selected Causes, by Race

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated)

RACE, SEX, AND YEAR	Total	Tuber- culosis, all forms	Syph- ilis and its sequ- elae <sup>1</sup>	Ty- phoid fever <sup>2</sup>	Dysen- tery, all forms	Diph- theria	Whoop- ing cough	Mening- ococcal infect- ions	Acute polio- mye- litis	Meas- les	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemato- poietic tissues	Dia- betes mel- litus	Mening- itis, except menin- gococ- cal and tuber- culous	Major cardio- vascular diseases	Diseases of cardio- vascular system	CATEGORY NUMBERS: SIXTH REVISION																				
																	001- 019	020- 029	040	045- 049	055	056	057	060	065	030-039, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	260	340	350-354, 400-488, 592-594	350-354, 400-468						
WHITE, MALE																		CATEGORY NUMBERS: FIFTH REVISION																			
																		13-22	30	1	27	10	9	6	36	35	2-5, 7, 8, 11, 12, 23-26, 28, 29, 31, 32, 34, 37-44, 115b, 177	45-55	61	61	58, 65, 90-103, 151, 152	58, 65, 90-103					
1 1950-----	1,089.5	25.0	5.6	0.0	0.6	0.3	0.5	0.7	1.6	0.3	2.8	147.2	12.8	1.2	585.9	570.1																					
2 1949-----	1,097.0	28.5	6.4	0.1	0.9	0.4	0.3	0.7	2.5	0.6	3.1	145.7	13.2	1.4	576.0	559.1																					
3 1949-----	1,115.2	33.2	8.6	0.1	0.7	0.4	0.5	0.6	1.7	0.6	5.0	139.7	20.7	1.3	562.4	510.7																					
4 1947-----	1,136.7	36.3	9.7	0.2	0.6	0.6	1.0	0.7	0.5	0.3	5.2	136.7	20.4	1.5	565.4	510.0																					
5 1946-----	1,125.7	39.1	10.1	0.2	0.7	1.0	0.7	1.0	1.7	0.8	5.9	135.7	19.3	1.5	546.3	490.6																					
6 1945-----	1,246.8	44.8	12.1	0.4	1.2	1.4	1.1	1.6	1.1	0.2	7.3	143.7	21.6	1.8	613.9	544.8																					
7 1944-----	1,219.8	44.7	12.4	0.4	1.3	0.9	1.0	2.5	1.4	1.4	7.3	134.9	21.0	2.1	588.9	518.9																					
8 1943-----	1,216.4	44.2	13.3	0.4	1.3	1.0	1.9	2.8	1.1	0.9	7.8	126.1	21.3	2.1	583.7	510.1																					
9 1942-----	1,144.7	43.3	13.0	0.5	1.3	1.0	1.4	1.0	0.5	0.9	7.8	122.4	20.0	1.9	543.0	471.8																					
10 1941-----	1,144.3	43.3	14.1	0.7	1.6	1.0	2.2	0.6	0.7	1.5	8.2	120.1	19.7	1.8	532.5	459.3																					
11 1940-----	1,162.2	44.7	14.7	0.9	1.7	1.1	1.7	0.8	1.0	0.5	8.9	119.6	20.9	1.9	538.0	458.7																					
12 1939-----	1,134.6	44.7	15.5	1.4	1.7	1.6	1.7	0.8	0.7	0.8	8.8	115.7	19.9	1.9	512.2	431.5																					
13 1938-----	1,132.0	46.2	16.3	1.6	2.1	2.0	2.8	0.9	0.4	2.4	---	112.5	18.6	2.1	483.5	418.2																					
14 1937-----	1,203.5	50.9	16.8	1.9	2.0	2.1	3.2	2.0	1.3	1.2	---	109.5	18.8	2.3	497.7	419.7																					
15 1936-----	1,226.3	52.2	16.9	2.2	2.3	2.4	1.7	2.8	0.7	1.0	---	107.4	19.1	2.6	501.8	420.1																					
16 1935-----	1,162.4	51.7	16.1	2.4	1.7	3.1	2.9	2.6	1.0	3.1	---	103.5	17.9	2.5	469.4	389.4																					
17 1934-----	1,168.1	52.7	16.5	3.0	2.4	3.4	4.5	1.3	0.8	5.3	---	102.1	18.0	2.0	465.6	383.6																					
18 1933-----	1,124.2	54.3	15.9	3.4	2.1	4.0	2.5	1.4	0.8	2.3	---	97.7	17.7	2.2	447.3	365.9																					
19 1932-----	1,133.0	55.9	16.6	3.3	1.6	4.5	3.4	1.6	0.8	1.8	---	96.5	18.0	2.1	446.1	361.6																					
20 1931-----	1,152.6	60.1	16.4	3.8	1.8	4.8	3.0	2.7	2.2	3.0	---	93.0	16.7	2.6	432.9	348.9																					
21 1930-----	1,169.6	63.4	17.0	4.2	2.4	5.1	3.8	4.0	1.4	3.3	---	91.6	15.6	2.8	434.9	348.0																					
22 1929-----	1,220.4	67.1	17.4	3.7	1.9	6.7	4.9	5.4	0.7	2.8	---	89.5	15.6	3.5	439.8	352.7																					
23 1928-----	1,227.3	68.7	18.1	4.3	2.2	7.3	4.0	3.2	1.4	4.8	---	89.0	15.7	3.3	436.0	347.1																					
24 1927-----	1,156.6	70.7	19.0	4.7	1.9	7.9	5.2	1.9	2.1	4.0	---	86.9	14.4	3.1	418.3	327.8																					
25 1926-----	1,229.7	76.4	20.0	5.6	2.2	7.7	7.2	1.6	0.9	8.7	---	86.7	15.2	3.4	423.7	331.4																					
26 1925-----	1,184.2	75.8	20.3	6.9	2.6	8.2	5.4	1.2	1.7	2.5	---	83.6	14.3	3.5	401.6	312.2																					
27 1924-----	1,175.6	79.3	21.4	5.6	2.2	9.8	6.1	1.1	1.2	7.6	---	82.3	14.0	3.6	392.7	310.9																					
28 1923-----	1,231.7	84.4	21.7	6.3	2.6	12.5	7.6	1.3	1.0	10.6	---	80.6	16.0	4.2	390.6	306.6																					
29 1922-----	1,191.4	87.5	21.6	6.7	2.2	15.2	4.4	1.1	0.9	4.8	---	78.1	16.8	4.2	375.4	292.0																					
30 1921-----	1,160.8	89.1	21.7	8.4	3.4	18.6	7.2	1.7	2.1	4.6	---	75.4	15.2	4.5	352.7	274.4																					
31 1920-----	1,296.1	104.1	20.7	7.3	3.3	16.4	10.7	1.8	1.0	9.3	---	73.2	15.0	4.6	366.5	281.7																					
32 1919-----	1,303.5	121.1	20.3	8.9	3.6	15.9	4.6	2.3	0.9	4.1	---	70.3	14.1	5.3	354.5	269.0																					
33 1918-----	1,925.7	153.2	24.0	12.3	4.7	15.4	13.4	4.2	1.3	11.8	---	69.1	15.6	7.6	401.5	304.3																					
34 1917-----	1,457.8	145.9	24.0	13.5	4.6	16.4	8.5	4.6	1.4	13.9	---	67.9	16.0	5.9	411.9	308.2																					
35 1916-----	1,440.3	141.3	25.6	13.9	3.9	14.1	8.5	2.4	12.3	11.7	---	67.2	15.5	5.4	404.7	302.1																					
36 1915-----	1,366.8	144.0	22.2	13.2	3.0	15.3	7.1	1.6	1.1	5.4	---	65.1	15.7	6.3	393.8	284.5																					
37 1914-----	1,398.8	146.9	21.3	16.4	4.0	17.5	8.0	1.9	1.1	6.8	---	63.7	14.9	7.6	396.5	299.2																					
38 1913-----	1,447.8	147.7	20.8	19.2	4.4	18.9	8.3	1.7	1.5	12.8	---	62.7	14.2	9.3	383.4	296.2																					
39 1912-----	1,425.3	149.4	19.4	18.2	3.7	18.1	7.7	2.3	2.1	7.5	---	60.3	13.8	9.7	389.9	293.0																					
40 1911-----	1,448.4	157.5	19.7	22.7	4.6	18.9	9.5	0.9	1.8	9.8	---	58.5	14.3	11.9	376																						

MORTALITY RATES

and Sex: Death-Registration States, 1900-1950—Continued

as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

Vascular lesions affecting central nervous system <sup>3</sup>	Rheumatic fever	Diseases of heart <sup>4</sup>	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic and unspecified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn <sup>5</sup>	Ulcer of stomach and duodenum <sup>6</sup>	Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn <sup>7</sup>	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Con-genital mal-formations	Symptoms, senility, and ill-defined conditions	Motor-vehicle accidents <sup>8</sup>	All other accidents <sup>9</sup>	Suicide	Homicide	All other causes	
OF THE INTERNATIONAL LISTS, 1948																			
330-334	400-402	410-443	444-450	451-466	492-594	480-493	540, 541	543, 571, 572	591	590, 591	640-689	750-759	780-795	8610-8655	8900-8902, 8940-8962	8963, 8970-8979	8964, 8980-8985	Residual	
100.5 97.4	1.2 1.5	433.0 425.6	29.5 29.2	5.9 5.5	15.8 16.9	31.6 30.8	9.1 8.8	4.6 6.2	12.6 12.8	2.3 2.3	...	13.5 14.3	12.5 13.4	35.1 32.7	47.4 50.2	19.0 19.1	3.9 4.1	113.5 122.5	1 2
OF THE INTERNATIONAL LIST, 1938																			
83	58	90-95	97,102	96,99-101,103	131,132	33,107-109	117	119,120	124	130	140-150	157	162, 199, 200	170	169, 171-176, 178-195	163,164	165-169, 198	All other diseases	
86.5 88.0 87.1 99.4	0.5 0.6 0.7 0.9	398.4 395.8 377.6 415.4	19.9 20.2 20.3 24.0	5.4 5.3 4.8 5.0	51.7 55.5 57.7 69.1	40.7 45.6 46.1 56.8	10.2 10.2 9.9 12.2	6.0 5.7 5.9 9.1	15.8 14.4 13.5 13.7	1.4 1.4 1.6 2.2	...	14.9 16.1 14.5 14.6	16.1 16.9 17.2 19.7	34.3 35.9 37.9 35.3	56.4 59.5 59.4 70.2	18.4 18.9 18.7 18.5	4.5 4.8 4.9 4.9	120.8 128.4 129.8 137.4	3 4 5 6
93.3 92.7 87.1 86.4 86.3	1.1 1.0 1.0 1.1 1.1	396.7 387.6 357.9 347.4 345.6	23.0 24.0 21.4 20.2 19.7	4.8 4.7 4.4 4.2 4.0	70.0 75.6 71.2 75.2 79.3	66.8 72.1 58.0 64.3 70.0	11.6 11.9 11.8 11.2 11.3	9.9 9.2 8.3 8.8 8.8	12.1 12.9 13.1 12.4 11.9	2.0 2.1 1.9 2.0 2.2	...	14.8 14.4 13.6 11.8 11.3	19.2 19.1 17.8 17.1 17.8	29.8 28.9 33.8 46.2 40.5	74.5 77.8 67.7 60.1 60.0	16.0 16.4 19.7 20.8 23.5	4.0 4.2 4.4 4.5 5.0	158.6 141.4 158.9 136.2 142.4	7 8 9 10 11
84.8 83.0 83.8 89.0 83.4	1.2 1.4 1.4 1.5 1.6	322.2 312.0 311.7 306.7 281.7	19.6 18.8 19.8 20.7 19.4	3.7 3.0 3.0 3.2 3.3	80.7 75.2 78.0 81.7 80.0	75.8 81.0 117.2 121.8 108.1	11.2 10.6 11.2 11.0 10.7	11.1 13.4 14.3 15.7 13.7	11.5 11.4 11.6 11.2 10.8	2.2 2.3 2.8 2.8 3.2	...	10.8 10.6 10.4 11.0 10.7	16.7 16.3 17.4 18.5 17.5	38.0 38.5 47.3 45.4 43.9	56.4 59.9 66.3 72.3 64.5	25.4 25.3 24.5 23.3 23.7	5.3 5.8 6.5 6.9 7.7	141.8 155.4 164.2 173.1 170.3	12 13 14 15 16
83.3 82.7 86.3 86.3 86.9	1.7 1.9 2.0 2.0 2.3	274.4 283.7 280.3 236.8 234.1	21.0 19.4 19.7 20.4 21.4	3.3 3.2 3.2 3.4 3.4	82.0 81.4 84.5 84.0 87.0	99.5 96.3 106.0 108.4 105.8	9.7 8.5 8.4 8.3 8.5	17.7 17.0 15.8 19.8 26.4	10.4 8.7 8.6 8.7 8.3	3.1 3.4 3.4 3.3 3.7	...	11.4 11.0 11.7 12.5 13.0	18.2 19.3 17.8 18.6 20.6	44.3 38.1 35.6 41.0 40.3	67.2 61.6 62.4 69.3 72.8	24.6 26.8 29.4 28.2 25.9	9.2 9.7 9.3 8.3 8.9	175.2 170.3 170.0 180.1 186.0	17 18 19 20 21
90.0 91.0 87.5 90.3 87.2	2.2 2.2 2.3 2.3 2.3	227.5 222.4 208.3 203.3 194.1	33.1 31.4 29.7 29.5 28.6	37.0 30.9 29.7 29.3 28.6	87.0 90.9 87.5 92.3 88.4	144.5 143.1 105.6 139.6 120.9	9.9 8.7 8.4 8.0 8.7	22.8 26.1 26.7 32.7 39.1	8.2 8.9 8.6 9.3 9.2	3.9 4.3 4.3 4.5 4.8	...	13.2 13.7 14.5 15.1 16.0	21.4 21.3 18.6 19.1 18.9	38.4 34.8 32.0 29.4 24.7	74.9 75.8 76.8 78.8 82.7	22.5 22.1 21.2 20.0 19.1	7.9 8.2 8.0 8.1 8.2	192.7 197.2 197.0 204.9 204.3	22 23 24 25 26
95.1 94.0 89.6 86.0 88.7	2.9 2.6 2.8 3.3 3.3	184.0 181.5 171.9 158.7 160.2	28.9 28.5 27.7 26.5 29.4	28.9 28.5 27.7 26.5 29.4	81.8 84.1 83.4 78.2 84.8	115.1 147.5 133.0 100.3 204.2	8.0 7.4 6.9 6.6 4.4	33.5 40.0 40.6 52.6 56.5	9.5 9.4 9.6 9.2 9.1	5.3 5.5 5.5 5.8 5.8	...	16.3 16.7 17.1 17.8 17.5	20.6 21.0 19.2 19.9 23.1	22.6 22.1 19.2 17.3 15.8	81.2 84.0 78.4 77.6 83.1	19.2 18.1 18.7 20.0 15.4	7.9 7.8 8.7 9.4 7.5	209.3 213.0 213.3 220.1 221.7	27 28 29 30 31
87.4 93.4 94.4 93.7 92.9	3.1 3.6 4.3 4.2 4.6	149.9 176.3 176.2 172.4 186.4	28.8 31.0 33.3 31.9 30.6	28.8 31.0 33.3 31.9 30.6	85.5 97.2 103.7 102.6 99.2	218.2 652.0 172.8 166.9 147.7	4.4 5.2 5.4 5.4 5.1	59.1 78.0 78.3 78.7 70.6	10.4 13.1 14.6 16.0 15.9	6.2 7.0 7.9 8.0 8.4	...	16.9 18.7 18.1 18.1 17.0	23.3 26.7 26.9 26.3 25.1	14.4 14.6 13.6 11.3 9.0	88.5 106.8 112.6 110.7 99.5	17.5 19.0 20.1 21.5 24.8	8.2 7.7 8.2 7.7 7.3	211.6 244.9 244.9 245.4 243.7	32 33 34 35 36
92.5 89.7 91.3 90.4 94.4	4.9 5.4 4.9 5.5 5.8	161.2 157.6 162.7 159.4 162.9	30.6 33.5 34.1 31.6 28.9	30.6 33.5 34.1 31.6 28.9	97.3 97.2 96.9 91.7 90.9	136.7 146.7 143.5 148.5 160.4	4.5 4.4 4.4 3.9 4.5	78.9 90.6 82.6 90.0 119.8	16.7 17.2 17.3 18.0 17.3	8.6 10.0 10.3 9.5 10.2	...	17.5 17.0 16.5 15.9 17.1	27.7 30.8 31.2 31.7 44.3	6.6 6.0 4.3 3.3 2.7	107.0 119.9 116.2 120.7 126.1	24.5 23.6 23.8 24.1 23.2	7.8 7.6 7.0 7.3 6.1	255.7 269.3 266.1 266.9 277.6	37 38 39 40 41

<sup>3</sup>Excludes ulcer of duodenum for 1910-20.  
<sup>4</sup>Includes ulcer of duodenum for 1910-20.  
<sup>5</sup>Excludes automobile collisions with trains and streetcars, and motorcycle accidents for 1910-25.  
<sup>6</sup>Includes legal executions for 1910-29.

## SUMMARY TABLES

Table 8.45. Death Rates for 32 Selected Causes, by Race

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated)

RACE, SEX, AND YEAR		Total	Tuber- culo- sis, all forms	Syph- illis and its seque- lae <sup>1</sup>	Ty- phoid fever <sup>2</sup>	Dysen- tery, all forms	Diph- ther- ia	Whoop- ing cough	Menin- gococ- cal infec- tions	Acute polio- mye- litis	Mea- sles	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hema- topoietic tissues	Dia- betes melli- tus	Menin- gitis, except menin- gococ- cal and tuber- culous	Major cardio- vascular diseases	Diseases of cardio- vascular system
		CATEGORY NUMBERS: SIXTH REVISION															
			001- 019	020- 029	040	045- 048	055	056	057	080	085	030-039, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	260	340	330-334, 400-468, 592-594	330-334, 400-468
1	1950-----	803.3	10.9	1.9	0.0	0.4	0.2	0.6	0.5	1.1	0.3	2.1	139.9	20.0	0.8	439.4	425.9
2	1949-----	811.0	13.2	2.0	0.1	0.8	0.3	0.4	0.5	1.5	0.6	2.4	140.2	21.2	1.0	432.0	417.2
		CATEGORY NUMBERS: FIFTH REVISION															
			13-22	30	1	27	10	9	6	36	35	2-5, 7, 8, 11, 12, 23-26, 28, 29, 31, 32, 34, 37-44, 115b, 177	45-55	61	81	58, 85, 90-103, 131, 132	59, 85, 90-103
3	1948-----	828.9	15.4	2.9	0.1	0.6	0.3	0.6	0.5	1.1	0.6	3.2	138.3	34.0	0.9	416.8	372.4
4	1947-----	850.2	18.0	3.1	0.1	0.5	0.5	1.1	0.5	0.3	0.3	3.3	137.0	33.8	0.9	423.7	376.7
5	1946-----	845.6	20.6	3.1	0.2	0.5	0.8	0.8	0.7	1.1	0.9	3.8	135.8	32.3	0.9	415.0	365.8
6	1945-----	858.4	21.7	3.4	0.2	1.0	1.0	1.1	0.9	0.7	0.2	4.4	135.4	33.1	1.0	422.0	368.8
7	1944-----	876.6	23.3	3.8	0.2	1.1	0.8	1.1	1.5	0.8	1.4	4.8	133.3	32.9	1.2	423.9	367.6
8	1943-----	916.2	24.7	4.1	0.3	1.1	0.8	2.2	1.4	0.7	1.0	5.4	132.7	34.7	1.3	443.9	382.5
9	1942-----	871.0	25.6	4.3	0.3	1.1	0.8	1.6	0.4	0.3	0.9	5.4	131.3	32.6	1.1	416.6	355.7
10	1941-----	886.6	27.4	4.5	0.4	1.5	0.8	2.5	0.4	0.4	1.5	5.9	129.8	33.3	1.2	414.6	351.1
11	1940-----	919.4	28.3	5.0	0.7	1.5	1.0	1.9	0.4	0.6	0.5	6.6	130.5	34.3	1.1	429.8	359.8
12	1939-----	918.1	30.6	5.3	1.0	1.6	1.3	1.9	0.4	0.5	0.8	7.6	129.5	33.0	1.2	419.1	346.4
13	1938-----	917.1	31.9	5.8	1.1	1.8	1.8	3.3	0.6	0.3	2.5	---	127.2	31.2	1.3	405.4	337.6
14	1937-----	963.7	35.8	5.9	1.3	2.0	1.8	3.6	1.2	1.0	1.0	---	125.5	30.8	1.6	407.3	338.2
15	1936-----	924.9	37.6	6.0	1.5	2.0	2.2	1.8	1.5	0.5	1.0	---	125.8	30.5	1.7	415.9	343.6
16	1935-----	948.2	37.9	5.8	1.7	1.6	2.9	3.5	1.3	0.6	2.9	---	122.6	28.7	1.6	390.4	319.9
17	1934-----	956.4	39.6	5.9	2.1	2.2	3.2	5.5	0.7	0.6	5.1	---	120.5	28.3	1.5	389.4	316.0
18	1933-----	934.2	42.6	5.8	2.2	1.8	3.8	3.3	0.9	0.5	2.1	---	116.5	26.8	1.4	377.9	305.5
19	1932-----	961.2	44.4	5.9	2.2	1.3	4.8	4.3	1.1	0.6	1.6	---	117.8	28.0	1.6	386.8	309.1
20	1931-----	960.1	48.2	6.0	2.9	1.6	4.6	3.7	1.6	1.5	2.9	---	114.3	25.9	1.8	371.9	296.1
21	1930-----	981.4	51.9	6.2	3.0	2.4	4.7	4.5	2.3	1.0	3.2	---	112.5	24.0	2.0	378.6	301.0
22	1929-----	1,041.8	57.6	6.2	2.7	1.9	6.4	5.9	3.1	0.7	2.4	---	111.3	23.4	2.4	386.2	308.0
23	1928-----	1,054.5	59.9	6.7	3.0	2.2	7.3	5.3	1.8	1.1	4.9	---	111.5	23.7	2.2	389.1	307.6
24	1927-----	999.0	62.2	6.7	3.4	1.9	7.8	6.0	1.2	1.7	3.9	---	111.2	21.7	2.4	371.6	292.2
25	1926-----	1,079.8	67.5	7.3	4.2	2.2	7.3	8.7	1.1	0.7	8.1	---	109.8	22.0	2.5	386.2	300.8
26	1925-----	1,039.8	67.2	7.5	5.3	2.5	7.7	6.3	0.9	1.3	2.3	---	107.8	20.5	2.9	369.5	286.6
27	1924-----	1,030.9	70.4	7.7	4.2	2.2	9.4	7.3	0.8	1.0	7.5	---	106.1	20.1	2.8	363.5	288.1
28	1923-----	1,104.5	74.5	8.3	4.5	2.4	12.5	9.0	0.9	0.7	10.0	---	105.9	21.2	3.1	368.3	290.2
29	1922-----	1,072.0	77.4	8.7	5.0	2.3	15.0	5.3	0.8	0.8	4.3	---	102.2	21.9	3.0	358.2	281.3
30	1921-----	1,063.2	80.2	8.4	6.7	3.5	18.2	9.0	1.2	1.7	4.1	---	102.7	19.9	3.6	347.7	273.1
31	1920-----	1,212.6	84.8	8.0	5.8	3.2	15.5	12.9	1.4	0.8	9.2	---	100.4	18.8	3.9	362.5	285.1
32	1919-----	1,179.8	100.4	8.4	6.8	3.6	15.3	5.3	1.4	0.8	4.0	---	98.4	17.6	4.0	341.2	266.0
33	1918-----	1,575.8	115.4	9.5	9.1	4.5	13.8	16.4	2.3	1.1	9.7	---	97.5	17.8	5.3	364.4	286.0
34	1917-----	1,236.8	112.7	10.1	9.6	4.9	15.9	10.2	2.8	1.3	13.3	---	99.0	19.1	4.3	371.2	285.5
35	1916-----	1,244.3	109.5	10.1	9.7	4.3	14.4	10.6	1.8	9.4	11.4	---	99.9	19.6	4.3	368.0	283.9
36	1915-----	1,199.6	112.2	10.1	9.0	3.3	15.5	8.4	1.2	1.0	5.1	---	98.0	20.2	5.3	362.0	279.5
37	1914-----	1,205.9	112.9	9.7	11.5	4.2	17.5	10.3	1.3	1.0	6.9	---	96.7	18.3	6.4	351.8	271.6
38	1913-----	1,250.0	116.7	9.4	13.8	4.9	18.1	10.9	1.3	1.4	12.8	---	97.2	17.2	7.5	346.6	269.8
39	1912-----	1,243.0	121.8	9.2	12.6	4.1	17.7	9.7	1.3	1.8	7.2	---	96.0	16.7	8.0	352.1	273.2
40	1911-----	1,279.3	131.9	9.3	16.1	4.7	18.6	11.6	0.8	1.8	10.0	---	92.0	18.5	10.2	348.5	271.8
41	1910-----	1,355.3	132.8	7.9	17.6	6.3	21.2	12.4	0.3	2.7	11.3	---	94.9	16.8	12.7	353.6	277.9

<sup>1</sup>Excludes aneurysm of the aorta for 1910-20.<sup>2</sup>Includes paratyphoid fever for 1910-20.<sup>3</sup>Includes all embolisms and thromboses, except puerperal for 1910-20.<sup>4</sup>Excludes diseases of coronary arteries for 1910-29.<sup>5</sup>Excludes capillary bronchitis for 1910-20.



and Sex: Death-Registration States, 1900-1950—Continued

as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

Vascular lesions affecting central nervous system <sup>6</sup>	Rheumatic fever	Diseases of heart <sup>4</sup>	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic and unspecified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn <sup>5</sup>	Ulcer of stomach and duodenum <sup>7</sup>	Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn <sup>7</sup>	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Congenital malformations	Symptoms, senility, and ill-defined conditions	Motor-vehicle accidents <sup>8</sup>	All other accidents <sup>9</sup>	Suicide	Homicide	All other causes
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OF THE INTERNATIONAL LISTS, 1949

330-334	400-402	410-443	444-450	451-468	592-594	480-493	540, 541	545, 571, 572	581	590, 591	640-669	750-759	780-795	E810-E835	E800-E802, E840-E862	E963, E970-E979	E964, E980-E985	Residual
103.3	1.2	289.4	26.2	3.9	13.5	24.5	2.1	4.2	6.5	1.7	2.8	11.2	8.9	10.9	25.4	5.5	1.4	80.2
100.0	1.4	283.5	28.5	3.9	14.8	23.0	1.9	5.7	6.4	1.8	3.1	11.6	9.5	10.0	27.1	5.5	1.4	87.9

OF THE INTERNATIONAL LIST, 1938

83	88	90-95	97,102	96,98-101,103	151,152	33,107-109	117	119,120	124	130	140-150	157	162, 199, 200	170	169, 171-176, 178-195	163,164	185-189, 186	All other diseases
98.2	0.5	261.2	18.7	3.7	44.4	30.1	2.1	5.1	7.8	1.0	4.2	12.0	12.1	10.2	32.2	5.7	1.5	89.6
90.6	0.6	263.2	18.8	3.6	47.0	34.2	2.1	4.5	7.4	1.0	5.5	13.2	12.6	10.5	32.4	6.0	1.5	96.3
99.2	0.7	253.5	18.9	3.4	49.2	36.2	2.1	4.8	6.7	1.1	6.0	11.8	13.4	10.7	31.9	6.2	1.5	96.8
92.4	0.9	252.8	19.6	3.1	53.2	38.5	2.2	6.5	6.4	1.4	6.6	10.9	14.2	9.1	33.7	6.3	1.3	95.3
90.0	0.9	254.2	19.5	3.1	56.3	47.1	2.2	7.5	6.1	1.6	7.5	11.4	14.4	7.7	33.3	5.9	1.2	100.8
92.9	1.0	264.8	20.6	3.2	61.4	52.2	2.3	7.7	6.7	1.6	9.0	11.7	15.3	7.2	34.7	5.9	1.2	106.5
98.6	1.0	244.5	18.4	3.2	61.0	45.8	2.2	6.9	6.6	1.7	9.2	11.1	14.3	8.6	32.2	6.3	1.3	104.5
96.9	1.1	242.5	17.4	3.2	65.5	50.7	2.2	8.1	6.3	1.5	9.8	10.0	13.7	13.9	30.8	6.8	1.3	107.1
98.9	1.2	248.9	17.8	3.0	70.0	58.0	2.3	8.4	5.8	1.7	11.3	9.5	14.4	12.3	32.5	7.3	1.4	112.8
96.0	1.2	239.2	17.2	2.8	72.7	62.7	2.4	9.6	5.7	1.8	12.0	9.0	13.6	11.6	31.8	7.1	1.4	115.6
94.0	1.5	233.5	16.3	2.3	67.8	65.1	2.3	11.7	5.8	1.9	13.1	8.9	15.1	11.6	32.5	7.4	1.7	127.6
95.3	1.5	231.9	17.0	2.5	69.1	62.8	2.5	12.1	5.9	2.1	14.7	8.8	14.1	14.7	32.9	7.6	2.0	134.7
99.8	1.7	231.7	17.9	2.6	72.3	66.3	2.5	13.8	5.7	2.2	16.3	8.8	15.7	14.2	37.3	7.5	1.9	144.1
94.1	1.7	234.9	16.8	2.5	70.5	64.9	2.6	11.8	5.4	2.4	17.7	8.8	14.7	13.7	32.5	7.2	2.0	142.8
94.5	1.7	230.1	17.2	2.5	73.4	79.1	2.5	15.3	5.4	2.6	19.5	9.5	16.0	13.5	32.5	7.3	2.2	147.6
92.8	1.9	201.6	16.3	2.6	72.4	62.2	2.5	14.6	5.4	2.7	19.5	9.3	17.1	12.4	30.5	7.3	2.4	143.4
95.8	2.1	202.0	16.6	2.7	77.6	65.1	2.5	13.7	5.2	2.6	20.1	9.8	16.2	12.0	30.2	7.7	2.2	144.1
94.2	2.1	190.2	16.9	2.7	76.8	69.2	2.8	17.4	5.3	2.6	21.5	10.6	16.9	13.9	30.5	7.6	2.5	152.5
96.9	2.3	191.5	17.6	2.8	77.6	64.7	2.9	21.6	5.2	3.1	23.0	10.6	19.1	13.7	30.8	7.4	2.4	160.7
98.3	2.4	192.7	24.6	2.8	78.2	126.7	2.9	19.8	5.2	3.2	23.7	10.8	20.1	13.2	30.6	7.1	2.2	166.1
89.9	2.4	191.4	23.9	2.8	81.6	122.9	3.1	22.1	5.3	3.3	24.7	11.1	20.5	12.3	30.8	6.6	2.1	170.8
86.7	2.6	180.2	22.7	2.7	79.7	85.1	3.2	22.8	5.3	3.4	24.7	11.8	18.2	11.6	30.4	6.6	2.2	172.0
89.7	2.7	184.9	23.4	2.8	85.4	122.6	3.2	26.2	5.2	3.7	25.9	12.4	19.8	10.7	31.9	6.6	2.1	179.8
89.8	2.7	171.3	22.8	2.8	82.9	103.3	3.2	33.1	5.2	4.1	26.4	12.5	19.9	9.4	33.3	6.2	2.1	179.6
97.8	3.2	163.7	23.4	2.8	75.4	95.7	3.0	28.2	5.0	4.5	27.4	12.7	20.7	8.4	32.4	5.9	2.2	181.5
97.7	3.1	168.8	23.6	2.8	78.1	137.6	3.0	34.1	5.0	4.8	28.4	13.2	22.9	7.9	32.9	6.2	2.0	187.4
96.0	3.2	159.3	23.7	2.8	76.9	121.4	3.2	34.1	5.4	4.7	28.9	13.2	22.2	6.5	31.5	6.1	2.0	187.9
93.2	3.7	152.8	23.4	2.8	74.6	88.8	3.0	45.6	5.4	5.2	31.4	14.1	21.0	6.1	31.1	6.1	2.4	196.2
98.4	3.9	158.7	24.2	2.7	77.4	182.5	2.7	47.6	5.1	5.4	36.0	13.9	24.5	5.5	33.2	6.1	2.0	201.1
95.7	3.5	145.1	23.9	2.8	75.1	203.8	2.6	49.4	5.4	5.2	31.9	13.4	25.7	5.0	32.6	6.7	2.1	188.9
94.5	3.8	163.3	24.5	2.8	78.4	492.2	2.6	63.5	6.3	5.8	42.8	14.2	27.6	4.4	35.9	6.5	1.9	205.3
96.5	4.4	159.2	25.5	2.8	85.6	140.8	3.2	66.7	7.5	6.6	31.5	14.2	28.8	4.1	38.5	6.9	2.2	211.3
95.2	4.6	159.5	24.7	2.8	84.1	149.3	3.4	69.2	7.9	6.9	30.9	14.7	28.9	3.2	35.6	6.8	2.0	212.6
94.5	4.9	156.4	23.8	2.8	82.4	135.1	3.3	62.3	8.1	7.5	29.5	13.3	29.1	2.6	33.1	7.7	2.2	214.7
93.4	5.5	150.0	22.7	2.8	80.2	119.7	3.4	69.5	8.1	7.6	30.6	14.4	30.9	1.9	34.8	7.8	2.3	226.5
91.3	5.7	147.2	25.5	2.8	78.8	127.4	3.2	81.2	8.4	8.9	30.8	13.3	34.7	1.7	36.4	7.2	2.1	234.9
92.0	5.5	149.7	26.0	2.8	76.9	128.1	3.0	75.3	8.6	9.0	29.1	12.9	37.0	1.3	36.6	7.4	2.1	236.2
92.7	6.1	149.0	23.9	2.8	74.7	134.9	3.0	81.9	9.2	8.9	31.4	13.4	38.5	0.9	39.0	7.6	2.0	240.6
96.8	6.3	152.1	22.6	2.8	75.7	144.4	3.6	109.0	9.2	9.5	31.2	13.5	49.2	0.8	35.8	7.2	1.8	248.4

<sup>6</sup>Excludes ulcer of duodenum for 1910-20.

<sup>7</sup>Includes ulcer of duodenum for 1910-20.

<sup>8</sup>Excludes automobile collisions with trains and streetcars, and motorcycle accidents for 1910-25.

<sup>9</sup>Includes legal executions for 1910-29.

SUMMARY TABLES

Table 8.45. Death Rates for 32 Selected Causes, by Race

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated)

RACE, SEX, AND YEAR		Total	Tuber- culo- sis, all forms	Syph- illis and its sequelae <sup>1</sup>	Ty- phoid fever <sup>2</sup>	Dysen- tery, all forms	Diph- theria	Whoop- ing cough	Menin- gococ- cal infec- tions	Acute polio- mye- litis	Meas- les	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemato- poietic tissues	Dia- betes mel- litus	Menin- gitis, except menin- gococ- cal and tuber- culous	Ma- jor cardio- vascular diseases	Diseases of cardio- vascular system
		CATEGORY NUMBERS: SIXTH REVISION															
			001- 019	020- 029	040	045- 048	055	056	057	060	065	030-039, 041-044, 049-054, 068-074, 081-084, 086-138	140-205	260	340	350-354, 400-468, 582-594	350-354, 400-468
NONWHITE, BOTH SEXES																	
1	1950-----	1,119.4	62.3	16.1	0.5	1.5	0.6	2.6	0.8	0.6	0.6	5.8	108.1	14.4	3.3	498.0	466.6
2	1948-----	1,123.9	73.2	19.4	0.5	1.9	0.7	1.5	0.8	0.6	1.2	6.2	103.2	14.2	3.6	489.0	457.9
		CATEGORY NUMBERS: FIFTH REVISION															
			15-22	30	1	27	10	9	6	36	35	2-5, 7, 8, 11, 12, 23-26, 28, 29, 31, 32, 34, 37-44, 115b, 177	45-55	61	81	58, 83, 90-103, 131, 132	59, 83, 90-103
3	1948-----	1,136.9	79.1	27.1	0.4	1.2	0.8	2.6	0.8	0.5	0.9	7.0	99.5	18.6	3.0	477.1	396.1
4	1947-----	1,135.2	86.4	30.0	0.6	1.2	0.8	4.2	0.9	0.3	0.6	7.6	95.5	17.9	3.2	464.1	381.4
5	1946-----	1,108.7	92.2	32.0	0.7	1.3	1.0	2.1	1.1	0.6	1.7	8.5	88.9	15.8	3.2	441.1	357.2
6	1945-----	1,194.0	101.7	36.8	1.0	2.3	1.4	2.2	2.2	0.6	0.6	10.7	83.4	17.4	2.9	470.5	375.4
7	1944-----	1,235.9	105.8	39.4	1.2	2.9	1.0	4.5	3.3	0.5	2.2	11.3	84.0	18.1	3.8	476.2	376.2
8	1943-----	1,278.3	113.0	42.2	1.6	3.1	1.0	6.3	2.9	0.5	1.1	12.6	78.9	18.0	3.8	493.7	386.0
9	1942-----	1,267.3	116.5	43.2	1.7	3.3	1.2	5.3	1.0	0.4	2.0	14.3	78.9	17.0	3.4	478.2	373.1
10	1941-----	1,347.4	124.2	48.3	2.5	4.3	1.7	7.3	0.8	0.7	3.3	16.2	78.1	16.5	3.0	468.8	377.1
11	1940-----	1,382.8	128.0	54.3	3.1	4.3	1.8	5.9	0.6	0.5	0.8	17.4	78.4	17.9	3.3	498.6	381.1
12	1939-----	1,352.6	129.1	55.1	3.9	4.3	2.2	7.0	1.0	0.6	1.7	19.2	73.5	17.6	2.8	469.1	356.5
13	1938-----	1,403.0	136.8	58.2	5.7	4.9	2.5	9.3	1.1	0.5	3.3	---	72.3	15.8	3.4	468.8	366.5
14	1937-----	1,488.2	145.0	59.0	5.8	5.0	2.6	7.9	2.5	1.0	1.6	---	68.2	14.9	3.7	469.2	364.6
15	1936-----	1,533.1	151.6	56.8	7.4	5.1	3.2	4.9	3.9	0.6	1.0	---	66.3	14.7	3.6	477.5	369.4
16	1935-----	1,430.2	145.1	54.0	8.1	4.1	3.6	8.3	3.3	0.9	3.6	---	65.8	13.6	3.4	438.0	338.3
17	1934-----	1,475.5	148.8	56.6	9.8	5.8	3.3	14.7	1.3	0.6	8.7	---	63.6	13.9	2.8	448.3	340.8
18	1933-----	1,404.2	157.7	52.4	9.6	4.8	3.9	9.2	1.5	0.5	2.5	---	60.6	13.8	2.8	418.7	319.0
19	1932-----	1,445.8	173.5	52.5	11.3	3.7	3.7	10.0	1.8	0.7	1.2	---	60.1	13.4	2.8	430.6	322.4
20	1931-----	1,549.5	191.1	52.9	13.9	5.3	5.6	8.7	4.3	1.0	3.1	---	58.2	13.0	3.6	445.9	329.8
21	1930-----	1,633.0	192.0	52.5	14.7	6.8	4.9	11.1	7.0	1.1	3.3	---	56.6	12.8	4.2	460.4	354.8
22	1929-----	1,687.9	192.0	49.5	12.3	6.5	6.3	13.7	6.2	0.7	1.9	---	56.0	12.2	3.9	469.3	347.9
23	1928-----	1,706.6	199.5	52.0	14.8	7.5	6.4	12.4	2.5	1.0	8.3	---	56.5	12.6	3.7	465.5	340.7
24	1927-----	1,640.4	208.7	51.3	17.0	6.9	6.2	19.3	1.7	1.3	5.3	---	58.0	11.7	3.3	441.7	321.7
25	1926-----	1,777.4	223.9	51.9	20.7	7.9	6.7	17.2	1.2	2.0	6.5	---	58.3	11.8	4.0	465.2	338.6
26	1925-----	1,735.9	221.3	49.8	24.9	8.4	6.3	15.2	1.0	1.0	1.8	---	56.5	10.6	4.1	450.2	324.8
27	1924-----	1,706.1	218.6	48.7	22.3	9.7	6.4	21.8	0.9	0.8	15.0	---	54.2	10.4	4.1	434.6	319.9
28	1923-----	1,650.3	213.1	45.6	19.0	9.1	7.6	22.4	0.9	1.0	14.3	---	51.9	9.3	4.2	392.9	291.6
29	1922-----	1,524.6	219.9	44.7	21.3	8.8	10.2	11.7	0.6	0.8	2.6	---	49.4	8.8	3.6	363.7	287.1
30	1921-----	1,554.8	239.3	42.9	22.1	9.4	10.0	20.4	1.5	0.8	3.4	---	49.4	8.2	4.1	361.4	285.9
31	1920-----	1,767.5	262.4	38.8	19.6	11.5	8.6	20.6	1.6	0.6	4.1	---	48.5	8.0	4.7	389.7	273.2
32	1919-----	1,794.7	284.0	35.3	24.3	11.9	7.5	12.2	1.4	0.6	2.4	---	46.8	6.4	4.7	355.8	258.7
33	1918-----	2,558.6	346.0	43.0	32.5	19.1	6.7	44.3	5.0	1.1	11.5	---	49.8	7.7	7.3	438.1	317.7
34	1917-----	2,043.1	332.6	44.2	35.8	21.5	8.2	26.1	5.4	1.4	21.1	---	48.4	7.8	5.7	456.5	350.3
35	1916-----	1,914.7	322.7	41.6	32.4	18.1	8.0	25.3	2.2	4.3	10.1	---	49.6	7.9	6.2	427.1	309.3
36	1915-----	2,021.5	401.1	49.3	26.9	8.4	8.9	17.9	1.7	1.4	4.2	---	58.3	10.9	9.6	500.7	353.3
37	1914-----	2,016.9	396.7	42.5	31.3	8.7	8.8	33.9	2.5	1.7	5.4	---	55.4	8.8	9.1	485.4	355.9
38	1913-----	2,032.0	386.5	38.8	37.9	9.7	10.3	22.4	2.0	1.5	12.5	---	55.8	8.7	10.9	466.6	359.6
39	1912-----	2,056.1	429.0	36.8	31.1	5.3	8.6	22.8	7.1	1.9	4.0	---	57.2	9.7	10.7	500.5	355.9
40	1911-----	2,132.1	461.4	35.5	37.6	8.0	9.5	24.5	0.8	2.9	9.4	---	57.3	7.0	14.0	475.0	353.4
41	1910-----	2,172.4	445.5	30.8	33.6	5.8	11.6	35.9	0.6	2.4	8.4	---	54.0	7.2	16.5	468.4	343.5

<sup>1</sup>Excludes aneurysm of the aorta for 1910-20.  
<sup>2</sup>Includes paratyphoid fever for 1910-20.  
<sup>3</sup>Includes all embolisms and thromboses, except puerperal for 1910-20.  
<sup>4</sup>Excludes diseases of coronary arteries for 1910-29.  
<sup>5</sup>Excludes capillary bronchitis for 1910-20.

and Sex: Death-Registration States, 1900-1950—Continued

as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

Vascular lesions affecting central nervous system <sup>3</sup>	Typhoid fever	Diseases of heart <sup>4</sup>	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic and unspecified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn <sup>5</sup>	Ulcer of stomach and duodenum <sup>6</sup>	Gastritis, duodenitis, enteritis, and colitis, except diarrhoea of newborn <sup>7</sup>	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Congenital malformations	Symptoms, senility, and ill-defined conditions	Motor-vehicle accidents <sup>8</sup>	All other accidents <sup>9</sup>	Suicide	Homicide	All other causes
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OF THE INTERNATIONAL LISTS, 1948

330-334	400-402	410-443	444-450	451-468	582-594	490-493	540, 541	543, 571, 572	581	590, 591	640-689	750-759	780-795	E810-E835	E800-E802, E840-E862	E965, E970-E979	E964, E980-E985	Residual
122.3	2.3	308.6	27.5	5.2	31.2	58.0	4.4	10.7	6.5	5.2	6.9	11.5	51.4	24.2	47.0	4.3	28.0	145.6
119.4	2.8	303.2	27.4	5.1	31.1	56.9	4.4	13.2	6.0	5.4	7.2	10.8	53.6	21.6	45.5	4.3	28.2	151.0

OF THE INTERNATIONAL LIST, 1938

85	88	90-95	97, 102	96, 98-101, 103	131, 132	33, 107-109	117	119, 120	124	130	140-150	157	162, 199, 200	170	169, 171-176, 178-195	163, 164	185-188, 190	All other diseases
110.0	1.5	264.8	15.3	4.5	81.0	66.9	4.5	10.4	7.2	4.0	9.0	11.0	59.1	20.8	49.7	4.1	31.0	141.7
108.8	1.8	262.0	14.5	4.2	82.8	70.9	4.9	10.0	8.3	4.1	9.5	10.4	57.5	19.9	50.8	4.1	31.4	142.2
102.7	1.7	234.2	14.9	3.8	83.8	73.3	4.7	10.2	5.5	4.6	9.1	8.5	57.6	21.2	49.1	3.9	33.1	137.7
112.3	2.1	241.4	15.4	4.3	95.1	89.2	5.7	16.4	6.0	5.8	11.0	8.5	64.4	18.6	50.5	5.5	28.4	146.5
109.9	2.2	245.2	15.1	3.7	100.0	104.0	5.4	19.8	5.7	5.8	12.3	8.5	69.3	17.7	51.7	5.0	26.2	151.4
112.1	2.1	251.8	16.1	3.9	107.7	111.2	6.2	19.0	5.7	6.4	12.4	7.8	75.3	16.9	53.5	3.0	25.8	155.8
109.5	2.2	241.7	15.4	4.2	105.2	97.5	6.2	19.3	5.5	6.4	12.7	7.5	76.6	20.2	52.3	3.9	32.4	157.2
110.0	2.4	245.0	14.9	3.8	111.7	118.8	6.0	24.1	5.2	6.6	15.3	6.8	82.8	29.4	49.2	4.1	33.5	170.0
111.7	2.6	249.5	14.2	4.1	117.5	125.4	6.4	21.1	5.9	7.2	16.6	6.1	90.8	23.8	52.3	4.6	33.9	173.5
109.2	2.2	227.3	14.1	3.7	112.6	131.9	6.3	22.4	5.7	7.2	16.1	5.7	85.2	25.1	49.0	4.2	34.6	174.1
107.1	2.6	240.1	13.3	3.4	102.3	145.1	6.2	29.3	5.6	8.3	18.0	5.7	88.7	23.5	50.1	4.9	34.5	200.5
108.2	2.3	239.9	13.3	2.9	104.5	201.3	6.2	28.1	6.2	8.9	18.0	5.7	93.0	27.4	55.8	4.9	38.2	209.2
110.0	2.6	240.3	13.2	3.4	108.1	211.4	5.9	30.4	6.6	9.4	19.6	5.6	87.7	21.8	61.8	4.7	40.9	219.6
102.9	2.7	217.0	12.7	3.0	100.7	171.0	6.1	26.2	5.9	9.5	19.5	5.5	93.7	24.9	54.6	5.1	40.3	215.1
100.6	3.1	220.1	13.8	3.3	107.4	162.7	5.7	34.7	6.0	10.0	19.2	5.8	98.8	24.4	57.3	4.7	44.5	225.7
95.5	3.3	205.3	12.1	3.0	99.7	151.7	5.7	30.0	6.2	9.7	20.0	5.3	100.4	21.2	52.7	4.9	42.4	220.0
98.9	3.3	203.4	12.5	3.3	108.2	169.3	5.9	27.5	5.5	8.9	21.2	5.6	105.9	19.2	53.5	5.5	39.3	214.3
100.6	3.6	209.2	13.3	3.1	116.1	185.6	5.8	37.1	6.4	10.7	23.3	6.0	111.5	22.5	55.4	5.2	40.4	233.0
108.2	4.2	224.7	14.2	3.4	125.6	175.9	6.3	44.0	6.7	13.1	25.3	5.9	125.4	22.1	62.1	5.0	38.4	255.6
105.8	4.4	218.7	18.9		121.5	244.3	5.8	40.5	6.5	13.6	25.6	5.8	123.2	21.5	65.1	4.9	37.9	262.4
105.6	4.3	213.1	17.7		124.8	226.5	5.5	46.8	6.2	13.4	26.8	6.2	128.4	18.1	67.0	4.8	40.0	274.2
97.3	4.2	205.1	17.1		120.0	178.3	6.0	49.8	6.6	12.8	26.9	6.3	118.5	17.8	71.6	4.7	41.2	266.2
104.3	5.0	212.2	17.2		126.6	249.7	5.2	57.6	6.5	13.8	28.1	8.0	125.3	16.5	73.9	4.4	42.9	269.6
99.8	4.2	204.7	16.1		125.4	219.2	5.0	64.2	7.1	14.8	30.3	8.5	126.3	13.5	74.7	4.0	40.5	276.8
104.6	5.4	192.5	17.4		114.6	212.6	4.5	62.1	6.8	15.9	30.8	8.4	116.7	12.3	73.2	4.3	37.9	275.1
95.0	4.6	176.2	15.8		101.2	242.6	4.7	59.9	6.4	14.7	28.3	7.9	111.5	9.7	69.5	3.7	37.0	264.0
89.7	4.6	159.5	14.4		96.6	180.7	4.5	53.8	6.3	14.7	27.5	7.5	111.7	6.8	62.5	4.2	35.1	266.2
85.7	5.5	160.7	14.1		95.5	143.0	4.7	68.5	7.4	14.5	29.4	8.6	109.7	5.7	63.3	4.6	31.3	290.4
87.7	5.7	160.7	19.1		96.6	304.4	3.8	71.4	6.8	14.5	32.9	8.9	119.5	5.3	71.1	3.6	28.5	297.9
84.0	5.0	152.1	17.6		97.1	351.2	3.7	69.9	7.2	13.5	29.8	7.7	120.7	4.7	71.0	4.0	28.7	289.0
94.6	6.4	194.5	22.3		120.3	794.7	3.6	103.6	8.2	17.4	34.3	9.7	121.8	5.7	82.2	5.5	27.9	332.1
102.7	7.6	197.1	23.0		126.1	264.3	4.6	109.8	8.1	16.8	28.6	9.1	120.6	4.4	91.9	4.9	28.9	335.5
98.3	6.3	182.8	21.8		117.9	235.4	4.5	97.5	8.4	16.6	27.4	9.3	111.7	3.5	81.8	5.0	27.0	331.9
111.1	7.3	217.4	27.6		137.4	245.0	4.9	89.0	12.4	20.9	22.2	9.3	73.4	3.8	82.0	9.3	29.8	318.8
106.8	8.5	213.1	27.5		129.5	222.1	3.9	94.2	11.8	17.9	24.4	9.4	77.5	2.0	88.7	9.8	30.7	333.6
104.7	8.4	199.8	26.7		126.0	219.5	4.7	102.4	12.0	18.9	24.0	8.7	107.5	2.4	95.6	8.9	30.8	334.3
99.1	8.2	227.2	31.4		134.6	239.0	5.0	95.9	13.6	21.0	21.8	8.8	59.5	2.4	94.0	9.7	28.0	331.4
98.8	9.0	217.6	28.0		121.6	251.4	4.6	109.3	12.0	19.5	22.3	9.4	88.5	1.6	99.2	12.7	30.2	343.6
102.3	8.6	204.8	27.8		124.9	273.6	4.8	147.1	11.0	22.0	21.0	11.1	78.9	1.0	91.9	11.8	22.3	354.4

<sup>6</sup>Excludes ulcer of duodenum for 1910-20.

<sup>7</sup>Includes ulcer of duodenum for 1910-20.

<sup>8</sup>Excludes automobile collisions with trains and streetcars, and motorcycle accidents for 1910-25.

<sup>9</sup>Includes legal executions for 1910-21.

SUMMARY TABLES

Table 8.45. Death Rates for 32 Selected Causes, by Race

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated)

RACE, SEX, AND YEAR	Total	Tuber- culo- sis, all forms	Syph- illis and its sequen- tae <sup>1</sup>	Ty- phoid fever <sup>2</sup>	Dysen- tery, all forms	Diph- theria	Whoop- ing cough	Menin- gococ- cal infec- tions	Acute polio- mye- litis	Meas- les	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemo- poietic tissues	Diab- etes mel- litus	Menin- gitis, except menin- gococ- cal and tuber- culous	Major cardio- vascular- renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 048	055	056	057	060	065	050-059, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	260	340	330-334, 400-466, 592-594	330-334, 400-466
CATEGORY NUMBERS: SIXTH REVISION																
1 1950-----	1,251.1	74.7	23.2	0.3	1.8	0.8	2.5	1.1	0.6	0.5	6.1	106.1	10.0	3.9	528.4	496.3
2 1949-----	1,248.8	87.4	27.3	0.3	2.2	0.7	1.4	1.0	0.6	1.3	6.7	99.4	9.4	4.2	512.9	481.0
CATEGORY NUMBERS: FIFTH REVISION																
		15-22	30	1	27	10	9	6	36	35	2-5, 7, 8, 11, 12, 23-26, 28, 29, 31, 32, 34, 37-44, 115b, 177	45-55	61	81	58, 85, 90-105, 131, 132	59, 83, 90-103
3 1948-----	1,267.0	82.4	38.3	0.5	1.4	0.8	2.4	1.0	0.7	0.8	8.0	93.3	12.4	3.5	506.7	419.9
4 1947-----	1,246.7	100.4	41.7	0.6	1.4	0.8	4.0	1.1	0.3	0.6	8.0	84.9	11.8	3.0	483.8	397.6
5 1946-----	1,219.3	104.9	44.8	0.8	1.6	1.2	1.8	1.3	0.6	1.8	9.4	80.3	9.9	3.7	458.7	370.3
6 1945-----	1,352.6	117.9	54.4	1.2	2.7	1.5	3.0	3.1	0.6	0.6	11.4	80.7	12.0	3.7	509.3	405.4
7 1944-----	1,375.7	121.3	57.1	1.3	3.2	1.1	4.0	4.3	0.6	2.2	12.1	74.7	13.0	4.4	507.5	399.5
8 1943-----	1,403.3	126.5	60.6	1.7	3.5	0.9	6.4	4.0	0.6	1.1	12.3	67.6	12.0	4.7	517.7	403.9
9 1942-----	1,400.6	131.3	60.0	2.0	3.8	1.2	5.3	1.3	0.4	1.9	14.8	68.1	11.9	4.1	508.7	385.8
10 1941-----	1,478.8	134.1	66.3	2.9	4.6	1.7	7.3	1.0	0.7	3.5	16.0	65.2	10.9	3.5	516.2	395.0
11 1940-----	1,513.7	139.1	75.5	3.6	5.0	1.8	5.9	0.6	0.6	0.9	17.6	65.0	11.8	3.8	526.5	400.6
12 1939-----	1,470.2	137.3	74.5	4.1	4.4	2.3	6.8	1.3	0.6	1.9	19.7	59.1	11.6	3.1	494.3	372.9
13 1938-----	1,519.6	144.0	77.6	6.3	5.3	2.6	8.8	1.5	0.6	3.5	---	56.7	10.2	4.0	494.8	384.2
14 1937-----	1,836.0	155.0	77.6	6.3	5.2	2.8	7.4	3.3	1.2	1.6	---	53.1	11.0	4.5	497.9	384.2
15 1936-----	1,693.3	163.9	77.5	8.1	5.6	3.1	4.7	5.1	0.6	1.1	---	49.6	10.5	4.4	505.2	388.0
16 1935-----	1,559.0	155.4	73.3	8.5	4.3	4.0	8.2	4.6	1.1	4.1	---	48.9	10.1	3.6	461.4	354.0
17 1934-----	1,803.1	158.9	76.1	10.2	6.2	3.5	14.5	1.7	0.6	9.0	---	47.3	9.9	3.2	469.9	354.5
18 1933-----	1,510.3	165.6	69.3	10.2	5.2	4.1	8.6	2.1	0.6	2.4	---	44.2	10.5	3.2	432.8	327.7
19 1932-----	1,541.0	179.5	68.7	12.4	3.5	3.7	9.1	2.2	0.7	1.3	---	43.9	10.5	3.4	447.0	329.9
20 1931-----	1,853.8	187.4	69.7	14.8	5.3	5.7	7.8	5.4	1.1	3.4	---	40.2	9.7	4.3	465.6	338.6
21 1930-----	1,739.0	184.3	67.0	15.9	7.0	5.1	10.3	9.4	1.3	3.4	---	39.4	9.4	5.1	505.2	367.6
22 1929-----	1,796.9	191.5	64.5	12.6	6.7	7.0	12.3	8.4	0.9	1.8	---	39.1	10.0	4.8	493.8	361.6
23 1928-----	1,798.5	199.4	67.6	15.2	7.8	6.1	12.2	3.5	1.0	9.1	---	38.9	10.2	4.1	485.0	349.3
24 1927-----	1,718.9	205.4	66.6	18.0	6.9	6.8	18.7	2.3	1.4	5.7	---	38.3	9.7	3.7	454.1	325.6
25 1926-----	1,869.3	221.5	67.8	21.2	7.6	6.4	16.0	1.6	1.1	6.4	---	40.3	9.9	4.7	483.2	344.2
26 1925-----	1,816.2	215.8	64.3	24.4	8.6	6.4	13.9	1.1	1.0	1.8	---	37.5	8.7	5.0	464.1	327.8
27 1924-----	1,789.1	215.0	63.7	22.7	10.1	6.2	20.7	1.0	0.7	15.2	---	34.3	8.6	5.0	446.5	320.9
28 1923-----	1,704.7	206.3	60.2	19.1	9.4	7.1	20.4	1.0	1.1	14.7	---	33.3	8.0	4.7	397.6	288.2
29 1922-----	1,567.0	216.6	57.8	21.9	9.7	10.5	11.0	0.6	0.6	2.8	---	31.8	7.8	4.1	365.7	259.7
30 1921-----	1,569.5	233.7	56.5	22.5	9.4	10.0	19.4	2.3	0.6	3.7	---	31.0	7.1	4.6	390.8	250.6
31 1920-----	1,780.6	255.4	49.7	20.8	11.0	8.3	18.2	1.9	0.7	4.8	---	29.0	7.2	8.3	369.0	264.7
32 1919-----	1,805.3	275.5	44.5	24.0	12.5	7.8	11.1	1.7	1.0	2.6	---	27.3	6.1	4.9	353.8	248.5
33 1918-----	2,673.5	351.0	54.2	32.8	19.2	7.3	40.3	6.6	1.1	11.9	---	27.6	7.5	8.6	445.4	313.6
34 1917-----	2,143.4	335.0	57.7	37.6	21.4	8.6	24.4	7.0	1.4	22.5	---	29.5	7.0	6.7	470.2	331.2
35 1916-----	1,989.6	322.3	53.7	38.3	17.7	8.5	23.0	2.4	4.5	10.5	---	30.4	7.4	7.0	439.2	311.5
36 1915-----	2,085.3	420.2	63.5	29.8	7.7	9.7	15.8	2.1	1.3	3.5	---	37.9	9.4	10.7	501.6	353.6
37 1914-----	2,091.0	417.8	51.1	32.2	8.1	9.5	30.5	2.8	1.7	4.8	---	31.7	8.7	10.0	490.8	350.6
38 1913-----	2,099.3	401.9	46.4	39.9	8.1	9.2	19.7	2.3	1.9	12.4	---	34.4	8.5	12.3	470.4	335.8
39 1912-----	2,129.3	459.9	45.5	31.2	4.8	8.9	18.6	9.3	2.6	3.9	---	35.8	9.0	11.7	506.3	361.8
40 1911-----	2,195.6	484.8	43.8	40.9	6.4	9.5	22.4	1.1	2.9	9.6	---	35.4	6.9	14.3	475.5	347.9
41 1910-----	2,235.2	478.3	36.1	37.3	5.9	11.7	30.6	0.4	2.4	10.1	---	33.9	7.3	17.5	464.5	327.3

<sup>1</sup>Excludes aneurysm of the aorta for 1910-20.  
<sup>2</sup>Includes paratyphoid fever for 1910-20.  
<sup>3</sup>Includes all embolisms and thromboses for 1910-20.  
<sup>4</sup>Excludes diseases of coronary arteries for 1910-29.  
<sup>5</sup>Excludes capillary bronchitis for 1910-20.

and Sex: Death-Registration States, 1900-1950—Continued

as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 and 1950)

Vascular lesions affecting central nervous system <sup>3</sup>	Rheumatic fever	Diseases of heart <sup>4</sup>	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic unspecified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn <sup>5</sup>	Ulcer of stomach and duodenum <sup>6</sup>	Gastritis, duodenitis, and colitis, except diarrhea of newborn <sup>7</sup>	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Con-genital mal-formations	Symptoms, senility, and ill-defined conditions	Motor-vehicle accidents <sup>8</sup>	All other accidents <sup>9</sup>	Suicide	Homicide	All other causes
OF THE INTERNATIONAL LIST, 1948																		
330-334	400-402	410-443	444-450	451-468	592-594	480-493	540, 541	543, 571, 572	591	590, 591	640-689	750-759	780-795	E810-E835	E800-E840-E862	E965, E970-E979	E964, E980-E985	Residual
119.5 114.2	2.2 2.6	339.7 350.1	29.2 28.9	5.7 5.2	32.1 31.8	66.1 64.5	7.0 7.0	12.1 14.6	7.8 7.6	5.7 5.8	...	12.8 12.3	57.9 59.3	39.2 34.8	65.7 65.0	7.0 7.1	45.5 45.8	165.7 170.3
OF THE INTERNATIONAL LIST, 1938																		
83	58	90-95	97,102	96,98-101,103	131,132	33,107-109	117	119,120	124	130	140-150	157	162, 199, 200	170	169, 171-176, 178-195	163,164	165-168, 198	All other diseases
104.6 103.0 96.3 109.3	1.3 1.5 2.0 2.3	292.6 273.1 253.5 271.5	16.1 15.6 15.3 17.8	5.2 4.3 3.9 4.8	86.8 86.2 88.3 103.8	75.2 78.6 81.6 103.1	6.8 7.4 6.8 8.9	12.2 10.8 11.4 18.6	8.8 7.6 7.1 7.6	4.4 4.3 4.4 6.4	...	12.6 12.2 9.5 9.7	63.8 62.9 62.2 73.1	33.8 32.4 33.9 31.2	71.4 72.5 70.7 74.5	6.9 6.5 6.1 5.7	51.0 51.5 54.4 48.0	158.1 156.9 150.4 163.4
105.8 105.9 105.1 106.1 107.4	2.0 1.8 2.2 2.5 2.5	271.0 273.9 266.7 265.6 270.9	16.5 17.8 17.3 16.4 15.3	4.1 4.5 4.6 4.3 4.7	106.0 115.8 112.9 121.2 125.9	120.7 128.7 110.0 134.0 141.3	6.3 9.1 9.4 9.2 9.6	21.4 20.4 20.5 25.9 22.9	7.3 7.5 7.2 6.8 7.6	6.1 6.7 6.5 7.1 7.8	...	10.2 9.3 8.5 7.6 7.3	76.1 81.6 84.3 88.5 97.8	29.7 28.7 33.6 48.3 38.6	76.2 76.7 76.9 72.9 75.0	4.8 4.8 6.0 6.6 7.2	44.1 42.5 53.5 55.0 55.5	164.2 168.1 169.6 182.9 185.1
105.8 104.3 102.9 106.5 99.6	1.8 2.4 2.0 2.4 2.5	245.8 259.5 262.0 260.6 254.9	15.3 14.3 14.4 14.6 15.7	4.2 3.7 2.9 3.9 3.2	121.4 110.6 113.7 117.1 107.4	148.9 168.2 235.2 248.4 197.3	8.6 8.9 9.1 8.0 6.6	24.2 31.0 30.3 32.4 28.0	7.3 7.2 8.1 8.8 7.6	7.5 8.6 9.5 9.7 10.1	...	6.4 6.9 6.7 6.2 6.3	90.2 93.3 98.2 104.4 99.7	37.1 37.5 44.1 44.7 40.5	71.7 72.0 81.0 88.4 78.1	6.5 7.4 7.4 7.0 7.4	56.0 56.4 62.7 66.7 67.2	184.9 206.5 216.5 229.0 220.6
96.6 91.1 96.8 96.5 106.4	2.7 3.2 2.8 3.2 3.8	256.5 216.1 213.1 221.8 239.3	14.8 13.9 13.8 13.8 14.9	3.9 3.5 3.4 3.4 3.3	115.5 105.1 117.0 127.1 137.6	187.7 171.3 185.9 211.1 203.2	7.7 7.3 6.3 6.1 6.0	37.3 32.2 28.6 39.2 46.3	7.4 7.3 6.5 7.7 8.3	10.2 10.3 8.6 11.4 14.0	...	6.7 6.0 6.4 7.1 6.8	102.2 103.0 110.3 115.8 130.1	39.0 33.9 29.8 34.7 34.9	83.1 76.8 78.8 79.9 91.4	6.9 7.7 8.6 8.0 7.6	74.2 70.7 63.9 66.3 62.4	231.7 225.0 213.3 233.7 253.0
103.1 101.6 91.1 98.3 91.8	4.1 3.9 3.5 4.6 3.6	233.2 224.2 212.8 223.1 214.9	21.2 19.7 18.7 18.2 17.4	...	132.3 135.6 128.6 139.0 136.3	273.9 251.9 202.0 277.7 250.5	7.7 6.6 7.6 6.3 6.5	44.4 50.5 52.9 61.0 67.1	8.6 7.6 8.4 8.2 8.5	14.3 14.4 12.3 13.3 15.9	...	6.9 7.3 7.1 9.3 9.8	128.8 133.0 119.9 127.1 128.4	33.6 27.6 27.6 25.2 20.1	96.1 98.9 109.4 109.1 109.5	7.6 7.2 7.0 6.2 6.1	60.7 64.4 65.8 69.0 65.5	259.9 268.9 261.4 289.1 275.7
97.5 87.7 80.3 75.3 79.4	5.0 4.0 4.2 4.9 5.3	199.7 179.7 159.2 158.3 158.8	18.7 18.8 16.0 14.1 21.2	...	125.8 109.5 104.0 100.1 104.3	242.7 265.1 198.1 277.7 319.6	5.2 5.7 4.9 4.7 4.3	86.5 61.3 56.8 69.3 74.0	8.8 8.1 8.1 9.1 8.0	16.6 14.3 15.7 14.5 15.1	...	10.0 8.7 8.2 10.5 10.1	118.0 112.5 113.4 107.5 115.5	19.0 15.1 10.5 8.9 8.4	102.3 101.8 88.8 91.0 99.0	6.3 5.6 6.3 6.9 5.2	61.4 59.1 52.2 49.4 45.9	282.8 264.6 263.3 298.8 294.4
74.0 84.7 82.3 89.8 95.4	4.9 6.1 7.9 6.5 7.2	150.3 197.5 204.4 189.4 219.1	19.3 25.3 26.7 25.7 31.9	...	105.2 131.9 139.0 127.7 149.1	357.8 894.6 313.9 283.7 262.8	3.9 3.7 4.9 4.7 5.4	73.0 106.5 114.8 103.1 92.6	9.3 10.8 11.5 11.2 16.3	13.2 17.1 17.8 17.5 21.7	...	9.1 10.9 10.8 10.5 10.6	119.1 119.6 118.4 110.4 86.8	7.4 9.0 7.2 5.7 5.6	101.0 119.1 129.6 119.6 116.8	6.0 8.4 7.2 7.9 13.3	48.5 44.6 47.2 43.9 45.4	286.3 326.7 331.2 332.4 312.8
94.5 92.8 88.0 89.4 85.9	7.4 7.2 7.6 7.9 7.3	217.8 202.9 228.9 218.0 205.0	31.0 30.8 37.2 32.5 31.1	...	140.2 136.8 144.5 127.7 127.2	237.4 238.4 256.1 267.6 290.6	4.2 4.6 5.8 3.6 4.8	96.0 102.9 96.6 109.4 150.4	18.6 14.9 17.9 16.2 13.4	18.3 17.5 21.4 20.8 21.1	...	10.1 9.8 10.1 9.7 11.6	73.5 103.0 54.0 61.0 75.6	3.5 3.6 4.0 2.4 1.5	125.6 138.8 137.8 140.7 136.2	14.6 12.7 13.8 19.3 16.9	49.4 49.8 43.5 66.7 32.1	342.1 336.1 322.3 342.8 352.0

<sup>3</sup>Excludes ulcer of duodenum for 1910-20.  
<sup>4</sup>Includes ulcer of duodenum for 1910-20.  
<sup>5</sup>Excludes automobile collisions with trains and streetcars, and motorcycle accidents for 1910-25.  
<sup>6</sup>Includes legal executions for 1910-29.

SUMMARY TABLES

Table 8.45. Death Rates for 32 Selected Causes, by Race

(Exclusive of fetal deaths. Rates per 100,000 population in each specified group, estimated)

RACE, SEX, AND YEAR	Total	Tuber- culo- sis, all forms	Syph- illis and its seque- lae <sup>1</sup>	Ty- phoid fever <sup>2</sup>	Dysen- tery, all forms	Diph- the- ria	Whoop- ing cough	Menin- gococ- cal infec- tions	Acute polio- mye- litis	Meas- les	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemato- poietic tissues	Diab- etes mel- litus	Menin- gitis, except menin- gococ- cal and tuber- culous	Major cardio- vascular- renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 046	055	056	057	060	085	050-059, 041-044, 049-054, 058-074, 081-084, 086-158	140-205	260	340	330-334, 400-469, 582-594	330-334, 400-468
CATEGORY NUMBERS: SIXTH REVISION																
NONWHITE, FEMALE																
1 1950-----	995.5	50.6	9.4	0.2	1.1	0.5	2.8	0.6	0.6	0.6	5.5	110.1	18.7	2.7	468.8	438.6
2 1949-----	1,004.0	59.6	11.8	0.3	1.6	0.7	1.5	0.6	0.5	1.1	5.8	106.7	18.9	3.1	466.1	435.7
CATEGORY NUMBERS: FIFTH REVISION																
		13-22	30	1	27	10	9	6	36	55	2-5, 7, 8, 11, 12, 23-26, 28, 29, 31, 32, 34, 37-44, 115b, 177	45-55	61	61	58, 63, 90-103, 151, 152	58, 63, 90-103
3 1948-----	1,011.5	86.2	16.2	0.3	1.0	0.7	2.7	0.7	0.5	0.9	6.1	105.2	24.6	2.5	448.6	373.1
4 1947-----	1,027.1	76.9	18.6	0.6	1.0	0.9	4.4	0.7	0.3	0.7	7.1	101.8	23.8	2.6	445.1	365.6
5 1946-----	1,001.5	79.8	19.6	0.5	1.0	0.9	2.3	1.0	0.5	1.6	7.6	97.4	21.6	2.6	424.0	344.5
6 1945-----	1,050.4	87.0	20.8	0.9	2.0	1.3	3.3	1.5	0.7	0.5	10.0	95.4	22.2	2.2	435.4	348.3
7 1944-----	1,107.1	91.6	23.1	1.1	2.7	0.9	4.9	2.4	0.4	2.2	10.6	92.6	24.8	2.8	447.5	354.9
8 1943-----	1,159.2	100.2	24.7	1.5	2.8	1.0	6.1	1.9	0.4	1.1	12.8	91.5	23.7	2.9	470.7	368.9
9 1942-----	1,139.0	106.2	27.1	1.5	2.8	1.2	5.3	0.8	0.4	2.1	13.7	91.2	21.9	2.7	448.9	351.2
10 1941-----	1,220.2	114.6	30.9	2.2	4.0	1.6	7.2	0.6	0.6	3.2	18.4	90.5	22.0	2.6	462.2	359.8
11 1940-----	1,256.2	117.2	33.8	2.7	3.6	1.7	5.9	0.5	0.5	0.8	17.3	91.4	23.8	2.8	471.7	362.3
12 1939-----	1,238.3	121.1	36.3	3.7	4.3	2.1	7.2	0.7	0.5	1.5	18.8	87.5	23.4	2.5	444.6	340.6
13 1938-----	1,289.5	129.8	39.4	5.1	4.6	2.4	9.8	0.8	0.4	3.0	---	87.5	20.9	2.9	443.4	349.3
14 1937-----	1,344.0	135.2	39.8	5.3	4.9	2.2	8.4	1.7	0.8	1.6	---	83.0	18.7	2.9	441.1	345.5
15 1936-----	1,386.4	139.6	36.7	6.8	4.6	3.3	5.1	2.7	0.6	1.0	---	82.6	18.8	2.8	450.5	351.2
16 1935-----	1,304.0	135.0	35.2	7.8	3.9	3.3	8.4	2.1	0.7	3.2	---	82.3	17.0	2.9	417.0	323.0
17 1934-----	1,350.2	140.8	37.4	9.4	5.4	3.1	15.0	0.9	0.7	8.3	---	78.7	17.9	2.4	427.0	327.4
18 1933-----	1,307.8	149.3	35.7	9.0	4.4	3.8	9.6	1.0	0.4	2.6	---	76.7	17.0	2.4	404.8	310.5
19 1932-----	1,351.8	167.5	36.5	10.2	4.0	3.6	10.9	1.4	0.7	1.0	---	76.1	16.3	2.2	414.4	314.9
20 1931-----	1,446.5	184.9	36.2	13.0	5.3	5.5	9.5	3.2	0.9	2.9	---	75.9	16.2	2.9	426.3	321.1
21 1930-----	1,526.0	189.8	38.1	13.5	6.6	4.6	11.8	4.7	1.0	3.1	---	73.7	16.1	3.3	455.7	342.0
22 1929-----	1,500.5	192.6	34.6	12.0	6.2	5.6	15.2	4.0	0.6	1.9	---	72.8	14.4	3.1	445.0	334.2
23 1928-----	1,615.2	199.6	36.6	14.3	7.2	6.7	12.5	1.6	1.0	7.5	---	74.1	14.9	3.4	446.1	332.1
24 1927-----	1,561.6	212.1	36.0	16.0	6.9	5.6	19.8	1.2	1.3	4.9	---	79.7	13.8	5.0	429.3	317.8
25 1926-----	1,685.0	226.1	36.9	20.2	8.2	7.0	18.5	0.6	0.8	6.6	---	76.3	13.7	3.2	447.0	332.9
26 1925-----	1,655.0	226.7	35.2	25.3	8.2	6.2	16.4	1.0	1.0	1.7	---	75.6	12.5	3.3	436.2	321.8
27 1924-----	1,626.7	222.3	33.5	22.0	9.3	6.6	23.0	0.9	0.9	14.8	---	74.2	12.1	3.2	422.6	319.0
28 1923-----	1,595.4	220.0	30.9	18.8	8.8	8.0	24.4	0.7	0.8	14.0	---	70.7	10.7	3.8	389.1	295.1
29 1922-----	1,461.8	221.2	31.5	20.6	7.9	9.8	12.4	0.7	0.9	2.3	---	67.2	9.8	3.1	363.8	274.7
30 1921-----	1,539.9	245.1	29.0	21.6	9.4	10.0	21.4	0.7	0.8	3.1	---	68.1	9.2	3.6	372.2	281.5
31 1920-----	1,754.2	269.6	27.7	18.4	12.0	8.9	23.0	1.3	0.8	3.4	---	68.4	8.8	4.1	370.5	281.8
32 1919-----	1,784.0	292.7	26.0	24.6	11.4	7.2	13.2	1.2	0.6	2.2	---	66.6	6.6	4.4	357.9	269.1
33 1918-----	2,441.9	340.9	31.7	32.3	19.0	6.0	48.4	3.3	1.0	11.0	---	72.3	7.9	6.0	430.6	322.0
34 1917-----	1,940.3	330.1	30.5	34.0	21.6	7.9	27.9	3.7	1.4	19.6	---	69.8	8.5	4.7	442.4	329.5
35 1916-----	1,837.5	323.0	29.2	31.3	14.5	9.5	27.7	1.9	4.2	9.8	---	69.5	8.4	5.3	414.7	306.9
36 1915-----	1,954.5	380.5	34.1	23.7	9.1	10.1	20.1	1.3	1.5	4.9	---	80.4	12.5	8.4	499.6	373.8
37 1914-----	1,937.1	374.0	33.2	30.3	9.3	9.7	37.6	2.2	1.7	6.0	---	80.9	8.9	8.2	479.6	361.5
38 1913-----	1,959.6	369.9	30.6	35.8	11.3	11.4	25.2	1.6	1.2	12.6	---	78.8	9.0	9.4	460.5	345.9
39 1912-----	1,974.4	394.5	27.1	31.0	6.2	10.3	27.7	4.8	1.3	4.2	---	81.0	10.4	9.6	494.1	370.4
40 1911-----	2,063.5	435.2	26.3	33.8	9.7	9.5	26.9	0.5	3.0	9.1	---	81.7	7.1	13.7	474.5	359.6
41 1910-----	2,102.8	406.8	24.7	29.5	5.6	11.4	42.1	0.7	2.4	8.5	---	77.0	7.2	15.3	484.2	362.0

<sup>1</sup>Excludes aneurysm of the aorta for 1910-20.  
<sup>2</sup>Includes paratyphoid fever for 1910-20.  
<sup>3</sup>Includes all emboliisms and thromboses, except puerperal for 1910-20.  
<sup>4</sup>Excludes diseases of coronary arteries for 1910-29.  
<sup>5</sup>Excludes capillary bronchitis for 1910-20.  
<sup>6</sup>Excludes ulcer of duodenum for 1910-20.  
<sup>7</sup>Includes ulcer of duodenum for 1910-20.

and Sex: Death-Registration States, 1900-1950—Continued

as of July 1 for 1900-1939 and 1941-49, and enumerated as of April 1 for 1940 and 1950

Vascular lesions affecting central nervous system <sup>3</sup>	Rheumatic fever	Diseases of heart <sup>4</sup>	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic and unspecified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn <sup>5</sup>	Ulcer of stomach and duodenum <sup>6</sup>	Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn <sup>7</sup>	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Congenital malformations	Symptoms, senility, and ill-defined conditions	Motor-vehicle accidents <sup>8</sup>	All other accidents <sup>9</sup>	Suicide	Homicide	All other causes
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OF THE INTERNATIONAL LIST, 1948

330-334	400-402	410-443	444-450	451-468	592-594	480-493	540, 541	543, 571, 572	581	590, 591	640-689	750-759	780-795	E810-E835	E800-E802, E840-E862	E863, E870-E879	E864, E880-E885	Residual
124.9	2.3	280.7	25.9	4.7	30.3	52.3	1.9	9.3	5.2	4.6	13.5	10.2	45.2	10.8	29.1	1.7	11.2	126.4
124.5	3.0	277.4	26.0	5.0	30.4	49.7	2.0	11.8	4.5	5.0	14.1	9.4	48.1	8.9	26.7	1.5	11.4	132.6

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OF THE INTERNATIONAL LIST, 1938

83	59	90-96	97, 102	95, 98-101, 103	151, 152	33, 107-109	117	119, 120	124	130	140-150	157	162, 199, 200	170	169, 171-176, 178-195	163, 164	165-168, 198	All other diseases
115.1	1.6	236.0	14.6	3.8	75.5	56.8	2.2	8.8	5.7	3.6	17.6	9.5	52.5	8.3	28.8	1.5	11.7	125.9
114.3	2.1	231.6	15.5	4.1	79.5	63.5	2.5	9.3	5.1	4.0	19.7	8.7	52.1	7.7	29.7	1.6	11.9	128.0
108.8	2.1	215.5	14.5	3.6	79.5	65.4	2.6	9.1	4.0	4.7	18.0	7.6	53.2	9.0	28.1	1.8	12.4	128.3
115.0	2.1	214.2	15.2	3.8	87.1	76.6	2.7	14.5	4.5	4.9	21.0	7.4	56.4	7.1	28.7	1.5	10.7	131.3
113.8	2.4	221.5	15.8	3.4	92.6	89.7	2.7	18.3	4.1	5.5	23.7	7.0	63.0	6.6	29.1	1.4	9.7	139.6
118.0	2.5	230.6	14.4	3.4	101.8	94.6	3.5	17.8	4.0	6.0	24.2	6.5	69.3	5.6	30.9	1.3	9.9	144.1
113.7	2.3	217.7	15.7	3.8	97.7	85.4	3.2	18.2	3.9	6.4	24.9	6.7	69.2	7.3	28.7	2.0	12.1	145.3
113.7	2.4	227.0	15.4	3.3	102.4	104.1	2.9	22.4	3.6	6.2	30.1	5.9	77.3	11.0	26.4	1.7	12.6	157.5
115.9	2.9	226.7	15.2	3.6	109.4	110.0	3.5	19.3	4.0	6.7	33.1	5.0	84.1	9.4	30.4	2.1	13.0	162.3
112.6	2.6	209.4	12.9	3.2	104.0	115.4	4.1	20.5	4.2	6.8	31.8	5.0	80.4	9.5	27.0	2.0	13.8	163.6
109.9	2.8	221.2	12.3	3.0	94.2	122.6	3.6	27.6	4.1	8.0	35.5	4.6	84.1	10.0	28.8	2.5	13.2	184.7
109.4	2.6	218.4	12.3	2.9	95.6	168.2	3.5	25.9	4.3	8.3	35.5	4.8	87.8	11.1	31.2	2.5	14.3	202.2
113.4	2.8	220.4	11.8	2.9	99.3	175.2	3.8	29.4	4.3	9.1	39.7	5.0	91.2	11.3	35.8	2.4	15.6	210.5
106.1	2.8	199.4	11.8	2.8	94.0	145.3	3.7	24.4	4.2	8.9	38.6	4.7	87.8	9.6	31.6	2.7	14.0	209.7
104.5	3.5	204.1	12.7	2.7	99.5	138.1	3.7	32.2	4.5	9.8	39.2	5.0	91.5	10.0	32.0	2.6	15.0	219.7
99.9	3.3	194.6	10.4	2.4	94.3	132.4	4.1	28.0	5.0	9.2	39.7	4.7	97.8	8.7	29.0	2.2	14.5	215.0
103.0	3.8	193.7	11.2	3.1	99.5	151.0	3.5	26.4	4.4	8.9	42.2	4.9	101.5	8.9	28.6	2.5	15.0	209.4
104.6	4.0	196.9	12.9	2.8	105.2	160.4	3.5	34.9	5.0	10.0	46.4	4.9	107.3	10.4	31.2	2.5	14.9	232.3
110.0	4.7	210.2	15.6	3.6	113.7	148.9	4.5	41.8	5.1	12.1	50.4	4.9	120.7	9.4	33.1	2.4	14.7	258.1
108.5	4.7	204.4	16.7	3.6	110.7	214.9	4.0	36.6	4.3	12.9	51.0	4.9	117.7	9.5	34.9	2.3	14.6	264.8
109.5	4.7	202.1	15.7	3.0	114.0	201.4	4.4	43.1	4.8	12.5	53.4	5.0	123.8	8.5	36.5	2.4	14.5	279.5
103.5	4.8	193.9	15.6	3.1	111.5	154.5	4.4	46.7	4.8	13.2	53.9	5.5	117.2	8.0	34.6	2.4	15.4	271.0
110.3	5.4	201.1	16.1	3.1	114.1	221.6	4.0	54.3	4.7	14.2	56.3	6.6	123.5	7.9	39.5	2.6	15.6	270.0
107.9	4.8	194.5	14.7	3.1	114.3	187.7	3.5	61.3	5.7	13.7	60.7	7.2	124.1	6.8	40.8	2.0	14.2	277.9
111.8	5.8	185.2	16.1	3.1	103.7	182.3	3.8	57.7	4.7	15.2	61.8	6.7	115.4	5.6	44.7	2.3	13.6	287.5
102.2	5.3	172.8	14.8	3.0	92.9	219.9	3.6	56.5	4.7	15.2	56.9	7.0	110.4	4.3	38.5	1.8	13.3	283.5
99.2	5.0	157.7	12.8	2.8	89.1	163.2	4.1	51.0	4.6	13.7	55.2	6.8	109.9	3.2	37.2	2.1	12.6	287.1
96.2	6.1	165.1	14.1	2.8	90.7	129.4	3.9	67.6	5.6	14.5	59.4	8.6	112.0	2.4	35.1	2.3	12.7	292.3
96.1	6.1	162.7	16.9	2.8	88.7	288.9	3.3	68.8	5.5	13.9	66.4	7.7	123.5	2.2	42.7	2.0	10.8	301.5
94.2	5.2	153.9	15.8	2.8	88.8	344.4	3.4	66.9	5.1	13.8	60.0	6.4	122.3	2.0	40.7	2.0	10.7	291.6
104.7	6.7	191.5	19.2	3.4	108.6	703.2	3.5	100.7	5.5	17.7	69.2	8.5	124.0	2.3	45.8	2.5	11.0	337.6
113.5	7.3	189.5	19.2	3.1	112.9	213.5	4.2	104.7	4.7	15.7	58.0	7.4	122.8	1.6	53.4	2.5	10.1	339.8
107.1	6.1	175.9	17.8	3.1	107.8	206.2	4.3	91.7	5.6	15.7	55.7	8.1	113.0	1.1	43.9	2.0	9.7	331.3
128.0	7.4	215.4	23.0	3.0	128.8	225.8	4.4	85.3	8.2	20.1	46.1	8.0	80.6	2.0	44.4	5.1	12.9	325.3
120.0	9.7	208.1	23.8	3.0	118.1	205.5	3.5	92.3	6.6	17.5	50.8	8.6	81.9	0.4	48.9	4.6	10.6	324.5
117.5	9.7	196.4	22.2	2.8	114.6	199.1	4.7	101.9	8.8	20.4	49.8	7.4	112.4	1.1	49.2	4.7	10.3	332.3
111.4	8.9	225.3	24.8	3.0	123.6	219.9	4.2	96.3	8.8	20.6	46.1	7.3	85.5	0.6	45.0	5.2	10.9	341.6
109.3	10.1	217.2	23.0	2.8	114.9	233.3	5.7	109.2	7.4	18.1	47.2	9.0	77.0	0.6	52.9	5.3	11.7	359.3
123.3	10.2	204.5	24.0	3.0	122.3	254.2	4.8	143.4	8.3	23.0	45.1	10.6	82.6	0.3	41.0	6.0	11.1	357.2

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<sup>3</sup>Excludes automobile collisions with trains and streetcars, and motorcycle accidents for 1910-25.  
<sup>8</sup>Includes legal executions for 1910-29.

NOTES:

For 1900-1909, data for selected causes not tabulated by race.  
 For 1940-50, deaths exclude those among armed forces overseas; also, population bases exclude armed forces overseas.

Table 8.46. Death Rates for 32 Selected Causes, by Race and Sex:

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population in each specified

RACE, SEX, AND AREA	Total	Tuber- culo- sis, all forms	Syph- illis and its seque- lae	Ty- phoid fever	Dysen- tery, all forms	Diph- ther- ia	Whoop- ing cough	Menin- gococ- cal infec- tions	Acute polio- mye- litis	Mea- sles	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemato- poietic tissues	Dia- betes mel- litus	Menin- gitis, excep- t menin- gococ- cal and tuber- culous	Major cardio- vascular- renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 046	065	056	057	090	085	050-059, 041-044, 049-054, 058-074, 081-084, 086-158	140-205	260	340	330-334, 400-469, 582-594	330-334, 400-466
<b>ALL RACES, BOTH SEXES</b>																
1 UNITED STATES-----	965.8	22.5	5.0	0.1	0.6	0.3	0.7	0.6	1.3	0.3	2.8	139.8	16.2	1.2	510.8	494.4
<b>GEOGRAPHIC DIVISIONS</b>																
2 New England-----	1,040.8	18.9	3.9	0	0.1	0.2	0.3	0.5	0.5	0.1	1.9	176.3	21.0	1.1	595.6	579.5
3 Middle Atlantic-----	1,045.6	24.5	4.2	0.0	0.1	0.0	0.3	0.5	1.2	0.2	2.2	170.4	20.5	1.1	589.5	574.1
4 East North Central-----	1,004.2	20.4	5.2	0.0	0.2	0.1	0.4	0.6	1.7	0.3	2.3	152.1	20.6	1.1	550.7	534.5
5 West North Central-----	1,006.0	13.7	4.7	0.0	0.2	0.2	0.7	0.6	1.3	0.4	2.5	149.1	17.9	0.9	546.8	529.5
6 South Atlantic-----	885.7	24.4	5.9	0.1	0.7	0.5	1.3	1.0	0.9	0.4	3.3	106.5	12.6	1.5	448.8	429.7
7 East South Central-----	914.0	31.5	4.5	0.1	1.5	0.8	2.0	1.1	1.0	0.9	4.3	102.8	10.2	1.3	428.7	406.1
8 West South Central-----	639.0	26.4	6.5	0.2	2.6	0.5	1.1	0.6	2.0	0.2	4.3	109.7	11.6	1.5	387.4	369.4
9 Mountain-----	861.7	23.4	4.7	0.2	1.4	0.3	1.4	0.5	1.0	0.5	3.1	104.8	10.3	1.2	376.7	364.5
10 Pacific-----	933.1	19.8	5.1	0.1	0.3	0.3	0.3	0.4	1.2	0.1	2.5	139.6	10.0	1.1	501.4	491.4
<b>NEW ENGLAND</b>																
11 Maine-----	1,081.9	15.7	3.7	0	0	0.1	0.7	0.4	0.9	0.2	1.8	173.9	16.9	1.6	605.4	581.5
12 New Hampshire-----	1,139.4	11.4	5.8	0	0	0.2	0.4	0.8	0.2	0	2.6	179.9	20.1	0.8	673.4	656.0
13 Vermont-----	1,103.1	18.8	3.7	0	0	0.3	1.1	0.5	0.5	0	3.2	162.8	15.9	1.6	620.0	606.8
14 Massachusetts-----	1,052.9	21.4	3.4	0	0.1	0.2	0.2	0.4	0.2	0.0	1.9	179.6	20.5	1.1	604.0	591.4
15 Rhode Island-----	1,049.1	19.1	4.5	0	0.3	0.1	0.1	0.6	0.4	0.1	2.5	178.1	35.9	0.5	586.6	568.5
16 Connecticut-----	952.7	16.0	4.5	0	0	0.0	0.1	0.4	1.1	0.0	1.6	170.7	19.3	0.9	541.4	529.8
<b>MIDDLE ATLANTIC</b>																
17 New York-----	1,052.4	25.3	4.7	0.0	0.1	0.0	0.1	0.5	1.3	0.1	2.0	179.0	19.0	1.1	595.7	584.1
18 New Jersey-----	1,015.4	24.2	3.6	0.0	0.1	0	0.1	0.4	1.4	0.5	2.4	176.1	19.7	0.9	576.6	562.0
19 Pennsylvania-----	1,049.8	23.6	3.8	0.0	0.1	0.1	0.6	0.5	1.0	0.1	2.4	155.5	23.0	1.1	566.7	565.5
<b>EAST NORTH CENTRAL</b>																
20 Ohio-----	1,014.7	20.9	6.3	0.0	0.2	0.1	0.6	0.9	1.5	0.3	2.5	151.5	22.5	1.1	548.6	534.7
21 Indiana-----	1,032.7	20.0	5.9	0	0.2	0.2	0.7	0.5	2.1	0.5	2.8	143.8	17.9	1.0	574.3	558.9
22 Illinois-----	1,061.6	24.5	4.9	0.0	0.2	0.0	0.2	0.6	1.5	0.1	1.9	186.6	19.5	1.0	589.3	578.7
23 Michigan-----	906.2	19.9	5.2	0.1	0.3	0.0	0.4	0.5	2.0	0.4	2.1	137.1	21.9	1.2	470.8	457.4
24 Wisconsin-----	985.5	10.2	2.9	0.0	0.1	0	0.4	0.7	1.6	0.2	2.4	154.3	19.5	1.2	553.9	539.5
<b>WEST NORTH CENTRAL</b>																
25 Minnesota-----	939.5	11.3	3.8	0.0	0.1	0.3	0.4	0.5	0.7	0.3	1.8	147.2	17.0	1.0	510.6	501.8
26 Iowa-----	1,029.3	7.9	4.0	0.0	0.4	0.2	0.4	0.6	2.4	0.6	2.6	153.8	17.4	0.6	578.8	564.2
27 Missouri-----	1,105.3	22.9	7.0	0.1	0.3	0.2	1.4	0.5	0.8	0.3	3.0	159.8	18.5	1.3	600.1	573.0
28 North Dakota-----	857.7	11.0	3.4	0	0.2	0	0.5	1.0	0.2	0	1.1	119.4	17.6	0.6	419.4	408.5
29 South Dakota-----	900.8	17.3	2.6	0	0.2	0.2	1.4	0.9	2.5	0.9	3.2	129.1	17.8	1.7	453.3	441.8
30 Nebraska-----	951.9	8.4	2.7	0.1	0.2	0.2	0.5	0.8	1.4	0.9	2.9	153.4	19.5	0.8	498.7	484.0
31 Kansas-----	1,000.3	10.0	5.0	0	0.2	0	0.4	0.8	1.8	0.1	2.6	137.2	17.9	0.6	555.8	534.5
<b>SOUTH ATLANTIC</b>																
32 Delaware-----	1,100.6	23.9	3.5	0	0	0	3.1	1.3	0.9	0.6	2.8	157.2	27.0	3.1	605.0	582.2
33 Maryland-----	956.8	34.8	7.6	0	0.0	0.2	0.2	1.0	1.1	0.1	2.1	139.8	17.0	1.4	524.9	507.1
34 District of Columbia-----	1,067.1	49.2	8.4	0.1	0	0	0.1	0.9	0.5	0	2.0	156.0	15.1	1.6	557.6	543.8
35 Virginia-----	895.2	27.6	5.6	0.1	0.5	0.4	1.4	1.2	1.9	0.2	2.6	102.1	11.0	1.2	465.6	444.4
36 West Virginia-----	969.0	21.1	5.4	0.1	0.4	0.6	2.4	1.6	1.2	0.9	3.3	109.0	12.2	1.2	415.3	397.6
37 North Carolina-----	766.4	18.7	4.1	0.0	0.7	0.6	1.5	0.7	0.5	0.4	3.2	78.5	9.8	1.1	387.9	369.4
38 South Carolina-----	849.0	20.9	6.6	0.3	1.0	1.0	2.3	0.9	0.5	1.1	4.3	82.8	13.4	1.8	414.9	395.9
39 Georgia-----	890.4	23.5	5.9	0.1	1.4	0.5	1.3	1.0	0.5	0.3	4.2	97.2	12.0	1.6	434.0	411.7
40 Florida-----	958.7	19.2	6.6	0.0	0.9	0.3	0.3	0.7	0.8	0.1	3.9	132.1	12.7	2.0	475.3	455.9
<b>EAST SOUTH CENTRAL</b>																
41 Kentucky-----	945.9	36.5	3.1	0.1	2.0	1.2	1.8	1.7	1.5	1.1	4.4	110.8	11.9	1.5	472.0	451.8
42 Tennessee-----	893.9	33.7	4.3	0.2	1.3	0.6	1.9	1.2	1.0	0.7	4.2	104.7	9.5	1.7	420.0	400.4
43 Alabama-----	876.5	27.4	5.4	0.1	1.0	0.8	1.6	0.9	0.6	0.4	4.2	95.8	8.9	1.9	405.8	382.8
44 Mississippi-----	953.9	26.3	5.5	0.1	1.9	0.9	2.6	0.6	0.6	1.6	4.3	98.9	10.8	2.2	415.4	385.5
<b>WEST SOUTH CENTRAL</b>																
45 Arkansas-----	807.1	32.2	5.4	0.2	1.7	0.5	1.9	0.8	1.0	0.3	3.8	99.3	9.4	1.1	390.1	362.8
46 Louisiana-----	864.6	26.7	10.2	0.3	0.9	0.2	1.1	0.9	0.8	0.4	4.6	117.3	12.5	2.6	432.6	414.8
47 Oklahoma-----	871.9	22.6	5.3	0.0	0.7	0.4	0.9	0.5	1.7	0.0	3.3	120.1	13.4	0.9	425.2	406.7
48 Texas-----	821.5	26.0	5.8	0.1	3.9	0.6	1.0	0.6	2.6	0.2	4.6	104.8	11.3	1.4	360.0	344.5
<b>MOUNTAIN</b>																
49 Montana-----	985.1	18.8	5.2	0	0.3	0.3	1.7	0.3	0.5	0	2.5	124.5	11.5	0.8	470.2	458.2
50 Idaho-----	821.7	11.2	3.7	0.2	0	0.2	1.0	1.2	1.9	0.5	2.5	99.2	14.1	0.7	401.8	387.0
51 Wyoming-----	804.1	6.2	3.8	0	0	0.3	0	0.3	2.4	0.3	2.8	100.2	11.4	1.0	357.3	346.3
52 Colorado-----	926.7	15.6	3.7	0	0.5	0	0.5	0.8	0.6	0.7	3.0	128.7	10.9	0.6	446.6	433.5
53 New Mexico-----	803.2	36.7	6.0	0.1	5.1	0.3	3.5	0.1	1.2	1.2	3.1	69.4	5.6	2.3	238.4	226.7
54 Arizona-----	856.7	59.6	6.1	0.7	2.9	1.1	2.6	0.1	0.8	0.3	3.9	94.2	8.4	1.9	304.3	292.6
55 Utah-----	722.1	7.8	3.8	0.1	0.3	0.3	0.4	0.1	1.2	0.9	2.6	90.7	11.3	1.6	346.5	336.9
56 Nevada-----	992.0	21.2	9.4	0	0.6	0	0	0	0.6	0	5.6	124.9	10.6	1.2	452.9	440.4
<b>PACIFIC</b>																
57 Washington-----	945.2	14.9	3.8	0.0	0.4	0.1	0.2	0.4	1.3	0.1	1.9	158.0	14.2	1.5	503.0	492.7
58 Oregon-----	916.0	13.3	4.3	0.1	0.1	0.5	0.3	0.4	2.0	0.1	1.4	136.9	11.2	0.9	486.2	475.4
59 California-----	932.9	21.9	5.5	0.1	0.3	0.4	0.3	0.3	1.1	0.1	2.8	140.4	8.8	1.0	503.2	493.4





Table 8.46. Death Rates for 32 Selected Causes, by Race and Sex:

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population in each specified

RACE, SEX, AND AREA	Total	Tuber-	Syph-	Ty-	Dysen-	Diph-	Whoop-	Menin-	Acute	Meas-	All other	Malignant	Diab-	Menin-	Major	Diseases
		culosis, all forms	illis and its sequelae	phoid fever	tery, all forms	theria	oping cough	goccal infections	polio- mye- litis	les	infective and para- sitic diseases	neoplasms, including of lym- phatic and hemato- poietic tissues	betes mel- litus	goccal and tuber- culous	cardio- vascular diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 049	055	056	057	080	085	030-039, 041-044, 049-054, 058-074, 081-084, 086-133	140-205	260	340	330-334, 400-468, 592-594	330-334, 400-468
<b>ALL RACES, MALE</b>																
1 UNITED STATES-----	1,106.1	30.1	7.4	0.1	0.7	0.3	0.7	0.7	1.5	0.3	3.2	142.9	12.5	1.5	580.0	562.5
<b>GEOGRAPHIC DIVISIONS</b>																
2 New England-----	1,151.2	27.5	5.7	0	0.1	0.2	0.3	0.7	0.5	0.1	2.3	181.5	15.2	1.3	646.9	632.6
3 Middle Atlantic-----	1,181.6	36.0	6.2	0.0	0.1	0.0	0.2	0.6	1.4	0.3	2.4	178.0	14.4	1.3	652.3	635.7
4 East North Central-----	1,152.5	28.4	7.6	0.0	0.3	0.1	0.4	0.7	2.0	0.3	2.7	157.2	15.7	1.3	628.9	612.0
5 West North Central-----	1,159.0	18.5	7.2	0.0	0.3	0.2	0.8	0.6	1.7	0.4	2.9	154.3	14.6	1.1	631.5	612.4
6 South Atlantic-----	1,022.7	30.4	8.5	0.1	0.8	0.5	1.2	1.2	1.1	0.4	3.7	104.7	9.9	1.7	513.1	492.5
7 East South Central-----	1,040.4	36.0	8.5	0.1	1.9	0.9	1.6	1.3	1.2	0.9	4.6	99.5	8.9	2.2	485.1	460.6
8 West South Central-----	981.3	31.9	9.6	0.2	2.9	0.6	1.0	0.7	2.2	0.2	4.7	109.4	9.7	1.8	455.3	435.9
9 Mountain-----	1,027.6	29.3	6.8	0.2	1.5	0.2	1.2	0.5	1.4	0.5	3.4	107.8	8.9	1.3	444.3	431.5
10 Pacific-----	1,100.7	28.2	7.9	0.1	0.3	0.4	0.2	0.4	1.4	0.1	3.0	142.1	8.9	1.3	582.3	571.6
<b>NEW ENGLAND</b>																
11 Maine-----	1,185.1	20.5	6.4	0	0	0.2	0.7	0.7	1.3	0.2	2.0	168.9	12.1	2.2	651.1	630.2
12 New Hampshire-----	1,280.4	17.9	7.2	0	0	0	0.4	1.1	0	0	4.2	161.4	19.1	1.1	754.9	738.5
13 Vermont-----	1,228.7	28.2	3.7	0	0	0	1.6	1.1	0	0	3.2	161.9	11.7	1.6	674.8	660.4
14 Massachusetts-----	1,158.1	31.4	4.9	0	0.1	0.3	0.2	0.6	0.4	0.0	2.1	185.4	15.3	1.2	651.0	638.0
15 Rhode Island-----	1,146.7	27.1	6.1	0	0.5	0.3	0	1.0	0.3	0.3	3.8	187.7	20.2	0.5	641.6	625.2
16 Connecticut-----	1,073.7	24.5	6.9	0	0	0	0.1	0.8	1.0	0	1.9	179.5	14.1	1.3	609.6	590.6
<b>MIDDLE ATLANTIC</b>																
17 New York-----	1,195.3	37.6	7.0	0	0.1	0.1	0.1	0.5	1.5	0.2	2.2	189.4	14.2	1.3	660.9	648.4
18 New Jersey-----	1,131.0	35.3	5.5	0	0.1	0	0.1	0.4	1.5	0.9	2.6	184.2	13.6	1.0	628.3	613.2
19 Pennsylvania-----	1,185.7	34.1	5.4	0.0	0.1	0.0	0.5	0.7	1.2	0.1	2.7	159.2	14.8	1.4	651.3	628.2
<b>EAST NORTH CENTRAL</b>																
20 Ohio-----	1,160.7	29.2	8.9	0.1	0.2	0.1	0.5	0.8	1.6	0.4	3.1	155.1	16.6	1.2	624.2	610.0
21 Indiana-----	1,176.8	25.6	8.5	0	0.3	0.3	0.7	0.5	2.5	0.3	3.6	140.4	14.0	1.4	660.7	642.1
22 Illinois-----	1,220.7	34.8	7.4	0	0.3	0.0	0.1	0.7	1.9	0.1	2.2	174.8	14.8	1.5	680.2	658.6
23 Michigan-----	1,054.8	28.2	7.6	0.1	0.4	0.0	0.2	0.5	2.6	0.6	2.2	144.1	16.8	1.3	548.3	534.3
24 Wisconsin-----	1,117.8	14.1	4.4	0.1	0.2	0	0.4	0.8	1.7	0.2	2.7	160.9	16.2	1.3	625.5	610.2
<b>WEST NORTH CENTRAL</b>																
25 Minnesota-----	1,094.4	15.1	5.9	0	0	0.5	0.5	0.4	0.9	0.3	2.0	157.8	13.9	1.1	598.0	588.1
26 Iowa-----	1,168.6	10.2	5.7	0.1	0.7	0.2	0.3	0.7	3.0	0.8	2.9	157.6	14.0	0.5	662.3	646.2
27 Missouri-----	1,276.8	33.0	10.9	0.1	0.2	0.1	1.6	0.5	1.0	0.2	3.4	163.9	14.6	1.4	688.3	659.1
28 North Dakota-----	991.8	12.7	5.6	0	0.3	0	0.3	0.3	0	0	1.5	126.3	12.7	0.9	506.9	493.6
29 South Dakota-----	1,040.2	19.9	3.6	0	0.3	0	0.9	1.2	3.3	0.9	3.6	135.5	16.9	2.1	522.2	508.5
30 Nebraska-----	1,101.9	10.8	3.7	0	0.3	0.3	0.6	1.0	2.2	0.4	3.7	159.6	15.0	0.7	585.9	567.9
31 Kansas-----	1,146.3	13.0	7.8	0	0.2	0	0.3	0.9	2.1	0	2.9	136.9	15.8	0.9	639.1	617.5
<b>SOUTH ATLANTIC</b>																
32 Delaware-----	1,248.9	32.4	5.1	0	0	0	1.3	1.9	1.3	0.6	1.9	167.1	15.9	3.2	664.8	643.8
33 Maryland-----	1,069.9	47.7	11.1	0	0	0.2	0.2	1.4	1.5	0.1	2.7	141.1	12.4	1.6	571.0	552.8
34 District of Columbia-----	1,228.6	66.8	13.2	0.3	0	0	0	1.3	0.8	0	1.6	160.4	13.0	2.4	615.7	603.3
35 Virginia-----	1,014.0	32.5	8.1	0.1	0.7	0.4	1.4	1.5	2.0	0.1	2.8	100.7	7.6	1.5	515.7	494.2
36 West Virginia-----	1,032.0	25.4	7.2	0.1	0.6	0.8	1.7	2.1	1.5	1.0	3.5	107.1	7.8	1.5	496.1	476.7
37 North Carolina-----	978.3	21.2	5.7	0.0	0.6	0.5	1.4	0.8	0.4	0.1	3.5	70.7	9.0	1.2	444.7	425.0
38 South Carolina-----	987.4	25.9	10.0	0.3	1.1	1.2	2.3	1.2	0.8	1.3	4.5	77.7	11.8	1.8	460.2	459.6
39 Georgia-----	1,010.4	26.9	8.3	0.2	1.7	0.4	1.5	1.2	0.6	0.4	5.0	91.7	10.8	1.7	496.1	472.6
40 Florida-----	1,158.7	26.8	9.9	0.1	1.0	0.2	0.2	0.7	1.1	0	4.8	141.1	9.4	2.6	573.9	551.5
<b>EAST SOUTH CENTRAL</b>																
41 Kentucky-----	1,073.1	41.9	4.7	0.1	2.4	1.2	1.5	2.4	1.7	1.4	4.9	106.4	10.8	1.8	532.7	509.2
42 Tennessee-----	1,018.5	37.6	6.4	0.2	1.5	0.6	1.4	0.9	1.5	0.7	4.8	99.7	8.0	2.3	460.3	459.8
43 Alabama-----	1,007.5	32.1	7.5	0.1	1.5	0.9	1.4	1.0	0.7	0.3	4.5	94.0	8.1	2.3	460.1	436.4
44 Mississippi-----	1,074.5	30.8	7.9	0.1	2.2	0.9	2.6	0.7	1.0	1.2	4.3	97.2	9.0	2.5	461.9	430.8
<b>WEST SOUTH CENTRAL</b>																
45 Arkansas-----	947.3	36.7	8.0	0.2	2.1	0.4	2.5	0.7	1.4	0.3	4.5	94.5	7.7	1.2	464.3	432.8
46 Louisiana-----	1,019.5	36.0	15.1	0.3	0.8	0.5	1.3	0.8	0.9	0.3	4.4	123.7	8.4	3.2	488.8	471.0
47 Oklahoma-----	1,040.6	29.4	7.5	0	1.2	0.4	0.7	0.6	1.7	0	3.4	128.0	12.0	1.3	513.5	492.3
48 Texas-----	959.5	30.0	8.8	0.1	4.2	0.8	0.7	0.6	3.0	0.1	5.2	102.8	10.0	1.6	424.9	408.5
<b>MOUNTAIN</b>																
49 Montana-----	1,200.6	24.2	7.4	0	0.6	0.6	2.3	0	0.3	0	2.9	134.8	9.4	0.6	565.9	552.3
50 Idaho-----	1,005.2	14.8	5.9	0.3	0	0	0.7	1.6	3.0	1.0	3.0	102.6	13.9	0.7	468.4	472.2
51 Wyoming-----	983.5	9.0	4.5	0	0	0.6	0	0.6	2.6	0	3.9	105.9	9.7	1.3	429.4	419.1
52 Colorado-----	1,056.2	20.3	5.1	0	0.6	0	0.5	0.9	0.8	0.6	3.5	125.7	9.5	0.9	495.4	482.4
53 New Mexico-----	918.2	37.1	8.1	0	4.3	0	2.6	0	1.7	1.4	3.7	68.5	4.3	2.6	261.1	267.6
54 Arizona-----	1,074.5	76.2	8.7	0.8	3.7	0.5	2.1	0	0.8	0	4.2	105.4	5.8	1.1	366.5	375.3
55 Utah-----	853.8	12.1	6.3	0	0.6	0	0.3	0.3	2.0	0.6	2.3	90.6	9.5	2.0	399.8	390.9
56 Nevada-----	1,284.4	35.3	14.1	0	1.2	0	0	0	0	0	5.9	142.3	12.9	1.2	579.9	566.9
<b>PACIFIC</b>																
57 Washington-----	1,130.6	20.9	6.3	0.1	0.2	0.2	0.2	0.4	1.4	0.1	2.4	145.1	11.8	2.0	600.6	589.9
58 Oregon-----	1,102.3	16.8	7.6	0	0.3	0.5	0.1	0.6	2.5	0.1	2.1	140.3	8.1	0.9	585.2	572.6
59 California-----	1,093.6	31.3	8.3	0.1	0.3	0.5	0.2	0.4	1.2	0.1	3.3	142.1	8.1	1.2	577.6	567.3



Table 8.46. Death Rates for 32 Selected Causes, by Race and Sex:

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population in each specified

RACE, SEX, AND AREA	Total	Tuber-	Syph-	Ty-	Dysen-	Diph-	Whoop-	Menin-	Acute	Meas-	All other	Malignant	Diab-	Menin-	Major	Diseases
		culosis, all forms 001-019	illitis and its sequelae 020-029	phoid fever 040	tery, all forms 045-048	theria 055	ing cough 056	gococcal infections 057	polio-myelitis 080	lesles 085	infective and parasitic diseases 030-039, 041-044, 049-054, 058-074, 081-084, 086-138	neoplasms, including neoplasms of lymphatic and hematopoietic tissues 140-205	betes melitus 260	gitis, except meningococcal and tuberculous 340	for cardiovascular diseases 330-334, 400-468, 592-594	of cardiovascular system 330-334, 400-468
<b>ALL RACES, FEMALE</b>																
1 UNITED STATES-----	825.5	15.1	2.7	0.1	0.5	0.3	0.8	0.5	1.0	0.3	2.4	136.8	19.9	1.0	442.6	427.3
<b>GEOGRAPHIC DIVISIONS</b>																
2 New England-----	935.2	10.7	2.2	0	0	0.1	0.3	0.2	0.4	0.1	1.5	171.3	26.5	0.8	542.6	528.8
3 Middle Atlantic-----	914.7	15.5	2.3	0.0	0.0	0.1	0.3	0.4	0.9	0.1	1.9	163.0	26.5	0.8	529.1	514.8
4 East North Central-----	856.9	12.4	2.8	0.0	0.2	0.1	0.5	0.6	1.3	0.3	1.9	147.2	25.5	0.9	473.1	457.6
5 South Atlantic-----	852.9	8.9	2.3	0.0	0.2	0.2	0.7	0.6	1.0	0.5	2.2	144.0	21.2	0.8	462.0	446.1
6 West North Central-----	751.1	18.5	3.3	0.1	0.6	0.5	1.4	0.7	0.7	0.4	2.9	108.2	15.2	1.2	385.7	368.0
7 East South Central-----	790.2	26.8	2.5	0.1	1.1	0.8	2.3	1.0	0.7	0.9	3.9	106.1	11.5	1.5	373.5	352.6
8 West South Central-----	837.5	21.0	3.4	0.2	2.3	0.4	1.2	0.6	1.7	0.3	4.0	108.1	13.4	1.2	319.8	303.2
9 Mountain-----	688.5	17.2	2.6	0.2	1.2	0.4	1.6	0.4	0.7	0.6	2.7	101.6	11.8	1.2	306.1	294.6
10 Pacific-----	763.3	11.3	2.3	0.0	0.2	0.2	0.3	0.3	1.0	0.1	2.0	137.2	11.1	0.8	419.3	410.0
<b>NEW ENGLAND</b>																
11 Maine-----	981.9	13.1	1.1	0	0	0	0.7	0.2	0.4	0.2	1.5	178.8	21.5	1.1	556.3	533.5
12 New Hampshire-----	1,002.9	5.2	4.4	0	0	0.4	0.4	0.4	0.4	0	1.1	176.5	21.0	0.4	594.5	576.0
13 Vermont-----	979.0	9.5	3.7	0	0	0.5	0.5	0	1.1	0	3.2	163.7	20.0	1.6	565.8	553.7
14 Massachusetts-----	954.2	12.1	2.0	0	0	0.1	0.2	0.2	0.1	0.0	1.5	174.2	25.5	1.0	559.9	547.6
15 Rhode Island-----	954.1	11.2	3.0	0	0	0	0.2	0.2	0.5	0	1.2	168.7	51.1	0.5	535.0	513.3
16 Connecticut-----	835.3	7.9	2.3	0	0	0.1	0.2	0.1	1.2	0.1	1.3	162.2	24.3	0.6	481.1	470.8
<b>MIDDLE ATLANTIC</b>																
17 New York-----	916.1	13.6	2.4	0.0	0.0	0.0	0.1	0.4	1.0	0.1	1.8	169.1	23.6	0.9	535.5	522.9
18 New Jersey-----	903.2	13.5	1.6	0.1	0	0	0.1	0.3	1.3	0.1	2.1	168.3	25.4	0.8	526.3	512.2
19 Pennsylvania-----	918.0	13.4	2.3	0.0	0.1	0.1	0.8	0.4	0.7	0.1	2.1	152.0	31.0	0.7	524.1	504.7
<b>EAST NORTH CENTRAL</b>																
20 Ohio-----	871.9	12.7	3.7	0	0.1	0.1	0.6	0.9	1.3	0.2	1.9	148.1	28.3	1.0	474.7	461.2
21 Indiana-----	890.0	14.4	3.4	0	0.2	0.2	0.6	0.6	1.8	0.7	2.0	147.1	21.9	0.7	489.7	472.4
22 Illinois-----	905.3	14.4	2.4	0.0	0.2	0.0	0.4	0.4	1.0	0.1	1.6	158.6	24.2	0.5	519.7	500.1
23 Michigan-----	755.2	11.5	2.7	0.0	0.2	0.0	0.6	0.4	1.4	0.3	1.9	129.9	27.2	1.1	392.0	379.2
24 Wisconsin-----	847.6	6.2	1.5	0	0.1	0	0.4	0.6	1.5	0.1	2.0	147.7	23.0	1.1	461.4	467.9
<b>WEST NORTH CENTRAL</b>																
25 Minnesota-----	782.5	7.4	1.7	0.1	0.3	0.2	0.3	0.6	0.5	0.4	1.7	136.4	20.1	0.8	422.0	414.3
26 Iowa-----	890.1	5.6	2.3	0	0.1	0.2	0.5	0.6	1.9	0.4	2.4	150.1	20.8	0.6	485.3	482.2
27 Missouri-----	940.0	13.3	3.1	0.0	0.3	0.3	1.1	0.5	0.5	0.4	2.6	155.6	22.2	1.2	515.0	490.0
28 North Dakota-----	670.1	9.1	1.0	0	0	0	0.7	1.7	0.3	0	0.7	111.9	22.9	0.3	324.2	315.9
29 South Dakota-----	751.8	14.6	1.6	0	0	0.3	1.9	0.6	1.6	1.0	2.9	122.3	18.7	1.3	378.7	370.5
30 Nebraska-----	799.8	5.9	1.7	0.2	0	0.2	0.3	0.6	0.6	1.4	2.0	147.1	24.0	0.8	410.2	398.9
31 Kansas-----	854.0	6.9	2.3	0	0.1	0	0.5	0.6	1.5	0.1	2.3	137.6	20.0	0.3	472.3	451.4
<b>SOUTH ATLANTIC</b>																
32 Delaware-----	955.6	15.6	1.9	0	0	0	5.0	0.6	0.6	0.6	3.7	147.4	37.9	3.1	542.5	522.0
33 Maryland-----	844.5	22.0	4.1	0	0.1	0.2	0.3	0.6	0.8	0.1	1.6	138.5	21.6	1.1	479.2	461.7
34 District of Columbia-----	923.3	31.8	4.0	0	0	0	0.2	0.5	0.2	0	2.4	152.0	17.0	0.9	505.6	490.7
35 Virginia-----	774.1	22.6	3.2	0.1	0.3	0.4	1.5	1.0	1.8	0.3	2.4	103.4	14.5	0.9	410.6	395.7
36 West Virginia-----	704.8	16.8	3.6	0.1	0.2	0.4	3.1	1.1	0.9	0.8	3.2	111.0	16.6	1.0	334.0	317.9
37 North Carolina-----	855.9	16.2	2.5	0	0.8	0.7	1.5	0.6	0.5	0.6	2.9	86.1	10.7	1.0	331.9	314.6
38 South Carolina-----	715.2	16.1	3.3	0.3	0.9	0.9	2.3	0.6	0.2	0.8	4.2	87.7	14.9	1.8	351.7	334.3
39 Georgia-----	755.3	20.2	3.6	0	1.0	0.7	1.1	0.8	0.4	0.2	3.5	102.5	13.1	1.5	374.2	353.1
40 Florida-----	764.1	11.7	3.3	0	0.7	0.4	0.4	0.7	0.5	0.3	2.9	123.3	16.0	1.5	379.4	362.7
<b>EAST SOUTH CENTRAL</b>																
41 Kentucky-----	818.3	31.1	1.4	0.1	1.6	1.2	2.2	1.0	1.4	0.8	3.8	115.3	12.9	1.3	411.1	394.5
42 Tennessee-----	772.7	30.0	2.2	0.2	1.1	0.6	2.5	1.4	0.6	0.8	3.7	109.6	11.0	1.2	361.4	343.5
43 Alabama-----	750.2	22.8	3.4	0.1	0.4	0.6	1.9	0.8	0.5	0.4	4.0	97.5	9.8	1.6	355.5	331.2
44 Mississippi-----	836.0	21.9	3.2	0.1	1.5	0.8	2.5	0.5	0.3	2.0	4.3	100.6	12.5	1.9	370.0	341.3
<b>WEST SOUTH CENTRAL</b>																
45 Arkansas-----	667.6	27.8	2.9	0.2	1.3	0.6	1.3	0.8	0.7	0.3	3.1	104.2	11.2	1.0	316.4	293.2
46 Louisiana-----	754.1	17.7	5.4	0.4	1.0	0	0.9	0.9	0.7	0.4	4.8	111.1	16.4	2.0	378.3	360.5
47 Oklahoma-----	705.5	15.8	3.1	0.1	0.3	0.4	1.1	0.4	1.8	0.1	3.2	112.3	14.8	0.6	337.2	321.2
48 Texas-----	683.0	22.0	2.9	0.1	3.5	0.5	1.3	0.5	2.3	0.3	4.1	106.7	12.6	1.2	294.6	280.2
<b>MOUNTAIN</b>																
49 Montana-----	748.2	12.6	2.8	0	0	0	1.1	0.7	0.7	0	2.1	113.3	13.8	1.1	365.1	354.6
50 Idaho-----	626.8	7.4	1.4	0	0	0.4	1.4	0.7	0.7	0	2.1	95.7	14.4	0.7	309.7	296.4
51 Wyoming-----	599.2	2.9	2.9	0	0	0	0	0	2.2	0.7	1.5	93.6	13.3	0.7	274.9	263.1
52 Colorado-----	796.3	10.9	2.3	0	0.5	0	0.5	0.8	0.5	0.8	2.6	131.8	12.3	0.3	397.5	384.1
53 New Mexico-----	683.4	36.3	3.9	0.3	6.0	0.6	4.5	0.3	0.6	0.9	2.4	70.4	6.9	2.1	193.9	184.0
54 Arizona-----	634.0	42.6	3.5	0.5	2.2	1.8	3.5	0.3	0.8	0.5	3.5	84.7	11.1	2.7	220.2	210.0
55 Utah-----	597.9	3.5	1.2	0.3	0	0.6	0.6	0	0.3	1.2	2.9	90.8	13.2	1.2	292.2	281.9
56 Nevada-----	660.8	5.3	4.0	0	0	0	0	0	1.3	0	5.3	105.2	8.0	1.3	309.1	297.1
<b>PACIFIC</b>																
57 Washington-----	746.6	6.6	1.2	0	0.5	0	0.2	0.4	1.1	0.2	1.5	132.5	16.8	1.0	399.3	369.8
58 Oregon-----	723.7	7.6	0.9	0.1	0	0.4	0.5	0.1	1.5	0	0.8	135.5	13.5	0.9	363.9	375.1
59 California-----	772.0	12.4	2.7	0.0	0.2	0.2	0.3	0.3	0.9	0.1	2.3	138.7	9.5	0.7	423.7	419.4



Table 8.46. Death Rates for 32 Selected Causes, by Race and Sex:

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population in each specified

RACE, SEX, AND AREA	Total	Tuber-	Syph-	Ty-	Dysen-	Diph-	Whoop-	Menin-	Acute	Meas-	All other	Malignant	Diab-	Menin-	Major	Diseases
		culosis, all forms	ilitis and its sequelae	phoid fever	tery, all forms	theria	oping cough	gococ- cal infect- ions	polio- mye- litis	les	infective and para- sitic diseases	neoplasms, including neoplasms of lym- phatic and hemato- poietic tissues	betes melli- tus	gitis, except menin- gococ- cal and tuber- culous	cardio- vascular renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 048	055	056	057	060	085	030-039, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	260	340	330-334, 400-468, 592-594	330-334, 400-468, 592-594
<b>WHITE, BOTH SEXES</b>																
1 UNITED STATES-----	945.7	17.9	3.7	0.0	0.5	0.2	0.5	0.6	1.3	0.3	2.5	143.5	16.4	1.0	512.3	497.6
<b>GEOGRAPHIC DIVISIONS</b>																
2 New England-----	1,040.5	18.2	3.7	0	0.1	0.2	0.3	0.5	0.5	0.1	1.9	176.7	21.0	1.0	586.4	581.3
3 Middle Atlantic-----	1,042.6	19.7	3.2	0.0	0.1	0.0	0.2	0.4	1.2	0.2	2.1	172.5	20.7	0.9	597.8	585.0
4 East North Central-----	997.6	16.0	4.4	0.0	0.2	0.1	0.4	0.6	1.8	0.3	2.2	153.4	20.9	1.0	554.1	538.3
5 West North Central-----	990.7	11.9	3.8	0.0	0.2	0.2	0.6	0.6	1.3	0.4	2.5	148.8	17.8	0.9	542.9	536.1
6 South Atlantic-----	809.5	14.9	3.1	0.0	0.4	0.4	0.8	0.9	1.0	0.3	2.5	111.0	12.2	1.0	424.1	409.4
7 East South Central-----	825.1	25.4	2.2	0.1	1.2	0.9	1.3	1.3	1.1	0.8	3.5	105.2	9.4	1.1	400.6	383.5
8 West South Central-----	787.2	22.9	3.8	0.1	2.5	0.5	0.8	0.7	2.2	0.2	3.8	106.9	11.0	1.1	385.9	351.4
9 Mountain-----	846.0	18.5	4.1	0.1	1.2	0.2	0.9	0.4	1.1	0.5	2.9	106.4	10.4	1.0	382.9	370.8
10 Pacific-----	940.6	17.8	4.6	0.1	0.2	0.3	0.2	0.4	1.3	0.1	2.2	142.1	10.1	1.0	512.2	502.3
<b>NEW ENGLAND</b>																
11 Maine-----	1,082.5	16.7	3.7	0	0	0.1	0.7	0.4	0.9	0.2	1.6	173.8	16.9	1.5	604.7	582.9
12 New Hampshire-----	1,138.7	11.5	5.6	0	0	0.2	0.4	0.8	0.2	0	2.6	176.7	20.1	0.8	674.1	656.6
13 Vermont-----	1,103.4	18.6	3.7	0	0	0.3	1.1	0.5	0.5	0	3.2	182.8	15.9	1.6	620.4	607.1
14 Massachusetts-----	1,052.3	20.4	3.2	0	0.1	0.2	0.2	0.4	0.2	0.0	1.7	180.2	20.5	1.0	605.6	593.1
15 Rhode Island-----	1,042.6	18.0	4.5	0	0.3	0.1	0.1	0.6	0.4	0.1	2.6	177.2	35.6	0.5	585.8	587.8
16 Connecticut-----	953.4	15.5	4.1	0	0	0.1	0.1	0.5	1.1	0.1	1.5	171.9	19.6	0.9	544.3	532.8
<b>MIDDLE ATLANTIC</b>																
17 New York-----	1,055.5	20.6	3.7	0.0	0.1	0.1	0.1	0.4	1.3	0.1	1.9	181.8	19.3	0.9	608.6	597.1
18 New Jersey-----	1,006.9	19.5	2.7	0.0	0.1	0	0.0	0.3	1.4	0.6	2.1	176.5	19.4	0.9	581.4	567.5
19 Pennsylvania-----	1,040.8	18.7	2.8	0.0	0.1	0.1	0.5	0.5	1.0	0.1	2.3	156.6	23.4	0.9	590.1	570.4
<b>EAST NORTH CENTRAL</b>																
20 Ohio-----	1,007.5	16.4	5.1	0.0	0.1	0.1	0.5	0.8	1.5	0.4	2.4	153.1	22.6	1.0	553.0	539.3
21 Indiana-----	1,019.6	17.5	5.1	0	0.2	0.2	0.6	0.5	2.2	0.5	2.7	142.8	17.9	1.0	572.3	555.5
22 Illinois-----	1,052.8	18.6	4.1	0.0	0.2	0.0	0.2	0.5	1.6	0.1	1.8	168.7	20.1	0.9	602.2	582.4
23 Michigan-----	904.9	14.7	4.6	0.1	0.2	0.0	0.4	0.5	2.1	0.5	2.0	138.9	22.4	1.0	477.5	464.5
24 Wisconsin-----	982.2	9.4	2.7	0.0	0.1	0	0.4	0.6	1.6	0.1	2.4	154.7	19.5	1.1	555.8	541.5
<b>WEST NORTH CENTRAL</b>																
25 Minnesota-----	936.7	10.6	3.7	0.0	0.1	0.3	0.4	0.5	0.7	0.3	1.8	147.5	16.9	1.0	510.4	501.8
26 Iowa-----	1,027.1	7.7	3.9	0.0	0.4	0.2	0.4	0.7	2.5	0.6	2.7	153.7	17.4	0.6	577.9	563.4
27 Missouri-----	1,073.7	19.9	4.7	0.1	0.3	0.2	1.2	0.5	0.7	0.3	2.8	159.6	18.1	1.1	591.0	565.0
28 North Dakota-----	832.6	8.2	3.1	0	0	0	0.3	1.0	0.2	0	1.2	120.5	17.8	0.7	422.9	411.9
29 South Dakota-----	880.2	9.7	2.5	0	0.2	0.2	0.2	0.5	2.5	0.6	3.0	131.6	17.7	1.1	481.9	450.4
30 Nebraska-----	946.1	7.5	2.4	0.1	0.2	0.2	0.5	0.8	1.5	0.7	2.9	152.8	19.5	0.8	498.1	483.6
31 Kansas-----	982.6	8.8	3.9	0	0.1	0	0.4	0.8	1.7	0.1	2.6	135.1	18.1	0.5	549.3	529.1
<b>SOUTH ATLANTIC</b>																
32 Delaware-----	1,057.4	16.1	2.6	0	0	0	1.8	0.4	1.1	0.7	2.2	162.5	28.1	2.2	585.2	575.8
33 Maryland-----	910.5	20.9	3.5	0	0.1	0.2	0.1	1.0	1.1	0.1	1.7	141.9	17.9	0.8	518.2	504.4
34 District of Columbia-----	1,036.9	26.5	6.0	0	0	0	0	0.6	0.6	0	2.3	187.0	15.4	1.2	586.6	555.4
35 Virginia-----	794.2	16.8	2.9	0.1	0.3	0.3	0.7	1.3	2.4	0.1	2.1	101.5	9.8	0.8	416.4	403.6
36 West Virginia-----	848.8	19.5	4.0	0.1	0.4	0.5	2.1	1.5	1.2	1.0	3.4	107.9	11.9	1.3	407.1	390.1
37 North Carolina-----	882.8	10.1	2.0	0	0.4	0.6	0.7	0.6	0.6	0.4	2.4	80.8	9.1	0.7	362.2	341.9
38 South Carolina-----	725.3	9.9	2.9	0	0.8	0.6	1.2	0.6	0.3	1.0	1.9	88.7	13.8	1.0	373.1	361.1
39 Georgia-----	756.2	13.3	2.4	0	1.1	0.5	0.9	1.1	0.6	0.0	3.1	102.4	10.7	0.9	383.7	367.0
40 Florida-----	900.0	11.9	3.9	0	0.3	0.3	0.2	0.7	0.8	0.2	2.7	141.8	12.2	1.6	467.7	451.8
<b>EAST SOUTH CENTRAL</b>																
41 Kentucky-----	894.2	33.3	2.4	0.1	2.0	1.3	1.8	1.8	1.5	1.2	4.3	108.0	10.9	1.4	441.4	423.6
42 Tennessee-----	818.5	27.1	2.1	0.1	1.1	0.7	1.5	1.4	1.1	0.7	3.8	103.4	8.4	0.9	391.1	374.2
43 Alabama-----	752.6	18.3	2.3	0.0	0.8	0.9	0.7	1.0	0.8	0.1	2.8	100.0	7.7	1.0	361.7	346.0
44 Mississippi-----	807.9	16.1	1.8	0	0.8	0.5	0.9	0.9	0.7	1.3	2.4	112.1	10.8	1.0	396.4	378.2
<b>WEST SOUTH CENTRAL</b>																
45 Arkansas-----	749.3	26.5	2.4	0.1	1.0	0.7	0.9	0.9	1.2	0.3	3.8	102.7	8.4	0.8	369.0	346.2
46 Louisiana-----	764.7	18.9	3.7	0.2	0.5	0.2	0.5	1.1	0.9	0.2	3.2	116.7	10.9	1.6	385.4	372.5
47 Oklahoma-----	844.9	18.6	4.4	0	0.5	0.4	0.7	0.5	1.7	0.0	3.0	122.0	13.0	0.7	421.0	405.2
48 Texas-----	784.2	24.5	4.0	0.1	4.1	0.5	0.9	0.6	2.8	0.2	4.3	104.2	11.0	1.2	345.4	330.7
<b>MOUNTAIN</b>																
49 Montana-----	975.1	14.0	4.9	0	0.3	0.3	0.9	0.3	0.5	0	2.6	126.2	11.5	0.7	477.1	465.0
50 Idaho-----	815.5	9.6	3.6	0.2	0	0.2	1.0	1.0	1.9	0.3	2.6	98.6	14.1	0.7	402.3	387.9
51 Wyoming-----	795.0	4.6	3.5	0	0	0.4	0	0.4	2.5	0.4	2.5	99.6	11.3	1.1	358.1	346.8
52 Colorado-----	925.9	15.1	3.5	0	0.5	0	0.5	0.8	0.8	0.7	3.1	128.4	11.0	0.6	447.0	435.9
53 New Mexico-----	787.5	28.1	5.2	0.2	4.9	0.3	3.3	0.2	1.3	0.8	2.9	72.0	5.2	1.6	243.9	232.1
54 Arizona-----	804.4	45.4	4.3	0.3	2.6	0.3	0.8	0	0.8	0	3.2	99.8	8.6	1.2	320.4	309.2
55 Utah-----	715.2	7.1	3.1	0	0.3	0.3	0.4	0.1	1.2	0.7	2.4	90.6	11.2	1.2	347.0	337.3
56 Nevada-----	979.3	19.3	8.7	0	0	0	0	0	0.7	0	6.0	128.7	11.3	1.3	480.3	447.6
<b>PACIFIC</b>																
57 Washington-----	941.9	13.2	3.4	0.0	0.4	0.1	0.0	0.4	1.3	0.1	1.9	138.6	14.3	1.5	506.3	496.1
58 Oregon-----	914.8	11.7	4.3	0	0.1	0.5	0.3	0.4	2.0	0.1	1.5	137.1	11.3	0.9	498.9	478.2
59 California-----	944.3	19.8	5.0	0.1	0.2	0.4	0.3	0.3	1.1	0.1	2.4	143.7	8.9	0.9	517.1	507.4



Table 8.46. Death Rates for 32 Selected Causes, by Race and Sex:

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population in each specified

RACE, SEX, AND AREA	Total	Tuber- culosis, all forms	Syph- illis and its sequelae	Ty- phoid fever	Dysen- tery, all forms	Diph- theria	Whoop- ing cough	Menin- gococ- cal infec- tions	Acute polio- mye- litis	Meas- les	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemo- poietic tissues	Diab- etes melli- tus	Menin- gitis, except menin- gococ- cal and tuber- culous	Major cardio- vascular- renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 048	055	056	057	080	085	030-039, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	260	340	330-334, 400-468, 592-594	330-334, 400-468
<b>WHITE, MALE</b>																
1 UNITED STATES-----	1,089.5	25.0	5.6	0.0	0.6	0.3	0.5	0.7	1.6	0.3	2.8	147.2	12.8	1.2	585.9	570.1
<b>GEOGRAPHIC DIVISIONS</b>																
2 New England-----	1,151.7	26.7	5.4	0	0.1	0.2	0.2	0.7	0.6	0.1	2.3	182.0	15.2	1.2	649.9	635.7
3 Middle Atlantic-----	1,177.5	30.1	4.9	0.0	0.1	0.0	0.2	0.5	1.5	0.3	2.4	180.1	14.6	1.1	663.1	647.1
4 East North Central-----	1,147.2	25.0	6.5	0.0	0.2	0.1	0.3	0.6	2.1	0.3	2.6	158.9	16.1	1.2	635.5	616.9
5 West North Central-----	1,142.3	16.5	5.9	0.0	0.2	0.2	0.6	0.6	1.7	0.3	2.9	153.8	14.4	1.0	628.9	610.5
6 South Atlantic-----	947.9	20.1	4.5	0.0	0.5	0.4	0.7	1.1	1.3	0.3	2.8	110.0	10.1	1.2	496.9	480.8
7 East South Central-----	956.7	30.1	3.5	0.1	1.5	0.9	1.0	1.5	1.3	0.9	3.9	103.5	8.9	1.3	466.1	447.1
8 West South Central-----	935.7	28.4	6.0	0.1	2.9	0.5	0.7	0.7	2.4	0.1	4.3	109.5	9.6	1.3	442.7	426.5
9 Mountain-----	1,014.0	24.9	6.2	0.1	1.3	0.1	0.8	0.5	1.4	0.4	3.3	109.1	9.0	1.0	453.0	440.4
10 Pacific-----	1,111.2	25.8	7.1	0.1	0.3	0.5	0.2	0.4	1.5	0.1	2.5	144.9	8.9	1.2	596.1	585.6
<b>NEW ENGLAND</b>																
11 Maine-----	1,184.1	20.6	6.4	0	0	0.2	0.7	0.7	1.3	0.2	1.8	169.1	12.2	2.0	652.6	631.8
12 New Hampshire-----	1,280.4	17.9	6.9	0	0	0	0.4	1.1	0	0	4.2	181.8	19.1	1.1	756.1	739.7
13 Vermont-----	1,228.0	27.7	3.7	0	0	0	1.6	1.1	0	0	3.2	161.6	11.7	1.6	674.6	660.4
14 Massachusetts-----	1,157.9	30.3	4.6	0	0.1	0.3	0.1	0.5	0.4	0.0	2.1	196.1	15.2	1.2	653.5	640.7
15 Rhode Island-----	1,142.5	26.4	6.0	0	0.5	0.3	0	1.0	0.3	0.3	3.9	187.3	19.9	0.5	643.6	627.5
16 Connecticut-----	1,075.8	23.6	6.3	0	0	0	0	0.8	1.0	0	1.9	180.6	14.3	1.2	609.1	596.3
<b>MIDDLE ATLANTIC</b>																
17 New York-----	1,198.1	31.7	5.8	0	0.1	0.1	0.1	0.5	1.6	0.2	2.2	192.4	14.4	1.1	677.0	664.4
18 New Jersey-----	1,120.8	29.1	4.1	0	0.1	0	0	0.4	1.6	1.0	2.4	187.4	13.9	1.0	634.1	619.6
19 Pennsylvania-----	1,174.6	28.3	4.0	0.0	0.1	0.0	0.4	0.7	1.3	0.1	2.6	159.6	15.1	1.2	657.1	635.8
<b>EAST NORTH CENTRAL</b>																
20 Ohio-----	1,152.5	23.4	7.3	0.1	0.2	0.1	0.5	0.8	1.7	0.5	3.0	158.3	16.7	1.1	631.7	617.5
21 Indiana-----	1,166.5	22.4	7.0	0	0.2	0.3	0.6	0.5	2.6	0.3	3.5	140.7	13.9	1.2	662.9	644.3
22 Illinois-----	1,212.6	28.2	6.3	0	0.3	0.0	0.1	0.7	2.1	0.1	2.9	177.9	15.5	1.4	686.1	665.2
23 Michigan-----	1,087.8	21.7	6.9	0.1	0.3	0.0	0.3	0.5	2.7	0.6	2.1	146.6	17.4	1.0	559.7	546.0
24 Wisconsin-----	1,117.2	13.0	4.2	0.1	0.2	0	0.4	0.6	1.7	0.2	2.8	161.5	16.2	1.2	628.1	612.9
<b>WEST SOUTH CENTRAL</b>																
25 Minnesota-----	1,090.9	14.5	5.7	0	0	0.5	0.4	0.4	0.9	0.2	2.0	157.9	13.8	1.1	597.9	588.2
26 Iowa-----	1,166.4	9.9	5.6	0.1	0.7	0.2	0.3	0.7	3.0	0.8	2.9	157.2	14.1	0.5	662.1	646.0
27 Missouri-----	1,240.5	29.2	7.6	0.1	0.2	0.1	1.4	0.4	0.9	0.2	3.3	163.5	14.0	1.2	661.6	653.5
28 North Dakota-----	989.7	11.7	5.0	0	0	0	0	0.3	0	0	1.6	128.0	12.9	0.9	511.7	496.5
29 South Dakota-----	1,021.0	13.9	3.7	0	0.3	0	0	0.6	3.4	0.9	3.4	137.6	16.9	1.8	531.6	517.7
30 Nebraska-----	1,096.1	9.9	3.4	0	0.3	0.3	0.6	0.9	2.3	0.3	3.8	158.3	15.0	0.8	586.2	568.5
31 Kansas-----	1,127.4	11.6	6.0	0	0.1	0	0.2	1.0	2.1	0	2.8	134.6	16.2	0.8	634.5	613.5
<b>SOUTH ATLANTIC</b>																
32 Delaware-----	1,194.5	22.2	5.7	0	0	0	1.5	0.7	1.5	0.7	1.5	175.5	17.0	2.2	662.8	643.6
33 Maryland-----	1,016.1	30.6	5.1	0	0	0.2	0	1.3	1.6	0	2.2	140.5	13.8	1.1	568.9	555.4
34 District of Columbia-----	1,214.1	43.3	8.5	0	0	0	0	0.8	1.2	0	2.5	170.6	14.4	1.6	654.2	642.3
35 Virginia-----	907.9	20.4	4.1	0.1	0.4	0.3	0.8	1.6	2.5	0.1	2.1	99.6	7.2	1.1	472.1	457.2
36 West Virginia-----	1,006.7	23.3	5.0	0.1	0.6	0.7	1.4	1.9	1.5	1.1	3.7	104.9	7.7	1.6	487.0	469.7
37 North Carolina-----	803.8	12.8	2.9	0	0.3	0.5	0.7	0.7	0.5	0.2	2.8	74.6	8.3	0.8	431.7	415.5
38 South Carolina-----	873.1	14.0	4.5	0	0.6	0.3	1.2	0.8	0.6	1.1	2.2	85.1	13.8	0.8	453.9	440.7
39 Georgia-----	889.4	17.8	3.6	0	1.3	0.3	0.9	1.2	0.8	0	3.9	100.3	11.1	1.1	453.3	436.2
40 Florida-----	1,100.8	18.0	6.1	0	0.3	0.2	0.2	0.7	1.2	0	3.2	152.4	10.0	2.0	578.7	559.9
<b>EAST SOUTH CENTRAL</b>																
41 Kentucky-----	1,020.1	37.8	3.8	0.1	2.2	1.2	1.5	2.5	1.6	1.5	4.7	104.3	10.2	1.5	503.7	483.1
42 Tennessee-----	946.5	30.7	3.1	0.1	1.3	0.7	0.9	1.0	1.5	0.6	4.2	100.1	7.8	1.2	458.7	440.1
43 Alabama-----	890.6	22.9	3.8	0.1	1.4	1.1	0.6	0.9	0.9	0.3	3.4	98.9	8.0	1.3	426.6	409.8
44 Mississippi-----	948.2	23.3	3.4	0	0.5	0.3	1.0	1.0	1.2	1.0	2.2	117.8	8.7	1.3	464.5	444.4
<b>WEST SOUTH CENTRAL</b>																
45 Arkansas-----	896.5	31.7	3.6	0.1	1.2	0.5	1.3	0.8	1.5	0.3	4.6	86.0	6.9	0.8	453.2	426.3
46 Louisiana-----	909.7	28.0	6.1	0.2	0.3	0.4	0.7	1.0	0.9	0.1	3.1	124.1	7.6	2.0	459.7	445.7
47 Oklahoma-----	1,016.2	25.5	6.7	0	1.0	0.3	0.5	0.7	1.8	0	3.1	130.0	11.8	1.0	511.8	483.7
48 Texas-----	926.5	28.6	6.4	0.1	4.6	0.7	0.7	0.6	3.3	0.1	4.9	101.9	10.1	1.3	415.1	401.3
<b>MOUNTAIN</b>																
49 Montana-----	1,195.0	19.4	7.3	0	0.7	0.7	1.7	0	0.3	0	3.0	136.3	9.4	0.7	573.5	560.1
50 Idaho-----	997.6	12.7	6.0	0.3	0	0	0.7	1.3	3.0	0.7	3.0	102.2	13.7	0.7	488.4	472.7
51 Wyoming-----	961.5	7.3	4.8	0	0	0.7	0	0.7	2.7	0	4.0	106.7	9.9	1.3	432.1	421.5
52 Colorado-----	1,059.0	20.0	5.1	0	0.6	0	0.5	0.9	0.8	0.6	3.5	124.9	9.7	0.9	497.8	484.9
53 New Mexico-----	861.3	29.9	7.5	0	3.7	0	2.5	0	1.9	1.2	4.0	70.3	4.4	1.6	297.4	274.3
54 Arizona-----	1,028.4	65.1	5.9	0.6	3.3	0	0.3	0	0.9	0	3.3	109.6	5.5	0.6	411.9	399.1
55 Utah-----	845.1	11.1	5.6	0	0.6	0	0.3	0.3	2.1	0.3	1.8	90.0	9.7	1.5	401.2	392.1
56 Nevada-----	1,289.2	36.4	15.1	0	0	0	0	0	0	0	8.3	144.4	13.8	1.3	602.6	586.7
<b>PACIFIC</b>																
57 Washington-----	1,128.2	18.9	5.5	0.1	0.3	0.2	0	0.4	1.4	0.1	2.4	144.5	12.0	1.9	605.9	595.2
58 Oregon-----	1,102.3	17.0	7.6	0	0.3	0.5	0.1	0.7	2.5	0.1	2.1	140.9	9.2	0.9	589.3	576.6
59 California-----	1,108.5	28.8	7.4	0.1	0.3	0.5	0.3	0.4	1.3	0.1	2.6	145.6	8.1	1.1	594.8	584.6



United States, Each Division and State, 1950-Continued

group, enumerated as of April 1. Numbers under causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

Van- cular lesions af- fecting central nervous system	Rheu- matic fever	Dise- ases of heart	Hyper- tension with- out men- tion of heart and gen- eral arterio- sclerosis	Other dis- eases of cir- cu- latory system	Chronic and un- spec- ified nephri- tis and other renal sclero- sosis	Influen- za and pneu- monia, except pneu- monia of newborn	Ulcer of stom- ach and duden- um	Gastritis, sho- denitis, and colitis, except diarrhea of newborn	Cir- rho- sis of liver	Acute nephri- tis and nephri- tis with edema, includ- ing ne- phrosis	Deliveries and compli- cations of pregnancy, childbirth, and the puerperium	Con- geni- tal mal- for- ma- tions	Symp- toms, senil- ity, and ill- de- fined con- ditions	Motor- ve- hicle accidents	All other accid- ents	Suicide	Homi- cide	All other causes	
330-334	400- 402	410-443	444-450	451-468	592-594	480-495	540, 541	543, 571,572	581	590,591	640-689	750- 759	780-795	E810- E835	E800- E802, E840- E862	E965, E970- E979	E964, E980- E985	Resid- ual	
100.5	1.2	433.0	29.5	5.9	15.8	31.6	9.1	4.6	12.6	2.3	...	13.5	12.5	35.1	47.4	19.0	3.9	113.5	1
105.9	1.2	489.1	33.2	8.3	14.2	25.7	11.0	3.2	15.3	1.9	...	12.1	5.4	20.8	45.2	17.1	1.5	107.9	2
93.1	1.3	517.1	29.6	6.0	16.0	31.5	11.4	3.5	16.1	2.1	...	12.0	7.9	22.7	45.2	17.5	2.1	108.6	3
112.1	1.1	465.9	34.2	5.7	16.7	31.2	9.5	4.0	13.5	2.4	...	14.2	6.6	37.3	45.2	19.2	2.6	113.9	4
127.8	1.3	439.2	35.9	6.4	18.4	34.5	9.1	3.4	8.6	2.5	...	14.6	12.1	35.1	50.8	19.7	2.5	122.3	5
94.1	1.1	355.9	24.2	5.8	16.1	28.4	6.6	4.4	9.5	2.2	...	13.0	15.6	40.3	45.0	18.3	6.3	108.3	6
96.3	1.0	323.3	22.7	3.8	19.0	37.0	6.5	6.6	7.9	2.6	...	15.4	33.8	41.5	46.5	14.8	8.1	113.5	7
80.8	0.9	320.2	20.0	4.6	16.2	35.2	5.6	9.1	8.4	2.7	...	13.9	19.7	43.1	51.4	14.6	6.9	117.7	8
77.1	1.7	333.4	22.0	6.2	12.7	40.6	10.0	8.1	8.7	2.5	...	16.2	30.4	49.9	67.1	22.7	4.4	142.1	9
96.9	1.0	447.4	32.6	7.6	10.5	29.4	9.6	4.1	17.8	1.7	...	13.9	8.6	42.8	51.6	20.2	4.4	109.9	10
124.4	1.3	463.9	35.6	6.6	20.8	29.6	9.5	5.1	11.0	1.5	...	12.4	10.4	24.3	55.9	26.7	2.4	127.5	11
127.2	2.7	557.5	47.7	4.6	16.4	24.1	9.9	1.9	10.7	1.5	...	14.1	8.8	30.2	50.8	26.3	0.8	112.7	12
132.8	0	472.6	49.6	5.3	14.4	40.5	10.7	4.3	10.7	2.7	...	13.9	11.2	35.2	64.5	23.5	0.5	123.2	13
103.8	1.1	496.2	32.9	6.6	12.8	27.2	12.0	5.3	16.6	2.0	...	11.9	4.2	17.8	45.4	13.8	1.6	107.7	14
101.6	0.8	461.4	36.7	5.0	16.2	22.2	13.1	2.6	16.5	1.6	...	12.5	4.4	16.5	40.0	13.1	1.0	108.9	15
92.9	1.1	472.1	23.4	6.8	12.8	19.4	9.1	2.7	16.0	1.7	...	11.3	4.2	22.3	36.5	18.2	1.4	94.3	16
88.7	1.3	543.0	26.6	4.8	12.6	31.7	12.5	3.4	17.6	1.6	...	12.2	6.7	21.4	43.3	17.4	2.2	100.9	17
89.1	1.0	494.8	28.5	7.1	14.4	27.4	10.9	2.7	16.3	2.4	...	11.9	2.8	19.9	33.9	19.2	2.2	96.0	18
101.6	1.6	491.1	34.2	7.1	21.5	33.0	10.0	4.0	13.9	2.7	...	11.9	11.8	25.7	47.4	16.8	2.0	125.0	19
119.0	1.1	453.5	37.5	6.4	14.2	31.9	8.3	4.0	14.1	2.2	...	14.6	8.1	36.3	46.9	18.7	2.5	121.8	20
129.3	1.4	467.4	42.7	4.5	18.6	35.2	8.5	5.3	10.8	3.2	...	14.2	4.6	41.5	46.6	22.8	2.8	115.1	21
104.3	0.9	524.5	30.4	5.3	20.9	31.6	11.3	3.1	16.7	2.5	...	13.2	5.2	35.1	44.1	18.7	3.4	106.9	22
102.3	1.2	406.9	29.4	8.1	13.7	29.0	10.5	4.4	12.4	2.3	...	15.6	6.7	39.9	43.3	18.0	2.5	113.4	23
114.8	1.1	456.9	34.7	5.5	15.3	28.4	7.7	3.9	9.5	1.6	...	13.0	8.9	35.1	45.8	19.8	1.2	112.1	24
122.7	1.2	419.7	36.5	6.0	9.8	34.0	8.3	3.4	7.3	2.1	...	14.8	7.0	30.3	49.8	19.4	1.5	117.7	25
141.3	1.5	460.5	37.3	5.4	16.1	31.4	9.6	2.3	8.4	2.1	...	15.9	8.6	36.3	48.6	20.6	1.2	123.3	26
130.1	1.2	480.2	34.2	7.8	28.1	44.5	9.6	4.2	11.9	3.6	...	13.5	18.4	35.2	60.0	19.9	4.7	121.3	27
107.8	1.6	347.5	37.5	4.1	13.2	24.3	8.2	5.2	6.0	2.2	...	18.6	22.4	28.7	62.7	17.0	0.6	123.6	28
116.3	1.5	368.0	28.9	4.9	13.9	28.3	7.4	1.8	6.2	1.5	...	11.4	12.6	41.9	52.3	16.6	0.3	126.5	29
120.9	1.5	411.1	28.9	6.1	17.7	28.5	9.3	2.9	7.8	2.0	...	15.6	11.8	34.2	53.0	20.6	3.1	124.9	30
127.9	1.1	437.6	39.5	7.3	21.0	30.4	9.3	4.4	7.0	2.4	...	13.7	9.4	41.3	50.8	20.2	2.3	126.5	31
74.8	2.2	526.5	31.8	8.1	19.3	28.9	7.4	5.9	16.3	3.0	...	12.6	2.2	34.8	44.4	20.0	4.4	125.2	32
77.2	1.1	447.6	23.5	5.9	13.6	21.7	7.1	3.3	12.2	1.4	...	10.6	3.4	26.9	44.4	19.8	3.4	96.3	33
84.9	0	518.3	27.2	11.9	11.9	22.7	12.4	3.3	29.7	0.4	...	14.8	3.7	25.1	46.6	22.7	6.2	128.5	34
94.3	0.7	331.4	24.6	6.1	14.9	28.9	7.0	4.7	8.0	2.5	...	13.5	10.7	41.5	46.1	19.9	6.2	106.5	35
104.4	2.6	330.8	25.5	5.4	18.2	42.9	5.4	8.6	9.9	2.7	...	16.8	30.2	34.2	65.4	17.4	8.4	125.3	36
92.0	0.9	300.6	18.5	3.5	16.2	25.2	5.9	3.8	7.5	1.8	...	12.8	16.0	45.0	36.4	16.0	6.0	90.9	37
95.1	1.2	309.8	29.4	5.1	13.2	25.6	4.8	3.7	4.5	2.0	...	12.4	14.3	51.3	42.6	15.5	8.4	108.9	38
98.6	0.7	310.6	21.2	5.1	17.1	31.7	5.2	4.2	7.6	2.1	...	12.9	13.4	42.4	41.1	17.0	8.5	107.9	39
101.6	1.0	420.5	29.5	7.3	18.7	25.0	8.7	3.0	10.8	2.9	...	11.8	27.1	44.9	43.5	21.0	6.0	123.3	40
103.7	1.0	344.3	30.3	3.8	20.7	43.4	7.4	8.8	8.7	2.2	...	13.3	19.1	38.3	53.6	15.4	10.2	123.0	41
99.8	1.3	317.6	17.8	3.4	16.6	37.7	6.6	6.9	8.0	2.8	...	13.8	48.1	37.2	41.3	15.4	7.5	109.0	42
89.7	0.8	297.3	18.5	3.6	16.8	31.3	5.5	4.8	7.4	2.5	...	13.0	28.6	51.1	45.1	14.0	8.8	110.5	43
82.4	0.5	332.4	23.9	5.2	20.1	30.6	5.9	3.9	6.0	3.0	...	15.4	44.3	42.1	44.2	13.4	6.7	107.3	44
84.7	1.9	314.9	21.5	3.2	26.9	33.9	6.6	3.5	7.8	4.0	...	12.2	21.7	34.0	47.6	14.8	6.5	101.3	45
89.2	0.1	355.4	15.5	5.5	14.0	25.8	5.0	3.8	10.4	3.3	...	14.4	9.6	33.6	50.8	14.5	4.3	100.1	46
107.9	1.0	331.2	29.4	5.2	18.1	37.5	7.7	3.5	8.2	1.9	...	12.7	24.1	33.4	52.5	14.1	4.4	122.1	47
74.8	0.9	302.8	18.4	4.4	13.9	33.8	5.0	13.4	8.1	2.5	...	14.5	20.8	50.4	52.2	14.7	8.5	124.6	48
98.9	2.3	419.2	31.7	8.0	13.4	35.7	10.4	4.3	9.7	4.7	...	17.4	42.4	47.1	89.5	32.7	5.3	142.9	49
81.5	1.0	346.1	27.4	6.7	15.7	33.7	10.4	2.7	4.7	2.0	...	16.7	25.7	53.1	68.8	24.4	3.0	119.6	50
73.6	2.0	326.1	16.6	3.3	10.6	37.1	9.9	3.3	9.3	2.7	...	10.6	13.3	57.0	90.9	27.9	1.3	148.4	51
85.8	1.2	365.4	26.3	6.2	12.9	59.2	14.3	9.4	10.5	2.2	...	16.1	3.8	45.4	54.6	22.9	4.2	151.2	52
50.4	2.5	210.5	8.1	2.8	13.1	42.3	4.7	17.1	11.2	2.8	...	17.1	84.6	54.4	62.8	14.9	3.6	145.5	53
66.0	1.5	304.3	20.6	6.7	12.7	32.4	8.8	14.5	7.9	1.5	...	14.8	31.5	57.2	64.5	21.5	3.9	163.2	54
62.2	1.8	305.0	17.0	6.2	9.1	24.9	6.7	3.2	4.1	1.5	...	19.8	27.6	40.2	62.8	15.5	1.5	114.1	55
92.9	3.8	453.2	23.9	15.1	13.8	35.1	13.8	0	17.6	6.3	...	12.6	41.4	64.0	81.6	36.9	6.3	156.9	56
114.3	1.5	438.1	33.3	8.0	10.7	30.6	8.7	2.9	8.9	2.3	...	12.4	18.7	33.2	67.3	29.8	3.3	116.7	57

Table 8.46. Death Rates for 32 Selected Causes, by Race and Sex:  
(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population in each specified

RACE, SEX, AND AREA	Total	Tuber-	Syph-	Ty-	Dysen-	Diph-	Whoop-	Menin-	Acute	Mea-	All other	Malignant	Diab-	Menin-	Major	Diseases
		culosis, all forms	illis and its sequelae	phoid fever	tery, all forms	theria	oping cough	ingococ- cal infect- ions	polio- mye- litis	lesles	infective and para- sitic diseases	neoplasms, including neoplasms of lym- phatic and hemo- poietic tissues	betes melli- tus	gitis, except menin- gococ- cal and tuber- culous	cardio- vascular- renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 048	055	056	057	080	085	050-059, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	280	340	330-334, 400-468, 592-594	330-334, 400-468
<b>WHITE, FEMALE</b>																
1 UNITED STATES-----	603.3	10.8	1.9	0.0	0.4	0.2	0.6	0.5	1.1	0.3	2.1	139.9	20.0	0.8	439.4	425.9
<b>GEOGRAPHIC DIVISION</b>																
2 New England-----	934.4	10.1	2.2	0	0	0.1	0.3	0.2	0.4	0.1	1.4	171.7	26.6	0.8	543.3	528.4
3 Middle Atlantic-----	912.3	9.8	1.6	0.0	0.0	0.1	0.3	0.3	1.0	0.1	1.8	165.1	26.7	0.7	534.7	521.2
4 East North Central-----	848.9	9.0	2.3	0.0	0.1	0.1	0.4	0.6	1.4	0.3	1.7	147.9	25.7	0.8	473.1	456.3
5 West North Central-----	838.8	7.2	1.8	0.0	0.2	0.2	0.6	0.6	1.0	0.4	2.1	143.8	21.2	0.8	456.8	441.6
6 South Atlantic-----	672.1	9.8	1.7	0.0	0.4	0.4	0.9	0.7	0.8	0.4	2.1	112.0	14.2	0.8	351.8	338.5
7 East South Central-----	694.4	20.8	0.9	0.1	1.0	0.3	1.6	1.2	0.8	0.7	3.2	106.9	9.8	0.8	335.5	320.3
8 West South Central-----	637.9	17.4	1.6	0.1	2.2	0.4	0.9	0.6	1.9	0.2	3.3	108.3	12.3	0.9	288.7	275.9
9 Mountain-----	671.0	11.8	1.9	0.0	1.2	0.3	1.1	0.4	0.7	0.5	2.5	103.6	11.9	0.9	308.9	298.3
10 Pacific-----	768.9	9.7	2.1	0.0	0.2	0.2	0.3	0.3	1.0	0.1	1.9	139.3	11.3	0.7	427.7	418.5
<b>NEW ENGLAND</b>																
11 Maine-----	982.2	12.9	1.1	0	0	0	0.7	0.2	0.4	0.2	1.5	178.5	21.6	1.1	557.4	534.5
12 New Hampshire-----	1001.5	5.2	4.4	0	0	0.4	0.4	0.4	0.4	0	1.1	175.7	21.1	0.4	594.7	576.2
13 Vermont-----	990.3	9.5	3.7	0	0	0.5	0.5	0	1.1	0	3.2	163.9	20.0	1.6	566.6	554.5
14 Massachusetts-----	953.5	11.2	1.9	0	0	0.1	0.2	0.3	0.1	0.0	1.4	174.6	25.5	0.9	560.8	548.5
15 Rhode Island-----	945.7	9.9	3.0	0	0	0	0.3	0.3	0.5	0	1.3	167.4	51.0	0.5	529.7	509.9
16 Connecticut-----	834.7	7.7	2.0	0	0	0.1	0.2	0.1	1.2	0.1	1.2	163.5	24.8	0.6	481.4	471.2
<b>MIDDLE ATLANTIC</b>																
17 New York-----	918.7	9.9	1.6	0.0	0.0	0.0	0.1	0.3	1.0	0.1	1.6	171.7	23.9	0.7	543.0	532.5
18 New Jersey-----	896.3	10.2	1.4	0.1	0	0	0.1	0.3	1.3	0.1	1.9	169.7	24.8	0.8	530.2	518.7
19 Pennsylvania-----	910.6	9.4	1.7	0.0	0.1	0.1	0.6	0.4	0.7	0.1	1.9	153.6	31.5	0.7	524.9	507.1
<b>EAST NORTH CENTRAL</b>																
20 Ohio-----	855.6	9.7	2.9	0	0.1	0.1	0.5	0.9	1.4	0.3	1.8	150.0	28.5	0.9	476.0	462.8
21 Indiana-----	873.8	12.6	3.2	0	0.2	0.2	0.5	0.6	1.7	0.6	2.0	144.8	21.7	0.7	482.4	467.4
22 Illinois-----	895.1	9.2	1.9	0.0	0.2	0	0.3	0.4	1.1	0.1	1.4	159.7	24.8	0.4	519.5	500.7
23 Michigan-----	749.4	7.5	2.2	0.0	0.2	0.0	0.5	0.4	1.5	0.3	1.9	131.0	27.5	1.0	393.9	381.7
24 Wisconsin-----	845.8	5.7	1.3	0	0.1	0	0.4	0.7	1.5	0.1	2.1	147.7	22.6	1.1	482.8	469.5
<b>WEST NORTH CENTRAL</b>																
25 Minnesota-----	760.4	6.7	1.6	0.1	0.2	0.2	0.3	0.6	0.5	0.3	1.6	137.1	20.0	0.8	421.8	414.3
26 Iowa-----	868.0	5.5	2.2	0	0.1	0.2	0.5	0.6	1.9	0.4	2.4	150.2	20.8	0.6	493.8	481.0
27 Missouri-----	912.4	11.0	2.0	0.1	0.4	0.3	1.0	0.5	0.5	0.4	2.3	155.7	22.2	1.1	505.5	479.4
28 North Dakota-----	661.5	4.5	1.0	0	0	0	0.7	1.7	0.3	0	0.7	112.3	23.0	0.3	326.1	317.5
29 South Dakota-----	729.5	5.3	1.3	0	0	0.3	0.3	0.3	1.6	0.3	2.6	125.2	18.4	0.3	387.3	378.4
30 Nebraska-----	794.1	5.0	1.4	0.2	0	0.2	0.3	0.6	0.6	1.1	2.0	146.7	24.1	0.8	408.8	397.5
31 Kansas-----	837.5	6.0	1.8	0	0.1	0	0.5	0.7	1.4	0.1	2.3	135.6	20.0	0.3	464.0	444.5
<b>SOUTH ATLANTIC</b>																
32 Delaware-----	924.0	10.1	1.4	0	0	0	2.2	0	0.7	0.7	2.9	149.8	38.9	2.2	529.4	509.9
33 Maryland-----	806.0	11.2	1.9	0	0.1	0.2	0.1	0.6	0.6	0.1	1.2	143.3	21.9	0.4	467.9	454.0
34 District of Columbia-----	890.7	11.6	2.9	0	0	0	0	0.4	0	0	2.2	163.9	16.4	0.7	489.2	478.7
35 Virginia-----	677.7	13.0	1.7	0.2	0.2	0.2	0.7	0.9	2.2	0.2	2.0	103.4	12.5	0.5	359.2	348.6
36 West Virginia-----	689.8	15.6	3.0	0.1	0.1	0.3	2.8	1.1	0.8	1.0	3.2	110.8	16.0	1.0	326.6	310.9
37 North Carolina-----	562.1	7.4	1.1	0	0.5	0.7	0.8	0.5	0.7	0.6	2.0	86.9	9.8	0.7	292.8	280.5
38 South Carolina-----	578.9	5.8	1.2	0	0.9	0.9	1.1	0.5	0	0.9	1.7	92.2	13.8	1.2	293.2	282.2
39 Georgia-----	624.6	8.8	1.3	0	0.8	0.6	0.8	1.0	0.3	0.1	2.3	104.5	10.3	0.7	315.1	298.6
40 Florida-----	703.0	5.9	1.7	0	0.3	0.4	0.3	0.7	0.4	0.4	2.2	131.3	14.4	1.2	358.9	345.8
<b>EAST SOUTH CENTRAL</b>																
41 Kentucky-----	767.6	28.7	1.1	0.1	1.8	1.3	2.1	1.0	1.4	0.8	3.8	111.7	11.7	1.2	378.6	363.7
42 Tennessee-----	693.0	23.5	1.1	0.1	0.8	0.6	2.1	1.7	0.6	0.9	3.4	106.7	9.0	0.6	324.8	309.4
43 Alabama-----	618.4	13.8	0.9	0	0.3	0.7	0.8	1.1	0.7	0	2.3	101.2	7.4	0.7	297.6	283.1
44 Mississippi-----	667.0	8.8	0.2	0	1.0	0.7	0.8	0.8	0.2	1.5	2.7	106.4	11.8	0.7	328.0	311.7
<b>WEST SOUTH CENTRAL</b>																
45 Arkansas-----	599.0	21.1	1.2	0.1	0.8	0.8	0.5	0.9	0.9	0.4	3.1	107.3	9.9	0.8	284.2	265.5
46 Louisiana-----	621.8	9.8	1.3	0.2	0.7	0	0.3	1.1	0.9	0.3	3.2	109.3	14.0	1.1	312.2	300.4
47 Oklahoma-----	673.3	11.8	2.1	0	0.1	0.5	1.0	0.3	1.7	0.1	2.9	113.9	14.2	0.5	330.0	316.5
48 Texas-----	640.1	20.4	1.7	0.1	3.6	0.4	1.2	0.6	2.4	0.2	3.6	106.5	11.8	1.0	270.9	259.2
<b>MOUNTAIN</b>																
49 Montana-----	733.8	8.1	2.2	0	0	0	0	0.7	0.7	0	2.2	115.2	13.9	0.7	371.2	350.6
50 Idaho-----	622.2	6.4	1.1	0	0	0.4	1.4	0.7	0.7	0	2.1	94.7	14.5	0.7	310.9	297.8
51 Wyoming-----	583.7	1.5	2.3	0	0	0	0	0	2.3	0.8	0.8	91.7	12.8	0.8	274.2	262.2
52 Colorado-----	792.1	10.2	1.9	0	0.5	0	0.5	0.6	0.5	0.8	2.6	132.0	12.4	0.3	395.9	382.6
53 New Mexico-----	648.9	26.2	2.9	0.3	6.2	0.6	4.2	0.3	0.6	0.3	1.6	73.9	6.2	1.6	198.6	186.2
54 Arizona-----	576.3	25.3	3.1	0	1.9	0.6	1.2	0	0.6	0	3.1	89.7	11.7	1.9	227.3	217.7
55 Utah-----	593.2	3.0	0.6	0	0	0.6	0.6	0	0.3	1.2	3.0	91.1	12.8	0.9	292.0	281.6
56 Nevada-----	627.8	0	1.4	0	0	0	0	0	1.4	0	5.7	111.0	8.5	1.4	298.9	287.6
<b>PACIFIC</b>																
57 Washington-----	745.6	7.1	1.2	0	0.5	0	0.1	0.4	1.2	0.2	1.5	132.4	16.8	1.0	401.4	391.8
58 Oregon-----	721.6	6.2	0.9	0	0	0.4	0.4	0.1	1.5	0	0.8	133.3	13.4	0.9	385.5	376.8
59 California-----	781.3	10.8	2.5	0.0	0.2	0.2	0.3	0.3	0.9	0.1	2.2	141.8	9.8	0.6	440.0	430.8

United States, Each Division and State, 1950—Continued

group, enumerated as of April 1. Numbers under causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

Vascular lesions affecting central nervous system	Rheumatic fever	Diseases of heart	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic and unspecified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn	Ulcer of stomach and duodenum	Gastritis, duodenitis, and enteritis, except diarrhea of newborn	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Congenital malformations	Symptoms, senility, and ill-defined conditions	Motor-vehicle accidents	All other accidents	Suicide	Homicide	All other causes	
350-354	400-402	410-443	444-450	451-468	592-594	480-493	540, 541	543, 571, 572	581	590, 591	640-689	750-759	780-795	E810-E835	E800-E802, E840-E862	E963, E970-E979	E964, E980-E985	Residual	
103.3	1.2	289.4	28.2	3.9	15.5	24.5	2.1	4.2	6.5	1.7	2.8	11.2	8.9	10.8	25.4	5.5	1.4	80.2	1
122.5	1.3	364.5	35.9	5.3	13.9	20.5	2.7	4.2	8.4	1.4	2.2	11.7	4.7	6.3	31.5	5.8	0.8	77.0	2
105.1	1.4	379.3	31.4	4.0	13.5	22.0	2.5	3.1	8.3	1.6	2.3	10.1	5.2	7.2	25.6	6.0	0.9	75.2	3
114.8	1.0	307.7	31.0	3.9	14.8	22.7	2.1	3.5	6.5	1.7	2.3	12.6	6.4	12.2	26.1	5.4	1.2	82.8	4
124.2	1.0	280.0	32.6	3.8	15.1	29.1	2.1	2.8	4.4	1.9	2.6	12.4	9.2	11.3	31.6	4.5	1.2	89.0	5
87.2	0.9	226.4	20.9	3.1	13.3	24.8	1.5	3.7	4.5	1.8	3.3	10.9	10.6	11.1	22.1	5.0	2.1	74.6	6
90.4	1.5	205.8	19.3	3.1	15.1	56.3	1.2	5.6	3.1	2.1	4.7	9.9	24.7	10.8	24.0	3.7	1.9	82.1	7
75.3	0.8	180.4	18.2	3.2	12.8	27.7	1.2	8.8	3.9	1.9	3.6	11.0	15.9	15.3	23.4	4.2	1.5	84.2	8
75.3	2.4	195.5	21.2	4.0	11.5	27.7	2.6	8.2	4.6	1.5	4.3	12.1	18.9	17.3	24.8	5.6	1.8	94.9	9
104.6	1.0	275.0	32.2	5.0	9.2	19.5	2.5	3.3	10.4	1.3	2.0	10.1	4.9	14.2	20.1	8.0	2.0	75.7	10
139.0	0.9	345.6	45.8	5.2	22.9	30.5	2.6	6.1	4.6	2.8	2.2	12.7	10.3	9.2	28.8	8.5	0.7	87.7	11
133.5	1.5	395.3	39.9	5.9	18.5	28.3	4.1	7.8	4.8	0.7	3.3	11.5	4.1	6.3	27.7	6.3	1.5	93.2	12
151.3	1.1	349.4	49.0	3.7	12.1	32.2	1.1	3.2	6.3	1.1	4.7	16.9	12.1	8.4	33.2	4.2	0.5	85.9	13
126.4	1.6	360.0	35.4	5.2	12.3	20.8	2.8	4.2	10.4	1.2	2.1	10.5	3.1	5.6	34.7	5.6	0.8	74.6	14
111.9	0.5	352.6	39.3	5.6	19.8	13.7	1.5	2.8	6.6	2.6	1.8	14.0	5.8	5.1	32.0	3.6	2.0	90.3	15
100.2	1.3	336.4	27.7	5.6	10.2	13.7	3.1	2.9	7.6	1.0	1.8	12.4	4.0	6.6	25.7	6.1	0.4	66.4	16
101.2	1.2	398.6	28.3	3.2	10.5	22.0	2.8	3.3	9.1	1.1	2.1	9.8	3.9	7.0	26.0	6.1	0.8	70.7	17
107.8	0.6	373.8	30.4	4.1	13.5	19.2	2.7	2.5	8.7	1.6	2.0	10.2	2.8	6.1	19.5	7.6	1.0	71.6	18
109.4	2.1	354.5	36.1	5.0	17.9	23.3	2.2	3.1	7.0	2.3	2.9	10.4	8.2	7.9	27.9	5.2	1.1	83.3	19
118.5	1.0	305.6	35.3	4.3	13.3	23.8	1.6	3.6	6.5	1.8	2.4	12.4	7.2	11.5	29.5	5.1	1.3	85.8	20
128.5	1.0	296.0	37.7	4.3	15.0	29.6	2.3	4.5	6.0	2.0	2.8	12.1	6.4	13.4	31.8	6.3	1.4	83.9	21
109.7	0.8	356.4	28.0	3.8	18.8	23.0	2.6	3.4	7.1	1.9	2.1	11.1	4.9	11.9	22.7	5.7	1.3	78.6	22
102.7	1.1	247.5	27.5	2.9	12.2	17.3	2.3	3.1	6.7	1.6	2.1	14.3	6.7	13.5	23.5	4.9	1.3	84.0	23
124.1	1.1	308.6	31.3	4.4	13.3	21.0	1.7	3.0	5.5	0.8	2.0	13.9	7.9	10.7	24.7	5.0	0.7	82.8	24
120.0	1.4	253.9	35.2	3.8	7.5	27.0	1.8	2.8	3.7	1.4	2.6	16.3	6.1	8.8	27.8	4.0	0.5	85.9	25
142.3	0.5	299.6	35.6	3.1	12.8	28.1	2.5	3.2	3.2	1.2	2.6	9.8	8.7	12.1	37.5	4.6	1.2	94.1	26
125.7	1.0	318.5	30.3	3.9	24.1	36.3	2.1	3.3	6.8	2.7	2.9	10.3	9.5	11.5	32.3	5.2	1.6	87.0	27
89.3	2.1	197.1	26.1	5.1	8.6	26.8	1.7	1.7	2.1	1.7	1.0	14.8	13.0	6.2	24.0	3.1	0.5	94.4	28
115.3	0.7	232.9	26.0	3.6	8.9	22.1	1.3	1.0	2.0	1.0	3.6	15.5	7.9	14.5	25.4	3.6	1.6	86.6	29
109.9	1.4	255.0	26.5	4.8	11.3	24.6	2.3	2.3	4.8	1.9	2.2	10.1	14.9	11.6	29.7	4.2	1.5	92.4	30
126.4	0.8	275.7	37.2	4.4	19.5	25.8	2.1	3.6	3.9	2.2	2.2	13.7	9.6	14.3	33.5	4.9	1.5	87.1	31
99.4	0.7	370.2	37.5	2.2	19.4	20.9	0	3.6	5.8	0.7	2.9	11.5	8.6	10.1	23.8	7.9	0	90.0	32
81.3	0.5	341.3	27.6	3.3	13.9	19.3	1.5	2.5	6.2	1.5	2.4	11.2	2.1	9.5	23.7	6.5	1.0	68.7	33
101.4	1.1	338.8	28.4	8.0	10.5	20.0	2.5	3.6	14.2	0.7	0.7	9.1	2.2	6.2	28.7	8.7	2.8	93.8	34
91.3	1.0	229.3	23.8	3.2	10.7	27.3	1.6	4.4	4.7	1.6	3.0	11.2	9.8	9.4	21.9	5.8	2.1	77.9	35
62.5	2.0	205.5	17.7	3.4	15.7	33.0	1.1	5.2	4.2	2.0	4.4	13.7	20.4	7.7	25.3	3.9	2.1	84.4	36
62.6	0.8	178.5	16.1	2.5	12.3	24.8	1.1	3.2	2.2	1.1	3.0	10.6	11.0	11.3	16.6	3.6	1.7	67.2	37
60.5	0.8	179.9	19.2	1.8	10.9	25.4	1.5	4.0	2.2	1.5	3.5	10.2	7.2	14.5	22.2	2.9	2.2	68.2	38
92.0	0.8	185.1	18.2	2.6	16.4	26.6	1.8	4.0	3.5	2.8	4.3	10.0	9.6	12.0	21.5	4.1	2.7	75.1	39
91.5	0.8	229.6	20.2	3.7	13.1	19.1	1.8	3.1	6.1	2.7	3.1	9.7	15.4	15.2	24.7	6.6	3.1	74.5	40
95.2	1.8	237.2	26.0	3.7	14.9	43.9	1.0	7.8	3.4	2.2	4.5	10.1	15.6	10.0	30.4	3.9	2.3	87.2	41
92.1	1.4	196.0	16.9	3.0	15.4	35.3	1.1	5.5	3.4	2.3	4.7	10.6	35.5	10.7	21.2	3.7	2.1	80.9	42
84.1	1.2	181.7	13.3	2.9	14.4	31.0	1.4	3.1	3.0	1.4	4.8	9.2	20.2	11.3	19.7	3.6	2.0	78.5	43
86.7	1.9	200.2	20.4	2.5	16.4	30.2	1.5	5.6	2.4	2.5	4.7	9.3	28.0	12.0	23.4	3.7	0.5	79.6	44
72.5	0.4	173.5	16.8	2.3	18.7	31.0	1.5	4.3	1.8	1.9	3.9	7.5	16.5	7.5	24.7	2.4	0.3	63.4	45
71.3	0.6	207.7	17.2	3.6	11.8	22.4	1.3	3.9	3.6	2.3	2.4	12.5	8.2	10.1	20.9	3.5	1.1	74.9	46
83.1	1.0	195.2	23.8	3.3	13.5	26.6	1.7	3.9	3.7	2.2	2.8	9.6	16.4	12.2	23.6	4.1	1.4	85.1	47
68.0	0.8	170.1	17.1	3.2	11.6	28.7	0.9	12.6	4.5	1.7	4.5	11.8	14.0	15.7	23.7	4.9	1.9	90.8	48
105.3	0.4	224.1	27.1	3.7	10.6	20.2	1.5	2.9	5.1	0.7	5.9	10.6	19.1	13.9	33.7	8.1	1.8	95.0	49
84.7	2.5	182.9	25.0	4.6	13.1	18.4	1.4	2.1	2.8	2.8	2.5	10.3	8.5	21.6	23.8	4.3	0	90.0	50
69.1	2.3	171.3	18.0	1.5	12.0	21.0	4.5	8.3	5.3	0	6.8	11.3	3.8	20.3	21.8	5.3	1.5	87.1	51
88.6	3.7	259.6	24.9	5.7	13.3	40.2	2.9	7.9	6.0	1.2	4.0	10.8	5.0	16.2	30.2	7.7	1.9	99.9	52
42.1	1.3	123.1	18.8	2.9	10.4	43.4	1.9	21.1	3.6	1.0	6.1	13.0	73.9	18.5	24.6	2.9	1.6	111.8	53
62.6	2.5	131.1	17.9	3.7	9.6	18.5	3.4	13.3	4.3	1.9	3.7	17.3	10.8	15.9	15.3	4.9	2.6	102.1	54
64.3	2.7	196.8	14.9	3.0	10.4	17.0	3.6	2.7	2.1	2.4	1.5	13.4	20.2	17.9	20.5	2.7	1.2	72.0	55
65.5	1.4	199.3	18.5	2.8	11.4	17.1	0	2.8	11.4	1.4	1.4	2.8	7.1	24.2	25.6	12.8	7.1	85.4	56
108.0	0.8	249.6	28.8	4.5	9.8	22.2	2.2	2.7	5.7	1.0	1.9	11.3	9.0	11.6	24.6	5.8	1.2	82.8	57
101.4	0.7	244.3	26.4	3.9	8.7	17.2	2.0	2.3	6.0	1.5	2.7	11.1	11.9	14.0	28.2	6.9	1.1	73.1	58
104.3	1.1	266.4	33.8	5.2	9.2	19.2	2.7	3.5	12.1	1.3	2.0	9.6	2.9	14.8	17.9	8.6	2.3	74.5	59

Table 8.46. Death Rates for 32 Selected Causes, by Race and Sex:

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population in each specified

RACE, SEX, AND AREA	Total	Tuber- culo- sis, all forms	Syph- illis and its seque- lae	Ty- phoid fever	Dysen- tery, all forms	Diph- theria	Whoop- ing cough	Menin- gococ- cal infec- tions	Acute polio- mye- litis	Meas- les	All other infective and para- sitic diseases	Malignant neoplasms, including neoplasms of lym- phatic and hemato- poietic tissues	Diabe- tes melli- tus	Menin- gitis, except menin- gococ- cal and tuber- culous	Major cardio- vascular- renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 048	055	056	057	080	085	030-039, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	260	340	330-334, 400-468, 592-594	330-334, 400-468
<b>NONWHITE, BOTH SEXES</b>																
1 UNITED STATES-----	1,119.4	62.3	16.1	0.3	1.5	0.6	2.6	0.8	0.6	0.6	5.8	108.1	14.4	5.3	498.0	466.8
<b>GEOGRAPHIC DIVISIONS</b>																
2 New England-----	1,056.8	62.0	15.7	0	0	0	2.0	0.7	0	0	4.6	149.7	17.6	2.6	487.3	469.7
3 Middle Atlantic-----	1,089.5	94.9	18.8	0.1	0.1	0	1.0	1.0	0.6	0.2	4.3	159.5	17.4	3.1	468.3	443.2
4 East North Central-----	1,106.4	88.0	17.3	0.1	0.5	0.1	1.2	1.0	0.4	0.2	5.8	152.8	15.4	2.9	499.3	475.7
5 West North Central-----	1,433.7	66.1	29.7	0.2	0.6	0.2	4.7	1.2	1.0	1.6	4.7	157.8	20.4	3.3	654.4	617.7
6 South Atlantic-----	1,125.4	54.0	14.5	0.3	1.5	0.8	2.8	1.1	0.5	0.5	6.0	92.2	13.9	3.0	525.9	492.9
7 East South Central-----	1,202.0	50.5	11.9	0.5	2.3	0.7	4.0	0.5	0.6	1.2	6.7	95.0	13.0	4.2	518.8	479.2
8 West South Central-----	1,086.3	43.3	10.3	0.5	2.4	0.7	2.4	0.5	1.0	0.4	6.6	108.0	14.6	3.4	490.6	456.0
9 Mountain-----	1,192.9	126.8	18.3	1.7	4.4	2.6	10.5	0.9	0.4	3.1	6.1	71.9	8.3	7.0	245.5	231.9
10 Pacific-----	797.4	58.6	14.1	0.3	0.7	0.4	0.9	0.4	0	0.1	7.9	94.2	7.8	2.5	305.3	292.8
<b>NEW ENGLAND</b>																
11 Maine-----	898.0	34.2	0	0	0	0	0	0	0	0	34.2	204.9	0	34.2	204.9	170.8
12 New Hampshire-----	1,551.2	0	103.4	0	0	0	0	0	0	0	0	310.2	0	0	310.2	310.2
13 Vermont-----	894.5	178.9	0	0	0	0	0	0	0	0	0	178.9	0	0	357.8	357.8
14 Massachusetts-----	1,085.9	79.7	15.2	0	0	0	2.5	1.3	0	0	5.1	146.8	20.3	2.5	507.5	491.1
15 Rhode Island-----	1,391.0	73.9	6.7	0	0	0	0	0	0	0	0	221.8	47.0	0	625.0	604.8
16 Connecticut-----	926.3	34.6	18.2	0	0	0	1.8	0	0	0	5.6	125.6	7.3	1.8	440.4	422.2
<b>MIDDLE ATLANTIC</b>																
17 New York-----	1,007.9	94.7	18.8	0.1	0.1	0	0.1	1.4	0.4	0.3	3.9	138.4	15.7	3.7	409.6	397.0
18 New Jersey-----	1,133.9	89.3	16.7	0	0	0	0.6	0.6	0.9	0	5.9	145.6	23.5	1.5	509.4	485.6
19 Pennsylvania-----	1,168.4	98.1	19.2	0	0.2	0	2.5	0.8	0.8	0.2	4.0	138.9	17.1	2.9	535.0	490.6
<b>EAST NORTH CENTRAL</b>																
20 Ohio-----	1,118.0	64.5	23.3	0	0.4	0	1.5	1.2	0.6	0	4.4	128.7	20.8	2.7	485.9	470.1
21 Indiana-----	1,514.1	74.0	23.9	0	0.8	0	2.8	0.6	1.1	0.6	3.4	165.0	19.9	2.3	619.6	587.3
22 Illinois-----	1,168.6	95.3	14.6	0	0.2	0.2	0.6	0.8	0.2	0.3	3.9	141.1	12.0	2.3	564.2	535.4
23 Michigan-----	923.5	88.1	12.3	0.2	1.3	0	0.9	0.7	0.2	0	3.3	115.2	15.9	4.0	362.9	365.9
24 Wisconsin-----	1,086.3	74.0	11.9	0	0	0	2.4	7.2	2.4	2.4	0	128.9	21.5	4.8	395.9	372.4
<b>WEST NORTH CENTRAL</b>																
25 Minnesota-----	1,229.8	79.9	17.4	0	3.5	0	3.5	0	0	6.9	10.4	111.2	27.8	0	528.0	500.2
26 Iowa-----	1,291.4	32.5	18.6	0	0	0	0	0	0	0	0	171.9	18.6	0	387.5	350.3
27 Missouri-----	1,491.7	59.5	34.1	0.3	0	0.3	4.0	0.7	1.0	0.3	5.0	162.2	22.4	3.5	710.2	671.1
28 North Dakota-----	1,117.3	160.9	17.9	0	8.9	0	8.9	0	0	0	0	62.6	8.9	0	232.4	225.5
29 South Dakota-----	1,435.9	214.6	4.1	0	0	0	33.0	12.4	0	8.3	8.3	66.0	20.6	16.5	231.1	210.7
30 Nebraska-----	1,261.3	57.8	20.7	0	0	0	0	4.1	0	12.4	0	186.1	16.5	0	529.3	504.5
31 Kansas-----	1,423.9	38.0	32.7	0	1.3	0	1.3	0	2.6	0	3.9	188.6	13.1	2.6	710.0	664.2
<b>SOUTH ATLANTIC</b>																
32 Delaware-----	1,368.6	72.4	9.0	0	0	0	11.3	6.8	0	0	6.8	124.4	20.4	9.0	651.5	622.1
33 Maryland-----	1,189.6	104.9	28.1	0	0	0	1.0	1.0	0.8	0.3	4.4	128.9	12.9	4.4	558.7	520.6
34 District of Columbia-----	1,122.0	90.7	12.7	0.4	0	0	0	1.4	0.4	0	1.4	155.8	14.4	2.5	541.3	522.7
35 Virginia-----	1,248.8	85.7	15.1	0.1	1.2	0.7	3.9	1.1	0.3	0.5	4.6	104.1	15.1	2.6	629.2	597.6
36 West Virginia-----	1,200.7	48.6	28.6	0	0.9	1.7	7.8	3.5	1.7	0	1.7	128.4	17.4	0.9	560.9	520.5
37 North Carolina-----	997.4	42.5	9.7	0.1	1.6	0.8	3.5	0.9	0.2	0.4	5.6	72.1	12.1	2.1	459.1	428.7
38 South Carolina-----	1,043.2	38.2	12.4	0.7	1.3	1.7	4.1	1.3	0.7	1.2	8.1	73.6	12.6	3.0	490.4	450.6
39 Georgia-----	1,158.3	46.2	13.6	0.3	2.1	0.7	2.2	0.8	0.3	0.6	6.8	95.5	14.9	3.3	546.3	511.7
40 Florida-----	1,168.9	45.3	16.4	0.2	3.0	0.3	0.5	0.7	0.8	0	8.1	97.5	14.7	3.6	502.6	470.2
<b>EAST SOUTH CENTRAL</b>																
41 Kentucky-----	1,645.2	80.4	11.8	0	2.5	0	2.0	0.5	2.0	0.5	5.9	149.0	24.2	5.5	886.5	834.2
42 Tennessee-----	1,285.3	68.3	15.4	0.6	2.4	0.2	4.3	0.2	0.9	0.8	6.4	111.6	18.2	5.8	569.9	536.4
43 Alabama-----	1,138.9	46.6	11.9	0.2	1.3	0.5	3.7	0.8	0.2	0.8	7.2	88.9	11.6	4.0	499.3	460.6
44 Mississippi-----	1,129.1	36.6	10.0	0.2	3.2	1.3	4.5	0.3	0.6	2.0	6.5	83.1	10.8	3.6	438.3	394.3
<b>WEST SOUTH CENTRAL</b>																
45 Arkansas-----	1,007.0	52.1	15.9	0.5	4.0	0	5.1	0.5	0.5	0.2	3.7	87.8	13.1	2.1	463.1	420.1
46 Louisiana-----	1,127.4	42.6	23.3	0.8	1.8	0.2	2.3	0.5	0.7	0.7	7.4	118.6	15.8	4.6	528.3	500.4
47 Oklahoma-----	1,145.3	62.7	14.9	0.5	2.5	0.5	2.5	0.5	2.0	0	6.5	101.6	17.4	3.0	468.1	421.3
48 Texas-----	1,076.7	36.2	18.0	0.4	2.3	1.5	1.4	0.5	1.4	0.3	7.2	108.6	13.8	2.8	473.3	438.7
<b>MOUNTAIN</b>																
49 Montana-----	1,285.2	163.3	15.8	0	0	0	26.3	0	0	0	0	73.7	10.5	5.3	263.4	252.8
50 Idaho-----	1,325.6	138.1	15.8	0	0	0	0	13.8	0	13.8	0	151.9	13.8	0	359.0	317.6
51 Wyoming-----	1,196.3	76.7	15.3	0	0	0	0	0	0	0	15.3	122.7	15.3	0	322.1	322.1
52 Colorado-----	963.6	38.7	14.1	0	0	0	0	0	0	0	0	144.2	3.5	0	429.0	415.0
53 New Mexico-----	1,243.7	143.2	15.7	0	7.8	0	5.9	0	0	5.9	5.9	37.3	9.8	11.8	170.7	158.9
54 Arizona-----	1,216.9	157.8	18.9	3.2	5.3	6.5	16.8	1.1	1.1	2.1	8.4	55.7	7.4	6.3	193.5	177.8
55 Utah-----	1,112.7	50.2	41.8	8.4	0	0	0	0	0	8.4	16.7	100.4	16.7	25.1	317.9	317.9
56 Nevada-----	1,179.4	49.1	19.7	0	9.8	0	0	0	0	0	0	68.8	0	0	344.0	334.2
<b>PACIFIC</b>																
57 Washington-----	1,069.4	80.0	20.8	0	0	0	6.4	0	0	0	1.6	113.7	11.2	3.2	379.4	366.6
58 Oregon-----	991.2	111.5	4.1	4.1	0	0	4.1	0	0	0	0	123.9	8.3	0	318.0	308.6
59 California-----	765.1	52.5	13.9	0.1	0.7	0.4	0.3	0.4	0	0.1	8.8	91.3	7.5	2.5	297.9	285.5

United States, Each Division and State, 1950—Continued

group, enumerated as of April 1. Numbers under causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

Vascular lesions affecting central nervous system	Rheumatic fever	Diseases of heart	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic and unspecified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn	Ulcer of stomach and duodenum	Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Congenital malformations	Symptoms, sequelae, and ill-defined conditions	Motor-vehicle accidents	All other accidents	Suicide	Homicide	All other causes		
330-334	400-402	410-443	444-450	451-468	592-594	480-493	540, 541	543, 571, 572	581	590, 591	640-689	750-759	780-795	E810-E835	E900-E962	E963-E970-E979	E964-E980-E985	Residual		
122.3	2.3	309.6	27.5	5.2	31.2	59.0	4.4	10.7	6.5	5.2	6.9	11.5	51.4	24.2	47.0	4.3	28.0	145.6	1	
90.0	0.7	341.9	31.3	5.9	17.6	39.1	5.5	4.6	10.4	0	2.6	15.7	5.2	22.2	45.7	7.8	11.7	146.1	2	
80.3	2.3	328.7	25.2	6.7	25.1	48.8	4.7	4.4	11.7	2.8	4.9	12.9	15.1	15.9	45.1	5.2	19.3	149.8	3	
102.3	2.1	338.1	27.6	5.7	23.5	48.4	5.2	6.1	7.9	3.8	4.3	13.5	6.5	25.6	42.1	5.5	33.2	136.4	4	
155.8	1.6	413.1	37.1	10.1	36.7	85.0	7.8	9.9	9.9	5.4	5.2	8.4	39.1	60.8	6.2	34.6	186.9	5		
144.8	2.5	310.9	30.2	4.4	33.0	65.3	4.3	12.2	4.9	6.4	7.3	11.0	45.9	25.7	46.7	3.8	29.7	148.5	6	
141.1	2.3	305.9	27.6	4.3	40.6	61.8	3.4	12.9	3.7	6.3	10.5	9.6	141.1	47.4	2.4	31.4	139.4	7		
120.9	1.7	302.8	25.5	5.2	34.6	61.5	5.6	10.1	5.2	5.8	7.1	10.5	41.6	21.9	50.0	2.8	29.1	145.5	8	
57.1	5.2	149.5	15.3	4.8	13.5	123.4	3.5	66.3	7.4	1.7	10.0	17.4	129.2	53.6	78.0	9.2	17.4	169.2	9	
67.7	2.4	200.1	17.8	4.9	12.4	33.5	5.7	6.2	11.2	2.0	4.0	15.3	6.1	35.1	56.7	10.8	17.8	121.8	10	
0	0	136.6	34.2	0	34.2	0	0	34.2	0	0	0	0	34.2	102.5	34.2	0	0	68.3	11	
0	0	206.8	103.4	0	0	103.4	0	0	0	0	0	0	0	310.2	103.4	103.4	0	0	206.8	12
0	0	357.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	178.9	13
92.4	0	333.1	39.2	6.3	16.5	45.6	11.4	5.1	12.7	0	2.5	10.1	6.3	16.5	34.2	8.9	7.6	144.5	14	
100.8	6.7	463.7	26.9	6.7	20.2	67.2	6.7	6.7	13.4	0	13.4	33.6	0	40.3	53.8	13.4	0	188.0	15	
91.0	0	305.7	20.0	5.5	18.2	23.7	0	1.8	7.3	0	0	14.6	3.6	21.8	52.8	1.8	20.0	145.6	16	
80.0	2.5	310.3	18.5	5.7	12.5	46.8	4.7	3.3	13.3	1.1	4.9	12.5	12.5	15.0	44.5	5.9	19.6	136.7	17	
101.3	0.8	349.7	29.7	4.3	23.8	42.6	2.2	3.4	7.7	5.6	6.8	15.1	3.1	20.1	58.5	4.6	15.1	159.1	18	
100.0	2.8	345.6	32.9	9.3	44.4	54.8	5.9	6.4	11.5	3.7	4.0	12.3	24.8	15.2	40.2	4.3	21.0	164.6	19	
111.5	1.7	320.4	28.4	8.1	15.8	45.9	5.4	6.0	9.8	3.9	5.5	13.1	18.5	24.3	42.8	5.6	35.3	149.9	20	
143.4	3.4	389.8	44.4	6.3	31.3	69.4	8.0	8.0	11.4	2.3	4.6	15.4	5.7	32.4	50.7	6.8	35.3	151.4	21	
95.6	1.8	405.2	27.5	3.3	30.8	51.9	5.0	6.6	7.5	3.8	3.9	12.8	4.2	23.9	44.4	5.6	34.7	129.0	22	
87.2	2.2	247.6	21.1	5.7	18.9	38.3	4.6	4.0	5.3	4.2	5.5	15.4	4.0	23.6	32.4	4.6	23.3	151.3	23	
85.9	4.8	253.1	19.1	9.5	21.5	45.4	0	14.3	4.8	7.2	2.2	21.5	11.9	62.1	66.8	9.5	19.1	167.1	24	
132.0	3.5	330.0	24.3	10.4	27.8	79.9	10.4	10.4	3.5	0	3.5	20.6	20.8	27.8	62.5	6.9	20.8	173.7	25	
190.5	0	436.7	13.9	9.3	37.2	41.8	13.9	4.6	0	0	4.6	13.9	23.2	25.2	46.5	4.6	13.9	171.9	26	
162.5	1.3	450.4	45.1	11.7	39.1	81.6	8.0	8.0	10.0	6.0	4.7	5.7	25.1	31.8	60.2	6.7	39.8	200.6	27	
44.7	0	160.9	0	17.9	8.9	107.3	0	8.9	17.9	8.9	0	8.9	125.1	17.9	116.2	0	0	205.6	28	
49.5	0	160.9	4.1	4.1	12.4	189.8	0	41.3	4.1	0	16.5	8.3	259.9	66.0	61.9	8.3	4.1	180.9	29	
146.9	0	339.1	16.5	0	24.8	82.7	8.3	4.1	16.5	4.1	4.1	8.3	24.8	24.8	66.2	8.3	37.2	144.7	30	
180.8	3.9	432.3	39.3	7.9	45.8	64.2	7.9	10.5	13.1	7.9	5.2	13.1	21.0	26.2	56.3	3.9	39.3	161.1	31	
90.5	4.5	439.9	27.1	0	29.4	72.4	4.5	6.8	6.8	6.8	6.8	15.8	18.1	43.0	74.6	2.3	38.5	160.6	32	
103.1	2.6	374.5	33.0	7.5	38.1	51.3	3.1	7.0	5.2	3.4	4.4	17.3	7.0	22.4	45.1	4.1	27.1	147.2	33	
85.1	2.5	394.6	32.7	7.7	18.6	39.7	7.4	1.4	15.8	3.2	1.8	14.8	4.9	19.7	45.0	4.6	19.7	142.8	34	
174.9	2.3	389.0	45.0	6.4	41.6	71.4	4.7	8.3	3.7	6.5	6.0	9.9	25.7	26.5	47.1	4.2	26.2	166.6	35	
133.3	1.7	355.7	25.2	2.6	30.4	50.3	6.9	14.7	6.1	7.9	4.3	11.3	26.0	21.7	59.9	3.5	34.7	161.4	36	
122.3	2.8	277.7	23.7	2.2	30.4	61.6	2.7	16.8	3.7	5.1	7.5	11.7	36.2	25.4	43.4	5.2	24.5	140.9	37	
136.5	3.4	276.5	30.5	3.8	29.9	67.0	3.8	12.9	1.7	4.5	8.5	8.7	76.9	25.4	42.3	2.2	19.4	130.4	38	
178.6	2.4	298.7	26.4	4.5	34.7	73.0	4.5	12.3	4.6	9.1	9.0	9.9	49.0	24.4	46.6	3.4	35.4	153.5	39	
158.9	1.5	277.6	28.4	3.8	32.4	54.5	5.9	12.6	7.8	9.6	8.8	10.1	75.3	32.1	55.8	3.1	43.6	156.1	40	
202.7	3.0	562.4	61.2	4.9	52.3	91.8	5.4	17.8	10.9	11.3	5.9	9.4	25.7	29.1	57.7	2.5	40.9	168.2	41	
153.5	2.8	339.3	34.8	6.0	33.5	65.9	4.1	11.7	4.7	5.3	8.1	10.2	123.8	22.6	45.2	2.1	31.8	147.9	42	
137.4	2.0	291.6	25.5	4.2	38.7	65.6	3.8	11.4	2.6	5.9	9.4	9.9	104.9	21.3	48.7	2.6	34.7	143.2	43	
125.6	2.2	244.2	18.9	3.4	43.9	49.7	2.1	13.9	2.7	6.3	13.2	9.1	209.9	19.9	45.3	2.4	26.1	125.3	44	
124.1	2.6	266.6	23.4	3.5	43.0	60.0	2.6	8.4	3.7	5.1	10.5	7.2	68.5	17.5	51.2	1.9	23.1	98.6	45	
119.3	1.0	345.2	29.4	5.5	27.9	56.0	5.3	9.5	4.4	5.1	5.6	14.5	30.4	18.0	51.5	2.6	22.9	154.3	46	
115.0	2.0	272.9	24.9	6.5	46.8	94.1	3.5	13.9	5.0	6.5	6.5	7.5	49.8	22.9	54.3	3.0	19.9	175.8	47	
122.1	1.8	286.5	23.0	5.4	34.5	60.4	2.6	10.6	6.6	6.5	7.1	8.8	38.3	27.0	47.1	3.2	39.1	151.8	48	
57.9	0	189.6	5.3	0	10.5	210.7	5.3	26.3	10.5	5.3	10.5	10.5	100.1	63.2	57.9	5.3	10.5	210.7	49	
110.5	13.8	165.7	13.8	13.8	41.4	207.1	0	13.8	0	0	0	0	151.8	82.9	55.2	0	0	110.5	50	
46.0	15.3	245.4	15.3	0	0	184.0	0	30.7	0	0	0	46.0	61.3	92.0	15.3	0	0	153.4	51	
98.5	3.5	277.8	17.6	17.6	14.1	63.3	7.0	0	17.6	3.5	7.0	3.5	14.1	28.1	35.2	7.0	17.6	130.1	52	
33.3	5.9	105.9	13.7	0	11.8	135.4	3.9	84.4	2.0	0	15.7	15.7	262.9	60.8	72.6	7.8	11.8	156.9	53	
47.3	5.3	105.2	14.7	5.3	15.8	121.0	3.2	97.8	5.3	1.1	10.5	21.0	105.2	46.3	39.9	8.4	22.1	191.4	54	
83.7	8.4	209.2	16.7	0	0	58.6	0	33.5	16.7	8.4	0	25.1	150.6	41.8	16.7	8.4	8.4	159.0	55	
88.5	0	206.4	39.3	0	9.8	68.8	0	39.3	19.7	0	9.8	29.5	49.1	127.8	137.6	39.3	49.1	117.9	56	
104.1	3.2	233.7	19.2	6.4	12.8	67.2	1.6	16.0	9.6	3.2	4.8	6.4	25.6	38.4	76.8	14.4	19.2	169.7	57	
78.5	4.1	206.5	16.5	0	12.4	24.8	8.3	8.3	12.4	4.1	0	20.7	41.3	74.3	53.7	20.7	16.5	132.2	58	
65.9	2.2	196.7	17.7	4.9	12.4	30.7	6.0	5.2	11.3	1.8	4.0	15.9	3.0	33.4	32.3	10.1	17.7	117.0	59	

Table 8.46. Death Rates for 32 Selected Causes, by Race and Sex:

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population in each specified

RACE, SEX, AND AREA	Total	Tuber-	Syph-	Ty-	Dysen-	Diph-	Whoop-	Menin-	Acute	Meas-	All other	Malignant	Diab-	Menin-	Major	Diseases
		culosis, all forms	illis and its sequae	phoid fever	tery, all forms	theria	oping cough	gococ- cal infec- tions	polio- mye- litis	les	infective and parasitic diseases	neoplasms, including neoplasms of lym- phatic and hemato- poietic tissues	betes mel- litus	gitis, except menin- gococ- cal and tuber- culous	cardio- vascular- renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 048	055	056	057	080	085	050-059, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	280	340	350-354, 400-488, 582-594	350-354, 400-488
<b>NONWHITE, MALE</b>																
1 UNITED STATES	1,251.1	74.7	25.2	0.3	1.8	0.6	2.5	1.1	0.6	0.5	6.1	106.1	10.0	3.9	528.4	496.3
<b>GEOGRAPHIC DIVISIONS</b>																
2 New England-----	1,124.8	74.6	23.1	0	0	0	2.6	1.3	0	0	3.9	149.1	15.4	3.9	473.1	449.9
3 Middle Atlantic-----	1,245.3	125.1	26.0	0	0.2	0	0.9	1.2	0.5	0.2	3.9	146.2	11.2	4.1	469.0	465.7
4 East North Central----	1,235.8	111.6	24.8	0.1	0.8	0	0.5	1.2	0.3	0.3	4.0	129.8	10.2	3.6	526.5	505.1
5 West North Central----	1,635.9	76.2	44.4	0.4	0.8	0	5.4	1.7	1.3	0.8	4.2	166.9	18.4	4.2	704.6	668.2
6 South Atlantic-----	1,261.9	63.2	21.2	0.4	1.8	0.8	2.8	1.5	0.4	0.6	6.5	87.8	9.2	3.5	564.7	529.5
7 East South Central----	1,320.4	55.6	16.6	0.3	3.1	0.8	3.7	0.7	0.8	0.9	7.2	85.9	9.1	5.0	548.5	506.1
8 West South Central----	1,208.1	49.3	27.5	0.5	2.5	0.8	2.6	0.7	1.2	0.3	6.3	109.1	10.1	4.0	518.2	482.8
9 Mountain-----	1,308.7	120.4	20.1	0.8	5.9	1.7	8.4	0.8	0	2.5	5.9	81.1	5.9	6.7	265.1	249.2
10 Pacific-----	922.9	69.9	21.7	0.2	1.0	0.2	0.7	0.5	0	0.2	11.4	95.3	8.9	3.0	347.9	334.8
<b>NEW ENGLAND</b>																
11 Maine-----	913.5	0	0	0	0	0	0	0	0	0	60.9	121.8	0	60.9	243.6	182.7
12 New Hampshire-----	1,265.8	0	180.8	0	0	0	0	0	0	0	0	0	0	0	180.8	180.8
13 Vermont-----	1,693.5	336.7	0	0	0	0	0	0	0	0	0	336.7	0	0	673.4	673.4
14 Massachusetts-----	1,168.1	92.2	22.4	0	0	0	2.5	2.5	0	0	2.5	146.9	17.4	2.5	513.1	490.6
15 Rhode Island-----	1,365.1	64.4	12.9	0	0	0	0	0	0	0	0	206.1	38.6	0	540.9	515.1
16 Connecticut-----	996.9	54.8	25.6	0	0	0	3.7	0	0	0	3.7	138.8	7.3	3.7	412.6	390.7
<b>MIDDLE ATLANTIC</b>																
17 New York-----	1,153.6	126.9	25.1	0	0.2	0	0	1.1	0.4	0.2	2.9	145.0	11.1	4.7	418.9	407.7
18 New Jersey-----	1,273.9	121.5	25.8	0	0	0	1.3	1.3	0	0	6.3	138.5	12.0	1.9	546.9	525.6
19 Pennsylvania-----	1,356.8	124.4	27.5	0	0.3	0	1.9	1.3	1.0	0.3	3.8	151.9	10.9	4.5	560.4	513.8
<b>EAST NORTH CENTRAL</b>																
20 Ohio-----	1,277.8	113.2	32.4	0	0.4	0	1.2	0.8	0.8	0	5.1	137.0	14.9	2.0	516.5	502.8
21 Indiana-----	1,396.7	94.3	40.3	0	1.2	0	2.3	0	0	0	5.8	133.5	15.0	4.6	614.4	596.0
22 Illinois-----	1,319.9	115.0	21.0	0	0	0	0	0.9	0	0.6	3.1	137.2	6.5	2.8	607.8	576.6
23 Michigan-----	1,015.5	112.8	16.2	0.4	2.2	0	0	1.3	0.4	0	3.9	111.5	8.7	5.7	399.1	381.2
24 Wisconsin-----	1,162.4	100.3	22.8	0	0	0	0	13.7	0	4.6	0	114.0	9.1	9.1	423.9	405.7
<b>WEST NORTH CENTRAL</b>																
25 Minnesota-----	1,435.4	73.1	26.6	0	0	0	6.6	0	0	6.6	6.6	152.8	26.6	0	604.7	578.1
26 Iowa-----	1,423.6	44.8	17.9	0	0	0	0	0	0	0	0	205.9	9.0	0	689.4	671.5
27 Missouri-----	1,728.6	79.8	52.7	0.7	0	0	4.9	0.7	1.4	0	4.2	168.6	22.2	4.8	771.3	729.0
28 North Dakota-----	1,105.2	69.1	34.5	0	17.3	0	17.3	0	0	0	0	34.5	0	0	241.8	224.5
29 South Dakota-----	1,544.6	177.9	0	0	0	0	24.3	16.2	0	0	8.1	80.9	16.2	8.1	274.9	266.9
30 Nebraska-----	1,407.2	56.9	24.4	0	0	0	0	8.1	0	8.1	0	203.4	16.3	0	569.4	536.8
31 Kansas-----	1,598.3	47.2	49.8	0	2.6	0	2.6	0	2.6	0	5.2	191.3	7.9	5.2	749.4	712.7
<b>SOUTH ATLANTIC</b>																
32 Delaware-----	1,577.5	94.1	13.4	0	0	0	0	9.0	0	0	4.5	116.5	9.0	9.0	676.7	645.3
33 Maryland-----	1,339.9	133.1	41.3	0	0	0	1.0	1.5	1.0	0.5	5.2	143.8	5.7	4.1	581.2	540.0
34 District of Columbia----	1,254.6	114.7	20.0	0.7	0	0	0	2.2	0	0	0	142.0	10.4	3.7	546.7	533.4
35 Virginia-----	1,389.6	75.4	22.0	0.3	1.6	0.5	3.8	1.1	0.3	0.3	5.2	104.7	8.9	3.0	670.0	625.2
36 West Virginia-----	1,446.1	80.3	43.1	0	0	1.7	6.9	5.2	1.7	0	0	143.1	8.6	0	644.6	606.7
37 North Carolina-----	1,088.8	44.9	13.5	0.2	1.3	0.8	3.6	1.1	0.2	0	5.7	59.6	11.0	2.5	461.5	451.8
38 South Carolina-----	1,172.6	45.3	18.9	0.8	1.8	2.5	4.0	2.0	1.0	1.8	8.3	65.7	8.6	3.5	523.0	490.2
39 Georgia-----	1,293.4	48.2	19.4	0.6	2.8	0.4	2.8	1.2	0	1.2	7.5	71.5	10.3	3.2	596.3	557.6
40 Florida-----	1,369.5	59.1	24.1	0.3	3.7	0.3	0.3	0.7	0.7	0	10.9	99.9	7.1	4.8	356.7	321.0
<b>EAST SOUTH CENTRAL</b>																
41 Kentucky-----	1,802.9	98.1	18.0	0	5.0	0	1.0	0	3.0	0	8.0	135.1	19.0	5.0	931.0	867.9
42 Tennessee-----	1,403.2	74.2	23.8	0.8	2.3	0	3.9	0.4	1.2	1.2	8.2	97.7	9.0	7.8	585.4	558.6
43 Alabama-----	1,264.5	52.3	15.5	0.2	1.9	0.4	3.2	1.3	0.2	0.4	6.8	83.4	8.1	4.5	533.7	494.8
44 Mississippi-----	1,230.9	40.1	13.5	0.2	4.4	1.7	4.6	0.4	0.8	1.5	6.9	71.7	8.1	3.9	458.7	414.0
<b>WEST SOUTH CENTRAL</b>																
45 Arkansas-----	1,122.1	54.3	23.6	0.5	5.3	0	6.7	0.5	1.0	0.5	4.3	81.8	10.6	2.4	504.0	455.9
46 Louisiana-----	1,249.7	52.7	33.9	0.5	1.6	0.5	2.6	0.5	0.9	0.7	7.0	122.9	10.1	5.6	549.6	523.8
47 Oklahoma-----	1,293.9	70.2	16.3	0	3.1	1.0	3.1	0	1.0	0	6.1	106.9	14.3	4.1	530.4	477.4
48 Texas-----	1,191.7	39.8	25.8	0.6	1.9	1.5	0.8	1.0	1.5	0	6.7	109.2	9.2	3.3	494.0	459.0
<b>MOUNTAIN</b>																
49 Montana-----	1,368.9	168.9	10.0	0	0	0	20.0	0	0	0	0	89.9	10.0	0	339.7	319.7
50 Idaho-----	1,594.1	178.8	0	0	0	0	0	25.5	0	25.5	0	127.7	25.5	0	485.4	434.3
51 Wyoming-----	1,061.1	75.8	0	0	0	0	0	0	0	0	0	75.8	0	0	328.4	328.4
52 Colorado-----	933.3	33.6	6.7	0	0	0	0	0	0	0	0	161.1	0	0	389.4	376.0
53 New Mexico-----	1,373.8	127.0	15.4	0	11.5	0	3.8	0	0	3.8	0	46.2	3.8	15.4	203.9	184.7
54 Arizona-----	1,386.1	151.5	30.7	2.0	6.1	4.1	14.3	0	0	0	10.2	61.4	8.2	4.1	215.0	198.6
55 Utah-----	1,297.3	60.3	45.3	0	0	0	0	0	0	0	15.1	30.2	120.7	0	331.9	331.9
56 Nevada-----	1,213.6	18.7	0	0	18.7	0	0	0	0	0	0	112.0	0	0	242.7	242.7
<b>PACIFIC</b>																
57 Washington-----	1,210.4	86.7	33.5	0	0	0	8.4	0	0	0	2.8	95.0	8.4	5.6	430.5	410.9
58 Oregon-----	1,100.7	121.5	7.6	0	0	0	0	0	0	0	0	106.3	0	0	349.2	341.6
59 California-----	887.5	66.3	21.1	0.3	1.1	0.3	0	0.6	0	0.3	12.6	92.7	9.3	2.8	339.5	326.9

United States, Each Division and State, 1950-Continued

group, enumerated as of April 1. Numbers under causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

Vascular lesions affecting central nervous system	Rheumatic fever	Diseases of heart	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic and unspecified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn	Ulcer of stomach and duodenum	Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Con genital malformations	Symptoms, senility, and ill-defined conditions	Motor-vehicle accidents	All other accidents	Suicide	Homicide	All other causes	
350-354	400-402	410-443	444-450	451-468	582-584	480-493	540, 541	543, 571, 572	581	590, 591	640-689	750-759	780-795	E810-E835	E800-E802, E840-E862	E963, E970-E979	E964, E980-E985	Residual	
119.5	2.2	339.7	29.2	5.7	32.1	66.1	7.0	12.1	7.9	5.7	...	12.8	57.9	38.2	65.7	7.0	45.5	165.7	1
72.0	1.3	344.5	27.0	5.1	23.1	42.4	10.3	6.4	12.9	0	...	7.7	6.4	57.3	64.3	15.4	15.4	159.4	2
72.4	2.4	353.5	26.0	7.5	25.3	82.8	7.7	5.3	15.0	3.1	...	13.8	19.8	25.6	64.0	8.2	31.4	178.1	3
98.1	2.3	369.8	29.1	5.8	21.5	59.5	8.5	6.3	9.9	4.0	...	15.8	10.0	37.0	58.7	8.4	52.5	151.1	4
153.6	0.4	464.0	36.9	11.3	36.4	89.5	12.6	11.3	10.0	6.7	...	8.4	43.9	48.1	81.6	10.0	58.2	224.3	5
146.6	2.6	362.7	32.8	4.8	58.2	68.0	7.1	14.5	5.9	7.1	...	12.9	49.8	41.7	66.7	6.4	47.4	170.2	6
134.6	2.4	335.0	29.3	4.7	42.5	70.3	5.5	14.2	4.7	7.3	...	10.5	154.9	35.4	63.5	4.2	51.7	159.9	7
116.5	1.2	334.2	25.2	5.7	35.4	86.1	5.6	11.1	6.0	6.0	...	11.6	49.5	54.7	68.7	4.6	47.6	163.2	8
56.9	3.5	166.4	18.4	4.2	15.9	119.6	4.2	62.7	8.4	1.7	...	23.4	143.8	80.3	112.1	14.2	25.1	184.1	9
76.3	2.5	231.4	18.3	6.4	13.1	38.3	7.4	8.1	12.1	2.2	...	14.1	6.9	48.9	54.3	16.0	27.2	128.4	10
0	0	121.8	60.9	0	60.9	0	0	60.9	0	0	...	0	60.9	182.7	60.9	60.9	0	0	11
0	0	180.8	0	0	0	180.8	0	0	0	0	...	0	0	0	542.5	180.8	0	0	12
0	0	673.4	0	0	0	0	0	0	0	0	...	0	0	0	0	0	0	336.7	13
79.7	0	371.1	34.9	5.0	22.4	42.3	17.4	10.0	17.4	0	...	10.0	7.5	24.9	44.8	17.4	14.9	159.4	14
51.5	12.9	425.0	25.8	0	25.8	90.1	12.9	0	12.9	0	...	0	0	77.3	103.0	25.8	0	180.3	15
73.0	0	295.8	14.6	7.3	21.9	29.2	0	0	7.3	0	...	7.3	3.7	36.5	73.0	3.7	21.9	164.3	16
52.9	2.9	328.2	19.6	6.2	11.1	61.8	8.4	3.8	17.6	1.1	...	12.7	18.9	22.9	64.3	9.8	31.8	164.1	17
96.9	0.8	386.4	35.9	3.8	23.3	49.1	3.8	4.4	10.1	5.0	...	17.6	2.5	35.9	75.5	5.0	20.8	188.8	18
87.9	2.6	376.0	36.1	11.2	46.7	71.3	8.6	8.0	13.7	5.1	...	13.4	29.7	24.3	57.9	7.7	36.1	192.8	19
114.0	1.6	352.9	26.5	7.8	13.7	56.2	8.2	8.6	12.9	4.3	...	16.4	23.0	36.7	59.7	9.0	55.4	165.1	20
123.1	2.3	416.5	47.2	6.9	18.4	77.1	12.7	10.4	13.8	2.3	...	21.9	3.5	46.0	75.9	11.5	57.5	155.0	21
88.8	3.1	448.0	31.8	4.9	31.1	66.3	8.0	8.5	9.6	3.7	...	15.9	5.2	31.8	64.4	7.7	57.0	180.8	22
84.8	1.7	266.9	22.3	3.5	17.9	48.5	6.7	3.9	6.1	4.4	...	14.4	4.9	35.8	39.8	7.0	42.8	136.8	23
81.2	4.6	278.1	18.2	13.7	18.2	41.0	0	9.1	4.6	9.1	...	27.3	9.1	95.7	91.2	13.7	31.9	132.2	24
159.5	0	378.8	26.6	13.3	26.6	86.4	19.9	13.3	0	0	...	19.9	26.6	39.9	66.5	13.3	26.6	219.3	25
134.3	0	501.4	26.9	9.0	17.9	53.7	26.9	9.0	0	0	...	9.0	26.9	35.8	71.6	9.0	26.9	188.0	26
162.3	0.7	507.7	44.4	13.9	42.3	63.2	12.5	7.6	8.3	7.6	...	6.2	33.3	49.9	83.2	9.7	70.1	245.6	27
17.3	0	189.9	0	17.3	17.3	155.4	0	0	17.3	17.3	...	17.3	69.1	17.3	172.7	0	0	224.5	28
48.5	0	210.3	8.1	0	8.1	194.1	0	40.4	8.1	0	...	8.1	291.1	121.3	97.0	16.2	0	161.7	29
146.4	0	374.2	16.3	0	32.5	75.2	16.3	8.1	16.3	8.1	...	16.3	16.3	32.5	56.9	16.3	65.1	195.2	30
180.8	0	474.3	49.8	7.9	36.7	86.5	10.5	18.3	21.0	7.9	...	7.9	21.0	34.1	73.4	7.9	60.3	186.0	31
80.7	4.5	533.3	26.9	0	31.4	107.6	9.0	9.0	9.0	4.5	...	17.9	22.4	67.2	107.6	4.5	71.7	215.1	32
97.0	3.1	397.6	33.5	8.8	41.3	56.7	5.2	7.2	5.2	4.1	...	19.1	7.7	37.6	58.8	6.7	43.8	169.2	33
75.5	3.7	408.3	33.3	12.6	13.3	48.1	11.1	0.7	17.0	3.7	...	20.7	6.7	28.9	68.1	8.9	35.5	165.0	34
178.1	1.6	395.0	43.7	6.8	44.7	75.6	7.6	12.2	4.3	8.4	...	11.4	26.6	44.5	66.7	7.3	42.3	185.7	35
134.4	1.7	436.1	32.7	1.7	37.9	53.4	12.1	22.4	8.6	10.3	...	6.9	39.6	32.7	93.1	5.2	62.1	184.4	36
122.7	2.5	295.5	28.3	2.8	29.8	63.3	4.0	21.6	4.9	5.3	...	14.2	37.2	40.6	60.9	8.7	40.6	161.6	37
145.9	2.8	302.0	36.5	3.0	32.7	75.3	6.8	14.9	2.0	4.8	...	9.6	86.4	41.3	60.7	3.5	32.5	147.6	38
179.9	3.4	340.3	29.6	4.3	38.7	77.1	7.7	14.0	5.1	10.1	...	11.1	55.9	41.3	64.6	6.5	57.9	177.7	39
166.8	1.4	321.0	27.9	4.1	35.7	57.4	9.5	14.6	10.5	9.5	...	13.2	93.4	49.9	84.9	5.4	71.3	181.0	40
194.2	3.0	594.6	71.1	5.0	65.1	103.1	10.0	20.0	10.0	13.0	...	10.0	28.0	44.0	77.1	3.0	75.1	186.2	41
159.9	3.1	371.1	35.5	9.0	38.7	78.1	7.0	14.8	7.8	8.6	...	8.2	142.2	34.8	59.0	3.5	53.1	160.2	42
135.3	2.6	327.5	25.7	3.6	38.9	75.1	6.0	12.3	3.0	6.4	...	11.3	109.4	36.2	85.1	4.5	58.4	166.8	43
118.7	1.9	269.2	20.8	3.5	44.7	54.7	3.3	14.3	3.5	6.4	...	11.0	232.6	33.3	61.5	4.6	41.6	147.5	44
116.4	2.9	313.6	20.2	2.9	48.1	65.4	4.3	9.8	8.3	5.8	...	8.7	75.5	28.4	71.2	2.9	38.5	110.1	45
121.5	0.2	364.9	30.4	6.8	25.7	80.6	8.9	9.8	5.4	5.6	...	15.9	35.3	30.2	73.3	4.0	38.4	172.3	46
123.2	1.0	320.7	23.4	9.2	52.9	97.7	3.1	14.3	5.1	9.2	...	6.1	61.1	31.6	70.2	4.1	33.6	201.8	47
110.6	1.5	318.5	23.1	5.2	35.0	64.8	3.8	12.3	6.7	5.8	...	10.2	48.5	42.1	63.3	6.0	62.7	170.2	48
89.9	0	219.8	10.0	0	20.0	169.9	0	30.0	10.0	0	...	20.0	89.9	89.9	99.9	10.0	20.0	199.8	49
153.3	0	255.5	25.5	0	51.1	178.8	0	25.5	0	0	...	0	204.4	102.2	102.2	0	0	102.2	50
50.5	25.3	227.4	28.3	0	0	128.3	0	25.3	0	0	...	75.8	26.3	101.1	126.3	25.3	0	75.8	51
80.6	0	268.6	13.4	13.4	13.4	47.0	6.7	0	13.4	0	...	0	13.4	47.0	40.3	6.7	20.1	147.7	52
34.6	7.7	119.3	23.1	0	19.2	150.1	3.8	77.0	3.8	0	...	26.9	304.0	88.5	96.2	15.4	19.2	157.8	53
43.0	2.0	131.0	16.4	6.1	16.4	124.9	6.1	92.1	6.1	2.0	...	26.6	118.7	73.7	147.4	14.3	30.7	235.4	54
60.3	0	256.4	15.1	0	0	60.3	0	30.2	30.2	15.1	...	30.2	165.9	60.3	30.2	15.1	0	226.3	55
93.4	0	112.0	37.3	0	0	56.0	0	56.0	18.7	0	...	18.7	74.7	168.0	186.7	37.3	93.4	112.0	56
128.6	5.6	257.2	16.8	2.8	19.6	64.3	0	22.4	11.2	2.8	...	8.4	22.4	50.3	106.2	19.6	30.8	201.3	57
91.1	0	242.9	7.6	0	7.6	22.8	7.6	7.8	15.2	7.6	...	30.4	38.0	98.7	91.1	30.4	30.4	136.6	58
70.5	2.2	228.3	18.9	7.0	12.6	36.2	8.1	6.7	12.1	2.0	...	14.0	4.2	46.9	47.7	15.2	26.7	120.8	59

Table 8.46. Death Rates for 32 Selected Causes, by Race and Sex:

(By place of residence. Exclusive of fetal deaths and of deaths among armed forces overseas. Rates per 100,000 population in each specified

RACE, SEX, AND AREA	Total	Tuber-	Syph-	Ty-	Dysen-	Diph-	Whoop-	Menin-	Acute	Meas-	All other	Malignant	Diab-	Menin-	Major	Diseases
		culosis, all forms	illis and its sequelae	phoid fever	tery, all forms	theria	oping cough	ingococ- cal infecti- ons	polio- mye- litis	les	infective and para- sitic diseases	neoplasms, including neoplasms of lym- phatic and hemato- poietic tissues	betes mel- litus	gitis, except menin- gococ- cal and tuber- culous	cardio- vascular- renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 046	055	056	057	080*	085	030-039, 041-044, 049-054, 056-074, 081-084, 086-138	140-205	280	340	330-334, 400-468, 592-594	330-334, 400-468
<b>NONWHITE, FEMALE</b>																
1 UNITED STATES-----	995.5	50.6	9.4	0.2	1.1	0.5	2.8	0.6	0.6	0.6	5.5	110.1	18.7	2.7	468.8	458.6
<b>GEOGRAPHIC DIVISIONS</b>																
2 New England-----	986.7	49.0	7.9	0	0	0	1.3	0	0	0	5.3	148.3	19.9	1.3	502.0	490.0
3 Middle Atlantic-----	948.3	67.2	11.7	0.1	0	0	1.1	0.9	0.7	0.2	4.7	133.3	23.2	2.1	449.3	424.4
4 East North Central-----	979.8	64.9	9.9	0	0.3	0.1	1.8	0.7	0.5	0.1	3.5	135.7	22.4	2.1	472.6	447.0
5 West North Central-----	1,239.5	58.4	15.4	0	0.4	0.4	4.1	0.8	0.8	2.4	5.3	149.0	22.3	2.4	605.7	568.8
6 South Atlantic-----	982.1	45.3	8.1	0.1	1.3	0.7	2.9	0.7	0.5	0.5	5.5	96.4	18.3	2.7	489.0	459.1
7 East South Central-----	1,091.4	45.7	7.5	0.2	1.6	0.6	4.3	0.3	0.4	1.5	6.2	103.5	16.6	3.4	493.0	454.2
8 West South Central-----	975.3	37.7	11.5	0.5	2.3	0.6	2.3	0.3	0.9	0.5	6.9	107.0	18.7	2.7	464.6	430.8
9 Mountain-----	1,066.7	153.9	16.4	2.7	2.7	3.6	12.8	0.9	0.9	3.6	6.4	61.9	10.9	7.3	224.1	213.2
10 Pacific-----	653.2	41.4	5.4	0.3	0.3	0.6	1.1	0.3	0	0	4.0	95.3	6.5	2.0	256.3	244.7
<b>NEW ENGLAND</b>																
11 Maine-----	855.4	77.8	0	0	0	0	0	0	0	0	0	311.0	0	0	155.5	155.5
12 New Hampshire-----	1,932.4	0	0	0	0	0	0	0	0	0	0	724.6	0	0	463.1	463.1
13 Vermont-----	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Massachusetts-----	1,001.0	66.9	7.7	0	0	0	2.6	0	0	0	7.7	146.7	23.2	2.6	501.8	491.5
15 Rhode Island-----	1,419.3	84.3	0	0	0	0	0	0	0	0	0	238.9	56.2	0	716.7	702.6
16 Connecticut-----	856.1	14.5	10.9	0	0	0	0	0	0	0	3.6	112.5	7.3	0	488.0	453.5
<b>MIDDLE ATLANTIC</b>																
17 New York-----	879.0	66.1	13.2	0.2	0	0	0.2	1.6	0.4	0.4	4.7	132.6	19.7	2.8	401.3	387.6
18 New Jersey-----	999.0	58.2	7.9	0	0	0	0	0	1.8	0	5.5	148.6	34.6	1.2	473.1	448.9
19 Pennsylvania-----	1,029.3	73.3	11.5	0	0	0	3.0	0.3	0.6	0	4.2	126.7	22.9	1.5	510.9	468.7
<b>EAST NORTH CENTRAL</b>																
20 Ohio-----	962.0	56.4	14.5	0	0.4	0	1.9	1.5	0.4	0	3.8	120.5	26.7	3.4	456.0	438.1
21 Indiana-----	1,233.2	54.1	7.9	0	0	0	3.4	1.1	2.3	1.1	1.1	196.0	24.9	0	622.8	578.9
22 Illinois-----	1,025.1	76.6	8.5	0	0.3	0.3	1.2	0.6	0.3	0	4.7	144.8	17.3	1.8	522.8	492.4
23 Michigan-----	830.0	63.1	8.4	0	0.4	0	1.8	0	0	0	2.7	115.0	23.1	2.2	366.4	346.4
24 Wisconsin-----	1,002.7	45.1	0	0	0	0	5.0	0	5.0	0	0	145.4	35.1	0	361.0	335.9
<b>WEST NORTH CENTRAL</b>																
25 Minnesota-----	1,004.5	87.3	7.3	0	7.3	0	0	0	0	7.3	14.6	65.5	29.1	0	444.0	414.9
26 Iowa-----	1,148.9	19.3	19.3	0	0	0	0	0	0	0	0	135.2	29.0	0	685.5	627.5
27 Missouri-----	1,271.2	40.7	16.8	0	0	0.6	3.2	0.6	0.6	0.6	5.8	156.2	22.6	1.9	653.4	617.2
28 North Dakota-----	1,130.3	259.4	0	0	0	0	0	0	0	0	0	82.6	18.5	0	222.3	222.3
29 South Dakota-----	1,322.7	252.7	8.4	0	0	0	42.1	8.4	0	16.8	8.4	50.5	25.3	25.3	185.3	168.5
30 Nebraska-----	1,110.4	58.9	16.8	0	0	0	0	0	0	16.8	0	188.2	16.6	0	487.9	471.1
31 Kansas-----	1,249.6	28.8	15.7	0	0	0	0	0	2.6	0	2.6	186.0	18.3	0	670.6	615.6
<b>SOUTH ATLANTIC</b>																
32 Delaware-----	1,155.6	50.2	4.6	0	0	0	22.8	4.6	0	0	9.1	132.5	32.0	9.1	625.8	599.4
33 Maryland-----	1,039.5	46.8	14.9	0	0	0	1.0	0.5	0.5	0	3.6	113.8	20.1	4.6	536.2	501.2
34 District of Columbia-----	1,001.8	89.1	6.0	0	0	0	0.7	0.7	0.7	0	2.7	130.1	18.1	1.3	536.4	513.0
35 Virginia-----	1,107.8	55.9	8.1	0	0.8	0.8	4.1	1.1	0.3	0.8	4.1	103.4	21.2	2.2	588.4	549.8
36 West Virginia-----	851.9	36.7	14.0	0	1.7	1.7	8.7	1.7	1.7	0	3.5	113.5	26.2	1.7	455.9	433.2
37 North Carolina-----	910.0	40.1	8.2	0	1.8	0.9	3.4	0.7	0.2	0.7	5.4	84.1	13.1	1.9	437.7	406.7
38 South Carolina-----	922.8	31.6	6.3	0.7	0.9	0.9	4.2	0.7	0.5	0.7	8.0	80.9	16.4	2.6	440.9	413.7
39 Georgia-----	1,035.7	44.4	8.4	0	1.4	0.9	1.6	0.4	0.5	0.4	6.1	98.2	19.2	3.4	501.0	470.0
40 Florida-----	979.0	32.2	9.0	0	2.3	0.3	0.6	0.6	1.0	0	5.5	95.2	21.9	2.6	451.4	422.1
<b>EAST SOUTH CENTRAL</b>																
41 Kentucky-----	1,491.9	63.2	5.8	0	0	0	2.9	1.0	1.0	1.0	5.9	162.4	29.2	1.9	643.2	601.4
42 Tennessee-----	1,175.8	62.8	7.6	0.4	2.5	0.4	4.7	0	0.7	0.4	4.7	124.5	21.1	4.0	546.3	515.8
43 Alabama-----	1,023.8	41.4	8.6	0.2	0.8	0.6	4.1	0.4	0.2	1.2	7.6	90.0	14.8	3.5	467.8	429.3
44 Mississippi-----	1,032.9	37.1	6.7	0.2	2.2	1.0	4.5	0.2	0.4	2.6	6.1	93.9	13.4	3.3	418.9	375.7
<b>WEST SOUTH CENTRAL</b>																
45 Arkansas-----	896.3	50.0	8.6	0.5	2.7	0	3.6	0.5	0	0	5.2	95.6	15.4	1.8	424.4	386.2
46 Louisiana-----	1,014.6	33.3	13.5	0.7	1.5	0	2.0	0.4	0.4	0.7	7.8	114.7	21.1	3.7	506.5	478.7
47 Oklahoma-----	1,003.0	55.6	13.6	1.0	1.9	0	1.9	1.0	2.9	0	6.8	96.5	20.5	1.9	408.4	367.5
48 Texas-----	967.4	32.7	10.5	0.2	2.8	1.6	2.0	0	1.4	0.6	7.7	108.0	17.6	2.4	453.6	419.5
<b>MOUNTAIN</b>																
49 Montana-----	1,191.8	155.9	22.3	0	0	0	33.4	0	0	0	0	55.7	11.1	11.1	178.2	178.2
50 Idaho-----	1,021.6	90.1	30.0	0	0	0	0	0	0	0	0	180.3	0	0	210.3	180.3
51 Wyoming-----	1,405.2	76.1	39.0	0	0	0	0	0	0	0	39.0	195.2	39.0	0	312.3	312.3
52 Colorado-----	966.8	44.3	22.2	0	0	0	0	0	0	0	0	125.5	7.4	0	472.6	457.8
53 New Mexico-----	1,108.5	180.1	16.0	0	4.0	0	8.0	0	0	5.0	12.0	28.0	15.0	8.0	136.1	132.1
54 Arizona-----	1,038.2	164.4	6.5	4.3	4.3	8.7	19.5	2.2	2.2	4.3	6.5	49.7	6.5	8.7	170.9	155.7
55 Utah-----	882.8	37.6	37.6	18.8	0	0	0	0	0	0	0	75.1	37.6	18.8	300.5	300.5
56 Nevada-----	1,141.3	85.0	41.5	0	0	0	0	0	0	0	0	20.8	0	0	456.5	435.8
<b>PACIFIC</b>																
57 Washington-----	880.3	71.2	3.7	0	0	0	3.7	0	0	0	0	138.6	15.0	0	310.9	307.2
58 Oregon-----	880.5	99.6	0	9.1	0	0	9.1	0	0	0	0	144.9	18.1	0	280.8	262.7
59 California-----	626.7	36.8	5.7	0	0.3	0.6	0.6	0.3	0	0	4.4	89.8	5.4	2.2	250.8	238.7





## SUMMARY TABLES

Table 8.47. Infant Mortality Rates by Place of Occurrence:

(Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births. For each State, rates are shown from the year of its admission to the

AREA	1950	1949	1948	1947	1946	1945	1944	1943	1942 <sup>1</sup>	1941	1940	1939	1938	1937	1936
1 UNITED STATES (birth-registration States)-----	29.2	31.3	32.0	32.2	33.8	38.3	39.8	40.4	40.4	45.3	47.0	48.0	51.0	54.4	57.1
GEOGRAPHIC DIVISIONS															
2 New England-----	24.3	25.7	27.1	26.7	31.8	33.1	35.1	36.8	34.1	36.8	39.3	39.8	42.5	46.8	48.6
3 Middle Atlantic-----	25.8	27.2	27.6	29.3	30.5	34.2	35.7	34.8	34.1	36.5	39.9	41.7	42.6	46.4	48.3
4 East North Central-----	26.3	28.1	29.1	29.9	31.2	34.4	35.6	37.0	35.4	37.7	39.1	40.6	42.6	46.7	49.4
5 West North Central-----	28.4	27.0	28.2	29.9	31.0	32.7	34.3	35.4	34.8	39.0	39.3	40.3	43.6	47.3	49.9
6 South Atlantic-----	33.7	35.8	35.4	35.5	37.8	44.5	46.6	47.8	50.4	60.6	57.1	58.0	65.8	51.7	70.8
7 East South Central-----	36.1	40.3	38.2	36.9	38.5	44.9	45.5	46.5	48.1	57.2	55.9	55.7	60.6	60.4	65.2
8 West South Central-----	34.4	38.7	40.7	37.6	37.7	44.2	46.0	46.7	48.6	53.7	61.1	60.2	60.6	66.4	66.4
9 Mountain-----	35.4	38.9	42.0	39.7	42.1	51.9	50.4	51.5	54.3	55.7	61.7	63.7	66.3	74.7	77.7
10 Pacific-----	25.0	26.6	28.0	28.7	30.8	32.5	34.1	34.5	34.1	35.7	38.0	40.6	42.3	49.8	50.6
NEW ENGLAND															
11 Maine-----	30.9	31.8	32.4	35.7	41.0	46.2	46.6	51.4	46.1	51.2	53.5	52.4	56.2	65.3	64.1
12 New Hampshire-----	23.6	28.6	27.8	29.7	30.4	34.7	36.5	43.4	35.9	36.5	40.0	45.8	47.6	48.1	46.2
13 Vermont-----	24.8	31.6	26.5	30.7	34.2	34.4	41.6	39.7	41.7	43.9	45.0	45.6	48.4	49.5	58.0
14 Massachusetts-----	23.6	24.9	27.1	28.4	32.0	32.1	33.4	34.8	32.0	35.3	37.5	37.0	39.9	44.1	46.5
15 Rhode Island-----	26.4	25.6	25.8	28.2	29.4	29.7	36.5	43.3	39.5	35.8	38.2	39.4	43.8	47.6	48.2
16 Connecticut-----	21.9	25.0	24.4	25.4	26.0	29.6	30.7	29.4	29.2	31.1	34.1	35.9	36.3	40.4	42.0
MIDDLE ATLANTIC															
17 New York-----	24.8	26.1	27.4	28.3	29.2	32.0	32.9	32.9	31.9	33.1	37.2	39.3	40.6	45.1	47.0
18 New Jersey-----	24.9	26.0	26.5	28.1	28.8	32.6	34.5	33.9	31.1	36.2	35.6	38.7	39.5	39.4	44.3
19 Pennsylvania-----	27.6	29.3	28.4	31.0	32.8	37.9	39.9	37.6	38.2	40.7	44.7	45.6	45.9	50.3	51.2
EAST NORTH CENTRAL															
20 Ohio-----	27.0	28.2	30.5	29.5	31.3	36.5	38.8	39.3	37.0	40.8	41.4	42.9	45.3	49.6	51.2
21 Indiana-----	26.8	29.2	29.7	30.5	31.5	38.1	34.6	40.0	36.6	39.8	41.9	39.5	42.5	49.7	50.7
22 Illinois-----	25.7	27.4	27.6	28.8	30.3	31.8	32.4	33.1	33.1	34.0	35.3	38.0	40.9	43.1	46.8
23 Michigan-----	26.3	28.9	30.0	31.5	32.8	35.9	38.1	38.3	37.2	38.7	40.7	41.9	44.6	47.9	50.7
24 Wisconsin-----	25.6	26.4	26.5	29.6	30.2	31.4	32.1	35.1	32.0	35.1	37.2	40.2	41.8	43.4	47.7
WEST NORTH CENTRAL															
25 Minnesota-----	25.2	25.9	27.0	28.9	28.7	31.5	31.8	31.2	29.6	34.5	33.3	35.8	38.8	40.8	44.4
26 Iowa-----	24.5	25.6	26.7	28.7	30.4	30.1	33.5	34.1	33.5	36.5	36.7	38.8	40.5	44.2	48.2
27 Missouri-----	29.1	30.0	30.3	32.5	33.4	37.7	37.5	40.1	39.0	46.5	46.9	45.1	51.5	56.5	57.9
28 North Dakota-----	27.1	31.1	29.4	30.9	34.2	30.4	36.3	35.4	36.5	37.8	45.1	49.0	49.8	52.4	49.7
29 South Dakota-----	26.2	25.4	31.3	31.3	30.2	30.4	34.0	35.1	38.2	40.9	39.2	41.4	43.8	51.1	47.8
30 Nebraska-----	26.0	24.1	27.5	28.0	30.2	28.6	32.9	35.6	33.4	34.4	35.7	36.5	36.4	42.1	44.1
31 Kansas-----	26.0	26.2	27.0	28.8	30.4	33.0	33.5	33.9	35.5	37.8	38.1	39.4	43.0	44.4	51.8
SOUTH ATLANTIC															
32 Delaware-----	30.5	30.8	28.2	29.8	29.0	37.8	47.9	46.1	47.0	43.0	48.9	44.0	52.8	63.8	64.5
33 Maryland-----	29.0	31.8	29.8	32.2	34.4	38.9	42.9	44.8	43.9	52.6	49.6	50.3	55.7	61.5	69.1
34 District of Columbia-----	24.9	25.8	23.8	30.9	35.0	40.3	38.3	41.0	50.8	50.8	47.0	47.7	48.1	60.8	72.4
35 Virginia-----	35.7	36.7	39.4	36.9	39.8	48.6	48.3	48.5	52.5	66.9	59.3	60.9	66.2	59.7	73.9
36 West Virginia-----	36.2	39.8	40.7	38.0	41.0	52.7	52.4	52.7	53.0	61.1	53.9	54.7	62.3	61.8	71.2
37 North Carolina-----	34.6	38.2	35.2	34.8	37.3	43.0	45.1	46.6	48.3	59.8	57.4	59.2	68.6	65.5	68.9
38 South Carolina-----	38.6	38.8	40.0	39.5	41.4	49.8	54.8	55.1	58.7	75.0	68.1	66.2	60.3	75.6	80.8
39 Georgia-----	33.5	33.2	34.3	34.3	35.5	42.3	44.9	46.4	49.3	58.2	57.9	58.2	66.4	67.7	81.7
40 Florida-----	32.1	33.8	34.3	36.9	38.3	41.1	42.9	45.0	47.7	52.8	53.6	56.4	57.9	59.8	58.4
EAST SOUTH CENTRAL															
41 Kentucky-----	34.3	40.9	39.2	37.0	39.5	46.9	46.9	49.7	48.4	59.6	52.8	52.6	61.3	59.1	66.8
42 Tennessee-----	37.1	41.5	38.5	37.0	39.5	48.1	46.1	45.1	46.4	55.3	54.7	53.8	63.5	61.1	68.5
43 Alabama-----	36.7	39.5	38.0	37.4	37.8	43.8	45.3	44.9	50.1	59.5	61.4	59.9	60.8	62.4	66.8
44 Mississippi-----	36.2	39.2	37.0	36.2	36.7	40.3	43.6	46.7	47.3	54.7	54.3	56.2	56.7	58.9	58.2
WEST SOUTH CENTRAL															
45 Arkansas-----	26.1	32.7	27.6	28.6	27.0	30.8	33.2	35.8	39.7	44.0	45.7	46.0	51.4	54.5	50.9
46 Louisiana-----	34.7	37.4	38.3	37.4	37.4	43.4	46.2	44.9	48.2	57.9	64.2	63.0	67.1	65.6	71.9
47 Oklahoma-----	29.7	30.2	33.9	32.0	32.6	39.3	40.2	41.7	41.4	47.5	49.7	49.7	49.0	56.6	60.0
48 Texas-----	37.3	42.6	46.4	41.3	42.0	49.3	50.9	51.7	53.6	56.9	68.6	67.0	65.1	73.9	71.2
MOUNTAIN															
49 Montana-----	29.0	30.3	31.0	32.4	35.0	34.4	36.1	39.0	33.7	37.2	46.2	49.0	45.5	50.5	57.0
50 Idaho-----	26.7	26.6	29.6	28.8	32.3	33.8	33.0	31.3	36.2	34.5	32.3	45.9	44.6	43.7	51.4
51 Wyoming-----	31.6	35.9	36.9	33.9	33.2	40.6	39.0	37.4	45.1	43.8	46.3	45.5	51.8	55.6	57.6
52 Colorado-----	34.5	35.2	38.3	37.2	40.2	49.4	49.8	49.9	48.7	52.2	59.8	54.8	60.2	75.5	74.1
53 New Mexico-----	53.9	64.2	69.3	65.5	76.3	95.7	85.2	89.3	97.9	95.4	99.6	108.0	108.7	123.7	121.8
54 Arizona-----	45.8	50.8	55.9	50.6	41.5	84.4	63.2	69.4	80.1	88.3	94.3	94.3	96.8	120.7	119.6
55 Utah-----	23.9	26.0	27.9	25.5	27.2	31.3	33.6	31.2	33.0	29.9	40.6	39.5	46.8	41.4	52.7
56 Nevada-----	40.5	50.0	38.9	32.9	40.1	40.9	44.6	49.8	57.2	42.2	51.9	44.8	47.7	40.2	69.8
PACIFIC															
57 Washington-----	26.7	26.8	27.1	27.7	33.0	33.9	34.1	34.8	33.1	35.0	35.7	36.8	38.7	39.9	45.4
58 Oregon-----	22.8	25.0	25.6	25.0	27.5	28.8	30.4	29.8	30.5	30.7	32.9	35.5	39.2	41.5	44.3
59 California-----	25.0	26.8	28.5	29.4	30.7	32.6	34.7	34.7	34.8	36.7	39.4	42.4	43.7	53.8	53.1

<sup>1</sup>By place of residence.

MORTALITY RATES

United States, Each Division and State, 1915-50

birth-registration area; for each geographic division, rates are shown from the year when the division, as a whole became a part of the area)

1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915		
55.7	60.1	58.1	57.6	61.6	64.6	67.6	68.7	64.6	73.3	71.7	70.8	77.1	76.2	75.6	85.8	86.6	100.9	93.8	101.0	99.9	1	
49.4	55.0	53.7	54.7	57.4	61.5	65.4	64.7	65.8	74.6	73.5	71.1	80.9	80.9	78.7	---	---	110.9	97.5	102.5	105.9	2	
48.9	52.8	52.5	55.2	61.0	62.1	64.6	67.9	65.6	75.4	73.8	73.2	79.6	81.8	80.4	---	---	---	---	---	---	3	
48.1	52.9	50.7	54.4	57.8	59.8	64.4	65.2	65.1	73.1	71.1	68.5	76.7	72.8	---	---	---	---	---	---	---	4	
50.0	53.1	51.9	50.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5	
67.7	74.8	69.0	66.4	73.9	78.0	78.6	80.2	---	---	---	---	---	---	---	---	---	---	---	---	---	6	
60.1	67.8	65.9	61.6	62.7	70.2	75.4	74.6	65.6	---	---	---	---	---	---	---	---	---	---	---	---	7	
64.4	65.8	67.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8	
77.5	74.5	76.1	71.2	82.0	89.3	90.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9	
47.8	48.6	49.3	50.0	53.6	55.8	58.7	57.7	58.2	60.2	64.1	63.3	67.6	67.3	61.8	70.7	67.4	---	---	---	---	10	
63.0	70.6	66.3	63.1	71.5	75.7	77.4	72.5	80.0	80.0	76.3	80.8	88.5	86.5	88.0	101.6	90.6	101.2	93.3	108.2	105.4	11	
53.9	60.7	55.9	58.9	57.3	61.4	68.2	69.4	69.2	78.7	76.2	79.5	93.2	79.8	86.7	88.0	93.1	113.5	109.6	114.7	109.6	12	
48.6	52.6	53.0	63.2	59.9	64.8	65.8	65.2	69.0	72.0	72.4	70.2	76.0	73.1	77.8	96.2	85.5	93.0	85.0	93.1	85.5	13	
48.3	49.0	52.0	52.9	54.5	60.1	61.8	64.3	64.5	73.1	73.0	67.6	77.8	81.2	76.0	90.9	88.1	112.7	97.9	100.2	101.0	14	
47.2	53.9	55.5	57.2	60.8	61.8	72.0	67.2	66.5	82.0	72.8	79.9	94.3	85.2	92.7	---	---	125.6	107.5	111.2	120.3	15	
42.7	48.8	48.4	49.4	53.8	56.0	64.4	58.6	58.8	72.1	73.3	68.7	76.5	77.3	73.1	91.9	86.3	107.2	93.8	101.3	107.1	16	
48.0	51.9	53.6	52.8	57.4	58.8	60.8	65.0	59.4	70.5	67.6	69.2	72.1	77.0	75.4	86.3	83.6	96.8	91.4	94.1	99.3	17	
46.2	49.1	46.3	50.2	56.8	56.5	60.1	65.2	61.3	70.1	68.9	70.0	71.6	78.6	74.1	---	---	---	---	---	---	18	
50.8	55.0	53.4	60.0	66.7	68.0	70.5	72.1	69.0	82.4	82.0	78.5	90.4	88.2	87.7	97.1	100.0	128.5	111.0	114.2	109.8	19	
50.4	53.7	52.7	58.5	60.0	60.7	68.8	66.1	61.8	75.9	69.6	66.6	74.7	71.7	75.1	82.9	89.6	94.1	92.1	---	---	20	
50.8	56.5	53.0	54.7	57.8	57.7	63.6	62.5	58.8	72.4	67.9	65.2	71.0	67.4	71.2	81.8	79.0	87.0	85.8	---	---	21	
45.9	52.8	49.0	52.8	58.6	55.8	61.4	64.2	64.4	69.4	72.5	71.0	81.9	76.1	---	---	---	---	---	---	---	22	
47.7	52.0	50.5	54.0	57.0	62.7	66.4	69.4	67.7	77.2	75.3	72.3	80.3	74.5	78.6	91.7	89.7	89.1	88.3	96.1	86.0	23	
46.0	48.4	48.5	50.4	53.1	55.7	59.6	61.4	59.1	69.1	67.2	64.7	69.9	70.8	72.1	76.5	79.6	79.0	77.8	---	---	24	
44.7	47.2	47.6	47.2	50.8	52.5	51.2	53.6	51.9	57.6	60.3	56.7	61.7	57.9	58.8	66.4	67.0	70.9	67.4	69.7	70.2	25	
47.1	50.6	48.3	47.9	49.0	53.9	52.6	53.0	55.5	58.7	56.0	54.8	---	---	---	---	---	---	---	---	---	26	
56.8	63.1	53.4	57.2	62.8	58.6	62.1	65.6	59.7	---	---	---	---	---	---	---	---	---	---	---	---	27	
59.4	57.3	60.0	55.5	58.8	61.7	67.2	59.5	63.4	69.2	71.6	66.7	---	---	---	---	---	---	---	---	---	28	
52.5	58.0	54.8	50.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29	
41.2	45.5	49.3	43.4	48.8	49.4	51.7	52.8	51.2	58.2	57.7	55.3	57.3	56.7	58.6	64.2	---	---	---	---	---	30	
50.3	48.5	53.5	48.1	47.9	52.6	57.6	59.0	55.3	65.3	61.7	59.0	62.9	64.8	62.5	73.1	69.7	78.5	77.5	---	---	31	
66.4	61.4	60.4	67.1	81.7	78.5	81.2	78.4	70.6	83.4	90.5	95.0	104.0	100.2	97.6	---	---	---	---	---	---	32	
62.0	70.4	65.8	69.0	80.5	75.3	79.9	79.6	81.5	87.1	80.0	86.2	94.6	94.1	93.6	104.1	105.4	140.4	119.9	121.0	---	33	
59.4	65.3	67.2	72.9	67.0	70.8	70.7	65.1	67.6	85.0	87.4	76.0	91.8	84.9	83.5	91.0	85.3	111.6	97.4	106.0	111.1	34	
69.6	72.6	68.5	67.2	76.3	77.3	78.8	75.9	75.5	83.7	80.8	77.6	84.0	76.8	78.7	83.6	91.0	102.9	97.8	---	---	35	
60.6	67.4	68.2	75.0	77.2	81.0	77.6	70.1	71.9	81.8	79.8	---	---	---	---	---	---	---	---	---	---	36	
68.8	77.9	66.0	66.5	72.9	78.6	79.1	85.7	79.1	82.3	78.8	82.3	81.0	79.5	75.0	84.9	84.3	101.8	99.6	---	---	37	
79.3	83.0	78.2	77.2	81.0	88.7	91.0	86.5	---	---	---	---	101.6	96.3	92.9	96.1	115.8	113.1	---	---	---	38	
68.3	78.9	66.7	64.4	68.3	77.4	78.3	81.6	---	---	---	---	---	---	---	---	---	---	---	---	---	39	
61.9	68.2	62.9	61.1	63.9	64.2	65.5	67.1	67.4	74.8	74.2	81.8	---	---	---	---	---	---	---	---	---	40	
58.7	64.9	58.1	63.3	65.0	65.4	70.9	69.6	61.0	75.5	70.5	64.6	71.8	69.2	61.9	73.1	81.6	93.3	87.1	---	---	41	
64.0	73.7	69.3	67.6	67.6	75.7	77.1	80.9	71.1	---	---	---	---	---	---	---	---	---	---	---	---	---	42
62.8	67.8	65.1	60.9	61.4	72.1	73.6	75.0	64.4	---	---	---	---	---	---	---	---	---	---	---	---	---	43
53.9	64.8	63.6	53.6	55.9	67.7	72.1	73.8	66.8	70.0	69.5	71.3	68.1	68.0	68.4	---	---	---	---	---	---	44	
47.1	54.1	54.4	45.3	49.0	51.5	58.1	66.9	60.9	---	---	---	---	---	---	---	---	---	---	---	---	---	45
69.4	69.1	70.1	64.8	65.9	78.2	74.0	78.4	77.4	---	---	---	---	---	---	---	---	---	---	---	---	---	46
54.6	60.5	56.4	50.0	51.5	60.7	70.2	69.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	47
71.7	71.9	75.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	48
60.0	53.5	51.5	51.4	60.5	58.5	64.0	61.4	66.4	76.9	70.9	66.9	71.5	70.2	---	---	---	---	---	---	---	49	
51.0	50.3	47.2	43.4	55.9	57.1	53.3	59.0	50.0	65.0	---	---	---	---	---	---	---	---	---	---	---	---	50
51.1	53.0	54.7	57.0	66.8	69.3	70.3	67.8	68.9	75.9	63.9	64.3	79.6	78.6	---	---	---	---	---	---	---	51	
72.7	72.7	68.9	71.5	81.0	94.3	91.4	69.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	52
129.3	126.3	136.1	119.4	134.4	145.4	145.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	53
111.7	105.5	111.4	95.9	109.6	116.6	133.3	141.5	130.1	121.2	74.9	55.3	64.4	59.1	69.0	72.8	71.4	71.0	64.0	69.4	---	54	
49.3	49.2	47.6	44.2	51.4	57.4	59.1	58.9	54.3	---	---	---	---	---	---	---	---	---	---	---	---	---	55
71.0	59.3	73.2	69.8	74.4	68.3	67.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	56
45.2	43.2	38.8	45.2	48.3	48.7	49.0	48.1	49.8	56.4	56.4	56.2	56.5	61.7	55.5	66.4	63.1	68.9	69.3	---	---	57	
41.2	39.8	40.3	41.3	43.7	50.0	47.9	46.6	47.5	52.5	51.1	53.6	57.3	58.5	50.9	61.8	62.7	---	---	---	---	58	
49.6	51.7	53.7	52.7	56.7	58.7	63.2	62.2	62.3	62.7	68.7	67.1	73.0	71.1	66.5	74.4	70.5	---	---	---	---	59	

Table 8.48. Infant Mortality Rates by Place of Residence: United States,  
Each Division and State, 1939-50

(Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births)

AREA	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939
UNITED STATES-----	28.2	31.3	32.0	32.2	33.8	38.3	39.8	40.4	40.4	45.3	47.0	48.0
GEOGRAPHIC DIVISIONS												
New England-----	24.3	25.7	27.1	28.6	31.7	32.9	34.8	36.7	34.1	36.7	38.2	39.9
Middle Atlantic-----	25.8	27.2	27.6	29.2	30.4	34.0	35.7	34.8	34.1	36.5	39.9	41.6
East North Central-----	26.3	28.1	29.1	29.9	31.2	34.3	35.4	36.9	35.4	37.7	38.2	40.6
West North Central-----	26.3	27.0	28.1	29.7	30.6	32.6	34.1	35.2	34.8	38.9	39.2	40.4
South Atlantic-----	33.7	35.8	35.5	35.7	38.0	45.0	46.9	47.9	50.4	60.6	57.1	57.9
East South Central-----	36.2	40.2	38.3	38.9	38.5	45.1	45.5	46.5	48.1	57.0	55.7	55.5
West South Central-----	34.6	38.9	40.6	37.5	37.7	44.1	46.2	46.9	48.6	53.6	61.2	60.6
Mountain-----	36.2	39.1	42.3	40.0	42.3	53.4	52.0	52.8	54.3	56.3	62.0	63.6
Pacific-----	25.1	26.6	28.1	28.7	30.9	32.5	34.0	34.0	34.1	35.7	37.8	40.4
NEW ENGLAND												
Maine-----	30.9	32.5	32.0	35.7	41.0	46.3	46.7	51.3	46.1	51.2	53.2	52.5
New Hampshire-----	24.5	27.9	29.1	30.1	31.4	36.3	37.7	46.1	35.9	38.3	40.9	47.2
Vermont-----	24.5	32.4	28.9	31.2	34.0	34.6	40.6	39.0	41.7	43.2	44.5	45.1
Massachusetts-----	23.3	24.5	26.8	28.1	31.6	31.6	33.1	34.2	32.0	35.4	37.5	36.9
Rhode Island-----	27.8	24.0	26.3	28.2	29.5	28.2	35.3	43.5	39.5	34.9	37.9	39.0
Connecticut-----	21.8	23.1	24.3	25.2	27.8	29.9	30.7	29.8	29.2	30.6	34.0	36.6
MIDDLE ATLANTIC												
New York-----	24.7	26.1	27.3	28.2	29.1	31.8	32.8	32.7	31.9	33.0	37.2	39.1
New Jersey-----	25.2	26.0	26.5	27.9	28.5	32.0	34.0	33.7	31.1	35.8	35.5	38.3
Pennsylvania-----	27.6	29.2	28.4	31.1	33.0	37.9	40.0	37.9	38.2	40.9	44.7	45.7
EAST NORTH CENTRAL												
Ohio-----	26.8	28.1	30.5	29.5	31.3	36.5	38.5	39.1	37.0	40.8	41.4	42.9
Indiana-----	27.0	29.1	29.8	30.6	31.5	36.0	34.5	39.6	36.6	39.9	42.1	39.6
Illinois-----	25.6	27.4	27.7	28.9	30.4	31.6	32.4	33.3	33.1	34.2	35.3	36.1
Michigan-----	26.3	28.9	30.0	31.5	32.7	35.8	37.9	38.3	37.2	38.7	40.7	41.8
Wisconsin-----	25.7	26.5	28.3	29.5	30.0	31.1	32.0	35.0	32.0	35.1	37.3	40.3
WEST NORTH CENTRAL												
Minnesota-----	25.1	25.8	28.9	28.6	28.6	31.1	31.3	30.9	29.6	34.5	33.2	35.5
Iowa-----	24.8	25.7	28.6	28.5	29.9	30.3	33.1	34.0	33.5	36.3	36.5	38.8
Missouri-----	29.2	30.0	30.3	32.5	33.0	37.5	37.6	40.3	39.0	46.3	46.9	45.3
North Dakota-----	26.8	30.7	28.4	30.6	34.0	29.3	35.4	34.9	36.5	37.1	45.1	49.4
South Dakota-----	26.8	26.0	32.0	30.9	29.6	31.1	34.9	35.7	38.2	41.3	38.7	40.9
Nebraska-----	25.0	24.1	26.8	27.8	30.2	28.5	33.0	35.5	33.4	34.6	36.0	37.3
Kansas-----	25.7	25.9	28.9	28.1	30.6	33.0	33.3	33.6	35.5	37.6	38.3	39.3
SOUTH ATLANTIC												
Delaware-----	30.7	30.4	28.5	31.0	29.7	38.9	48.7	46.7	47.0	43.4	47.7	43.6
Maryland-----	27.0	30.5	28.8	31.6	34.0	38.0	41.5	43.0	43.9	52.0	49.1	49.0
District of Columbia-----	30.4	29.1	26.5	31.9	41.2	48.3	44.8	47.6	50.8	57.7	49.3	53.3
Virginia-----	34.6	38.1	38.5	36.6	38.7	47.4	47.1	47.1	52.5	64.9	58.5	59.7
West Virginia-----	36.1	39.6	40.2	38.0	40.9	52.0	52.0	52.1	53.0	60.9	53.7	54.3
North Carolina-----	34.5	38.1	35.3	34.9	37.2	43.3	45.4	46.7	48.3	58.7	57.6	59.1
South Carolina-----	38.6	39.0	40.4	39.5	41.4	49.9	54.8	55.1	58.7	75.0	68.2	66.5
Georgia-----	33.5	33.3	34.2	34.2	35.9	42.2	44.5	46.6	49.3	58.4	57.8	58.3
Florida-----	32.1	33.8	35.3	38.2	39.4	43.8	45.5	46.7	47.7	52.9	53.8	56.0
EAST SOUTH CENTRAL												
Kentucky-----	34.9	41.2	38.8	37.1	40.0	46.9	46.7	50.0	48.4	58.9	53.1	52.8
Tennessee-----	36.4	40.2	37.7	36.3	38.5	47.7	45.5	44.8	46.4	54.3	53.5	52.7
Alabama-----	36.8	39.6	37.8	37.5	37.9	44.7	45.5	44.8	50.1	59.4	61.5	59.8
Mississippi-----	36.7	39.6	37.9	36.8	37.5	40.6	44.1	46.8	47.3	55.1	54.4	56.6
WEST SOUTH CENTRAL												
Arkansas-----	26.5	33.7	28.4	28.5	28.3	31.7	34.7	37.4	39.7	44.7	47.0	46.5
Louisiana-----	34.6	37.2	37.9	37.2	37.2	43.0	46.3	44.7	48.2	57.8	64.3	62.8
Oklahoma-----	30.2	30.8	34.4	32.3	32.5	40.0	41.2	42.5	41.4	47.7	48.9	50.1
Texas-----	37.4	42.7	46.2	41.1	41.7	48.8	50.4	51.4	53.6	56.6	68.3	67.6
MOUNTAIN												
Montana-----	28.2	29.7	30.7	32.1	34.8	34.2	36.1	38.7	33.7	37.9	46.5	48.9
Idaho-----	27.1	27.0	28.8	28.4	32.9	35.0	34.0	32.0	36.2	35.8	42.9	46.8
Wyoming-----	32.5	37.4	39.5	34.0	33.1	40.0	41.2	37.1	45.1	43.2	44.7	44.8
Colorado-----	34.4	35.1	38.4	37.5	40.0	50.5	49.4	50.4	49.7	52.0	60.4	54.4
New Mexico-----	54.8	65.1	70.1	67.9	78.2	100.8	89.1	91.8	97.9	97.5	100.6	109.1
Arizona-----	45.8	51.0	56.4	50.8	41.5	68.7	68.8	76.7	80.1	90.0	85.5	93.4
Utah-----	23.7	25.3	27.4	25.1	27.2	31.1	33.9	31.4	33.0	29.7	40.4	39.5
Nevada-----	37.9	32.1	39.8	33.2	39.6	46.3	50.2	52.2	57.2	42.3	51.7	44.0
PACIFIC												
Washington-----	27.3	27.1	27.5	28.1	33.4	34.5	33.8	34.8	35.1	34.7	35.2	36.8
Oregon-----	22.5	24.6	25.5	24.7	27.7	28.7	30.5	30.0	30.5	30.7	33.2	34.8
California-----	25.0	26.8	28.6	29.4	30.7	32.5	34.5	34.4	34.8	36.6	39.2	42.2

Table 8.49. Infant Mortality Rates by Race and Sex: Birth-Registration States, 1915-50

(Deaths under 1 year per 1,000 live births in each specified group)

YEAR	ALL RACES			WHITE <sup>1</sup>			NONWHITE <sup>1</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
1950	29.2	32.8	25.5	25.8	30.2	25.1	44.5	48.9	39.9
1949	31.3	35.1	27.3	28.9	32.5	25.0	47.3	52.5	42.0
1948	32.0	35.9	27.9	29.9	33.7	25.9	46.5	51.4	41.4
1947	32.2	36.1	28.1	30.1	33.9	26.0	48.5	53.2	43.7
1946	33.8	37.8	29.5	31.8	35.8	27.5	49.5	54.0	44.8
1945	38.3	42.7	35.6	35.6	39.9	31.1	57.0	63.2	50.8
1944	39.8	44.1	35.2	36.9	41.2	32.4	60.3	65.5	55.0
1943	40.4	45.1	35.4	37.5	42.0	32.7	62.5	68.9	55.9
1942	40.4	44.9	35.7	37.3	41.6	32.7	64.6	70.7	58.3
1941	45.3	50.4	40.0	41.2	48.0	36.1	74.8	82.1	67.3
1940	47.0	52.5	41.3	43.2	48.3	37.8	73.8	82.2	65.2
1939	48.0	53.3	42.5	44.3	49.2	39.1	74.2	82.3	66.0
1938	51.0	56.7	45.1	47.1	52.5	41.4	79.1	87.0	70.9
1937	54.4	60.3	48.3	50.3	56.0	44.3	83.2	91.0	75.2
1936	57.1	63.4	50.5	52.9	58.9	46.5	87.6	96.3	78.6
1935	55.7	62.2	48.9	51.9	58.1	45.2	85.2	91.6	74.6
1934	60.1	66.5	53.3	54.5	60.6	48.1	94.4	103.1	85.5
1933	58.1	63.9	51.9	52.8	58.4	46.8	91.3	98.9	83.5
1932	57.6	63.8	51.1	53.3	59.4	46.9	86.2	93.4	78.7
1931	61.6	68.3	54.5	57.4	63.9	50.6	93.1	101.8	84.2
1930	64.6	71.3	57.5	60.1	66.6	53.2	99.9	108.7	90.9
1929	67.6	74.6	60.2	63.2	69.9	56.0	102.2	111.6	92.5
1928	68.7	76.4	60.6	64.0	71.4	56.1	106.2	116.4	95.6
1927	64.6	71.5	57.2	60.6	67.5	53.4	100.1	109.9	91.0
1926	73.3	81.1	65.1	70.0	77.6	61.9	111.8	122.2	101.1
1925	71.7	79.5	63.3	69.3	76.0	60.2	110.8	121.5	99.6
1924	70.8	78.7	62.5	66.8	74.4	58.8	112.9	124.0	101.4
1923	77.1	85.0	69.8	73.5	81.3	65.3	117.4	126.9	107.5
1922	76.2	84.6	67.3	73.2	81.6	64.3	110.0	118.6	101.4
1921	75.6	83.5	67.3	72.5	80.3	64.1	108.5	116.9	99.7
1920	85.8	95.1	76.1	82.1	91.1	72.6	131.7	145.3	117.7
1919	86.6	95.8	77.0	83.0	91.9	73.7	130.5	144.0	116.7
1918	100.9	110.9	90.4	97.4	107.4	86.9	161.2	171.5	150.6
1917	93.8	103.7	83.3	90.5	100.3	80.4	150.7	164.1	132.2
1916	101.0	111.2	90.3	99.0	109.1	88.4	184.9	201.1	168.4
1915	99.9	109.9	89.4	98.6	108.5	88.1	181.2	199.8	163.8

<sup>1</sup>Mexicans included with "White" each year except 1932, 1933, and 1934.

## SUMMARY TABLES

Table 8.50. Infant Mortality Rates by Detailed

(Exclusive of fetal deaths. Rates per

RACE AND AGE		1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933
1	<b>ALL RACES</b>																		
	Under 1 year-----	29.2	31.3	32.0	32.2	33.8	38.3	38.8	40.4	40.4	45.3	47.0	46.0	51.0	54.4	57.1	55.7	60.1	58.1
2	Under 1 day-----	10.2	10.5	10.7	10.7	11.4	11.2	11.5	11.6	12.3	13.2	13.9	14.1	14.1	14.7	15.1	15.0	15.4	15.1
3	1 day-----	5.1	5.1	5.4	5.4	5.5	5.3	5.3	5.2	5.3	5.5	5.5	5.7	5.6	5.7	5.9	5.7	5.9	5.8
4	2 days-----	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.0	2.1	2.2	2.2	2.3	2.3	2.3	2.5	2.4	2.6	2.7
5	3 days-----	1.1	1.1																
6	4 days-----	0.6	0.7	2.8	3.0	3.0	3.1	3.1	3.1	3.1	3.4	3.6	3.7	3.7	4.0	4.3	4.4	4.6	4.7
7	5 days-----	0.5	0.5																
8	6 days-----	0.4	0.4																
9	7-13 days-----	1.3	1.5	1.6	1.7	1.9	2.1	2.2	2.1	2.2	2.4	2.4	2.5	2.6	2.9	3.0	3.1	3.4	3.5
10	14-20 days-----	0.7	0.9	0.9	1.0	1.1	1.3	1.4	1.4	1.4	1.6	1.6	1.6	1.8	1.9	2.0	2.0	2.3	2.2
11	21-27 days-----	0.6	0.7	0.8	0.9	0.9	1.2	1.2	1.2	1.2	1.4	1.4	1.4	1.5	1.7	1.8	1.8	1.9	1.9
12	Under 28 days-----	20.5	21.4	22.2	22.8	24.0	24.3	24.7	24.7	25.7	27.7	28.8	29.3	29.6	31.3	32.6	32.4	34.1	34.0
13	28-59 days-----	1.8	2.1	2.0	2.0	2.2	2.8	2.9	2.9	2.9	3.4	3.5	3.5	3.9	4.3	4.4	4.4	4.8	4.5
14	2 months-----	1.4	1.6	1.6	1.6	1.6	2.2	2.3	2.4	2.5	2.7	2.8	2.8	2.6	3.2	3.5	3.5	3.8	3.5
15	3 months-----	1.2	1.3	1.3	1.3	1.3	1.8	2.0	2.0	1.9	2.3	2.4	2.3	2.6	2.8	3.1	2.9	3.1	2.8
16	4 months-----	0.9	1.1	1.1	1.0	1.0	1.4	1.6	1.6	1.5	1.8	1.9	1.9	2.2	2.3	2.5	2.3	2.5	2.3
17	5 months-----	0.7	0.9	0.9	0.8	0.8	1.2	1.4	1.4	1.3	1.6	1.6	1.7	1.8	2.0	2.1	2.0	2.2	2.0
18	6 months-----	0.6	0.7	0.7	0.7	0.7	1.1	1.2	1.2	1.1	1.3	1.4	1.5	1.7	1.8	1.9	1.8	2.0	1.9
19	7 months-----	0.6	0.6	0.6	0.5	0.6	0.9	1.0	1.1	1.0	1.2	1.2	1.3	1.4	1.5	1.7	1.6	1.7	1.6
20	8 months-----	0.5	0.5	0.5	0.5	0.5	0.8	0.9	0.9	0.8	1.0	1.0	1.1	1.3	1.4	1.5	1.4	1.6	1.5
21	9 months-----	0.4	0.4	0.4	0.4	0.4	0.6	0.7	0.7	0.7	0.9	0.9	1.0	1.2	1.2	1.4	1.3	1.5	1.4
22	10 months-----	0.3	0.4	0.4	0.3	0.4	0.5	0.6	0.6	0.6	0.7	0.8	0.8	1.0	1.1	1.2	1.1	1.4	1.3
23	11 months-----	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.6	0.6	0.7	0.7	0.8	1.0	1.1	1.1	1.1	1.3	1.3
	<b>WHITE</b>																		
24	Under 1 year-----	26.8	28.9	29.9	30.1	31.6	35.6	36.9	37.5	37.3	41.2	43.2	44.3	47.1	50.3	52.9	51.9	54.5	52.8
25	Under 1 day-----	9.7	10.1	10.3	10.4	11.2	11.0	11.2	11.4	12.1	12.9	13.6	13.8	13.9	14.5	14.8	14.8	15.2	14.9
26	1 day-----	5.0	5.0	5.3	5.4	5.4	5.2	5.2	5.1	5.2	5.3	5.4	5.6	5.5	5.6	5.7	5.6	5.7	5.6
27	2 days-----	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.4	2.3	2.4	2.5
28	3 days-----	1.0	1.1																
29	4 days-----	0.6	0.6	2.6	2.8	2.8	2.9	2.9	2.8	2.9	3.1	3.3	3.3	3.4	3.6	3.9	4.0	4.1	4.3
30	5 days-----	0.4	0.5																
31	6 days-----	0.3	0.3																
32	7-13 days-----	1.2	1.4	1.4	1.5	1.7	1.9	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.6	2.7	2.8	3.0	3.0
33	14-20 days-----	0.6	0.8	0.8	0.9	1.0	1.2	1.3	1.3	1.3	1.5	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.0
34	21-27 days-----	0.5	0.6	0.7	0.8	0.8	1.0	1.1	1.1	1.1	1.2	1.3	1.2	1.4	1.5	1.6	1.6	1.8	1.8
35	Under 28 days-----	19.4	20.3	21.2	21.7	23.1	23.3	23.6	23.7	24.5	26.1	27.2	27.8	28.3	29.7	31.0	31.0	32.3	32.1
36	28-59 days-----	1.6	1.8	1.8	1.8	2.0	2.5	2.6	2.7	2.5	3.0	3.1	3.1	3.5	3.9	4.1	4.0	4.5	4.0
37	2 months-----	1.2	1.4	1.4	1.4	1.4	2.0	2.1	2.2	2.1	2.4	2.6	2.5	2.9	3.1	3.3	3.2	3.5	3.1
38	3 months-----	1.0	1.2	1.2	1.1	1.1	1.6	1.7	1.8	1.6	2.0	2.1	2.0	2.3	2.5	2.7	2.5	2.6	2.4
39	4 months-----	0.8	0.9	0.9	0.9	0.9	1.3	1.4	1.4	1.3	1.5	1.7	1.7	1.9	2.1	2.2	2.0	2.1	1.9
40	5 months-----	0.6	0.7	0.8	0.7	0.7	1.1	1.2	1.2	1.1	1.3	1.4	1.5	1.6	1.9	1.8	1.7	1.8	1.7
41	6 months-----	0.5	0.6	0.6	0.6	0.6	1.0	1.0	1.1	1.0	1.1	1.2	1.2	1.4	1.5	1.7	1.6	1.7	1.6
42	7 months-----	0.5	0.5	0.5	0.5	0.5	0.8	0.8	0.9	0.8	1.0	1.0	1.1	1.2	1.4	1.5	1.4	1.5	1.4
43	8 months-----	0.4	0.4	0.5	0.4	0.4	0.7	0.7	0.8	0.7	0.9	0.9	1.0	1.2	1.3	1.3	1.3	1.4	1.3
44	9 months-----	0.3	0.4	0.4	0.4	0.4	0.6	0.6	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.2	1.2
45	10 months-----	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.0	1.2	1.1
46	11 months-----	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.1
	<b>NONWHITE</b>																		
47	Under 1 year-----	44.5	47.3	46.5	46.5	49.5	57.0	60.3	62.5	64.6	74.8	73.8	74.2	79.1	83.2	87.6	83.2	94.4	91.3
48	Under 1 day-----	13.0	12.8	12.9	13.5	13.4	12.7	13.2	13.2	14.4	15.7	16.0	16.2	15.8	18.1	18.4	16.2	16.3	16.6
49	1 day-----	5.7	5.8	5.9	6.0	6.0	6.1	6.0	6.1	6.2	6.6	6.7	6.5	6.5	6.8	6.1	6.6	6.1	6.9
50	2 days-----	2.3	2.4	2.5	2.5	2.5	2.6	2.6	2.7	2.8	3.2	3.3	3.1	3.2	3.3	3.4	3.4	3.4	3.8
51	3 days-----	1.4	1.4																
52	4 days-----	0.9	1.0	4.0	4.7	4.5	4.6	4.8	4.9	5.1	5.7	5.7	5.8	5.6	6.6	7.1	6.8	7.5	7.4
53	5 days-----	0.8	0.8																
54	6 days-----	0.7	0.6																
55	7-13 days-----	2.4	2.7	2.7	3.1	3.5	3.7	3.7	3.7	3.9	4.5	4.6	4.5	4.7	5.5	5.6	5.4	6.2	6.3
56	14-20 days-----	1.4	1.9	1.6	1.6	2.0	2.3	2.4	2.3	2.3	2.8	2.9	2.8	2.8	3.1	3.4	3.3	3.6	3.7
57	21-27 days-----	1.0	1.3	1.4	1.6	1.7	2.1	2.0	2.0	2.1	2.5	2.5	2.5	2.4	2.7	2.8	3.0	3.1	3.1
58	Under 28 days-----	27.5	28.6	29.1	31.0	31.5	32.0	32.5	32.9	34.6	39.0	39.7	39.6	39.1	42.1	43.9	42.7	45.3	45.8
59	28-59 days-----	3.6	4.2	3.5	3.8	3.8	5.1	5.0	5.1	5.5	6.5	6.3	6.1	6.9	7.3	7.1	7.0	8.4	7.8
60	2 months-----	2.7	3.0	2.9	3.0	3.0	4.0	4.2	4.4	4.6	5.0	5.0	4.8	5.5	5.9	6.2	5.8	6.9	6.0
61	3 months-----	2.2	2.5	2.5	2.4	2.3	3.2	3.6	3.6	3.8	4.4	4.5	4.3	4.8	4.9	5.6	5.0	6.1	5.5
62	4 months-----	1.8	2.1	1.9	1.9	1.9	2.6	3.0	3.3	3.2	4.0	3.6	3.8	4.2	4.2	4.8	4.3	5.0	4.6
63	5 months-----	1.5	1.8	1.5	1.4	1.4	2.3	2.6	2.8	2.6	3.1	3.1	3.1	3.6	3.8	4.2	3.7	4.4	4.1
64	6 months-----	1.3	1.4	1.3	1.3	1.3	1.9	2.3	2.6	2.5	3.1	2.7	3.1	3.6	3.6	3.8	3.5	4.2	3.8
65	7 months-----	1.1	1.0	1.0	1.0	1.0	1.6	2.0	2.2	2.0									

MORTALITY RATES

Age and Race: Birth-Registration States, 1915-50

1,000 live births in each specified group)

1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	
57.6	61.6	64.8	67.6	68.7	64.6	73.3	71.7	70.8	77.1	76.2	75.6	85.8	86.6	100.9	83.8	101.0	99.9	1
15.0	15.0	15.0	15.3	15.3	15.1	15.2	15.0	14.8	14.7	14.9	14.5	14.8	14.5	15.4	15.0	14.8	15.0	2
3.8	4.0	4.2	4.4	4.4	4.1	4.2	4.2	4.2	4.4	4.4	4.4	4.8	4.5	5.0	4.6	4.9	4.9	3
2.6	2.7	2.9	3.0	3.1	3.0	3.2	3.2	3.3	3.3	3.3	3.4	3.4	3.4	3.6	3.5	3.8	3.5	4
4.7	4.7	5.1	5.3	5.4	5.3	5.7	5.8	6.2	6.1	6.4	6.3	6.4	6.3	6.5	6.7	6.9	6.7	5
3.4	3.6	3.9	3.9	4.1	3.9	4.3	4.4	4.6	4.9	4.9	5.0	5.4	5.9	6.0	6.0	5.8	6.0	6
2.2	2.4	2.5	2.8	2.6	2.6	3.0	2.9	2.9	3.4	3.3	3.4	3.8	3.8	4.3	4.2	4.5	4.6	7
1.8	2.0	2.1	2.3	2.3	2.2	2.4	2.3	2.5	2.7	2.6	2.7	3.1	3.1	3.4	3.4	3.6	3.7	8
33.5	34.8	35.7	36.9	37.2	36.1	37.9	37.8	38.6	39.5	39.7	39.7	41.5	41.5	44.2	43.4	44.1	44.4	9
4.7	5.0	5.3	5.6	5.5	5.1	6.0	5.9	5.8	6.4	6.2	6.3	7.3	7.3	8.5	8.4	9.1	9.0	10
3.6	4.0	4.2	4.3	4.4	4.0	4.7	4.6	4.4	4.9	4.8	4.9	5.7	5.9	6.9	6.6	7.3	7.6	11
2.9	3.1	3.5	3.6	3.6	3.4	4.0	4.0	3.6	4.2	4.1	4.1	4.9	5.3	6.9	6.6	7.3	7.6	12
2.3	2.6	2.9	3.0	3.0	2.8	3.4	3.4	3.2	3.6	3.5	3.5	10.9	13.1	13.7	16.3	15.1	16.9	13
2.0	2.2	2.4	2.6	2.7	2.4	3.0	2.9	2.7	3.3	3.2	3.2	7.8	10.0	10.3	13.6	11.1	13.0	14
1.8	2.1	2.3	2.4	2.5	2.3	2.8	2.7	2.5	3.0	2.9	2.9	6.0	8.3	7.9	11.4	9.2	10.6	15
1.6	1.8	2.0	2.2	2.2	2.0	2.6	2.5	2.2	2.8	2.7	2.7	6.0	8.3	7.9	11.4	9.2	10.6	16
1.5	1.8	1.8	2.0	2.2	1.7	2.5	2.3	2.2	2.6	2.6	2.6	6.0	8.3	7.9	11.4	9.2	10.6	17
1.4	1.6	1.7	1.8	1.9	1.7	2.3	2.1	2.0	2.5	2.5	2.5	6.0	8.3	7.9	11.4	9.2	10.6	18
1.2	1.4	1.5	1.6	1.8	1.5	2.1	1.9	1.8	2.1	2.1	2.2	6.0	8.3	7.9	11.4	9.2	10.6	19
1.2	1.4	1.4	1.6	1.7	1.5	2.1	1.8	1.8	2.2	2.0	2.0	6.0	8.3	7.9	11.4	9.2	10.6	20
53.3	57.4	60.1	63.2	64.0	60.6	70.0	68.3	66.8	73.5	73.2	72.5	82.1	83.0	97.4	90.5	93.0	90.6	21
14.8	14.8	14.8	15.2	15.2	15.0	15.1	14.9	14.7	14.7	14.8	14.4	14.7	14.4	15.4	14.9	14.7	14.7	22
3.7	3.8	3.9	4.2	4.2	4.0	4.1	4.1	4.1	4.3	4.3	4.3	4.4	4.3	4.9	4.5	4.8	4.8	23
2.4	2.6	2.6	2.9	3.0	2.9	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.3	3.5	3.4	3.6	3.6	24
4.4	4.4	4.8	5.0	5.0	5.1	5.5	5.5	5.9	5.9	6.2	6.0	6.1	6.0	6.2	6.6	6.8	6.8	25
3.1	3.3	3.6	3.6	3.8	3.6	4.1	4.2	4.3	4.7	4.7	4.7	5.2	5.6	5.7	5.9	5.7	5.7	26
2.0	2.3	2.3	2.5	2.5	2.4	2.8	2.8	2.8	3.3	3.2	3.2	3.6	3.8	4.2	4.2	4.4	4.4	27
1.7	1.9	2.0	2.1	2.1	2.0	2.3	2.2	2.4	2.5	2.5	2.5	3.0	3.0	3.3	3.3	3.5	3.5	28
32.0	33.2	34.2	35.6	35.7	35.0	37.1	36.8	37.4	38.6	38.8	38.7	40.4	40.3	43.3	42.6	43.5	43.5	29
4.2	4.6	4.8	5.1	5.0	4.8	5.7	5.5	5.4	6.1	5.9	6.0	6.9	7.0	8.2	8.1	8.9	8.9	30
3.2	3.6	3.8	3.9	4.0	3.7	4.4	4.3	4.1	4.6	4.6	4.7	5.4	5.7	6.6	6.3	7.1	7.1	31
2.5	2.8	3.1	3.2	3.2	3.0	3.7	3.7	3.4	3.9	3.8	3.8	5.8	5.8	6.6	6.3	7.1	7.1	32
2.0	2.3	2.5	2.6	2.7	2.5	3.1	3.1	2.9	3.3	3.3	3.3	10.3	12.3	12.9	15.5	14.4	16.4	33
1.7	2.0	2.1	2.4	2.4	2.2	2.7	2.7	2.5	3.0	2.9	2.9	7.2	9.3	9.6	12.9	10.6	12.7	34
1.6	1.9	2.0	2.0	2.2	2.0	2.5	2.5	2.2	2.7	2.7	2.7	7.2	9.3	9.6	12.9	10.6	12.7	35
1.4	1.6	1.7	1.9	2.0	1.8	2.4	2.3	2.0	2.5	2.5	2.5	7.2	9.3	9.6	12.9	10.6	12.7	36
1.3	1.6	1.6	1.8	1.9	1.5	2.3	2.1	2.0	2.4	2.4	2.4	7.2	9.3	9.6	12.9	10.6	12.7	37
1.2	1.4	1.5	1.6	1.7	1.5	2.1	2.0	1.8	2.3	2.2	2.2	5.6	7.8	7.5	10.9	8.7	10.4	38
1.1	1.2	1.3	1.5	1.6	1.4	2.0	1.7	1.6	2.0	2.1	2.1	5.6	7.8	7.5	10.9	8.7	10.4	39
1.1	1.3	1.3	1.5	1.6	1.3	1.9	1.7	1.6	2.0	1.9	1.9	5.6	7.8	7.5	10.9	8.7	10.4	40
86.2	83.1	89.9	102.2	106.2	100.1	111.8	110.8	112.9	117.4	110.0	108.5	131.7	130.5	161.2	150.7	184.9	161.2	41
16.3	16.6	16.6	16.5	16.5	16.0	15.8	16.4	15.7	15.3	15.4	15.0	15.5	15.8	15.2	16.8	20.6	20.6	42
4.8	5.3	5.8	5.6	5.7	5.4	5.6	5.4	5.7	5.8	5.4	5.9	6.6	6.3	6.9	6.6	9.6	9.6	43
3.7	3.6	3.9	3.8	4.2	3.6	4.0	4.4	4.5	4.4	4.3	4.1	4.8	4.7	5.0	4.8	5.9	5.9	44
7.1	7.0	7.7	7.7	8.4	7.3	7.9	8.3	9.5	8.8	9.6	9.4	10.2	10.0	11.5	9.4	11.7	11.7	45
5.5	5.9	6.3	6.3	6.7	6.6	7.0	7.2	7.7	7.3	7.3	7.9	8.6	8.4	10.2	9.9	9.9	9.9	46
3.4	3.8	3.9	3.9	3.9	3.8	4.2	4.4	4.4	4.6	4.2	4.5	5.1	4.8	6.4	5.7	6.3	6.3	47
3.0	3.1	3.2	3.5	3.5	3.4	3.4	3.4	3.7	3.7	3.8	3.6	4.3	4.2	5.2	4.9	4.9	4.9	48
43.7	45.2	47.4	47.3	48.8	46.1	48.0	49.5	51.2	48.9	49.9	50.3	55.0	55.2	60.5	58.0	68.9	68.9	49
7.9	8.5	9.0	9.1	8.9	8.6	9.5	9.6	10.0	9.6	9.7	9.7	11.7	11.1	13.1	13.5	15.2	15.2	50
6.1	6.9	7.1	7.2	7.5	7.2	7.7	7.3	7.6	8.0	7.7	7.4	8.7	9.2	10.7	11.6	13.9	13.9	51
5.3	5.6	6.5	6.5	6.4	6.4	7.2	6.9	6.5	7.8	6.5	6.5	17.8	23.4	23.3	30.5	28.4	37.4	52
4.3	5.1	5.5	5.9	5.9	5.4	6.7	6.3	6.3	6.7	5.9	5.9	17.8	23.4	23.3	30.5	28.4	37.4	53
3.7	4.3	4.7	4.9	5.3	4.7	5.8	5.8	5.4	6.3	5.7	5.7	17.8	23.4	23.3	30.5	28.4	37.4	54
3.5	3.9	4.6	4.8	5.3	4.9	5.5	5.7	5.5	6.4	5.5	5.5	13.4	18.6	18.6	25.2	21.3	28.2	55
2.8	3.2	3.8	4.2	4.3	4.2	5.2	4.6	4.4	5.3	4.8	4.8	13.4	18.6	18.6	25.2	21.3	28.2	56
2.5	3.2	3.4	3.5	4.2	3.5	4.8	4.6	4.4	4.9	4.0	4.0	9.9	14.5	13.0	17.9	21.3	21.3	57
2.3	2.7	3.0	3.3	3.7	3.3	4.2	4.2	4.3	4.8	3.9	3.9	9.9	14.5	13.0	17.9	21.3	21.3	58
2.1	2.3	2.5	2.6	3.0	2.8	3.7	3.2	3.6	3.9	3.3	3.3	9.9	14.5	13.0	17.9	21.3	21.3	59
2.0	2.3	2.7	2.8	3.0	2.9	3.6	3.2	3.7	3.8	3.3	3.3	9.9	14.5	13.0	17.9	21.3	21.3	60

## SUMMARY TABLES

Table 8.51. Infant Mortality Rates by Age and Race: United States,  
Each Division and State, 1950

(By place of residence. Exclusive of fetal deaths. Rates per 1,000 live births in each specified group)

AREA	UNDER 1 YEAR			UNDER 28 DAYS			28 DAYS-11 MONTHS		
	All races	White	Nonwhite	All races	White	Nonwhite	All races	White	Nonwhite
UNITED STATES-----	29.2	26.8	44.5	20.5	19.4	27.5	8.7	7.4	16.9
GEOGRAPHIC DIVISIONS									
New England-----	24.3	24.0	39.2	18.6	18.4	28.6	5.7	5.6	10.6
Middle Atlantic-----	25.8	24.2	43.2	19.6	18.5	31.7	6.2	5.7	11.5
East North Central-----	26.3	25.3	37.7	19.1	18.6	25.7	7.1	6.7	12.0
West North Central-----	26.3	25.3	49.9	19.5	19.1	28.9	6.8	6.2	20.9
South Atlantic-----	33.7	28.1	46.5	22.5	20.1	27.8	11.2	7.9	18.7
West South Central-----	36.2	32.5	44.8	23.3	21.9	26.4	12.9	10.6	18.4
West South Central-----	34.6	32.4	45.1	22.3	21.1	26.9	12.3	11.3	16.2
Mountain-----	36.2	33.0	90.6	22.5	21.9	32.7	13.7	11.1	58.0
Pacific-----	25.1	24.4	34.6	18.6	18.2	23.8	6.5	6.2	10.8
NEW ENGLAND									
Maine-----	30.9	30.8	50.8	21.7	21.8	0	9.2	9.0	50.8
New Hampshire-----	24.5	24.3	142.9	18.8	18.6	142.9	5.7	5.7	0
Vermont-----	24.5	24.6	0	16.0	16.0	0	8.6	8.6	0
Massachusetts-----	23.3	23.0	35.2	18.1	17.9	25.0	5.2	5.1	10.3
Rhode Island-----	27.8	27.2	51.0	21.8	21.7	26.7	5.9	5.4	24.3
Connecticut-----	21.8	21.1	40.6	17.6	16.9	35.0	4.2	4.2	5.8
MIDDLE ATLANTIC									
New York-----	24.7	23.2	39.4	19.0	17.9	29.7	5.7	5.3	9.7
New Jersey-----	25.2	22.8	47.5	19.2	17.7	35.8	6.0	5.2	13.8
Pennsylvania-----	27.6	26.0	47.0	20.7	19.5	33.9	7.0	6.5	13.1
EAST NORTH CENTRAL									
Ohio-----	26.8	25.7	40.4	19.7	19.0	27.2	7.2	6.6	13.1
Indiana-----	27.0	26.2	40.7	18.7	18.3	24.4	8.3	7.8	16.3
Illinois-----	25.6	24.4	35.8	18.9	18.2	25.2	6.7	6.3	10.7
Michigan-----	26.3	25.4	35.1	19.0	18.4	23.1	7.3	7.1	8.9
Wisconsin-----	25.7	25.2	48.3	19.2	19.0	25.8	6.9	6.2	22.5
WEST NORTH CENTRAL									
Minnesota-----	25.1	24.9	39.2	19.0	18.9	20.6	6.1	5.9	18.6
Iowa-----	24.8	24.8	27.2	19.1	19.0	24.0	5.8	5.8	3.2
Missouri-----	29.2	27.0	49.5	20.8	19.6	31.6	8.4	7.4	17.9
North Dakota-----	26.6	25.6	65.1	19.4	19.3	23.3	7.2	6.3	41.9
South Dakota-----	26.6	23.4	87.5	17.5	17.4	18.4	9.1	6.0	69.0
Nebraska-----	25.0	24.6	42.1	20.0	19.9	24.2	5.1	4.7	17.9
Kansas-----	25.7	24.7	47.1	19.4	18.9	30.8	6.3	5.8	16.4
SOUTH ATLANTIC									
Delaware-----	30.7	28.3	41.9	21.6	21.4	22.4	9.2	6.9	19.5
Maryland-----	27.0	22.7	42.3	19.0	16.9	26.2	8.1	5.8	16.1
District of Columbia-----	30.4	30.5	30.3	24.5	26.0	22.6	5.9	4.5	7.7
Virginia-----	34.6	28.6	51.5	23.5	20.5	32.0	11.1	8.2	19.5
West Virginia-----	36.1	35.4	45.8	23.0	22.7	28.7	13.0	12.8	17.2
North Carolina-----	34.5	26.7	49.7	21.4	18.6	26.7	13.1	8.0	23.0
South Carolina-----	38.8	29.4	49.3	24.5	21.3	28.3	14.1	8.1	21.1
Georgia-----	33.5	26.8	44.4	22.1	19.2	26.7	11.4	7.6	17.7
Florida-----	32.1	26.8	45.2	23.9	21.1	30.5	8.3	5.8	14.8
EAST SOUTH CENTRAL									
Kentucky-----	34.9	34.0	46.1	21.8	21.6	24.5	13.0	12.4	21.6
Tennessee-----	36.4	34.0	46.2	23.6	22.4	28.3	12.8	11.6	17.9
Alabama-----	36.8	30.6	46.3	25.0	22.5	28.7	11.9	8.1	17.5
Mississippi-----	36.7	28.6	42.7	22.5	20.7	23.9	14.2	7.9	18.8
WEST SOUTH CENTRAL									
Arkansas-----	26.5	25.0	30.5	16.5	16.7	15.8	10.0	8.3	14.6
Louisiana-----	34.6	26.4	46.4	23.5	19.4	29.4	11.1	7.0	17.0
Oklahoma-----	30.2	27.4	51.7	21.2	20.0	31.0	9.0	7.4	20.7
Texas-----	37.4	36.5	43.2	23.4	22.6	28.1	14.1	13.9	15.1
MOUNTAIN									
Montana-----	28.2	25.9	70.3	19.0	18.5	27.4	9.3	7.4	42.9
Idaho-----	27.1	27.0	33.7	19.8	20.0	7.5	7.3	7.0	26.2
Wyoming-----	32.5	30.9	84.4	24.1	23.8	31.1	8.4	7.0	53.3
Colorado-----	34.4	34.7	22.5	23.3	23.4	17.7	11.2	11.4	4.7
New Mexico-----	54.8	49.8	117.3	26.6	26.1	33.3	28.2	23.7	84.0
Arizona-----	45.8	34.7	107.0	25.6	23.0	40.5	20.1	11.7	66.5
Utah-----	23.7	22.8	78.0	17.0	16.9	26.0	6.7	5.9	52.0
Nevada-----	37.9	33.5	89.3	27.8	27.3	34.4	10.1	6.2	55.0
PACIFIC									
Washington-----	27.3	26.1	58.6	19.9	19.4	31.3	7.4	6.7	27.3
Oregon-----	22.5	22.0	46.7	17.3	17.0	33.9	5.2	5.0	12.7
California-----	25.0	24.3	31.9	18.5	18.1	22.8	6.5	6.3	9.1



Table 8.52. Infant Mortality Rates for 45 Selected Causes, by Race and Sex.  
United States, 1950

(Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births in each specified group. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

CAUSE OF DEATH	ALL RACES			WHITE			NONWHITE		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
ALL CAUSES	29.2	32.8	25.5	26.8	30.2	23.1	44.5	48.9	39.9
Tuberculosis, all forms	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.5	0.2
Syphilis and its sequelae	0.1	0.1	0.1	0.0	0.0	0.3	0.5	0.5	0.2
Dysentery, all forms	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.2
Whooping cough	0.2	0.2	0.2	0.2	0.1	0.2	0.5	0.5	0.6
All other infective and parasitic diseases	0.3	0.3	0.3	0.3	0.3	0.2	0.5	0.5	0.4
Diseases of thymus gland	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2
Meningitis, except meningococcal and tuberculous	0.2	0.2	0.1	0.1	0.1	0.1	0.4	0.4	0.4
All other diseases of nervous system and sense organs	0.3	0.3	0.2	0.2	0.3	0.2	0.4	0.4	0.3
Influenza and pneumonia, except pneumonia of newborn	2.4	2.6	2.2	1.9	2.1	1.7	5.4	5.8	5.0
Influenza	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.6	0.5
Pneumonia, except pneumonia of newborn	2.2	2.4	2.0	1.7	1.9	1.6	4.9	5.2	4.5
All other diseases of respiratory system	0.4	0.4	0.3	0.3	0.4	0.3	0.6	0.7	0.6
Hernia and intestinal obstruction	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.4	0.3
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	1.1	1.2	0.9	0.9	1.0	0.8	2.2	2.5	2.0
All other diseases of digestive system	0.2	0.2	0.1	0.1	0.2	0.1	0.3	0.3	0.2
Congenital malformations	4.0	4.2	3.7	4.1	4.4	3.9	2.8	3.0	2.6
Spina bifida and meningocele	0.4	0.4	0.5	0.5	0.4	0.6	0.1	0.1	0.2
Congenital malformations of circulatory system	1.8	2.0	1.6	1.9	2.1	1.7	1.3	1.4	1.3
All other congenital malformations	1.7	1.8	1.6	1.8	1.9	1.6	1.3	1.5	1.1
Certain diseases of early infancy	17.2	19.6	14.5	16.1	18.6	13.5	23.6	28.1	21.0
Birth injuries	3.3	4.0	2.7	3.3	4.0	2.6	3.4	4.0	2.8
Without mention of immaturity (.0)	1.7	2.1	1.3	1.7	2.0	1.2	2.3	2.7	1.8
With immaturity (.5)	1.6	1.9	1.3	1.7	2.0	1.4	1.1	1.3	1.0
Intracranial and spinal injury at birth	1.4	1.7	1.0	1.3	1.7	1.0	1.7	2.1	1.3
Without mention of immaturity (.0)	1.0	1.3	0.7	1.0	1.2	0.7	1.3	1.6	1.0
With immaturity (.5)	0.4	0.5	0.3	0.4	0.4	0.3	0.4	0.5	0.3
Other birth injury	1.9	2.2	1.6	2.0	2.3	1.7	1.7	1.9	1.4
Without mention of immaturity (.0)	0.7	0.8	0.6	0.7	0.8	0.5	1.0	1.1	0.8
With immaturity (.5)	1.2	1.4	1.1	1.3	1.5	1.1	0.7	0.8	0.6
Postnatal asphyxia and atelectasis	3.7	4.4	3.0	3.6	4.3	2.9	4.2	4.7	3.7
Without mention of immaturity (.0)	1.4	1.6	1.1	1.3	1.6	1.1	1.7	1.9	1.5
With immaturity (.5)	2.3	2.7	1.9	2.3	2.7	1.9	2.5	2.8	2.2
Pneumonia of newborn	0.8	0.9	0.7	0.7	0.8	0.6	1.5	1.5	1.4
Without mention of immaturity (.0)	0.5	0.6	0.5	0.4	0.5	0.4	1.1	1.2	1.0
With immaturity (.5)	0.2	0.3	0.2	0.2	0.2	0.2	0.4	0.3	0.4
Diarrhea of newborn	0.2	0.2	0.2	0.2	0.2	0.1	0.5	0.6	0.3
Without mention of immaturity (.0)	0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.2
With immaturity (.5)	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Other infections of newborn	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2
Without mention of immaturity (.0)	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.2	0.2
With immaturity (.5)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Neonatal disorders arising from maternal toxemia	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.4	0.3
Without mention of immaturity (.0-.4)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
With immaturity (.5-.9)	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2
Hemolytic disease of newborn (erythroblastosis)	0.7	0.8	0.6	0.8	0.9	0.7	0.3	0.4	0.3
Without mention of immaturity (.0-.2)	0.6	0.7	0.5	0.6	0.7	0.5	0.3	0.4	0.2
With immaturity (.5-.7)	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.0
Hemorrhagic disease of newborn	0.2	0.3	0.2	0.2	0.3	0.2	0.4	0.5	0.3
Without mention of immaturity (.0)	0.2	0.2	0.1	0.1	0.2	0.1	0.3	0.4	0.2
With immaturity (.5)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Ill-defined diseases peculiar to early infancy, including nutritional maladjustment	1.1	1.2	0.9	0.9	1.0	0.7	2.2	2.4	2.0
Without mention of immaturity (.0)	0.4	0.4	0.3	0.3	0.3	0.2	1.1	1.2	1.0
With immaturity (.5)	0.7	0.7	0.6	0.6	0.7	0.5	1.2	1.3	1.1
Immaturity with mention of any other subsidiary condition	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.5
Immaturity unqualified	6.3	7.0	5.6	5.7	6.4	5.0	9.9	10.7	9.1
Symptoms and ill-defined conditions	1.0	1.1	0.9	0.9	0.6	0.5	4.0	4.5	3.5
All other diseases	0.4	0.5	0.4	0.4	0.5	0.4	0.6	0.6	0.5
Accidents	1.0	1.1	0.9	0.9	1.0	0.7	1.9	2.0	1.7
Inhalation and ingestion of food or other object causing obstruction or suffocation	0.2	0.3	0.2	0.2	0.3	0.2	0.4	0.4	0.4
Accidental mechanical suffocation in bed and cradle	0.4	0.4	0.3	0.3	0.4	0.3	0.7	0.7	0.6
All other accidental causes	0.4	0.4	0.4	0.3	0.4	0.3	0.8	0.8	0.8
Homicide	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1

## SUMMARY TABLES

Table 8.53. Infant Mortality Rates for

(Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births. Numbers after

CAUSE OF DEATH		1948	1947	1946	1945	1944	1943	1942	1941	1940
1	ALL CAUSES-----	32.0	32.2	33.8	33.3	39.8	40.4	40.4	45.3	47.0
2	Cerebrospinal (meningococcus) meningitis-----6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
3	Scarlet fever-----8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	Whooping cough-----9	0.2	0.4	0.3	0.5	0.5	0.8	0.6	1.0	0.9
5	Diphtheria (infection by <i>C. diphtheriae</i> )-----10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
6	Tuberculosis (all forms)-----13-22	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
7	Tuberculosis of the respiratory system (including the bronchial and mediastinal lymph nodes)-----13	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8	Tuberculosis of the meninges and central nervous system-----14	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1
9	Tuberculosis (other forms)-----15-22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	Dysentery-----27	0.2	0.1	0.1	0.3	0.4	0.3	0.3	0.4	0.4
11	Malaria-----28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
12	Syphilis-----30	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.5
13	Measles-----35	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.2	0.1
14	Diseases of the thymus gland-----84	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
15	Meningitis (not due to meningococcus)-----81	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
16	Intracranial lesions of vascular origin-----83	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
17	Convulsions-----86	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
18	Diseases of the ear and mastoid process-----89	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2
19	Diseases of the heart-----90-95	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1
20	Pneumonia (all forms) and influenza-----107-109,33	3.7	3.5	3.8	5.3	5.6	6.2	5.7	6.7	7.4
21	Bronchopneumonia (including capillary bronchitis)-----107	2.3	2.2	2.3	3.1	3.1	3.5	3.4	3.7	4.3
22	Lobar pneumonia-----108	0.6	0.6	0.7	0.9	1.0	1.1	1.1	1.1	1.4
23	Pneumonia (unspecified)-----109	0.5	0.5	0.5	0.7	0.7	0.8	0.7	0.6	0.6
24	Influenza-----33	0.3	0.3	0.4	0.6	0.6	0.6	0.6	1.2	1.1
25	Other diseases of respiratory system-----104-106,110-114	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5
26	Ulcer of stomach or duodenum-----117	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	Diarrhea, enteritis, and ulceration of the intestines-----119	1.8	1.5	1.7	3.0	3.3	3.0	2.8	3.7	3.5
28	Intestinal obstruction-----122b	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3
29	Other diseases of digestive system-----115,116,118,121,123-129	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4
30	Nephritis-----130,131	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
31	Congenital malformations-----157	4.5	4.6	4.5	5.0	5.1	4.9	4.9	4.7	4.7
32	Diseases peculiar to first year of life-----158-161	17.4	17.7	18.8	18.6	18.9	18.9	19.7	21.3	21.9
33	Congenital debility-----158	0.5	0.5	0.5	0.8	0.9	0.9	1.0	1.1	1.2
34	Premature birth-----159	11.1	11.1	12.1	11.6	11.9	11.8	12.3	13.3	13.7
35	Injury at birth-----160	3.4	3.5	3.6	3.6	3.6	3.7	4.1	4.3	4.5
36	Other diseases peculiar to the first year of life-----161	2.4	2.6	2.5	2.6	2.5	2.5	2.4	2.5	2.5
37	Asphyxia (cause not specified), atelectasis-----161a	1.5	1.6	1.5	1.5	1.4	1.4	1.4	1.4	1.3
38	Infection of the umbilicus; pemphigus and other infections (nonsyphilitic); and other specified diseases peculiar to the first year of life-----161b,c	0.9	1.0	1.1	1.2	1.1	1.1	1.0	1.1	1.2
39	Homicide-----165-168	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
40	Accidental deaths-----169-195	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.1	1.1
41	Accidental mechanical suffocation-----182	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5
42	Other accidental deaths-----169-191,193-195	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.6
43	Ill-defined and unknown causes-----199,200	1.1	1.1	1.3	1.6	1.6	1.7	1.9	2.2	2.4
44	All other causes-----Residual	0.6	0.6	0.6	0.8	0.8	0.8	0.8	1.0	1.1

<sup>1</sup>Includes Sclerema (161c).<sup>2</sup>Excludes Sclerema (161c).

MORTALITY RATES

Selected Causes: United States, 1921-48

causes of death are category numbers of the Fifth Revision of the International List, 1938)

1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	
48.0	51.0	54.4	57.1	55.7	60.1	58.1	57.6	61.6	64.6	67.8	68.7	64.6	75.3	71.7	70.8	77.1	76.2	75.5	1
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2
0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3
0.9	1.4	1.4	0.8	1.4	2.1	1.3	1.5	1.2	1.5	1.9	1.6	1.9	2.3	1.8	2.1	2.4	1.4	2.2	4
0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.4	0.5	0.4	5
0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	6
0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	7
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	8
0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	9
0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.2	0.2	0.3	0.4	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.3	10
0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	11
0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.7	0.7	0.8	0.8	0.9	12
0.1	0.3	0.2	0.1	0.4	0.7	0.3	0.2	0.4	0.4	0.3	0.6	0.4	1.1	0.3	0.8	1.2	0.6	0.5	13
0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.2	14
0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	15
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	16
0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	17
0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	18
0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	19
7.1	7.9	9.2	9.8	9.2	9.5	9.4	9.7	10.6	10.2	12.5	12.4	9.5	13.3	11.2	10.9	12.9	12.5	9.3	20
4.2	4.9	5.4	5.8	5.5	5.9	5.4	5.7	6.4	6.4	6.6	6.8	5.8	8.0	6.9	7.0	7.8	7.8	6.2	21
1.4	1.6	1.6	1.9	1.6	1.7	1.6	1.7	1.9	2.0	2.0	2.2	1.8	2.4	2.1	2.2	2.2	2.3	1.8	22
0.5	0.5	0.5	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.7	0.7	0.7	0.6	23
1.0	0.9	1.7	1.6	1.5	1.2	1.9	1.8	1.8	1.5	3.4	2.8	1.4	2.4	1.8	1.1	2.2	1.7	0.6	24
0.5	0.6	0.6	0.7	0.8	0.6	0.6	0.6	0.7	0.8	---	---	---	---	---	---	---	---	---	25
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26
4.0	5.0	5.3	5.7	4.9	6.1	5.6	5.2	6.6	7.8	7.1	7.7	7.8	9.7	11.2	9.3	11.6	11.7	13.6	27
0.3	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	28
0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.8	0.9	1.0	1.1	1.2	1.3	29
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	30
4.6	4.5	4.6	4.9	4.8	5.2	5.1	5.3	5.4	5.3	5.5	5.4	5.6	6.2	6.2	6.1	6.3	6.3	6.1	31
22.5	22.3	23.4	24.1	23.8	25.1	24.7	24.5	25.2	26.2	26.9	27.2	26.4	28.1	27.9	28.5	28.9	29.0	29.2	32
1.2	1.4	1.6	1.8	1.7	1.9	2.0	1.8	2.0	2.1	2.8	3.0	2.8	3.3	3.5	3.5	4.0	3.9	4.4	33
14.2	14.3	15.3	15.7	15.4	16.2	15.8	15.8	16.0	16.7	17.5	17.6	16.8	17.7	17.2	17.7	17.8	18.1	17.9	34
4.5	4.4	4.4	4.5	4.5	4.5	4.6	4.6	4.6	4.8	4.8	4.7	4.8	4.9	4.9	4.8	4.6	4.5	4.2	35
2.5	2.3	2.2	2.2	2.2	2.4	2.4	2.3	2.4	2.7	1.9	2.0	2.0	2.2	2.3	2.4	2.5	2.5	2.6	36
1.4	1.2	1.9	1.8	1.0	1.9	1.9	1.9	2.0	2.2	---	---	---	---	---	---	---	---	---	37
1.1	0.3	0.3	0.3	1.3	0.5	0.5	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---	38
0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	39
1.0	1.0	1.0	1.2	1.0	1.0	0.9	0.9	0.9	1.0	1.0	1.0	0.9	1.0	1.0	0.9	0.9	0.9	0.9	40
0.4	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	41
0.6	0.6	0.6	0.7	0.6	0.8	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	42
2.5	2.8	3.0	3.3	3.4	3.5	3.8	3.6	3.7	4.0	3.8	3.7	3.1	2.3	2.2	2.4	2.4	2.6	2.6	43
1.1	1.2	1.4	1.6	1.6	1.8	1.6	1.6	1.8	1.8	3.0	3.1	3.1	3.5	3.6	3.6	4.0	4.2	4.0	44

Table 8.54. Provisional Infant Mortality Rates, Based on the Sixth Revision, for Selected Causes of Death: United States, 1939-50

(Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

CAUSE OF DEATH	1950 (final)	1949 (final)	COMPARABLE RATES BASED ON THE SIXTH REVISION OF THE INTERNATIONAL LISTS (PROVISIONAL) <sup>1</sup>									
			1948	1947	1946	1945	1944	1943	1942	1941	1940	1939
ALL CAUSES-----	29.2	31.3	32.0	32.2	33.8	36.3	39.6	40.4	40.4	45.3	47.0	46.0
Tuberculosis, all forms-----001-013	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Syphilis and its sequelae-----020-029	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.4	0.5	0.6
Dysentery, all forms-----045-049	0.1	0.2	0.2	0.1	0.2	0.3	0.4	0.4	0.3	0.5	0.5	0.5
Whooping cough-----056	0.2	0.1	0.2	0.4	0.3	0.5	0.5	0.8	0.6	1.0	0.9	0.9
All other infective and parasitic diseases-----030-044,049-055,057-138	0.3	0.4	0.3	0.3	0.4	0.4	0.6	0.5	0.5	0.7	0.6	0.7
Diseases of thymus gland-----273	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5
Meningitis, except meningococcal and tuberculous-----340	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Influenza and pneumonia, except pneumonia of newborn-----480-483	2.4	2.6	2.7	2.5	2.8	4.1	4.4	4.9	4.4	5.3	6.0	5.7
Influenza-----480-483	0.2	0.2	0.3	0.3	0.4	0.7	0.8	0.9	0.7	1.3	1.2	1.1
Pneumonia, except pneumonia of newborn-----490-493	2.2	2.3	2.4	2.2	2.4	3.4	3.6	4.0	3.8	4.0	4.8	4.6
Hernia and intestinal obstruction-----560,561,570	0.3	0.3	<sup>2</sup> 0.3	<sup>2</sup> 0.4	<sup>2</sup> 0.3	<sup>2</sup> 0.4	<sup>2</sup> 0.5	<sup>2</sup> 0.5	<sup>2</sup> 0.5	<sup>2</sup> 0.7	<sup>2</sup> 0.8	<sup>2</sup> 0.8
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543,571,572	1.1	1.6	1.3	1.0	1.1	2.2	2.4	2.2	2.0	2.8	2.7	3.1
Congenital malformations-----750-759	4.0	4.1	4.2	4.4	4.3	4.7	4.8	4.7	4.6	4.5	4.4	4.4
Congenital malformations of circulatory system-----754	1.8	1.8	2.0	2.0	2.0	2.2	2.3	2.2	2.1	2.1	2.1	2.1
All other congenital malformations-----750-753,755-759	2.1	2.3	2.3	2.3	2.3	2.5	2.6	2.5	2.5	2.4	2.4	2.3
Certain diseases of early infancy-----760-776	17.2	16.0	18.4	18.6	19.8	19.6	19.9	19.9	20.8	22.4	23.0	23.7
Birth injuries-----760,761	3.3	3.5	3.3	3.4	3.4	3.4	3.5	3.6	3.9	4.1	4.3	4.3
Intracranial and spinal injury at birth-----760	1.4	1.6	1.6	1.7	1.7	1.7	1.7	1.8	2.0	2.2	2.3	2.4
Other birth injury-----761	1.9	1.9	1.7	1.6	1.7	1.8	1.8	1.8	1.9	1.9	2.0	1.9
Postnatal asphyxia and atelectasis-----762	3.7	3.7	3.9	4.0	4.1	4.0	4.0	4.0	4.0	4.3	4.3	4.5
Pneumonia of newborn-----763	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.1
Diarrhea of newborn-----764	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Other infections of newborn-----765-768	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other specified diseases of early infancy-----769-771	1.3	1.3	1.3	1.4	1.5	1.5	1.5	1.5	1.4	1.6	1.6	1.6
Ill-defined diseases peculiar to early infancy, including nutritional maladjustment-----772,773	1.1	1.3	1.5	1.5	1.7	2.0	2.1	2.2	2.3	2.6	2.7	2.8
Immaturity with mention of any other subsidiary condition-----774	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Immaturity unqualified-----776	6.3	6.6	6.9	6.9	7.5	7.2	7.4	7.3	7.7	8.3	8.5	8.9
Symptoms and ill-defined conditions-----780-795	1.0	1.1	1.1	1.2	1.3	1.7	1.6	1.8	1.9	2.3	2.5	2.6
All other diseases-----Residual	1.2	1.3	<sup>3</sup> 1.5	<sup>3</sup> 1.4	<sup>3</sup> 1.4	<sup>3</sup> 1.9	<sup>3</sup> 1.9	<sup>3</sup> 2.0	<sup>3</sup> 1.9	<sup>3</sup> 2.2	<sup>3</sup> 2.5	<sup>3</sup> 2.6
Accidents-----E800-E962	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.0
Inhalation and ingestion of food or other object causing obstruction or suffocation-----E921,E922	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1
Accidental mechanical suffocation in bed and cradle-----E924	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3
All other accidental causes-----E800-E920,E923,E925-E962	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Homicide-----E964,E980-E999	0.0	0.0	<sup>4</sup> 0.0	<sup>4</sup> 0.0	<sup>4</sup> 0.0	<sup>4</sup> 0.1	<sup>4</sup> 0.0	<sup>4</sup> 0.0	<sup>4</sup> 0.0	<sup>4</sup> 0.0	<sup>4</sup> 0.0	<sup>4</sup> 0.0

<sup>1</sup>Based on estimated deaths under 1 year computed by applying the provisional comparability ratio (table 2.03) to deaths under 1 year coded by the Fifth Revision.

<sup>2</sup>Computed from deaths assigned to intestinal obstruction only, Fifth Revision number 122b.

<sup>3</sup>Computed from the difference between total deaths under 1 year and the sum of estimated deaths under 1 year for specified causes.

<sup>4</sup>Based on deaths coded by the Fifth Revision. No comparability ratio available.

Table 8.55 Maternal Mortality Rates by Place of Residence, United States, Each Division and State, 1939-50

(Deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium per 10,000 live births)

AREA	1950 <sup>1</sup>	1949 <sup>1</sup>	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939
UNITED STATES-----	8.3	9.0	11.7	13.5	15.7	20.7	22.8	24.5	25.9	31.7	37.6	40.4
GEOGRAPHIC DIVISIONS												
New England-----	5.5	6.5	8.1	9.3	12.8	17.1	18.4	20.1	19.7	26.2	30.1	33.9
Middle Atlantic-----	6.9	6.7	8.9	11.0	13.3	18.9	20.6	22.1	23.6	26.9	30.7	34.4
East North Central-----	5.7	6.1	8.7	11.0	13.0	16.2	18.2	20.3	20.9	25.5	29.7	33.4
West North Central-----	5.9	6.4	8.5	10.3	12.3	17.4	18.2	19.7	21.4	25.7	31.4	35.6
South Atlantic-----	11.8	12.9	16.9	18.8	20.8	25.9	29.2	32.6	34.8	42.7	50.0	50.2
East South Central-----	15.9	16.7	20.1	21.6	23.6	30.1	32.1	31.6	33.1	45.9	51.2	53.5
West South Central-----	10.8	12.8	15.7	16.7	17.7	24.0	27.1	28.6	32.3	37.3	47.2	51.6
Mountain-----	8.8	9.3	11.7	13.1	17.8	22.8	23.9	25.4	26.5	28.9	36.6	40.7
Pacific-----	5.0	6.2	7.5	9.7	11.9	16.0	16.8	19.1	19.1	21.7	27.6	30.6
NEW ENGLAND												
Maine-----	4.7	8.7	8.2	15.5	15.7	24.6	22.5	22.2	21.4	30.6	40.7	38.5
New Hampshire-----	7.8	6.7	12.1	10.6	12.6	18.0	28.1	26.7	12.0	28.0	31.2	34.7
Vermont-----	10.0	6.5	9.6	12.4	14.4	17.5	19.1	21.9	20.9	23.0	37.5	34.9
Massachusetts-----	5.4	6.0	7.5	8.6	13.4	18.3	17.9	20.1	21.0	28.6	28.2	35.6
Rhode Island-----	5.8	7.3	13.0	9.2	14.3	13.9	18.2	22.5	18.3	20.7	24.9	34.6
Connecticut-----	4.4	6.4	5.9	6.8	9.2	11.6	15.2	16.2	18.0	20.3	28.2	25.7
MIDDLE ATLANTIC												
New York-----	6.4	6.6	8.5	10.1	12.0	17.6	18.5	21.0	22.3	23.3	28.4	32.0
New Jersey-----	6.9	6.7	7.6	10.1	13.0	16.0	15.7	19.4	19.8	26.6	30.4	32.1
Pennsylvania-----	7.7	6.7	10.1	12.6	15.2	22.1	25.5	24.7	26.9	31.4	32.5	38.0
EAST NORTH CENTRAL												
Ohio-----	5.8	5.4	6.5	12.0	12.6	17.7	19.2	22.5	20.8	25.5	31.5	38.6
Indiana-----	6.5	6.1	9.9	10.9	13.1	16.5	19.8	20.0	24.2	25.5	28.9	36.8
Illinois-----	5.9	7.0	8.2	10.4	13.6	16.9	17.9	20.5	20.9	25.0	29.6	31.6
Michigan-----	5.4	6.2	7.6	10.7	12.0	14.6	16.8	18.0	20.7	27.1	29.0	30.8
Wisconsin-----	4.4	5.9	10.7	10.6	14.4	13.8	17.7	19.7	17.8	23.8	28.6	29.0
WEST NORTH CENTRAL												
Minnesota-----	5.2	5.4	6.6	6.1	9.2	13.7	13.7	14.4	16.3	20.4	21.7	28.7
Iowa-----	5.6	5.0	7.8	9.2	10.5	17.6	17.8	16.8	19.4	26.5	33.7	30.0
Missouri-----	7.8	8.9	10.7	14.3	16.2	22.8	22.4	25.3	25.7	30.5	37.6	40.5
North Dakota-----	1.8	5.3	9.6	11.1	10.5	10.6	17.7	29.1	21.7	21.9	18.3	24.0
South Dakota-----	8.4	5.2	10.4	10.3	10.3	12.8	18.0	15.6	20.1	26.3	35.2	29.9
Nebraska-----	4.7	7.6	7.1	10.9	10.3	14.9	17.5	16.8	19.0	22.3	32.2	34.3
Kansas-----	5.5	5.3	6.2	10.3	15.1	18.7	18.3	21.4	25.8	27.6	37.4	38.9
SOUTH ATLANTIC												
Delaware-----	9.2	5.4	11.0	7.8	13.2	31.8	15.0	24.1	15.9	21.6	54.9	41.7
Maryland-----	7.6	6.5	9.2	10.4	11.1	15.0	18.7	17.9	19.8	26.2	27.8	37.8
District of Columbia-----	3.5	5.6	9.1	10.6	16.7	14.9	20.9	21.6	27.0	27.9	28.5	52.1
Virginia-----	10.0	10.2	13.8	16.8	16.3	21.2	26.5	29.1	32.4	38.6	44.9	50.1
West Virginia-----	9.1	9.9	11.5	16.0	15.0	16.9	21.5	29.1	23.5	28.2	35.2	33.5
North Carolina-----	11.8	11.8	18.9	17.0	20.2	28.4	29.4	32.4	34.2	39.7	51.2	46.9
South Carolina-----	16.2	17.4	25.7	26.1	27.4	34.2	37.5	44.3	55.2	63.3	68.8	60.5
Georgia-----	16.2	18.2	21.4	25.4	26.3	32.3	36.5	39.2	41.4	47.9	56.7	56.8
Florida-----	13.5	17.3	19.3	22.2	29.6	29.5	33.3	37.0	40.6	61.5	64.8	64.6
EAST SOUTH CENTRAL												
Kentucky-----	9.7	12.2	15.0	17.5	19.8	25.5	24.8	24.9	26.9	37.8	36.9	43.0
Tennessee-----	13.3	13.3	17.5	17.3	18.4	23.6	28.0	29.1	30.2	36.6	45.8	51.7
Alabama-----	17.3	19.4	22.7	26.2	26.2	34.1	37.4	33.5	33.0	53.6	61.3	58.9
Mississippi-----	24.5	22.4	25.9	26.0	31.4	38.0	38.5	39.4	43.9	56.3	62.2	60.4
WEST SOUTH CENTRAL												
Arkansas-----	16.2	17.5	20.8	18.4	21.0	29.3	27.8	39.4	37.0	40.4	49.8	57.0
Louisiana-----	9.4	12.3	16.5	18.9	20.2	25.1	33.9	32.1	34.6	43.2	53.5	62.0
Oklahoma-----	8.2	12.7	11.3	16.6	16.5	22.5	23.8	25.1	30.9	31.4	41.0	41.1
Texas-----	10.8	11.9	15.2	15.4	16.2	22.7	25.4	25.5	30.4	35.8	46.1	49.6
MOUNTAIN												
Montana-----	11.5	8.1	9.3	10.6	14.0	16.0	14.6	17.5	22.2	18.2	32.9	30.9
Idaho-----	4.4	7.5	8.1	9.8	16.0	20.0	24.5	23.4	26.2	24.0	34.8	21.6
Wyoming-----	11.8	4.0	10.8	8.2	16.2	9.1	8.9	15.5	23.4	18.8	40.5	37.8
Colorado-----	8.3	9.1	9.7	12.8	19.3	23.8	24.7	25.9	18.7	33.7	40.9	53.8
New Mexico-----	14.9	13.9	23.9	20.7	20.5	37.2	39.8	46.7	49.1	44.8	48.7	51.3
Arizona-----	10.6	14.3	13.0	18.3	21.4	30.0	29.5	26.6	38.7	28.0	49.6	45.2
Utah-----	2.4	2.4	5.8	7.8	13.7	13.4	13.6	15.7	17.1	19.9	27.7	28.8
Nevada-----	5.5	16.3	16.2	12.4	18.3	17.5	23.1	19.8	7.2	40.9	47.4	40.0
PACIFIC												
Washington-----	4.3	5.5	5.2	10.8	11.9	17.1	15.7	16.2	17.4	18.3	28.1	35.7
Oregon-----	5.5	5.4	4.3	8.8	10.3	13.3	17.8	14.9	16.9	22.8	25.5	23.6
California-----	5.1	6.4	8.6	9.6	12.2	16.2	17.0	20.5	19.8	22.4	27.5	30.4

<sup>1</sup>Deaths for 1949 and 1950 are classified according to the Sixth Revision of the International Lists, while deaths for 1939 through 1948 are classified according to the Fifth Revision. For deaths in the United States population as a whole, it is estimated that 9 percent fewer deaths are assigned to maternal causes under the Sixth Revision than under the Fifth. See table 2.02 in chapter 2.

## SUMMARY TABLES

Table 8.56. Maternal Mortality Rates by Place of Occurrence:

(Deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium per 10,000 live births. For each State, rates are shown from the year of

AREA	1950 <sup>1</sup>	1949 <sup>1</sup>	1948	1947	1946	1945	1944	1943	1942 <sup>2</sup>	1941	1940	1939	1938	1937	1936
1 UNITED STATES (birth-registration States)-----	8.3	9.0	11.7	13.5	15.7	20.7	22.8	24.5	25.9	31.7	37.6	40.4	43.5	46.9	56.8
GEOGRAPHIC DIVISIONS															
2 New England-----	5.5	6.6	8.0	9.3	12.9	16.9	18.4	20.0	19.7	26.0	29.9	33.7	35.9	44.6	47.2
3 Middle Atlantic-----	8.9	6.7	8.9	11.1	13.3	19.0	20.7	22.2	23.6	26.9	30.8	34.5	36.0	43.1	49.0
4 East North Central-----	5.6	6.2	8.8	11.0	12.9	16.4	18.3	20.3	20.9	25.4	29.9	33.3	35.6	39.4	47.7
5 West North Central-----	8.0	6.5	8.4	10.2	12.7	17.5	18.0	19.7	21.4	25.8	31.6	33.8	34.3	42.9	50.7
6 South Atlantic-----	11.9	12.9	17.0	18.8	20.8	25.7	29.0	32.6	34.8	42.9	49.8	50.0	57.6	60.1	66.8
7 East South Central-----	16.0	16.6	19.8	21.4	23.4	30.2	32.2	31.8	33.1	45.7	51.5	54.0	56.0	60.4	67.5
8 West South Central-----	10.7	12.6	15.7	16.6	17.6	23.8	27.2	28.1	32.3	37.3	46.6	51.0	53.8	60.7	72.2
9 Mountain-----	9.1	9.4	11.4	13.3	17.7	21.9	23.3	25.7	26.5	28.9	39.1	40.4	41.9	46.8	62.6
10 Pacific-----	5.0	6.1	7.6	9.6	11.9	16.1	16.8	19.3	19.1	21.7	26.0	31.1	33.2	41.6	46.5
NEW ENGLAND															
11 Maine-----	4.8	9.7	7.8	16.1	16.0	25.5	22.3	21.0	21.4	31.5	40.3	39.4	46.0	65.6	51.0
12 New Hampshire-----	6.9	6.6	11.7	10.3	13.1	19.9	26.5	26.6	12.0	26.3	31.8	34.0	38.3	44.5	48.2
13 Vermont-----	11.5	5.6	8.9	7.5	15.0	18.3	18.4	22.7	20.9	22.2	35.9	36.1	36.5	58.9	49.6
14 Massachusetts-----	5.4	6.1	7.6	8.9	13.4	18.0	16.1	20.5	21.0	28.5	26.1	35.2	38.5	48.3	49.3
15 Rhode Island-----	5.9	6.4	12.2	9.2	13.2	16.1	22.5	18.3	21.6	25.0	33.5	27.5	36.1	40.3	40.3
16 Connecticut-----	4.5	6.3	6.1	6.9	9.6	10.6	15.5	15.4	18.0	19.6	28.2	25.8	25.6	25.5	40.9
MIDDLE ATLANTIC															
17 New York-----	6.4	6.6	8.5	10.1	11.9	17.6	18.5	21.1	22.3	23.4	29.7	32.1	37.8	40.4	49.0
18 New Jersey-----	6.7	6.9	7.4	9.9	12.9	16.0	15.9	19.1	19.8	27.3	29.9	32.3	36.6	37.9	39.9
19 Pennsylvania-----	7.7	6.7	10.0	12.8	15.2	22.3	25.5	24.8	26.9	31.0	32.5	38.1	38.6	48.1	52.1
EAST NORTH CENTRAL															
20 Ohio-----	5.8	5.4	8.8	11.8	12.7	18.0	19.2	22.4	20.8	25.2	32.2	38.8	38.4	46.1	49.8
21 Indiana-----	6.5	8.3	10.0	11.4	13.2	15.9	18.9	19.9	24.2	25.4	28.7	36.0	37.2	54.8	48.3
22 Illinois-----	5.7	5.9	8.6	10.4	13.3	17.5	18.2	20.2	20.9	24.8	29.7	31.4	33.6	39.0	44.6
23 Michigan-----	5.4	6.2	7.8	10.9	11.8	14.7	16.9	18.2	20.7	27.5	29.2	30.6	37.3	36.5	52.2
24 Wisconsin-----	4.4	6.1	10.5	10.7	14.8	14.1	18.5	20.2	17.8	23.1	28.1	27.9	29.1	56.4	42.2
WEST NORTH CENTRAL															
25 Minnesota-----	5.2	5.7	6.6	6.2	9.8	13.5	12.7	14.9	16.3	19.6	22.2	29.5	27.6	30.8	42.0
26 Iowa-----	6.0	4.9	7.5	8.6	10.1	17.4	19.0	16.2	19.4	27.3	35.0	29.9	33.3	45.1	46.4
27 Missouri-----	7.8	8.7	10.0	14.1	17.1	22.7	21.1	24.1	25.7	29.8	36.8	41.3	39.1	51.4	61.2
28 North Dakota-----	2.3	5.3	10.1	11.0	10.3	12.8	19.1	29.6	21.7	23.0	17.2	24.3	23.8	46.7	42.7
29 South Dakota-----	7.3	4.6	9.8	8.6	12.0	14.1	16.8	14.3	20.1	25.8	34.4	29.3	35.5	40.3	45.8
30 Nebraska-----	4.4	8.3	7.1	11.9	10.7	14.4	17.0	17.5	19.0	23.9	32.0	34.9	34.8	41.3	50.4
31 Kansas-----	5.8	5.6	9.1	10.7	15.2	18.8	20.0	23.0	25.9	29.5	37.3	37.1	41.3	43.3	56.7
SOUTH ATLANTIC															
32 Delaware-----	9.0	5.3	10.8	10.1	11.5	29.9	18.2	26.9	15.9	23.4	54.4	41.1	56.4	39.0	71.4
33 Maryland-----	7.4	5.5	8.8	10.2	11.9	16.5	18.3	18.5	19.9	24.8	27.8	37.1	37.6	42.2	47.0
34 District of Columbia-----	3.8	5.4	9.1	10.2	11.9	11.3	18.7	19.7	27.0	27.3	29.4	52.0	55.7	57.5	69.2
35 Virginia-----	11.2	10.6	14.1	17.4	17.2	21.1	26.8	28.8	32.4	40.1	44.9	50.6	53.1	54.5	58.3
36 West Virginia-----	6.6	10.3	12.1	16.4	14.7	17.0	22.5	29.4	23.5	29.2	33.3	38.7	39.1	50.4	52.9
37 North Carolina-----	11.7	11.6	18.8	16.9	19.9	29.1	29.2	33.0	34.2	39.8	51.6	47.3	52.7	54.2	65.9
38 South Carolina-----	16.0	17.9	23.9	26.4	28.0	34.0	36.9	44.6	53.2	62.3	67.8	59.1	78.6	77.0	90.1
39 Georgia-----	16.1	18.3	21.8	26.1	27.2	33.4	37.2	39.4	41.4	47.8	56.9	55.9	67.1	73.7	81.9
40 Florida-----	13.6	17.4	19.3	21.0	29.0	28.4	31.3	35.6	40.6	63.4	64.8	65.3	75.3	67.8	80.8
EAST SOUTH CENTRAL															
41 Kentucky-----	10.1	11.6	14.4	17.0	20.3	26.2	24.9	24.5	26.9	37.5	36.0	43.2	42.3	46.6	56.5
42 Tennessee-----	13.2	13.5	17.3	17.8	18.1	24.4	27.4	30.9	30.2	37.3	47.5	55.7	55.5	61.4	69.8
43 Alabama-----	17.6	18.9	22.3	26.0	25.3	33.0	37.8	33.0	33.0	52.5	61.3	58.8	67.5	63.3	74.2
44 Mississippi-----	24.2	23.3	26.2	25.5	31.4	38.0	39.0	39.2	43.9	56.6	62.8	59.4	59.0	70.6	69.4
WEST SOUTH CENTRAL															
45 Arkansas-----	16.4	17.5	20.8	19.7	20.0	29.9	28.1	37.2	37.0	40.3	46.7	56.8	54.9	66.1	75.8
46 Louisiana-----	9.6	12.4	16.4	18.7	20.6	25.1	34.4	32.0	34.6	43.5	53.4	61.8	56.9	71.7	87.2
47 Oklahoma-----	7.4	12.1	10.9	15.3	16.2	21.2	22.7	23.4	30.9	30.6	39.7	40.5	41.9	51.6	61.9
48 Texas-----	10.7	11.6	15.3	15.6	16.3	22.7	25.6	25.7	30.4	36.2	46.0	48.7	55.8	57.4	69.1
MOUNTAIN															
49 Montana-----	11.7	8.6	9.5	10.1	14.2	15.4	15.8	16.9	22.2	15.7	30.5	32.1	32.8	37.1	54.8
50 Idaho-----	4.5	8.9	6.4	10.1	14.8	19.9	25.1	22.5	26.2	27.3	35.9	21.7	40.8	45.3	44.0
51 Wyoming-----	12.0	2.7	11.0	8.4	18.5	11.2	10.6	14.1	23.4	21.2	41.6	34.7	32.3	37.5	50.5
52 Colorado-----	8.4	9.0	9.2	12.0	19.1	22.8	24.4	24.6	18.7	33.2	40.7	53.6	44.7	53.5	70.6
53 New Mexico-----	16.1	14.1	20.8	21.9	20.8	32.8	36.2	48.4	46.1	45.3	46.8	49.9	56.7	49.9	74.4
54 Arizona-----	10.5	14.6	14.6	18.5	20.7	29.1	27.8	27.6	36.7	30.0	50.2	43.9	47.8	54.3	91.1
55 Utah-----	2.8	3.3	6.7	8.6	14.1	13.0	13.0	17.9	17.1	18.9	26.6	30.8	30.3	33.1	43.8
56 Nevada-----	5.3	10.5	16.0	11.9	17.7	18.3	21.2	22.2	7.2	27.5	48.5	41.2	31.8	31.8	56.4
PACIFIC															
57 Washington-----	4.2	5.2	5.8	10.6	11.9	16.6	16.0	18.9	17.4	18.0	30.6	35.8	33.2	45.5	52.2
58 Oregon-----	5.6	5.7	4.3	9.1	9.9	13.2	17.2	15.8	16.9	20.9	25.2	23.9	35.1	40.1	54.4
59 California-----	5.1	6.4	8.5	9.4	12.2	16.3	16.9	20.4	18.8	22.7	27.9	31.0	32.9	40.9	46.5

<sup>1</sup>Deaths for 1949 and 1950 are classified according to the Sixth Revision of the International Lists, while deaths for 1939 through 1948 are classified according to the Fifth Revision. For deaths in the United States population as a whole, it is estimated that 9 percent fewer deaths are assigned to maternal causes under the Sixth Revision than under the Fifth. See table 2.02 in chapter 2.

<sup>2</sup>By place of residence.

MORTALITY RATES

United States, Each Division and State, 1915-50

its admission to the birth-registration area; for each geographic division, rates are shown from the year when the division, as a whole, became a part of the area)

1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915		
58.2	59.3	61.9	63.3	66.1	67.3	69.5	69.2	64.7	65.6	64.7	65.6	66.5	66.4	68.2	79.9	73.7	91.6	66.2	62.2	60.8	1	
54.4	52.8	53.2	58.8	62.6	61.6	57.3	62.5	63.9	63.6	61.4	65.6	65.3	65.7	64.3	---	---	67.3	62.4	60.6	59.1	2	
52.5	55.1	59.4	59.6	61.0	57.5	59.4	59.8	62.3	59.7	62.2	61.1	60.8	61.6	64.5	---	---	---	---	---	---	3	
52.5	54.7	55.9	57.2	58.3	59.1	65.5	61.6	60.8	55.4	61.4	62.4	66.7	64.5	---	---	---	---	---	---	---	4	
55.2	53.7	51.4	55.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5	
67.9	69.5	70.5	76.8	82.7	84.9	81.5	84.2	---	---	---	---	---	---	---	---	---	---	---	---	---	6	
61.9	61.5	65.2	67.3	74.8	83.3	85.2	83.7	71.0	---	---	---	---	---	---	---	---	---	---	---	---	7	
69.6	70.3	76.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8	
60.9	64.5	60.9	68.7	66.9	71.0	74.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9	
46.6	46.3	50.7	56.0	60.7	54.1	57.8	63.0	60.0	80.4	61.6	62.2	67.4	74.9	71.4	83.0	84.5	---	---	---	---	10	
57.2	59.6	70.1	63.9	79.1	71.6	72.5	74.1	79.5	66.9	72.2	82.3	87.0	75.8	74.0	84.8	85.8	85.7	67.3	78.0	67.9	11	
60.5	57.2	69.1	58.9	68.3	62.3	74.7	63.4	64.8	75.7	71.2	61.3	74.1	64.5	62.2	71.4	79.7	77.8	70.0	72.4	61.0	12	
68.3	39.4	57.1	71.3	76.4	66.3	77.3	58.2	72.6	67.2	67.9	81.0	69.6	74.5	73.1	70.2	79.6	79.9	63.6	78.5	61.2	13	
57.3	53.6	67.0	60.1	65.2	64.3	67.4	64.2	65.0	64.2	63.3	64.7	62.9	67.8	65.2	74.6	70.6	92.2	65.0	59.8	57.2	14	
44.1	55.1	57.0	60.0	54.7	56.6	78.9	59.9	64.1	59.6	52.1	65.4	65.0	55.2	71.0	---	---	98.1	63.5	58.1	66.2	15	
42.7	47.3	50.4	48.0	44.7	49.5	54.3	53.1	55.3	57.6	49.1	57.1	57.3	57.0	52.8	68.0	62.2	74.9	51.0	48.9	56.1	16	
52.5	53.2	62.0	59.2	59.2	55.6	56.0	59.0	60.6	56.5	59.6	58.6	57.3	60.2	62.7	68.7	62.4	79.7	57.4	54.3	58.6	17	
46.0	55.2	53.5	57.5	57.3	56.4	54.6	59.1	62.6	57.6	64.3	62.3	57.0	64.1	58.5	---	---	---	---	---	---	18	
54.8	58.1	58.3	60.8	64.5	60.0	65.0	61.0	64.0	63.7	64.2	63.3	65.9	62.3	68.3	77.6	68.2	104.6	64.9	70.1	64.3	19	
62.0	60.3	60.7	62.9	65.1	62.6	67.0	64.1	61.9	67.1	67.6	64.1	71.5	66.2	72.2	79.5	73.8	96.8	71.3	---	---	20	
52.5	57.9	58.8	56.9	61.1	62.4	70.4	82.0	85.7	64.8	60.5	58.1	64.9	66.0	68.6	87.5	84.2	103.9	72.5	---	---	21	
49.6	61.5	49.8	56.0	55.5	54.6	67.9	57.3	55.6	65.0	58.3	61.6	64.1	63.2	---	---	---	---	---	---	---	22	
52.9	57.0	60.6	60.2	60.3	62.0	65.8	66.3	68.0	67.2	63.7	65.3	70.3	68.5	68.5	83.2	77.2	85.9	74.2	68.2	66.8	23	
39.8	43.4	49.6	44.1	44.7	53.7	51.3	56.0	52.8	59.6	52.3	60.5	58.1	55.8	58.1	67.3	49.0	59.6	57.3	---	---	24	
46.6	45.3	43.6	47.9	48.8	52.9	43.0	56.5	44.4	57.4	52.8	49.7	60.2	49.5	57.2	78.5	67.4	78.3	55.7	54.6	51.9	25	
54.0	50.9	53.1	54.1	49.8	58.7	55.8	48.4	58.9	60.4	55.9	59.8	---	---	---	---	---	---	---	---	---	26	
56.5	61.3	59.3	67.4	73.4	61.4	72.7	69.8	67.4	---	---	---	---	---	---	---	---	---	---	---	---	27	
53.5	47.4	49.3	44.1	48.7	58.2	54.6	57.5	51.0	42.9	61.5	56.9	---	---	---	---	---	---	---	---	---	28	
65.4	50.9	48.2	37.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29	
58.7	52.2	45.9	52.5	54.5	57.8	61.3	60.3	59.2	66.5	57.1	63.2	57.9	58.0	65.8	71.5	---	---	---	---	---	30	
61.1	60.4	54.6	61.5	62.2	73.0	68.0	77.1	63.1	69.7	65.4	62.7	68.4	75.9	64.3	84.3	82.5	114.3	75.9	---	---	31	
64.4	57.7	68.8	61.5	70.8	64.8	63.0	55.7	58.6	92.9	77.0	78.9	83.7	85.8	63.2	---	---	---	---	---	---	32	
53.6	51.9	49.9	51.0	61.5	55.9	55.5	65.1	57.5	57.8	59.2	65.5	60.0	59.4	66.5	75.7	83.6	95.3	68.0	63.9	---	33	
66.8	38.5	50.2	89.8	70.6	89.8	69.7	85.1	86.3	77.4	86.7	121.8	101.0	70.5	101.3	88.4	85.6	90.7	85.5	101.4	69.7	34	
58.3	64.2	63.0	70.7	74.7	70.7	70.6	75.2	61.5	79.8	70.1	65.2	74.4	71.6	70.0	86.5	82.6	107.0	81.8	---	---	35	
51.7	55.5	58.8	57.2	58.2	59.6	58.3	56.7	61.5	70.8	65.3	---	---	---	---	---	---	---	---	---	---	36	
64.9	71.4	68.1	67.9	79.7	83.2	84.4	78.5	65.6	88.3	86.6	77.5	79.6	79.5	73.5	100.0	92.6	107.9	82.4	---	---	37	
95.1	86.5	80.4	93.9	102.2	113.7	114.1	108.6	---	---	---	107.8	97.1	106.8	98.1	122.0	111.6	---	---	---	---	38	
72.6	76.1	75.3	82.3	89.2	105.6	92.6	106.7	---	---	---	---	---	---	---	---	---	---	---	---	---	39	
86.6	83.8	115.3	101.5	105.9	102.2	94.9	101.1	109.9	106.9	121.4	121.4	---	---	---	---	---	---	---	---	---	40	
53.0	54.4	53.3	57.1	64.3	64.5	66.2	59.7	49.4	58.4	59.5	61.8	59.6	60.7	62.7	64.4	63.2	80.0	60.1	---	---	41	
67.0	62.2	59.6	72.4	74.3	83.9	87.0	86.6	71.0	---	---	---	---	---	---	---	---	---	---	---	---	---	42
62.2	63.9	74.8	76.1	81.3	90.5	98.5	94.3	79.6	---	---	---	---	---	---	---	---	---	---	---	---	---	43
66.6	66.2	73.4	62.7	79.8	96.1	89.6	94.4	86.7	78.7	98.3	95.1	88.1	83.2	95.3	---	---	---	---	---	---	44	
61.7	63.7	77.7	66.0	71.4	93.7	91.4	89.0	89.7	---	---	---	---	---	---	---	---	---	---	---	---	---	45
78.8	79.3	84.0	80.8	85.8	100.0	99.4	114.2	90.9	---	---	---	---	---	---	---	---	---	---	---	---	---	46
59.6	59.6	65.0	72.1	62.2	68.7	82.3	71.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	47
72.8	73.4	77.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	48
51.8	57.3	57.0	66.0	72.6	69.2	83.6	75.2	66.3	80.2	81.1	65.6	75.5	79.1	---	---	---	---	---	---	---	49	
63.4	61.9	43.2	52.7	50.7	65.4	61.3	88.3	60.0	56.9	---	---	---	---	---	---	---	---	---	---	---	---	50
41.3	61.3	57.0	65.9	84.4	91.7	63.3	64.5	87.2	83.4	95.2	97.6	72.7	71.3	---	---	---	---	---	---	---	51	
73.3	75.1	82.3	74.4	70.2	74.4	86.4	96.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	52
89.0	74.4	86.2	91.2	72.2	88.3	87.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	53
58.0	69.5	65.2	81.0	82.2	64.6	78.1	77.1	89.0	102.5	---	---	---	---	---	---	---	---	---	---	---	---	54
46.5	45.1	44.5	43.4	42.4	49.4	49.3	48.6	75.4	48.6	51.7	45.1	49.8	55.5	72.6	79.1	83.6	86.3	59.4	---	---	55	
77.3	62.8	81.3	63.5	98.1	105.1	62.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	56
48.7	49.2	63.7	60.3	63.6	62.1	61.8	72.1	66.5	75.0	60.2	70.9	66.5	78.8	77.7	92.0	86.0	98.5	73.7	---	---	57	
53.9	61.2	54.8	46.7	45.4	57.9	58.9	61.3	63.6	59.0	72.3	64.9	69.7	82.8	74.3	94.4	101.2	---	---	---	---	58	
44.8	43.0	46.4	56.3	62.4	51.3	56.5	60.8	57.6	56.4	60.1	59.2	67.5	71.9	68.3	76.9	79.8	---	---	---	---	59	

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**Supplement**

**ALASKA, HAWAII, PUERTO RICO, AND VIRGIN ISLANDS**

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Admitted 1917 - Deaths  
 1429 - Births  
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 Balance on file (on entire area)  
 241) Tables 1101  
 1896

## Supplement

# ALASKA, HAWAII, PUERTO RICO, AND THE VIRGIN ISLANDS

### Sources of data

This section contains data on live births, fetal deaths, deaths, marriages, and divorces occurring in Alaska, Hawaii, Puerto Rico, and the Virgin Islands. The live birth, fetal death, and death statistics are based on information tabulated from copies of certificates received in the National Office of Vital Statistics. The marriage and divorce data are drawn from statistical reports received from registration offices of the Territories and possessions.

### History

In the process of the formation of the birth- and death-registration areas, one of the Territories and two of the possessions—Hawaii, Puerto Rico, and the Virgin Islands—were admitted to these areas prior to 1950. The year of admission of each, which represents the first year birth or death data are available for the area in the National Office of Vital Statistics, is given in table 1.01 in chapter 1. Although Alaska was not admitted to the registration areas by 1950, data on births and deaths have been collected for this Territory beginning with 1945.<sup>1</sup>

Over-all totals of marriages and divorces are available since 1940 for the Territories and possessions with the exception of the Virgin Islands, for which data on divorces for 1940 through 1942 are lacking. More detailed statistics relating to marriages and divorces in these areas were collected for 1949 and 1950. These data are included in the annual report for the first time.

### Classification

**Geographic.**—A few of the tables in this section show data for geographic subdivisions of the Territories and possessions. In these tables, the primary subdivision is the county or the equivalent of the county, which is designated as the “judicial division” in Alaska, the “county” in Hawaii, and the “municipality” in Puerto Rico and the Virgin Islands.

A further geographic subdivision for which data are shown separately is the individual urban place. Figures are given for each place in Hawaii and Puerto Rico having a population of 10,000 or more, and for each place in Alaska and the Virgin Islands with a population of 2,500 or more according to the 1950 census. For Alaska, information is also presented for “recording districts,” which correspond to minor civil divisions.

All geographic data for the Territories and possessions

are by place of occurrence. Because of the movement from rural to urban place for hospitalization at time of birth or death, the figures by place of occurrence cannot be used for many local areas as indicative of the level of fertility or mortality.

**Race.**—In coding “race,” special classifications were adopted for each of the Territories and possessions in accordance with the composition of the population peculiar to that area. The classifications used in each are indicated below together with an explanation of some of the groups.

#### Alaska:

White

Native (including Eskimo, Aleut, Indian, and mixed, except part Negro)

All other

#### Hawaii:

Hawaiian and Part-Hawaiian

Caucasian

Japanese

All other (including Puerto Rican, Chinese, Korean, and Filipino)

#### Puerto Rico (same as for continental United States):

White

Nonwhite

#### Virgin Islands:

White

Negro

Mixed (any combination) and other

Although population data for the same groupings of races were used in computing rates, there may be a problem of comparability between census and vital record information on race in some areas. Differences in reporting race may also arise between birth and death records. Lack of comparability here would affect infant and maternal mortality rates. ))

**Attendant at birth.**—In Alaska and Hawaii, birth data are shown for the customary four categories—“physician in hospital,” “physician not in hospital,” “midwife,” and “other and not stated.” In Puerto Rico and the Virgin Islands, however, a slight modification was made in the classification because of the large proportion of births in hospitals attended by other than physicians. In these areas, births were classified as occurring “in hospital” or “not in hospital.” For those births “not in hospital” the distribution by attendant is also shown.

**Cause of death.**—For rules governing the classification by cause of death, see chapter 2.

### Completeness of registration

All of the data shown in this section refer to registered events. Completeness of registration of births, deaths, marriages, and divorces is therefore a factor to be considered in

<sup>1</sup>On the basis of the results of the 1950 birth registration test, Alaska was notified of formal admittance to the birth- and death-registration areas in September 1953.

the interpretation of the data.

Tests of birth registration completeness were made in 1940 and 1950. For the results of these tests in the Territories and possessions, see table 6.43 in chapter 6. Definitive information on the completeness of registration of the other vital events is not available.

### **Population bases**

For 1940 and 1950, the crude rates are based on the population enumerated as of April 1 with the exception of the rate for 1940 for Alaska where the enumeration took place on

October 1, 1939. Rates for 1941 through 1949 are based on estimated midyear populations appearing in the Bureau of the Census publication "Current Population Reports, Population Estimates," Series P-25, No. 52, 1951.

Large-scale population changes during the war and the immediate postwar period made necessary the adoption of special rules regarding the population bases used in computing crude vital statistics rates. Birth and divorce rates for 1940 and 1947 through 1950 and death and marriage rates for all years are based on the total population present in the area. Birth and divorce rates for 1941 through 1946 are based on the civilian population present in the area.

## ALASKA

### Table 9.01. Population; Crude Marriage, Divorce, Birth, and Death Rates; Fetal Death Ratios; and Infant, Neonatal, and Maternal Mortality Rates: 1940-50

(By place of occurrence. Births and deaths exclusive of fetal deaths. Marriage, divorce, birth, and death rates per 1,000 population; fetal death ratios, and infant and neonatal mortality rates per 1,000 live births; maternal mortality rates per 10,000 live births)

YEAR	POPULATION <sup>1</sup>		Crude marriage rate <sup>2</sup>	Crude divorce rate <sup>3</sup>	Crude birth rate <sup>4</sup>	Crude death rate <sup>5</sup>	Fetal death ratio <sup>6</sup>	Infant mortality rate <sup>7</sup>	Neonatal mortality rate <sup>8</sup>	Maternal mortality rate <sup>9</sup>
	Total <sup>2</sup>	Civilian								
1950	128,643	108,236	13.4	5.5	29.0	9.7	15.3	51.8	20.7	26.8
1949	134,000	104,000	10.7	3.1	26.3	8.8	13.0	47.6	21.0	5.7
1948	125,000	98,000	12.5	2.8	24.6	9.6	10.7	47.1	25.0	26.0
1947	117,000	91,000	12.8	3.0	23.1	10.0	13.3	65.7	28.5	14.8
1946	105,000	85,000	14.7	4.5	26.7	11.9	11.0	70.9	30.4	17.6
1945	138,000	78,000	9.5	3.9	23.4	8.8	12.6	75.5	25.7	21.9
1944	180,000	76,000	6.0	4.8	---	---	---	---	---	---
1943	226,000	74,000	4.2	4.4	---	---	---	---	---	---
1942	137,000	77,000	8.9	3.1	---	---	---	---	---	---
1941	85,000	74,000	15.3	3.4	---	---	---	---	---	---
1940	74,000	75,000	12.7	2.8	---	---	---	---	---	---

<sup>1</sup>For 1950, enumerated as of April 1; for other years, estimated as of July 1.

<sup>2</sup>Includes armed forces stationed in area.

<sup>3</sup>For 1950, based on population enumerated as of April 1; for other years, based on total population estimated as of July 1.

<sup>4</sup>For 1950, based on population enumerated as of April 1; for 1940-46, based on civilian population estimated as of July 1; for 1947-49, based on total population estimated as of July 1.

<sup>5</sup>Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.

<sup>6</sup>Based on deaths under 1 year.

<sup>7</sup>Based on deaths under 1 month.

<sup>8</sup>Based on deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium. For 1949 and 1950, classified according to the Sixth Revision of the International Lists, 1948; for 1940-48, according to the Fifth Revision.

<sup>9</sup>Includes annulments.

### Table 9.02. Birth and Death Rates; Fetal Death Ratios; Infant, Neonatal, and Maternal Mortality Rates; by Race: 1950

(By place of occurrence. Births and deaths exclusive of fetal deaths. Birth and death rates per 1,000 population in each specified group, enumerated as of April 1; fetal death ratios, and infant and neonatal mortality rates per 1,000 live births; maternal mortality rates per 10,000 live births)

RACE	Birth rate	Death rate	Fetal death ratio <sup>1</sup>	Infant mortality rate <sup>2</sup>	Neonatal mortality rate <sup>3</sup>	Maternal mortality rate <sup>4</sup>
ALL RACES	29.0	9.7	15.3	51.8	20.7	26.8
White	25.5	7.1	15.2	24.1	17.4	8.5
Native	39.6	17.0	15.7	100.7	26.1	59.7
All other	11.2	11.2	0	45.5	45.5	0

<sup>1</sup>Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.

<sup>2</sup>Based on deaths under 1 year.

<sup>3</sup>Based on deaths under 1 month.

<sup>4</sup>Based on deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium, classified according to the Sixth Revision of the International Lists, 1948.

### Table 9.03. Marriages and Divorces: 1940-50

(By place of occurrence)

YEAR	Number of marriages	Number of divorces
1950	1,722	1,451
1949	1,435	412
1948	1,567	350
1947	1,499	354
1946	1,519	385
1945	1,305	307
1944	1,073	362
1943	946	322
1942	1,217	236
1941	1,266	251
1940	943	208

<sup>1</sup>Includes annulments.

Table 9.04. Marriages and Marriage Rates by Marital Status of Bride and of Groom: 1950

(By place of occurrence. Rates per 1,000 population aged 15 years and over in each specified group, enumerated as of April 1)

MARITAL STATUS	NUMBER		RATE	
	Bride	Groom	Bride	Groom
ALL MARRIAGES <sup>1</sup> -----	1,722	1,722	196.4	53.2
First marriages-----	983	883	173.0	32.8
Remarriages-----	530	600	165.4	117.6

<sup>1</sup>Marriages for which marital status was not stated are included in total but not distributed.

Table 9.06. Divorces and Annulments by Duration of Marriage: 1950

(By place of occurrence)

DURATION (IN YEARS)	Divorces and annulments
TOTAL-----	451
Median duration-----	5.0
Under 1 year-----	34
2 years-----	86
4 years-----	100
5-9 years-----	112
10-14 years-----	51
15-19 years-----	26
20 years and over-----	28
Not stated-----	12

NOTE.—Median duration was computed from distribution of divorces grouped in 5-year intervals of duration of marriage.

Table 9.05. Marriages by Age of Bride and of Groom: 1949 and 1950

(By place of occurrence)

AGE	BRIDE		GROOM	
	1950	1949	1950	1949
ALL AGES-----	1,722	1,453	1,722	1,453
Under 15 years-----	-	-	-	-
15-19 years-----	206	216	47	42
20-24 years-----	266	239	296	277
25-29 years-----	162	163	238	222
30-34 years-----	131	117	137	154
35-39 years-----	91	95	95	104
40-44 years-----	55	57	64	59
45-49 years-----	30	35	40	45
50-54 years-----	11	6	15	18
55-59 years-----	3	5	9	10
60-64 years-----	2	1	12	5
65 years and over-----	-	-	6	4
Not stated-----	765	519	763	513

Table 9.07. Divorces and Annulments by Number of Children Living at Time of Divorce: 1950

(By place of occurrence)

NUMBER OF CHILDREN <sup>1</sup>	Divorces and annulments
TOTAL-----	451
No children-----	195
One child-----	89
Two children-----	34
Three children-----	22
Four children-----	9
Five children or more-----	9
Not stated-----	95

<sup>1</sup>Definition: children under 21 years of age.

Table 9.08. Live Births; Fetal Deaths; Total and Infant Deaths;  
by Race, Sex, and Month: 1950

(By place of occurrence. Fetal deaths include only those for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.  
Deaths exclusive of fetal deaths)

RACE AND SEX	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
LIVE BIRTHS													
ALL RACES	3,725	515	261	293	320	279	313	342	309	351	307	307	330
Male	1,925	163	139	155	162	136	154	190	160	186	165	159	154
Female	1,800	150	122	138	158	141	159	152	149	165	142	148	176
White	2,363	180	165	181	199	183	193	225	213	222	199	188	205
Male	1,225	95	95	94	101	91	90	128	115	118	106	95	101
Female	1,138	87	72	87	98	102	103	97	98	104	95	93	104
Native	1,340	135	96	112	119	85	118	114	94	126	104	117	122
Male	689	70	46	61	60	47	64	60	44	68	57	62	50
Female	651	65	50	51	59	38	54	54	50	58	47	55	72
All other	22	-	-	-	2	1	2	3	2	3	4	2	3
Male	11	-	-	-	1	-	-	2	1	-	2	2	3
Female	11	-	-	-	1	1	2	1	1	3	2	-	-
FETAL DEATHS													
ALL RACES	57	-	3	5	5	8	6	10	5	2	4	6	3
Male	29	-	1	3	2	5	4	5	2	1	2	3	1
Female	27	-	2	2	3	2	2	5	3	1	2	3	2
Not stated	1	-	-	-	-	1	-	-	-	-	-	-	-
White	36	-	3	3	5	3	5	7	4	1	1	2	2
Male	15	-	1	2	2	1	3	3	1	1	1	-	-
Female	21	-	2	1	3	2	2	4	3	-	-	2	2
Native	21	-	-	2	-	5	1	3	1	1	3	4	1
Male	14	-	-	1	-	4	1	2	1	-	1	3	1
Female	6	-	-	1	-	1	-	1	-	1	2	1	-
Not stated	1	-	-	-	-	1	-	-	-	-	-	-	-
All other	-	-	-	-	-	-	-	-	-	-	-	-	-
Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Female	-	-	-	-	-	-	-	-	-	-	-	-	-
DEATHS UNDER 1 YEAR													
ALL RACES	193	9	13	9	15	14	4	23	24	25	20	17	15
Male	115	7	9	6	9	10	2	13	14	15	11	10	9
Female	78	2	9	3	6	4	2	10	10	10	9	7	6
White	57	-	8	3	2	4	2	6	6	12	4	5	5
Male	41	-	6	3	2	3	1	4	4	8	3	4	3
Female	16	-	2	-	-	1	1	2	2	4	1	1	2
Native	135	9	10	6	13	9	2	17	18	13	16	12	10
Male	74	7	3	3	7	7	1	9	10	7	8	6	6
Female	61	2	7	3	6	2	1	8	8	6	8	6	4
All other	1	-	-	-	-	1	-	-	-	-	-	-	-
Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Female	1	-	-	-	-	1	-	-	-	-	-	-	-
TOTAL DEATHS													
ALL RACES	1,255	90	79	80	110	112	89	129	120	118	118	108	100
Male	661	60	54	52	72	81	61	79	83	86	78	83	72
Female	592	30	25	28	38	31	28	50	37	32	40	25	28
White	656	43	45	41	50	60	52	67	56	67	55	65	55
Male	546	34	39	34	42	51	42	53	47	59	45	55	45
Female	110	9	6	7	8	9	10	14	9	8	10	10	10
Native	575	45	32	38	59	47	34	59	64	50	61	43	43
Male	299	25	13	17	29	27	17	23	36	26	33	28	25
Female	276	20	19	21	30	20	17	36	28	24	28	15	18
All other	22	2	2	1	1	5	3	3	-	1	2	-	2
Male	16	1	2	1	1	3	2	3	-	1	-	-	2
Female	6	1	-	-	-	2	1	-	-	-	2	-	-

Table 9.09. Live Births by Attendant; Fetal Deaths; Total, Infant, and Neonatal Deaths; by Race: Each Judicial Division and District, and Specified Urban Places, 1950

(By place of occurrence. Includes data for all urban places with populations of 2,500 or more in 1950. Fetal deaths include only those for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated)

AREA AND RACE	LIVE BIRTHS					Fetal deaths	DEATHS (EXCLUSIVE OF FETAL DEATHS)		
	Total	Attended by—					Total	Under 1 year	Under 28 days
		Physician in hospital <sup>1</sup>	Physician not in hospital	Midwife	Other and not specified				
ALASKA-----	3,725	2,956	59	501	209	57	1,253	193	77
White-----	2,563	2,302	15	25	21	36	656	57	41
Native-----	1,340	633	44	475	189	21	575	135	35
All other--	22	21	-	1	-	-	22	1	1
First Judicial Division-----	776	678	17	41	40	9	332	25	14
White-----	432	428	2	2	-	5	215	10	5
Nonwhite--	344	250	15	39	40	4	117	15	9
Haines district-----	4	1	-	2	1	1	1	-	-
White-----	1	-	-	1	-	-	-	-	-
Nonwhite--	3	1	-	1	1	1	1	-	-
Hyder district-----	8	-	-	7	1	-	-	-	-
White-----	-	-	-	-	-	-	-	-	-
Nonwhite--	8	-	-	7	1	-	-	-	-
Juneau district-----	268	275	-	8	5	1	97	8	5
White-----	170	170	-	-	-	1	63	6	3
Nonwhite--	118	105	-	8	5	-	34	2	2
Juneau city-----	275	275	-	-	-	1	83	7	5
White-----	170	170	-	-	-	1	54	5	3
Nonwhite--	105	105	-	-	-	-	29	2	2
Balance of district-----	13	-	-	8	5	-	14	1	-
White-----	-	-	-	-	-	-	9	1	-
Nonwhite--	13	-	-	8	5	-	5	-	-
Ketchikan district-----	273	243	3	14	13	3	100	13	6
White-----	147	146	-	1	-	1	64	4	2
Nonwhite--	126	97	3	13	13	2	36	9	4
Ketchikan town-----	212	211	1	-	-	2	71	7	4
White-----	144	144	-	-	-	1	54	4	2
Nonwhite--	68	67	1	-	-	1	17	3	2
Balance of district-----	61	32	2	14	13	1	29	6	2
White-----	3	2	-	1	-	-	10	-	-
Nonwhite--	58	30	2	13	13	1	19	6	2
Petersburg district-----	50	35	2	2	11	2	18	2	2
White-----	27	27	-	-	-	2	12	-	-
Nonwhite--	23	8	2	2	11	-	6	2	2
Sitka district-----	94	65	12	8	9	2	96	2	1
White-----	45	43	2	-	-	1	53	-	-
Nonwhite--	49	22	10	8	9	1	37	2	1
Skagway district-----	23	23	-	-	-	-	3	-	-
White-----	21	21	-	-	-	-	3	-	-
Nonwhite--	2	2	-	-	-	-	-	-	-
Wrangell district-----	36	36	-	-	-	-	17	-	-
White-----	21	21	-	-	-	-	14	-	-
Nonwhite--	15	15	-	-	-	-	3	-	-
Second Judicial Division-----	454	94	6	291	63	2	255	60	10
White-----	33	28	1	4	2	-	13	-	-
Nonwhite--	421	68	5	287	61	2	222	60	10
Cape Nome district-----	189	60	1	110	18	1	108	20	5
White-----	30	26	1	1	2	-	11	-	-
Nonwhite--	159	34	-	109	16	1	97	20	5
Fairhaven district-----	23	-	-	22	1	-	4	2	1
White-----	-	-	-	-	-	-	-	-	-
Nonwhite--	23	-	-	22	1	-	4	2	1
Koyuk district-----	6	-	-	5	1	-	4	2	-
White-----	-	-	-	-	-	-	-	-	-
Nonwhite--	6	-	-	5	1	-	4	2	-
Nonak-Kobuk district-----	165	34	3	108	20	1	90	29	3
White-----	1	-	-	1	-	-	2	-	-
Nonwhite--	164	34	3	107	20	1	88	29	3
Wade Hampton district-----	71	-	2	46	23	-	29	7	1
White-----	2	-	-	2	-	-	-	-	-
Nonwhite--	69	-	2	44	23	-	29	7	1

<sup>1</sup>It is assumed that all births in hospitals or institutions are attended by physicians.

Table 9.09. Live Births by Attendant; Fetal Deaths; Total, Infant, and Neonatal Deaths; by Race: Each Judicial Division and District, and Specified Urban Places, 1950—Continued

(See headnote on p. 276)

AREA AND RACE	LIVE BIRTHS					Fetal deaths	DEATHS (EXCLUSIVE OF FETAL DEATHS)		
	Total	Attended by—					Total	Under 1 year	Under 28 days
		Physician in hospital <sup>1</sup>	Physician not in hospital	Midwife	Other and not specified				
Third Judicial Division	1,662	1,515	28	73	46	28	381	52	33
White	1,393	1,332	10	19	12	22	291	36	28
Nonwhite	269	183	18	54	34	6	90	16	5
Aleutian Islands district	53	39	1	12	1	-	22	2	1
White	23	22	1	-	-	-	14	-	-
Nonwhite	30	17	-	12	1	-	8	2	1
Anchorage district	1,026	1,014	4	7	1	18	170	27	20
White	981	976	3	2	-	17	158	25	19
Nonwhite	45	38	1	5	1	1	12	2	1
Anchorage city	702	699	3	-	-	11	105	22	18
White	665	663	2	-	-	10	95	20	17
Nonwhite	37	36	1	-	-	1	10	2	1
Eastchester village	-	-	-	-	-	-	-	-	-
White	-	-	-	-	-	-	-	-	-
Nonwhite	-	-	-	-	-	-	-	-	-
Mountain View village	1	-	-	-	1	-	1	1	-
White	-	-	-	-	-	-	-	-	-
Nonwhite	1	-	-	-	1	-	-	-	-
Balance of district	323	315	1	7	-	7	64	4	2
White	316	313	1	2	-	7	62	4	2
Nonwhite	7	2	-	5	-	-	2	-	-
Bristol Bay district	69	61	3	-	5	1	17	2	-
White	16	15	1	-	-	1	5	-	-
Nonwhite	53	46	2	-	5	-	12	2	-
Chitina and McCarthy districts	13	-	8	5	-	-	8	3	1
White	3	-	3	-	-	-	3	-	-
Nonwhite	10	-	5	5	-	-	5	3	1
Cordova district	44	41	3	-	-	-	21	2	1
White	28	28	-	-	-	-	16	1	1
Nonwhite	16	13	3	-	-	-	5	1	-
Homer district	7	-	1	-	6	-	5	-	-
White	5	-	-	-	5	-	5	-	-
Nonwhite	2	-	1	-	1	-	-	-	-
Iliamna district	6	-	-	3	5	-	5	1	-
White	1	-	-	1	1	-	2	-	-
Nonwhite	7	-	-	3	4	-	3	1	-
Kodiak district	163	143	3	9	8	4	32	6	4
White	123	115	1	5	2	2	14	3	3
Nonwhite	40	28	2	4	6	2	18	3	1
Kvichak district	15	1	-	7	7	-	5	1	1
White	4	1	-	1	2	-	1	-	-
Nonwhite	11	-	-	6	5	-	4	1	1
Palmer district	94	94	-	-	-	4	20	6	5
White	88	88	-	-	-	2	18	6	5
Nonwhite	6	6	-	-	-	2	2	-	-
Seldovia district	17	7	-	5	5	-	5	-	-
White	9	7	-	1	1	-	5	-	-
Nonwhite	8	-	-	4	4	-	2	-	-
Seward district	97	96	-	-	1	-	35	-	-
White	91	91	-	-	-	-	27	-	-
Nonwhite	6	5	-	-	1	-	8	-	-
Talkeetna district	1	-	-	-	1	-	3	-	-
White	-	-	-	-	-	-	3	-	-
Nonwhite	1	-	-	-	1	-	-	-	-
Unga Peninsula district	32	-	4	23	5	-	9	-	-
White	12	-	1	10	1	-	5	-	-
Nonwhite	20	-	3	13	4	-	4	-	-
Valdez district	20	18	-	2	-	-	16	2	-
White	8	8	-	-	-	-	13	1	-
Nonwhite	12	10	-	2	-	-	3	1	-
Wasilla district	2	-	1	-	1	1	4	-	-
White	-	-	-	-	-	-	2	-	-
Nonwhite	2	-	1	-	1	1	2	-	-
Whittier district	1	1	-	-	-	-	4	-	-
White	1	1	-	-	-	-	2	-	-
Nonwhite	-	-	-	-	-	-	2	-	-

<sup>1</sup>It is assumed that all births in hospitals or institutions are attended by physicians.

Table 9.09. Live Births by Attendant; Fetal Deaths; Total, Infant, and Neonatal Deaths; by Race: Each Judicial Division and District, and Specified Urban Places, 1950—Continued

(See headnote on p. 276)

AREA AND RACE	LIVE BIRTHS					Fetal deaths	DEATHS (EXCLUSIVE OF FETAL DEATHS)		
	Total	Attended by—					Total	Under 1 year	Under 28 days
		Physician in hospital <sup>1</sup>	Physician not in hospital	Midwife	Other and not specified				
Fourth Judicial Division-----	833	669	8	96	60	16	305	56	20
White-----	506	496	2	-	7	9	137	11	8
Nonwhite----	328	173	6	96	53	9	168	45	12
Bethel district-----	138	90	2	27	19	4	92	30	7
White-----	7	7	-	-	-	-	-	-	-
Nonwhite----	131	83	2	27	19	4	92	30	7
Circle district-----	32	26	2	3	1	-	24	2	-
White-----	1	-	1	-	-	-	7	-	-
Nonwhite----	31	26	1	3	1	-	17	2	-
Eagle district-----	-	-	-	-	-	-	2	-	-
White-----	-	-	-	-	-	-	1	-	-
Nonwhite----	-	-	-	-	-	-	1	-	-
Fairbanks district-----	553	538	4	7	4	13	133	14	9
White-----	491	499	1	-	1	9	115	11	8
Nonwhite----	62	49	3	7	3	4	18	3	1
Fairbanks city-----	385	382	3	-	-	8	90	10	8
White-----	336	335	1	-	-	5	82	8	7
Nonwhite----	49	47	2	-	-	3	8	2	1
Balance of district-----	168	156	1	7	4	5	43	4	1
White-----	155	154	-	-	1	4	33	3	1
Nonwhite----	13	2	1	7	3	1	10	1	-
Fort Gibbon district-----	19	15	-	4	-	1	18	1	1
White-----	-	-	-	-	-	-	2	-	-
Nonwhite----	19	15	-	4	-	1	16	1	1
Hot Springs district-----	-	-	-	-	-	-	-	-	-
White-----	-	-	-	-	-	-	-	-	-
Nonwhite----	-	-	-	-	-	-	-	-	-
Innoko district-----	-	-	-	-	-	-	-	-	-
White-----	-	-	-	-	-	-	-	-	-
Nonwhite----	-	-	-	-	-	-	-	-	-
Koyukuk district-----	3	-	-	-	3	-	-	-	-
White-----	-	-	-	-	-	-	-	-	-
Nonwhite----	3	-	-	-	3	-	-	-	-
Kuskokwim district-----	17	-	-	11	6	-	13	6	1
White-----	1	-	-	-	1	-	-	-	-
Nonwhite----	16	-	-	11	5	-	13	6	1
Mount McKinley and Otter districts-----	8	-	-	3	5	-	3	-	-
White-----	3	-	-	-	3	-	3	-	-
Nonwhite----	5	-	-	3	2	-	-	-	-
Menana district-----	12	-	-	1	11	-	9	1	-
White-----	1	-	-	-	1	-	4	-	-
Nonwhite----	11	-	-	1	10	-	4	1	-
Mulato district-----	44	-	-	35	9	-	11	2	2
White-----	1	-	-	-	1	-	5	-	-
Nonwhite----	43	-	-	35	8	-	6	2	2
Rampart district-----	7	-	-	5	2	-	1	-	-
White-----	-	-	-	-	-	-	-	-	-
Nonwhite----	7	-	-	5	2	-	1	-	-
Tolovana district-----	-	-	-	-	-	-	-	-	-
White-----	-	-	-	-	-	-	-	-	-
Nonwhite----	-	-	-	-	-	-	-	-	-

<sup>1</sup>It is assumed that all births in hospitals or institutions are attended by physicians.



Table 9.10. Live Births by Age of Mother, Birth Order, and Race: 1950

(By place of occurrence. Birth order refers to number of children born alive to mother)

AGE OF MOTHER AND RACE OF CHILD	Total	BIRTH ORDER													
		1st	2d	3d	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th and over	Not stated
ALL RACES-----	3,725	1,060	1,009	659	355	180	151	92	73	51	47	28	23	28	9
10-14 years-----	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years-----	362	262	71	23	4	1	-	-	-	-	-	-	-	-	1
20-24 years-----	1,144	408	425	188	77	25	14	3	1	-	-	-	-	-	3
25-29 years-----	1,142	225	327	256	146	75	48	35	14	11	4	1	-	1	3
30-34 years-----	618	98	132	125	71	47	59	31	24	20	18	8	4	-	1
35-39 years-----	347	48	42	55	29	28	19	21	29	18	17	12	4	18	1
40-44 years-----	76	6	11	10	5	4	5	3	5	2	6	5	5	9	-
45 years and over-----	13	1	-	-	1	-	3	1	-	-	1	2	2	2	-
Not stated-----	22	11	1	2	2	2	3	3	-	-	1	-	-	-	-
WHITE-----	2,363	610	775	462	182	66	40	10	3	2	4	4	1	-	6
10-14 years-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years-----	183	144	51	8	-	-	-	-	-	-	-	-	-	-	-
20-24 years-----	718	313	285	85	23	5	3	-	-	-	-	-	-	-	2
25-29 years-----	804	209	282	204	72	20	10	1	1	2	-	-	-	3	3
30-34 years-----	422	89	127	105	59	20	11	4	2	-	3	1	-	-	1
35-39 years-----	194	47	39	50	23	18	9	4	-	1	3	-	-	-	-
40-44 years-----	36	6	9	10	4	2	4	1	-	-	-	-	-	-	-
45 years and over-----	5	1	-	-	1	-	2	-	-	-	-	-	1	-	-
Not stated-----	3	1	-	-	-	1	-	-	-	-	-	-	-	-	-
NATIVE-----	1,340	245	232	193	148	112	90	61	70	49	43	24	22	28	3
10-14 years-----	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years-----	178	118	40	14	4	1	-	-	-	-	-	-	-	-	1
20-24 years-----	418	90	158	103	52	19	11	3	1	-	-	-	-	-	1
25-29 years-----	330	16	43	50	72	52	37	32	13	9	4	1	-	1	-
30-34 years-----	194	9	5	19	11	27	28	27	22	20	15	7	4	-	-
35-39 years-----	152	1	3	5	6	10	10	16	29	18	16	9	12	16	1
40-44 years-----	40	-	2	-	1	2	1	2	5	2	6	5	5	9	-
45 years and over-----	6	-	-	-	-	-	1	1	-	1	2	1	1	2	-
Not stated-----	19	10	1	2	2	1	2	-	-	1	-	-	-	-	-
ALL OTHER-----	22	5	4	4	5	2	1	1	-	-	-	-	-	-	-
10-14 years-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years-----	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-
20-24 years-----	10	5	2	-	2	1	-	-	-	-	-	-	-	-	-
25-29 years-----	8	-	2	2	2	1	1	-	-	-	-	-	-	-	-
30-34 years-----	2	-	-	1	1	-	-	-	-	-	-	-	-	-	-
35-39 years-----	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-
40-44 years-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45 years and over-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not stated-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 9.11. Total Live Births and Cases of Plural Births in Which at Least One Child Was Born Alive, by Race: 1950

(By place of occurrence. The term "cases" refers to confinements resulting in either single or plural issue and is synonymous with "sets" in figures for plural births. Total number of cases is necessarily less than total number of births for any given period)

RACE	Total live births	Total cases (single and plural)	CASES OF PLURAL BIRTHS IN WHICH AT LEAST ONE CHILD WAS BORN ALIVE	
			Total	Twins <sup>1</sup>
ALL RACES-----	3,725	3,691	36	36
White-----	2,363	2,356	29	29
Native-----	1,340	1,333	7	7
All other-----	22	22	-	-

<sup>1</sup>Excludes 1 case of twins in which one mate was reported.

Table 9.12. Live Births by Birth Weight, Race, and Period of Gestation: 1950

(By place of occurrence)

RACE AND PERIOD OF GESTATION	Total	BIRTH WEIGHT <sup>1</sup>										
		500 grams or less	501-1,000 grams	1,001-1,500 grams	1,501-2,000 grams	2,001-2,500 grams	2,501-3,000 grams	3,001-3,500 grams	3,501-4,000 grams	4,001-4,500 grams	4,501 grams or more	Not stated
ALL RACES-----	3,725	-	8	28	45	175	604	1,250	980	288	70	277
Under 20 weeks-----	-	-	-	-	-	-	-	-	-	-	-	-
20-27 weeks-----	24	-	5	9	1	2	-	2	1	-	-	4
28-31 weeks-----	47	-	2	8	14	14	2	2	1	-	-	3
32-35 weeks-----	175	-	-	4	16	49	39	34	17	5	1	10
36 weeks-----	1,173	-	1	6	9	50	198	424	342	88	27	28
37-39 weeks-----	453	-	-	-	2	24	90	166	112	37	14	8
40 weeks-----	1,519	-	-	-	2	27	229	548	427	130	23	133
41-42 weeks-----	171	-	-	-	-	1	33	52	64	17	-	4
43 weeks and over-----	26	-	-	-	-	1	4	7	7	4	3	-
Reported as premature-----	1	-	-	-	-	1	-	-	-	-	-	-
Not stated-----	136	-	-	1	1	6	9	15	9	6	2	87
WHITE-----	2,363	-	7	21	35	119	439	876	641	163	32	30
Under 20 weeks-----	-	-	-	-	-	-	-	-	-	-	-	-
20-27 weeks-----	11	-	4	4	-	1	-	-	-	-	-	2
28-31 weeks-----	32	-	2	7	11	10	2	-	-	-	-	-
32-35 weeks-----	106	-	-	3	11	34	29	22	6	1	-	-
36 weeks-----	729	-	1	6	9	30	131	281	203	51	14	3
37-39 weeks-----	286	-	-	-	2	18	67	112	66	14	4	3
40 weeks-----	1,021	-	-	-	1	22	180	409	305	77	13	14
41-42 weeks-----	136	-	-	-	-	1	25	39	54	15	-	2
43 weeks and over-----	20	-	-	-	-	1	4	5	5	4	1	-
Reported as premature-----	-	-	-	-	-	-	-	-	-	-	-	-
Not stated-----	22	-	-	1	1	2	1	6	2	1	-	6
NATIVE AND ALL OTHER-----	1,362	-	1	7	10	56	165	374	339	125	38	247
Under 20 weeks-----	-	-	-	-	-	-	-	-	-	-	-	-
20-27 weeks-----	13	-	1	5	1	1	-	2	1	-	-	2
28-31 weeks-----	15	-	-	1	3	4	-	2	1	1	-	3
32-35 weeks-----	69	-	-	1	5	15	10	12	11	4	1	10
36 weeks-----	444	-	-	-	-	20	67	143	139	37	13	25
37-39 weeks-----	167	-	-	-	-	6	23	54	46	23	10	5
40 weeks-----	496	-	-	-	1	5	49	139	122	53	10	119
41-42 weeks-----	35	-	-	-	-	-	8	13	10	2	-	2
43 weeks and over-----	6	-	-	-	-	-	-	2	2	-	2	-
Reported as premature-----	1	-	-	-	-	1	-	-	-	-	-	-
Not stated-----	114	-	-	-	-	4	8	7	7	5	2	61

<sup>1</sup>The equivalents of the gram weights in terms of pounds and ounces are as follows:

500 grams or less = 1 lb. 1 oz. or less

2,001-2,500 grams = 4 lbs. 7 oz.-5 lbs. 8 oz.

3,501-4,000 grams = 7 lbs. 12 oz.-8 lbs. 13 oz.

501-1,000 grams = 1 lb. 2 oz.-2 lbs. 3 oz.

2,501-3,000 grams = 5 lbs. 9 oz.-6 lbs. 9 oz.

4,001-4,500 grams = 8 lbs. 14 oz.-9 lbs. 14 oz.

1,001-1,500 grams = 2 lbs. 4 oz.-3 lbs. 4 oz.

3,001-3,500 grams = 6 lbs. 10 oz.-7 lbs. 11 oz.

4,501 grams or more = 9 lbs. 15 oz. or more

1,501-2,000 grams = 3 lbs. 5 oz.-4 lbs. 6 oz.

Table 9.13. Infant Mortality Rates by Race and Sex: 1945-50

(By place of occurrence. Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births in each specified group)

RACE AND SEX		1950	1949	1948	1947	1946	1945
ALL RACES		51.8	47.6	47.1	63.7	70.9	75.5
	Male	59.7	53.7	46.9	72.5	72.6	75.3
	Female	43.3	40.8	47.3	54.1	69.1	75.6
White		24.1	23.1	29.9	50.2	28.8	24.6
	Male	33.5	26.6	---	---	42.5	27.6
	Female	14.1	19.2	---	---	14.4	21.4
Native and all other		99.9	89.7	76.2	114.1	113.6	120.1
	Male	105.7	98.5	---	---	104.5	122.2
	Female	95.7	79.5	---	---	122.4	118.4

Table 9.14. Deaths Under 1 Year, by Detailed Age, Race, and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths)

AGE	Total	ALL RACES		WHITE		NATIVE		ALL OTHER	
		Male	Female	Male	Female	Male	Female	Male	Female
UNDER 1 YEAR	193	115	78	41	16	74	61	-	1
Under 1 day	33	21	12	15	4	6	7	-	1
1 day	13	9	4	8	3	1	1	-	-
2 days	4	3	1	1	-	2	1	-	-
3 days	3	2	1	1	-	1	1	-	-
4 days	3	-	3	-	2	-	1	-	-
5 days	1	-	1	-	-	-	1	-	-
6 days	2	2	-	1	-	1	-	-	-
7-13 days	10	8	2	3	-	5	2	-	-
14-20 days	4	2	2	2	1	-	1	-	-
21-27 days	4	3	1	-	-	3	1	-	-
Under 28 days	77	50	27	31	10	19	16	-	1
28-59 days	17	10	7	2	-	8	7	-	-
2 months	16	5	11	1	1	4	10	-	-
3 months	19	12	7	3	1	9	6	-	-
4 months	15	8	5	2	2	6	3	-	-
5 months	8	3	5	-	-	3	5	-	-
6 months	6	2	4	-	-	2	4	-	-
7 months	6	4	2	-	-	4	2	-	-
8 months	11	8	3	1	1	7	2	-	-
9 months	6	5	1	1	-	4	1	-	-
10 months	6	5	1	-	-	5	1	-	-
11 months	8	3	5	-	1	3	4	-	-



Table 9.16. Deaths and Death Rates by Age, Race, and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE AND SEX	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over	NUMBER														
													1,253	193	83	40	108	120	113	127	136	179	112	38			
ALL RACES-----																											
Male----	861	115	46	22	72	85	72	85	107	141	87	29															
Female--	392	78	37	18	36	37	41	42	29	38	25	10															
White-----	656	57	9	4	42	54	59	83	99	136	85	27															
Male----	546	41	7	3	38	48	47	62	89	116	72	22															
Female--	110	16	2	1	4	6	12	21	10	20	13	5															
Native-----	575	135	72	36	64	65	49	39	32	42	27	11															
Male----	299	74	38	19	32	34	21	19	15	24	15	6															
Female--	276	61	34	17	32	31	28	20	17	18	12	5															
All other-----	22	1	2	-	2	1	5	5	5	1	-	-															
Male----	16	-	1	-	2	1	4	4	3	1	-	-															
Female--	6	1	1	-	-	-	1	1	2	-	-	-															
													RATE														
ALL RACES-----	9.7	55.8	6.8	2.2	3.9	4.5	6.1	11.9	21.9	52.4	113.0																
Male----	10.8	64.2	7.4	2.3	3.5	5.1	6.4	12.5	25.8	59.2	120.8																
Female--	8.0	46.7	6.2	2.0	4.7	3.6	5.6	10.9	14.1	36.9	95.1																
White-----	7.1	27.2	1.2	0.4	2.0	2.5	3.9	9.8	20.3	56.0	123.3																
Male----	9.0	37.9	1.8	0.6	2.3	3.5	5.1	11.1	26.1	62.5	124.8																
Female--	3.4	15.8	0.6	0.2	1.0	0.7	2.1	7.2	8.8	35.0	116.1																
Native-----	17.0	100.4	15.6	4.0	9.3	15.1	15.3	19.8	25.3	45.3	94.3																
Male----	17.0	106.5	16.3	4.1	9.1	15.3	12.2	17.7	21.9	50.2	112.9																
Female--	16.9	94.0	14.9	3.9	9.5	14.9	18.8	22.2	29.4	40.0	78.3																
All other-----	11.2	47.6	21.3	0	3.3	2.3	15.5	24.2	66.7	16.9	0																
Male----	10.4	0	20.8	0	3.7	3.2	16.0	23.3	54.5	20.0	0																
Female--	13.7	142.9	21.7	0	0	0	13.7	28.6	100.0	0	0																

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 9.17. Death Rates for 64 Selected Causes: 1945-50

(By place of occurrence. Exclusive of fetal deaths. Rates per 100,000 population estimated as of July 1 for 1945-49, and enumerated as of April 1 for 1950)

Cause of death	SIXTH REVISION OF INTERNATIONAL LISTS, 1948		FIFTH REVISION OF INTERNATIONAL LISTS, 1938					
	Category numbers	1950	1949	Category numbers	1948	1947	1946	1945
ALL CAUSES		974.0	882.1		957.6	995.7	1,191.3	879.0
Tuberculosis, all forms	001-019	168.9	173.9	13-22	195.2	189.7	265.0	201.4
Tuberculosis of respiratory system	001-009	160.1	145.5	13	159.2	159.0	212.6	159.4
Tuberculosis, other forms	010-019	28.8	28.4	14-22	36.0	30.8	52.4	42.0
Syphilis and its sequelae	020-029	1.6	1.5	30	2.4	7.7	7.8	7.2
Typhoid fever	040	0.8	0	1	0	0	0	0.7
Cholera	043	0	0	4	0	0	0	0
Dysentery, all forms	045-048	0	0	27	0	6.8	3.9	0
Scarlet fever and streptococcal sore throat	050,051	0	0.7	8,11,5b	10	10	10	10.7
Diphtheria	055	0	0	10	0.8	0.9	7.8	5.1
Whooping cough	056	19.7	0	9	18.4	0	1.0	7.2
Meningococcal infections	057	1.6	0.7	6	0	2.6	0	0.7
Plague	058	0	0	3	0	0	0	0
Acute poliomyelitis	080	3.1	0.7	36	0	0.9	0	0
Smallpox	094	0	0	34	0	0	0	0
Measles	095	2.3	6.7	35	0	0	9.7	0
Typhus and other rickettsial diseases	100-108	0	0	39	0	0	0	0
Malaria	110-117	0	0	25	0	0	0	0
All other infective and parasitic diseases	030-039,041,042,044,049,052-054,059-074,081-083,096-096,120-156	1.6	6.0	2,5,7,11,12,23-26,29,31,52,57-58,40-44,177	4.0	6.8	2.9	4.3
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	140-205	52.9	58.2	45-55	41.6	50.4	50.5	58.7
Malignant neoplasm of buccal cavity and pharynx	140-148	0	1.5	45a,b,c,e,f	0.8	2.6	1.0	24.3
Malignant neoplasm of digestive organs and peritoneum	150-156A,157-159	28.0	25.4	46	21.6	24.8	24.3	26.5
Malignant neoplasm of respiratory system	160-164	6.2	6.7	47	0	5.1	1.9	6.5
Malignant neoplasm of breast	170	1.6	3.7	50	1.6	3.4	5.8	3.6
Malignant neoplasm of genital organs	171-179	3.9	6.7	48,49,51	9.6	10.3	7.8	10.1
Malignant neoplasm of urinary organs	180,181	1.6	4.5	52	1.6	0.9	3.9	2.2
Malignant neoplasm of other and unspecified sites	156B,165,190-199	9.3	5.2					
Leukemia and leukemia	204	2.3	1.5					
Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues	200-203,205	0	3.0	45d,53-55	6.4	3.4	5.8	9.1
Benign neoplasms and neoplasms of unspecified nature	210-239	1.6	4.5	56-57	1.6	1.7	1.9	3.6
Diabetes mellitus	280	3.1	6.7	61	4.8	4.3	8.7	5.1
Anemias	290-293	0	0.7	73	0.8	0	1.0	1.4
Meningitis, except meningococcal and tuberculous	340	0.8	3.7	81	6.4	2.6	1.9	2.2
Major cardiovascular-renal diseases	330-334,400-469,592-594	245.0	199.3	58,03,90-103,131-132	199.4	231.6	269.9	169.1
Diseases of cardiovascular system	330-334,400-469	241.8	193.3	58,63,90-103	186.4	218.8	259.2	160.9
Vascular lesions affecting central nervous system	330-334	46.6	40.3	83	33.8	42.7	65.0	38.4
Rheumatic fever	400-402	0.8	0.7	58	1.6	0	0	0
Diseases of heart	410-443	181.1	138.8	90-95	142.4	165.0	186.4	115.0
Chronic rheumatic heart disease	410-416	5.4	3.0	80a,82b,c,85c,95b	4.9	11.1	5.8	2.9
Arteriosclerotic heart disease, including coronary disease	420	122.8	84.3	90b,91,92a,d,e				
Rheumatic chronic endocarditis and other								
Myocardial degeneration	421,422	24.9	17.9	85a,b,d,e	137.6	153.8	180.6	110.1
Other diseases of heart	430-434	15.5	20.1	84,95a,c				
Hypertension with heart disease	440-443	12.4	13.4					
Hypertension without mention of heart	444-447	2.3	3.7	102	0	3.4	1.0	0
General arteriosclerosis	450	6.2	6.7	97	6.4	4.3	6.8	6.5
Other diseases of circulatory system	461-468	4.7	3.0	96,98-101,103	2.4	3.4	0	2.9
Chronic and unspecified nephritis and other renal sclerosis	592-594	3.9	6.0	131,132	12.0	12.8	9.7	7.2
Influenza and pneumonia, except pneumonia of newborn	480-493	61.4	44.8	35,107-109	52.8	78.9	110.7	73.9
Influenza	480-483	12.4	8.0	35	7.2	21.4	21.4	29.0
Pneumonia, except pneumonia of newborn	490-493	49.0	36.8	107-109	45.6	55.6	89.3	44.9
Bronchitis	500-502	0.8	3.0	106	1.6	1.7	1.9	0.7
Ulcer of stomach and duodenum	540,541	2.3	1.5	117	1.6	2.6	4.9	3.6
Appendicitis	550-553	4.7	3.7	121	4.8	5.1	2.9	2.9
Hernia and intestinal obstruction	560,561,570	2.3	6.7	122	4.8	2.6	7.8	5.1
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	543,571,572	3.9	3.0	119,120	6.4	13.7	11.7	5.1
Cirrhosis of liver	581	6.2	4.5	124	8.8	6.8	7.8	8.0
Acute nephritis and nephritis with edema, including nephrosis	590,591	0	0	130	3.2	0	1.9	2.2
Hyperplasia of prostate	610	2.3	0.7	137	1.6	0.9	2.9	2.2
Deliveries and complications of pregnancy, childbirth, and the puerperium	640-689	7.8	1.5	140-150	6.4	3.4	3.9	2.9
Abortion	650-652	0.8	0.7	140,141	0	0	0	0
All other complications	640-649,660-689	7.0	0.7	142-150	6.4	3.4	3.9	2.9
Congenital malformations	750-759	9.3	11.2	157	8.0	7.7	4.9	2.9
Certain diseases of early infancy	760-776	49.8	42.5	158-161	48.8	49.6	44.7	22.5
Birth injuries, postnatal asphyxia, and atelectasis	760-762	11.7	11.2					
Infections of newborn	763-768	4.7	4.5					
Other diseases peculiar to early infancy, and immaturity unqualified	769-776	33.4	26.9					
Symptoms, senility, and ill-defined conditions	780-795	42.8	59.0	162,189,200	69.0	80.3	86.3	72.5
All other diseases	Residual	50.5	37.5	Residual	45.6	47.9	76.7	47.1
Accidents	E800-E862	165.6	143.3	169-176,178-195	186.4	169.2	167.0	134.8
Motor-vehicle accidents	E810-E835	17.1	17.9	170	12.0	3.4	18.4	10.9
All other accidents	E800-E802,E840-E862	148.5	125.4	169,171-176,178-195	174.4	165.8	148.5	123.9
Suicide	E863-E870-E879	26.4	22.4	163,164	25.6	14.5	14.6	16.7
Homicide	E864-E890-E895	15.5	13.4	165-168,198	8.8	6.8	7.8	9.4
Injury resulting from operations of war	E865,E890-E899	0	0	196,197	0	0	0	0

\*Excludes Septic sore throat (115b).

\*Excludes Cancer of jaw bone (45d).

\*Excludes Cancer of jaw bone (45d).

\*Comparable category numbers for subdivisions of Certain diseases of early infancy are shown in table 2.03 in chapter 2.











Table 9.18. Deaths From 64 Selected Causes, by Age, Race, and Sex: 1950—Con.

(By place of occurrence. Exclusive of fetal deaths. Causes in the selected list (table 9.17) for which there were no deaths are not shown)

Sixth Revision No.	CAUSE OF DEATH, RACE, AND SEX	Total	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over	Not stated
780-795	Symptoms, senility, and ill-defined conditions-----	55	13	3	1	-	-	-	1	3	4	11	7	7	5	-
	White-----	25	-	1	-	-	-	-	1	2	3	5	6	5	2	-
	Female-----	2	-	-	-	-	-	-	-	1	1	-	-	-	-	-
	Native-----	15	5	2	-	-	-	-	-	-	-	4	1	1	2	-
	Female-----	13	8	-	1	-	-	-	-	-	-	2	-	1	1	-
	All other-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Residual	All other diseases-----	65	10	7	3	1	1	1	2	9	8	9	9	5	-	-
	White-----	24	4	-	-	-	-	-	1	5	4	5	3	2	-	-
	Female-----	7	-	-	-	-	-	-	-	1	3	2	-	1	-	
	Native-----	16	4	4	1	1	-	-	1	-	-	1	3	1	-	
	Female-----	17	2	3	2	-	1	1	-	3	1	-	3	1	-	
	All other-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Female-----	1	-	-	-	-	-	-	-	-	-	1	-	-	-		
E800-E862	Accidents-----	215	15	18	8	4	18	26	43	26	21	18	6	8	1	3
	White-----	129	2	5	1	2	14	18	35	15	14	12	6	5	-	1
	Female-----	12	4	1	-	-	-	1	3	3	-	-	-	-	-	-
	Native-----	47	4	7	3	2	4	6	4	6	4	2	-	3	1	1
	Female-----	23	3	6	4	-	-	-	1	2	3	3	-	-	-	1
	All other-----	2	-	-	-	-	-	1	-	-	-	1	-	-	-	-
Female-----	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
E810-E835	Motor-vehicle accidents-----	22	-	2	-	-	4	5	5	2	-	1	2	-	-	1
	White-----	16	-	-	-	-	4	3	5	1	-	-	2	-	-	1
	Female-----	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-
	Native-----	3	-	1	-	-	-	1	-	1	-	-	-	-	-	-
	Female-----	2	-	1	-	-	-	-	-	-	-	1	-	-	-	-
	All other-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
E800-E802, E840-E862	All other accidents-----	191	13	16	8	4	14	21	38	24	21	17	4	8	1	2
	White-----	112	2	3	1	2	10	15	30	14	14	12	4	5	-	-
	Female-----	11	4	1	-	-	-	-	3	3	-	-	-	-	-	-
	Native-----	44	4	6	3	2	4	5	4	5	4	2	-	3	1	1
	Female-----	21	5	5	4	-	-	-	1	2	3	2	-	-	-	1
	All other-----	2	-	-	-	-	-	1	-	-	-	1	-	-	-	-
Female-----	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
E865, E870-E879	Suicide-----	34	-	-	-	-	1	2	4	9	11	3	3	1	-	-
	White-----	25	-	-	-	-	-	1	2	5	8	3	3	1	-	-
	Female-----	4	-	-	-	-	-	-	1	2	1	-	-	-	-	-
	Native-----	5	-	-	-	-	-	-	1	2	2	-	-	-	-	-
	Female-----	2	-	-	-	-	1	1	-	-	-	-	-	-	-	-
	All other-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
E884, E880-E885	Homicide-----	20	-	-	-	-	-	2	3	11	4	-	-	-	-	-
	White-----	10	-	-	-	-	-	-	1	7	2	-	-	-	-	-
	Female-----	2	-	-	-	-	-	1	-	1	-	-	-	-	-	-
	Native-----	2	-	-	-	-	-	-	1	-	1	-	-	-	-	-
	Female-----	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
	All other-----	5	-	-	-	-	-	1	1	2	1	-	-	-	-	-
Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table 9.19. Deaths and Death Rates for 32 Selected Causes, by Age: 1950

(By place of occurrence. Exclusive of fetal deaths. Rates per 100,000 population in each specified group, enumerated as of April 1. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

CAUSE OF DEATH	Total <sup>1</sup>	Under 5 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 and over	NUMBER										
												1,253	276	40	108	120	113	127	138	179	112	38
ALL CAUSES-----	1,253	276	40	108	120	113	127	138	179	112	38											
Tuberculosis, all forms-----001-019	243	49	19	44	54	20	23	11	15	5	3											
Syphilis and its sequelae-----020-029	2	-	-	-	-	-	-	1	-	-	-											
Typhoid fever-----040	1	-	-	1	-	-	-	-	-	-	-											
Dysentery, all forms-----045-048	-	-	-	-	-	-	-	-	-	-	-											
Diphtheria-----055	-	-	-	-	-	-	-	-	-	-	-											
Whooping cough-----056	24	23	1	-	-	-	-	-	-	-	-											
Meningococcal infections-----057	2	2	-	-	-	-	-	-	-	-	-											
Acute poliomyelitis-----080	4	1	-	2	1	-	-	-	-	-	-											
Measles-----085	3	2	-	-	-	-	-	-	1	-	-											
All other infective and parasitic diseases-----Residual	2	-	-	-	1	-	-	-	1	-	-											
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	68	1	1	-	1	4	11	14	23	10	2											
Diabetes mellitus-----260	4	-	-	-	-	-	1	1	1	1	-											
Meningitis, except meningococcal and tuberculous-----340	1	1	-	-	-	-	-	-	-	-	-											
Major cardiovascular-renal diseases-----330-334,400-468,592-594	316	-	-	5	5	18	38	63	102	63	24											
Diseases of cardiovascular system-----330-334,400-468	311	-	-	5	5	18	35	61	100	63	24											
Vascular lesions affecting central nervous system-----330-334	60	-	-	-	1	5	3	17	17	11	6											
Rheumatic fever-----400-402	1	-	-	-	-	-	1	-	-	-	-											
Diseases of heart-----410-443	233	-	-	4	3	12	31	44	77	44	18											
Hypertension without mention of heart and general arteriosclerosis-----444-450	11	-	-	-	-	1	-	-	4	6	-											
Other diseases of circulatory system-----451-468	6	-	-	1	1	-	-	-	2	2	-											
Chronic and unspecified nephritis and other renal sclerosis-----592-594	5	-	-	-	-	-	1	2	2	-	-											
Influenza and pneumonia, except pneumonia of newborn-----480-493	79	51	1	-	-	3	6	2	5	8	3											
Ulcer of stomach and duodenum-----540,541	3	1	-	-	-	-	-	-	2	-	-											
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543,571,572	5	4	-	-	-	1	-	-	-	-	-											
Cirrhosis of liver-----581	8	-	-	-	-	3	1	2	2	-	-											
Acute nephritis and nephritis with edema, including nephrosis-----580,591	-	-	-	-	-	-	-	-	-	-	-											
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	10	...	-	1	4	5	-	-	...	...	...											
Congenital malformations-----750-759	12	10	-	1	-	1	-	-	-	-	-											
Symptoms, senility, and ill-defined conditions-----780-795	85	16	1	-	1	3	4	11	7	7	5											
Motor-vehicle accidents-----E810-E835	22	2	-	9	5	2	-	1	2	-	-											
All other accidents-----E800-E802,E840-E862	191	29	12	35	38	24	21	17	4	8	1											
Suicide-----E963,E970-E979	34	-	-	3	4	9	11	3	3	1	-											
Homicide-----E964,E980-E985	20	-	-	2	3	11	4	-	-	-	-											
All other causes-----Residual	144	84	5	5	3	9	9	10	11	8	-											
ALL CAUSES-----	974.0	1,771.6	216.2	385.9	453.7	610.3	1,191.0	2,188.6	5,243.1	11,295.2												
Tuberculosis, all forms-----001-019	189.9	314.5	102.7	157.2	204.2	106.0	215.8	177.0	439.4	602.4												
Syphilis and its sequelae-----020-029	1.6	0	0	0	0	0	0	16.1	0	75.3												
Typhoid fever-----040	0.8	0	0	3.6	0	0	0	0	0	0												
Dysentery, all forms-----045-048	0	0	0	0	0	0	0	0	0	0												
Diphtheria-----055	0	0	0	0	0	0	0	0	0	0												
Whooping cough-----056	18.7	147.6	5.4	0	0	0	0	0	0	0												
Meningococcal infections-----057	1.6	12.8	0	0	0	0	0	0	0	0												
Acute poliomyelitis-----080	5.1	6.4	0	7.1	3.8	0	0	0	0	0												
Measles-----085	2.3	12.8	0	0	0	0	0	0	29.3	0												
All other infective and parasitic diseases-----Residual	1.6	0	0	0	3.8	0	0	0	29.3	0												
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	52.9	6.4	5.4	0	3.6	21.6	103.2	225.3	673.7	803.6												
Diabetes mellitus-----260	3.1	0	0	0	0	0	9.4	16.1	29.3	75.3												
Meningitis, except meningococcal and tuberculous-----340	0.8	6.4	0	0	0	0	0	0	0	0												
Major cardiovascular-renal diseases-----330-334,400-468,592-594	245.6	0	0	17.9	18.9	97.2	337.8	1,013.8	2,987.7	6,551.2												
Diseases of cardiovascular system-----330-334,400-468	241.8	0	0	17.8	18.9	97.2	326.5	981.7	2,929.1	6,551.2												
Vascular lesions affecting central nervous system-----330-334	46.6	0	0	0	3.8	27.0	28.2	273.6	487.9	1,280.1												
Rheumatic fever-----400-402	0.8	0	0	0	0	0	9.4	0	0	0												
Diseases of heart-----410-443	181.1	0	0	14.3	11.3	64.8	290.9	708.1	2,255.4	4,668.7												
Hypertension without mention of heart and general arteriosclerosis-----444-450	8.6	0	0	0	0	5.4	0	0	117.2	451.8												
Other diseases of circulatory system-----451-468	4.7	0	0	3.6	3.8	0	0	0	58.6	150.6												
Chronic and unspecified nephritis and other renal sclerosis-----592-594	3.9	0	0	0	0	0	9.4	32.2	58.6	0												
Influenza and pneumonia, except pneumonia of newborn-----480-493	61.4	327.4	5.4	0	0	16.2	56.3	32.2	146.5	828.3												
Ulcer of stomach and duodenum-----540,541	2.3	6.4	0	0	0	0	0	0	58.6	0												
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543,571,572	3.9	25.7	0	0	0	5.4	0	0	0	0												
Cirrhosis of liver-----581	6.2	0	0	0	0	16.2	9.4	32.2	50.6	0												
Acute nephritis and nephritis with edema, including nephrosis-----580,591	0	0	0	0	0	0	0	0	0	0												
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	7.8	...	0	3.6	15.1	27.0	0	0	...	...												
Congenital malformations-----750-759	9.3	64.2	0	3.6	0	5.4	0	0	0	0												
Symptoms, senility, and ill-defined conditions-----780-795	42.8	102.7	5.4	0	3.8	16.2	37.5	177.0	205.0	905.6												
Motor-vehicle accidents-----E810-E835	17.1	12.8	0	32.2	18.9	10.8	0	16.1	58.6	0												
All other accidents-----E800-E802,E840-E862	148.5	186.1	64.9	125.1	113.7	129.6	197.1	273.6	117.2	677.7												
Suicide-----E963,E970-E979	26.4	0	0	10.7	15.1	48.6	103.2	48.3	87.9	75.3												
Homicide-----E964,E980-E985	15.5	0	0	7.1	11.3	59.4	37.5	0	0	0												
All other causes-----Residual	111.9	539.2	27.0	17.9	11.3	48.6	84.5	180.9	322.2	602.4												

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 9.20. Deaths From 32 Selected Causes, by Month: 1950

(By place of occurrence. Exclusive of fetal deaths. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. Causes in the selected list (table 9.19) for which there were no deaths are not shown)

CAUSE OF DEATH	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
ALL CAUSES-----	1,253	90	79	60	110	112	89	129	120	118	118	109	100
Tuberculosis, all forms-----001-019	243	20	12	16	28	22	15	28	21	20	27	18	16
Syphilis and its sequelae-----02-029	2	-	-	-	-	-	-	1	-	1	-	-	-
Typhoid fever-----040	1	-	-	-	-	-	-	-	-	-	1	-	-
Whooping cough-----056	24	-	-	-	-	-	-	13	5	1	1	1	3
Meningococcal infections-----057	2	-	-	-	-	1	-	-	-	-	-	-	1
Acute poliomyelitis-----080	4	-	-	-	-	-	-	-	1	-	5	-	-
Measles-----085	3	-	1	1	-	-	1	-	-	-	-	-	-
ALL other infective and parasitic diseases-----030-039,041-044,049-054,059-074,081-084,086-138	2	-	-	-	-	-	-	1	1	-	-	-	-
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	69	6	3	5	5	8	5	5	6	6	8	8	4
Diabetes mellitus-----260	4	-	-	-	1	-	-	1	-	1	-	-	1
Meningitis, except meningococcal and tuberculous-----340	1	-	-	1	-	-	-	-	-	-	-	-	-
Major cardiovascular-renal diseases-----330-334,400-468,592-594	316	21	19	16	24	29	33	20	29	23	37	29	36
Diseases of cardiovascular system-----330-334,400-468	311	20	18	16	24	28	32	19	29	23	37	29	36
Vascular lesions affecting central nervous system-----330-334	60	4	3	4	6	4	6	2	6	7	8	4	6
Rheumatic fever-----400-402	1	-	-	-	-	-	1	-	-	-	-	-	-
Diseases of heart-----410-443	233	12	15	11	17	22	23	16	22	15	29	22	29
Hypertension without mention of heart and general arteriosclerosis-----444-450	11	3	-	-	-	2	1	1	1	1	-	1	1
Other diseases of circulatory system-----451-468	6	1	-	1	1	-	1	-	-	-	-	2	-
Chronic and unspecified nephritis and other renal sclerosis-----592-594	5	1	1	-	-	1	1	1	-	-	-	-	-
Influenza and pneumonia, except pneumonia of newborn-----480-493	79	5	6	7	16	7	3	4	11	7	5	4	4
Ulcer of stomach and duodenum-----540,541	3	-	-	-	1	-	1	-	-	-	-	-	1
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543,571,572	5	-	-	1	1	1	1	-	1	-	-	-	-
Cirrhosis of liver-----581	8	1	-	3	1	-	-	-	1	1	-	1	-
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	10	1	-	-	2	2	-	1	1	1	-	2	-
Congenital malformations-----750-759	12	-	4	-	1	1	1	-	1	1	1	1	1
Symptoms, senility, and ill-defined conditions-----780-795	55	8	3	5	3	5	3	6	3	4	4	7	4
Motor-vehicle accidents-----E810-E835	22	2	1	2	1	2	-	2	-	3	4	3	2
All other accidents-----E800-E802,E840-E862	191	12	9	11	10	23	14	21	20	27	15	17	12
Suicide-----E963,E970-E979	34	2	2	3	4	1	2	5	4	2	3	3	3
Homicide-----E984,E980-E985	20	1	-	3	3	2	3	3	-	2	-	1	2
All other causes-----Residual	144	11	19	6	9	8	7	18	15	19	9	15	10





## HAWAII

**Table 10.01. Population; Crude Marriage, Divorce, Birth, and Death Rates; Fetal Death Ratios; and Infant, Neonatal, and Maternal Mortality Rates: 1940-50**

(By place of occurrence. Births and deaths exclusive of fetal deaths. Marriage, divorce, birth, and death rates per 1,000 population; fetal death ratios, and infant and neonatal mortality rates per 1,000 live births; maternal mortality rates per 10,000 live births)

YEAR	POPULATION <sup>1</sup>		Crude marriage rate <sup>2</sup>	Crude divorce rate <sup>3</sup>	Crude birth rate <sup>4</sup>	Crude death rate <sup>5</sup>	Fetal death ratio <sup>6</sup>	Infant mortality rate <sup>7</sup>	Neonatal mortality rate <sup>8</sup>	Maternal mortality rate <sup>9</sup>
	Total <sup>2</sup>	Civilian								
1950	499,794	10476,000	11.2	2.3	28.1	5.8	12.5	24.0	16.3	5.7
1949	510,000	479,000	10.4	2.1	27.7	5.9	12.2	25.3	17.2	4.2
1948	517,000	484,000	10.9	2.7	28.0	6.0	13.4	28.6	21.6	11.1
1947	528,000	489,000	11.1	2.2	27.6	6.1	13.5	31.0	19.7	8.2
1946	535,000	467,000	11.2	3.1	27.4	6.1	15.6	30.1	19.7	12.5
1945	815,000	460,000	6.1	3.3	26.8	4.2	15.6	27.3	16.6	13.0
1944	844,000	437,000	5.8	3.6	28.6	4.4	---	30.4	20.9	20.0
1943	629,000	429,000	7.9	3.8	27.6	5.5	---	37.1	22.7	14.4
1942	556,000	420,000	12.6	3.6	24.8	6.1	---	38.9	24.7	26.9
1941	459,000	411,000	13.2	2.8	24.6	11.7	---	40.3	25.0	23.7
1940	425,330	10395,000	12.6	2.2	22.2	7.3	---	44.7	26.4	24.4

<sup>1</sup>For 1940 and 1950, enumerated as of April 1; for other years, estimated as of July 1.

<sup>2</sup>Includes armed forces stationed in area.

<sup>3</sup>For 1940 and 1950, based on population enumerated as of April 1; for other years, based on total population estimated as of July 1.

<sup>4</sup>For 1940 and 1950, based on population enumerated as of April 1; for 1941-46, based on civilian population estimated as of July 1; for 1947-49, based on total population estimated as of July 1.

<sup>5</sup>Includes amputments.

<sup>6</sup>Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.

<sup>7</sup>Based on deaths under 1 year.

<sup>8</sup>Based on deaths under 1 month.

<sup>9</sup>Based on deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium. For 1949 and 1950, classified according to the Sixth Revision of the International Lists, 1948; for 1940-48, according to the Fifth Revision.

<sup>10</sup>Census count of total population minus estimate of armed forces stationed in area.

**Table 10.02. Birth and Death Rates; Fetal Death Ratios; Infant, Neonatal, and Maternal Mortality Rates; by Race: 1950**

(By place of occurrence. Births and deaths exclusive of fetal deaths. Birth and death rates per 1,000 population in each specified group, enumerated as of April 1; fetal death ratios, and infant and neonatal mortality rates per 1,000 live births; maternal mortality rates per 10,000 live births)

RACE	Birth rate	Death rate	Fetal death ratio <sup>1</sup>	Infant mortality rate <sup>2</sup>	Neonatal mortality rate <sup>3</sup>	Maternal mortality rate <sup>4</sup>
ALL RACES	28.1	5.8	12.5	24.0	16.3	5.7
Hawaiian and Part-Hawaiian	43.7	6.7	16.3	27.9	16.7	8.0
Caucasian	23.5	5.5	14.4	33.3	25.5	7.4
Japanese	24.8	5.3	7.2	14.6	9.8	2.2
All other	26.3	6.4	11.3	24.9	17.3	6.7

<sup>1</sup>Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.

<sup>2</sup>Based on deaths under 1 year.

<sup>3</sup>Based on deaths under 1 month.

<sup>4</sup>Based on deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium, classified according to the Sixth Revision of the International Lists, 1948.



Table 10.03. Marriages, Marriage Licenses, and Divorces and Annulments: 1940-50

(By place of occurrence)

YEAR	NUMBER OF—		Number of divorces and annulments
	Marriages	Marriage licenses	
1950	5,575	5,913	1,173
1949	5,316	5,229	1,052
1948	5,657	5,568	1,388
1947	5,845	5,769	1,178
1946	5,945	5,776	1,453
1945	4,978	4,825	1,530
1944	4,862	4,779	1,574
1943	4,864	5,126	1,610
1942	7,083	7,205	1,517
1941	6,088	6,227	1,147
1940	5,355	5,295	946

Table 10.05. Marriages: Each County and Specified Urban Places, 1950

(By place of occurrence)

AREA	Number of marriages
<b>HAWAII</b>	<b>5,575</b>
Hawaii County	595
Hilo (city)	295
Balance of county	300
Honolulu County	4,249
Honolulu (city)	3,596
Balance of county	653
Kauai County	281
Maui County	440

Table 10.04. Marriages and Marriage Rates by Marital Status of Bride and of Groom: 1950

(By place of occurrence. Rates per 1,000 population aged 15 years and over in each specified group, enumerated as of April 1)

MARITAL STATUS	NUMBER		RATE	
	Bride	Groom	Bride	Groom
<b>ALL MARRIAGES</b>	<b>5,575</b>	<b>5,575</b>	<b>94.5</b>	<b>59.1</b>
First marriages	4,686	4,469	107.4	54.6
Remarriages	909	1,106	58.5	72.8
Widowed	125	172	10.7	25.4
Divorced	784	934	205.6	182.1

Table 10.06. Marriages by Race of Bride by Race of Groom: 1950

(By place of occurrence)

RACE OF GROOM	All races	RACE OF BRIDE			
		Hawaiian and Part-Hawaiian	Caucasian	Japanese	All other
<b>ALL RACES</b>	<b>5,575</b>	<b>1,117</b>	<b>1,246</b>	<b>2,072</b>	<b>1,140</b>
Hawaiian and Part-Hawaiian	605	544	82	65	116
Caucasian	1,707	290	1,055	161	201
Japanese	1,850	71	15	1,721	45
All other	1,213	212	94	127	780

Table 10.07. Live Births; Fetal Deaths; Total and Infant Deaths;  
by Race, Sex, and Month: 1950

(By place of occurrence. Fetal deaths include only those for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.  
Deaths exclusive of fetal deaths)

RACE AND SEX	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
LIVE BIRTHS													
ALL RACES-----	14,054	1,210	1,063	1,208	1,145	1,195	1,114	1,162	1,197	1,197	1,257	1,133	1,173
Male-----	7,133	581	537	634	602	636	540	578	576	614	655	567	611
Female-----	6,921	629	526	574	543	557	574	584	621	583	602	566	562
Hawaiian and Part-Hawaiian-----	3,782	321	297	310	297	330	290	298	359	332	327	302	319
Male-----	1,892	156	149	160	151	172	145	137	167	175	177	144	161
Female-----	1,870	165	138	150	146	158	145	151	192	159	150	158	158
Caucasian-----	2,702	247	211	233	229	208	217	238	225	249	235	185	225
Male-----	1,365	119	101	125	123	112	108	112	120	115	124	93	113
Female-----	1,337	128	110	108	106	96	109	126	105	134	111	92	112
Japanese-----	4,593	399	363	412	371	405	340	393	375	367	407	364	377
Male-----	2,309	178	174	205	199	215	156	206	166	194	207	205	204
Female-----	2,274	211	189	207	172	190	184	187	209	173	200	179	173
All other-----	3,007	253	202	253	248	252	267	243	238	249	298	262	252
Male-----	1,567	128	113	144	129	139	131	123	123	132	147	125	133
Female-----	1,440	125	89	109	119	113	136	120	115	117	141	137	119
FETAL DEATHS													
ALL RACES-----	175	12	9	19	7	20	13	21	12	16	13	12	21
Male-----	95	5	5	14	2	12	7	9	7	10	7	7	10
Female-----	79	7	4	5	5	8	6	12	5	6	6	5	10
Not stated--	1	-	-	-	-	-	-	-	-	-	-	-	1
Hawaiian and Part-Hawaiian-----	69	8	2	6	1	7	7	12	1	5	5	5	15
Male-----	34	3	-	3	1	3	3	5	1	2	1	4	8
Female-----	35	2	2	3	-	4	4	7	-	3	4	1	5
Not stated--	-	-	-	-	-	-	-	-	-	-	-	-	-
Caucasian-----	39	5	1	3	2	5	1	5	8	1	2	4	2
Male-----	19	2	1	2	-	3	1	3	3	1	1	1	1
Female-----	20	3	-	1	2	2	-	2	5	-	1	3	1
Not stated--	-	-	-	-	-	-	-	-	-	-	-	-	-
Japanese-----	33	1	4	4	3	3	2	3	1	4	4	-	4
Male-----	19	-	2	3	1	2	1	1	1	3	4	-	1
Female-----	13	1	2	1	2	1	1	2	-	1	-	-	2
Not stated--	1	-	-	-	-	-	-	-	-	-	-	-	1
All other-----	34	1	2	6	1	5	3	1	2	6	2	3	2
Male-----	23	-	2	6	-	4	2	-	2	4	1	2	-
Female-----	11	1	-	-	1	1	1	1	-	2	1	1	2
Not stated--	-	-	-	-	-	-	-	-	-	-	-	-	-
DEATHS UNDER 1 YEAR													
ALL RACES-----	337	26	24	40	29	34	22	20	25	32	34	27	24
Male-----	191	18	14	15	14	22	14	14	11	16	22	14	17
Female-----	146	10	10	25	15	12	8	6	12	16	12	13	7
Hawaiian and Part-Hawaiian-----	105	13	9	11	7	11	7	4	6	10	11	8	8
Male-----	62	9	6	4	2	8	6	3	3	5	7	3	6
Female-----	43	4	3	7	5	3	1	1	3	5	4	5	2
Caucasian-----	90	4	7	10	10	13	5	6	3	11	11	7	5
Male-----	49	2	3	2	6	7	3	4	2	7	8	3	2
Female-----	41	2	4	8	4	6	2	2	1	4	3	4	1
Japanese-----	67	5	4	10	5	5	3	6	7	5	7	4	6
Male-----	42	4	3	4	4	4	2	5	4	2	4	1	5
Female-----	25	1	1	6	1	1	1	1	3	3	3	3	1
All other-----	75	6	4	9	7	5	7	4	7	6	5	8	7
Male-----	38	3	2	5	2	3	3	2	2	2	3	7	4
Female-----	37	3	2	4	5	2	4	2	5	4	2	1	3
TOTAL DEATHS													
ALL RACES-----	2,919	278	211	240	239	262	240	217	238	252	228	259	256
Male-----	1,864	192	141	140	148	167	161	145	151	148	141	163	167
Female-----	1,055	86	70	100	91	95	79	72	87	104	87	95	89
Hawaiian and Part-Hawaiian-----	581	54	41	41	49	63	40	38	46	53	46	50	60
Male-----	324	32	22	20	27	38	30	22	28	24	24	24	33
Female-----	257	22	19	21	22	25	10	16	18	29	22	26	27
Caucasian-----	633	56	40	59	61	63	46	41	51	55	53	57	51
Male-----	377	35	23	30	44	34	26	26	33	29	35	29	29
Female-----	256	21	17	29	17	29	18	13	18	26	18	28	22
Japanese-----	977	90	73	90	63	79	86	85	86	82	79	77	89
Male-----	520	61	48	51	35	48	58	58	53	51	46	53	58
Female-----	357	29	25	39	28	30	28	27	33	31	32	24	31
All other-----	728	78	57	50	66	58	68	53	55	62	51	74	56
Male-----	543	64	48	39	42	47	45	37	37	44	36	57	47
Female-----	185	14	9	11	24	11	23	16	18	18	15	17	9

Table 10.08. Live Births by Attendant; Fetal Deaths; Total, Infant, and Neonatal Deaths; by Race: Each County and Specified Urban Places, 1950

(By place of occurrence. Includes data for all urban places with populations of 10,000 or more in 1950. Fetal deaths include only those for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated)

AREA AND RACE	LIVE BIRTHS					Fetal deaths	DEATHS (EXCLUSIVE OF FETAL DEATHS)		
	Total	Attended by--					Total	Under 1 year	Under 28 days
		Physician in hospital <sup>1</sup>	Physician not in hospital	Midwife	Other and not specified				
<b>HAWAII</b>	<b>14,054</b>	<b>15,641</b>	<b>75</b>	<b>164</b>	<b>174</b>	<b>175</b>	<b>2,919</b>	<b>337</b>	<b>229</b>
Hawaiian and Part-Hawaiian	3,762	3,492	36	91	143	69	581	105	63
Caucasian	2,702	2,692	7	2	1	39	633	90	69
Japanese	4,583	4,511	20	45	7	33	977	67	45
All other	3,007	2,946	12	26	23	34	728	75	52
<b>Hawaii County</b>	<b>1,740</b>	<b>1,650</b>	<b>19</b>	<b>12</b>	<b>58</b>	<b>20</b>	<b>402</b>	<b>48</b>	<b>37</b>
Hawaiian and Part-Hawaiian	544	475	14	9	46	9	96	19	13
Caucasian	185	185	-	-	-	4	61	6	5
Japanese	719	712	2	1	4	4	228	17	15
All other	300	296	2	2	8	3	97	6	4
<b>Hilo (city)</b>	<b>953</b>	<b>917</b>	<b>6</b>	<b>-</b>	<b>10</b>	<b>6</b>	<b>245</b>	<b>33</b>	<b>27</b>
Hawaiian and Part-Hawaiian	267	255	5	-	7	3	51	10	8
Caucasian	108	108	-	-	-	2	35	6	5
Japanese	434	434	-	-	-	1	110	14	12
All other	124	120	1	-	3	-	49	3	2
<b>Balance of county</b>	<b>815</b>	<b>743</b>	<b>12</b>	<b>12</b>	<b>48</b>	<b>14</b>	<b>237</b>	<b>15</b>	<b>10</b>
Hawaiian and Part-Hawaiian	277	220	9	9	39	6	45	9	5
Caucasian	77	77	-	-	-	2	26	-	-
Japanese	285	278	2	1	4	3	118	3	3
All other	176	168	1	2	5	3	48	3	2
<b>Honolulu County</b>	<b>10,324</b>	<b>10,048</b>	<b>50</b>	<b>146</b>	<b>80</b>	<b>133</b>	<b>1,946</b>	<b>254</b>	<b>170</b>
Hawaiian and Part-Hawaiian	2,651	2,489	19	76	67	45	390	71	40
Caucasian	2,298	2,239	6	2	1	33	496	79	62
Japanese	3,089	3,036	16	44	3	27	589	45	27
All other	2,276	2,234	9	24	9	28	501	59	41
<b>Honolulu (city)</b>	<b>9,299</b>	<b>9,107</b>	<b>28</b>	<b>126</b>	<b>39</b>	<b>113</b>	<b>1,641</b>	<b>220</b>	<b>156</b>
Hawaiian and Part-Hawaiian	2,410	2,300	10	69	31	38	314	55	36
Caucasian	2,219	2,213	3	2	1	31	436	73	61
Japanese	2,801	2,746	12	40	3	26	468	41	23
All other	1,869	1,848	3	15	3	18	423	51	36
<b>Balance of county</b>	<b>1,025</b>	<b>941</b>	<b>22</b>	<b>20</b>	<b>42</b>	<b>20</b>	<b>305</b>	<b>34</b>	<b>14</b>
Hawaiian and Part-Hawaiian	241	199	9	7	36	7	76	16	4
Caucasian	79	76	3	-	-	2	60	6	1
Japanese	298	290	4	4	4	1	91	4	4
All other	407	396	6	9	6	10	78	8	5
<b>Kauai County</b>	<b>745</b>	<b>732</b>	<b>4</b>	<b>-</b>	<b>9</b>	<b>5</b>	<b>182</b>	<b>14</b>	<b>12</b>
Hawaiian and Part-Hawaiian	160	160	1	-	8	3	31	7	6
Caucasian	92	92	-	-	-	1	24	2	1
Japanese	299	297	2	-	-	-	71	1	1
All other	185	183	1	-	1	1	56	4	4
<b>Maui County</b>	<b>1,237</b>	<b>1,201</b>	<b>3</b>	<b>6</b>	<b>27</b>	<b>17</b>	<b>309</b>	<b>21</b>	<b>10</b>
Hawaiian and Part-Hawaiian	398	368	2	6	22	12	64	8	4
Caucasian	127	126	1	-	-	1	52	3	1
Japanese	466	466	-	-	-	2	119	4	2
All other	246	241	-	-	5	2	74	6	3

<sup>1</sup>It is assumed that all births in hospitals or institutions are attended by physicians.

Table 10.09. Live Births by Age of Mother, Birth Order, and Race: 1950

(By place of occurrence. Birth order refers to number of children born alive to mother)

AGE OF MOTHER AND RACE OF CHILD	Total	BIRTH ORDER													
		1st	2d	3d	4th	5th	6th	7th	8th	9th	10th	11th	12th	15th and over	Not stated
ALL RACES-----	14,054	4,189	3,795	2,574	1,475	840	487	289	171	113	69	35	28	42	1
10-14 years-----	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years-----	1,183	822	281	65	15	-	-	-	-	-	-	-	-	-	-
20-24 years-----	4,578	1,804	1,418	786	367	143	47	10	1	1	-	-	-	-	1
25-29 years-----	4,637	1,111	1,382	944	528	317	178	102	54	17	3	-	-	-	1
30-34 years-----	2,485	322	547	596	386	252	126	91	65	46	28	12	8	6	-
35-39 years-----	959	95	143	165	160	110	78	65	37	37	25	15	10	19	-
40-44 years-----	187	20	21	19	16	7	19	14	12	11	8	8	14	14	-
45 years and over-----	10	-	1	-	-	2	1	2	-	-	2	-	-	2	-
Not stated-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HAWAIIAN AND PART-HAWAIIAN-----	3,762	955	787	660	444	316	198	151	84	64	39	23	15	27	-
10-14 years-----	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years-----	575	371	154	40	10	-	-	-	-	-	-	-	-	-	-
20-24 years-----	1,489	439	425	335	174	80	26	8	1	1	-	-	-	-	-
25-29 years-----	960	102	149	196	160	138	99	63	36	13	3	-	-	1	-
30-34 years-----	458	25	40	65	73	71	41	44	33	29	17	11	6	3	-
35-39 years-----	215	11	13	20	18	23	31	28	12	16	13	9	8	15	-
40-44 years-----	58	3	5	4	9	3	1	8	2	5	5	3	1	9	-
45 years and over-----	3	-	1	-	-	1	-	-	-	-	-	-	-	1	-
Not stated-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CAUCASIAN-----	2,702	883	897	543	246	82	29	11	8	2	-	-	-	1	-
10-14 years-----	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years-----	155	122	31	1	-	-	-	-	-	-	-	-	-	-	-
20-24 years-----	797	362	278	105	44	6	2	-	-	-	-	-	-	-	-
25-29 years-----	976	257	383	206	94	25	8	3	-	-	-	-	-	-	-
30-34 years-----	530	89	149	172	64	31	15	3	6	1	-	-	-	-	-
35-39 years-----	208	40	46	55	40	18	3	3	2	1	-	-	-	-	-
40-44 years-----	35	12	10	4	3	2	1	2	-	-	-	-	-	1	-
45 years and over-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not stated-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JAPANESE-----	4,583	1,600	1,330	816	430	215	82	50	25	12	10	3	6	3	1
10-14 years-----	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years-----	102	87	13	2	-	-	-	-	-	-	-	-	-	-	-
20-24 years-----	1,217	700	557	121	33	4	1	-	-	-	-	-	-	-	1
25-29 years-----	1,822	617	619	365	147	52	15	6	1	-	-	-	-	-	-
30-34 years-----	1,034	159	278	263	177	102	32	18	2	1	2	-	-	-	-
35-39 years-----	350	32	58	59	71	50	30	19	15	16	3	2	1	3	-
40-44 years-----	52	2	5	6	2	7	3	6	7	1	4	1	5	3	-
45 years and over-----	3	-	-	-	-	-	1	1	-	-	1	-	-	-	-
Not stated-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL OTHER-----	3,007	751	779	556	355	227	128	77	54	35	21	9	5	11	-
10-14 years-----	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years-----	351	242	83	22	4	-	-	-	-	-	-	-	-	-	-
20-24 years-----	1,075	303	358	225	116	53	18	2	-	-	-	-	-	-	-
25-29 years-----	879	135	231	177	127	102	56	30	17	4	-	-	-	-	-
30-34 years-----	463	49	80	96	72	48	38	26	24	15	9	1	2	3	-
35-39 years-----	186	12	26	31	31	19	14	15	8	10	9	4	1	6	-
40-44 years-----	42	3	1	4	5	4	2	3	5	6	2	4	2	1	-
45 years and over-----	4	-	-	-	-	1	-	1	-	-	1	-	-	1	-
Not stated-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 10.10. Total Live Births and Cases of Plural Births in Which at Least One Child Was Born Alive, by Race: 1950

(By place of occurrence. The term "cases" refers to confinements resulting in either single or plural issue and is synonymous with "sets" in figures for plural births. Total number of cases is necessarily less than total number of births for any given period)

RACE	Total live births	Total cases (single and plural)	CASES OF PLURAL BIRTHS IN WHICH AT LEAST ONE CHILD WAS BORN ALIVE		
			Total	Twins <sup>1</sup>	Triplets
ALL RACES-----	14,054	13,949	108	106	2
Hawaiian and Part-Hawaiian-----	3,762	3,729	56	56	-
Caucasian-----	2,702	2,674	27	26	1
Japanese-----	4,583	4,558	27	27	-
All other-----	3,007	2,988	18	17	1

<sup>1</sup>Excludes 2 cases of twins in which only one mate was reported.

Table 10.11. Live Births by Birth Weight, Race, and Period of Gestation:1950

(By place of occurrence)

RACE AND PERIOD OF GESTATION	Total	BIRTH WEIGHT <sup>1</sup>										
		500 grams or less	501-1,000 grams	1,001-1,500 grams	1,501-2,000 grams	2,001-2,500 grams	2,501-3,000 grams	3,001-3,500 grams	3,501-4,000 grams	4,001-4,500 grams	4,501 grams or more	Not stated
ALL RACES	14,054	3	39	66	190	848	3,359	5,900	2,086	605	113	45
Under 20 weeks	57	-	-	-	-	-	-	-	-	-	-	-
20-27 weeks	57	3	24	13	6	3	1	-	-	-	-	7
28-31 weeks	122	-	13	32	41	26	1	1	1	1	-	6
32-35 weeks	245	-	1	14	80	101	31	4	5	-	-	9
36 weeks	1,199	-	1	1	25	145	320	458	196	43	7	3
37-39 weeks	470	-	-	-	11	91	160	152	41	8	6	1
40 weeks	11,818	-	-	3	24	470	2,820	5,220	2,624	542	99	16
41-42 weeks	96	-	-	-	-	2	17	56	13	8	-	-
43 weeks and over	19	-	-	-	-	-	7	4	4	3	1	-
Reported as premature	-	-	-	-	-	-	-	-	-	-	-	-
Not stated	28	-	-	3	3	10	2	5	2	-	-	3
HAWAIIAN AND PART-HAWAIIAN	3,762	-	11	17	45	207	824	1,504	865	209	55	25
Under 20 weeks	-	-	-	-	-	-	-	-	-	-	-	-
20-27 weeks	14	-	5	3	1	2	1	-	-	-	-	2
28-31 weeks	46	-	6	7	13	16	-	-	1	-	-	3
32-35 weeks	56	-	-	2	18	21	10	2	1	-	-	2
36 weeks	348	-	-	-	8	28	89	125	70	19	6	3
37-39 weeks	128	-	-	-	2	20	34	42	18	6	4	-
40 weeks	3,135	-	-	3	3	117	665	1,319	766	185	44	13
41-42 weeks	17	-	-	-	-	-	2	12	3	-	-	-
43 weeks and over	6	-	-	-	-	-	2	-	2	1	1	-
Reported as premature	-	-	-	-	-	-	-	-	-	-	-	-
Not stated	14	-	-	2	-	3	1	4	2	-	-	2
CAUCASIAN	2,702	-	9	16	45	147	496	1,081	708	165	24	13
Under 20 weeks	-	-	-	-	-	-	-	-	-	-	-	-
20-27 weeks	15	-	6	4	2	-	-	-	-	-	-	4
28-31 weeks	22	-	2	7	7	3	-	-	-	-	-	3
32-35 weeks	51	-	1	4	18	21	2	-	-	-	-	5
36 weeks	100	-	-	1	2	26	22	30	18	1	-	-
37-39 weeks	64	-	-	-	3	21	22	12	5	-	1	-
40 weeks	2,452	-	-	-	9	74	449	1,030	685	162	23	-
41-42 weeks	12	-	-	-	-	1	1	8	-	2	-	-
43 weeks and over	-	-	-	-	-	-	-	-	-	-	-	-
Reported as premature	-	-	-	-	-	-	-	-	-	-	-	-
Not stated	5	-	-	-	2	1	-	1	-	-	-	1
JAPANESE	4,585	-	13	15	58	244	1,212	2,068	813	148	14	-
Under 20 weeks	-	-	-	-	-	-	-	-	-	-	-	-
20-27 weeks	16	-	10	4	2	-	-	-	-	-	-	-
28-31 weeks	27	-	3	6	12	4	-	1	-	1	-	-
32-35 weeks	67	-	-	4	24	29	8	1	-	-	-	-
36 weeks	466	-	-	-	8	43	131	195	76	14	1	-
37-39 weeks	163	-	-	-	3	26	65	59	10	-	-	-
40 weeks	3,770	-	-	-	8	138	989	1,781	717	124	13	-
41-42 weeks	53	-	-	-	-	1	12	27	8	5	-	-
43 weeks and over	13	-	-	-	-	-	5	4	2	2	-	-
Reported as premature	-	-	-	-	-	-	-	-	-	-	-	-
Not stated	6	-	-	1	1	3	1	-	-	-	-	-
ALL OTHER	3,007	3	6	18	44	250	827	1,247	500	85	20	7
Under 20 weeks	-	-	-	-	-	-	-	-	-	-	-	-
20-27 weeks	11	3	3	2	1	1	-	-	-	-	-	1
28-31 weeks	27	-	2	12	9	3	1	-	-	-	-	-
32-35 weeks	71	-	-	4	20	30	10	1	4	-	-	2
36 weeks	283	-	1	-	7	49	78	108	32	9	-	-
37-39 weeks	117	-	-	-	3	24	39	39	8	2	1	1
40 weeks	2,481	-	-	-	4	141	697	1,090	454	73	19	3
41-42 weeks	14	-	-	-	-	-	2	9	2	1	-	-
43 weeks and over	-	-	-	-	-	-	-	-	-	-	-	-
Reported as premature	-	-	-	-	-	-	-	-	-	-	-	-
Not stated	3	-	-	-	-	3	-	-	-	-	-	-

<sup>1</sup>The equivalents of the gram weights in terms of pounds and ounces are as follows:

500 grams or less = 1 lb. 1 oz. or less  
 501-1,000 grams = 1 lb. 2 oz.-2 lbs. 3 oz.  
 1,001-1,500 grams = 2 lbs. 4 oz.-3 lbs. 4 oz.  
 1,501-2,000 grams = 3 lbs. 5 oz.-4 lbs. 6 oz.

2,001-2,500 grams = 4 lbs. 7 oz.-5 lbs. 8 oz.  
 2,501-3,000 grams = 5 lbs. 9 oz.-6 lbs. 9 oz.  
 3,001-3,500 grams = 6 lbs. 10 oz.-7 lbs. 11 oz.

3,501-4,000 grams = 7 lbs. 12 oz.-8 lbs. 13 oz.  
 4,001-4,500 grams = 8 lbs. 14 oz.-9 lbs. 14 oz.  
 4,501 grams or more = 9 lbs. 15 oz. or more

Table 10.12. Infant Mortality Rates by Race and Sex: 1940-50

(By place of occurrence. Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births in each specified group)

RACE AND SEX	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
ALL RACES-----	24.0	25.3	28.6	31.0	30.1	27.3	30.4	37.1	38.9	40.3	44.7
Male----	26.8	29.2	32.3	32.4	34.9	30.6	34.2	40.7	43.5	45.5	51.3
Female--	21.1	21.1	24.7	29.4	25.1	23.8	26.4	33.2	33.9	34.7	37.7
Hawaiian and Part-Hawaiian-----	27.9	32.8	35.4	44.1	34.7	33.7	32.0	47.8	51.2	58.5	52.6
Male----	32.8	37.2	41.5	42.6	43.2	41.3	35.9	52.9	56.6	60.6	56.7
Female--	23.0	28.1	29.1	45.8	25.8	25.5	27.9	42.2	45.3	58.2	48.2
Caucasian-----	33.3	21.4	24.0	27.4	29.6	23.9	34.6	31.1	35.4	29.5	37.1
Male----	35.9	27.9	27.5	29.2	33.9	29.6	38.2	31.8	42.5	33.6	40.3
Female--	30.7	14.5	20.3	25.4	25.0	17.9	30.9	30.3	28.2	25.1	33.7
Japanese-----	14.6	19.0	26.9	22.9	24.3	23.9	23.0	28.9	28.2	24.2	30.8
Male----	18.2	20.5	25.1	26.0	27.7	24.6	27.5	32.6	30.8	30.8	33.6
Female--	11.0	17.3	28.9	19.5	20.9	23.3	18.3	24.9	25.5	17.2	27.8
All other-----	24.9	28.8	28.2	32.2	34.3	27.4	38.1	41.1	42.9	52.8	73.7
Male----	24.3	34.5	37.9	34.1	37.3	27.5	40.9	44.1	48.4	61.0	89.1
Female--	25.7	24.7	18.0	30.3	31.3	27.3	35.2	37.6	36.9	43.7	55.8

Table 10.13. Deaths Under 1 Year, by Detailed Age, Race, and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths)

AGE	Total	ALL RACES		HAWAIIAN AND PART-HAWAIIAN		CAUCASIAN		JAPANESE		ALL OTHER	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
		UNDER 1 YEAR-----	357	191	146	62	43	49	41	42	25
Under 1 day-----	133	78	55	25	15	20	14	15	13	18	15
1 day-----	30	17	13	3	4	8	4	5	-	1	5
2 days-----	16	7	9	-	4	4	4	2	-	1	1
3 days-----	9	7	2	3	1	2	1	2	-	-	-
4 days-----	8	5	3	1	1	1	1	1	1	2	-
5 days-----	2	1	1	-	-	-	-	-	-	1	1
6 days-----	2	2	-	-	-	1	-	-	-	1	-
7-15 days-----	16	10	6	1	2	3	3	2	1	4	-
14-20 days-----	8	4	4	3	1	1	2	-	1	-	-
21-27 days-----	5	2	3	1	-	-	-	1	1	-	2
Under 28 days-----	229	133	96	37	26	40	29	28	17	28	24
28-59 days-----	18	11	7	5	3	3	1	1	-	2	3
2 months-----	12	7	5	2	3	-	-	2	2	3	-
3 months-----	14	8	6	2	-	2	2	3	1	1	3
4 months-----	11	6	5	1	2	2	-	2	2	1	1
5 months-----	11	6	5	4	2	1	2	1	-	-	1
6 months-----	6	4	2	3	-	-	1	1	1	-	-
7 months-----	6	4	2	1	-	-	1	2	1	1	-
8 months-----	13	8	5	3	3	1	-	2	1	2	1
9 months-----	2	1	1	1	-	-	-	-	-	-	1
10 months-----	7	1	6	1	3	-	3	-	-	-	-
11 months-----	8	2	6	2	1	-	2	-	-	-	3

Table 10.14. Deaths Under 1 Year and Under 28 Days, From 45 Selected Causes, by Race: 1950

(By place of occurrence. Exclusive of fetal deaths. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. Causes in the selected list (table 9.15, Alaska) for which there were no deaths are not shown)

CAUSE OF DEATH	ALL RACES			HAWAIIAN AND PART-HAWAIIAN			CAUCASIAN			JAPANESE			ALL OTHER		
	Under 1 year	Under 28 days	28 days-11 months	Under 1 year	Under 28 days	28 days-11 months	Under 1 year	Under 28 days	28 days-11 months	Under 1 year	Under 28 days	28 days-11 months	Under 1 year	Under 28 days	28 days-11 months
ALL CAUSES-----	337	229	108	105	63	42	90	69	21	67	45	22	75	52	23
Tuberculosis, all forms-----001-019	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
Syphilis and its sequelae-----020-029	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-
All other infective and parasitic diseases-----030-044,049-055,057-138	5	2	1	3	2	1	-	-	-	-	-	-	-	-	-
Meningitis, except meningococcal and tuberculous-----340	5	2	5	3	-	3	2	2	-	-	-	-	-	-	-
All other diseases of nervous system and sense organs-----350-354,361-398	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-
Influenza and pneumonia, except pneumonia of newborn-----480-485	25	1	24	17	1	16	3	-	3	2	-	2	3	-	3
Influenza-----480-485	3	1	2	2	1	1	-	-	-	-	-	-	1	-	1
Pneumonia, except pneumonia of newborn-----490-495	22	...	22	15	...	15	3	...	3	2	...	2	2	...	2
All other diseases of respiratory system-----470-475,500-527	7	-	7	2	-	2	2	-	2	3	-	3	-	-	-
Hernia and intestinal obstruction-----560,561,570	6	2	4	2	-	2	2	1	1	-	-	-	2	1	1
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----545,571,572	11	-	11	4	-	4	-	-	-	2	-	2	5	-	5
All other diseases of digestive system-----530-542,544-553,573-587	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
Congenital malformations-----750-759	54	29	25	5	2	3	15	9	6	19	8	11	15	10	5
Spina bifida and meningocoele-----751	1	1	-	-	-	-	-	-	-	1	1	-	-	-	-
Congenital malformations of circulatory system-----754	36	17	19	5	2	3	9	5	4	12	5	7	10	5	5
All other congenital malformations-----750,752,753,755-759	17	11	6	-	-	-	6	4	2	6	2	4	5	-	-
Certain diseases of early infancy-----760-776	195	188	7	59	57	1	59	56	3	37	35	2	41	40	1
Birth injuries-----760,761	40	40	-	9	9	-	15	15	-	3	3	-	15	13	-
Without mention of immaturity (.0)-----	19	19	-	3	3	-	9	9	-	1	1	-	6	6	-
With immaturity (.5)-----	21	21	-	6	6	-	6	6	-	2	2	-	7	7	-
Intracranial and spinal injury at birth-----760	20	20	-	2	2	-	12	12	-	1	1	-	5	5	-
Without mention of immaturity (.0)-----	11	11	-	1	1	-	7	7	-	1	1	-	2	2	-
With immaturity (.5)-----	9	9	-	1	1	-	5	5	-	-	-	-	3	3	-
Other birth injury-----761	20	20	-	7	7	-	3	3	-	2	2	-	8	8	-
Without mention of immaturity (.0)-----	8	8	-	2	2	-	2	2	-	-	-	-	4	4	-
With immaturity (.5)-----	12	12	-	5	5	-	1	1	-	2	2	-	4	4	-
Postnatal asphyxia and atelectasis-----762	79	77	2	26	25	1	24	24	-	12	12	-	17	16	1
Without mention of immaturity (.0)-----	24	22	2	7	6	1	5	5	-	7	7	-	5	4	1
With immaturity (.5)-----	55	55	-	19	19	-	19	19	-	5	5	-	12	12	-
Pneumonia of newborn-----765	10	10	...	4	4	...	4	4	...	-	-	...	2	2	...
Without mention of immaturity (.0)-----	7	7	...	2	2	...	3	3	...	-	-	...	2	2	...
With immaturity (.5)-----	3	3	...	2	2	...	1	1	...	-	-	...	-	-	...
Diarrhea of newborn-----764	2	2	-	-	-	-	-	-	-	1	1	-	1	1	-
Without mention of immaturity (.0)-----	1	1	-	-	-	-	-	-	-	1	1	-	-	-	-
With immaturity (.5)-----	1	1	-	-	-	-	-	-	-	-	-	-	1	1	-
Neonatal disorders arising from maternal toxemia-----769	2	2	-	1	1	-	-	-	-	1	1	-	-	-	-
Without mention of immaturity (.0-1)-----	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-
With immaturity (.5-9)-----	1	1	-	-	-	-	-	-	-	1	1	-	-	-	-
Hemolytic disease of newborn (erythroblastosis)-----770	3	3	-	-	-	-	2	2	-	-	-	-	1	1	-
Without mention of immaturity (.0-2)-----	3	3	-	-	-	-	2	2	-	-	-	-	1	1	-
Hemorrhagic disease of newborn-----771	8	8	-	1	1	-	2	2	-	4	4	-	1	1	-
Without mention of immaturity (.0)-----	5	5	-	1	1	-	1	1	-	3	3	-	-	-	-
With immaturity (.5)-----	3	3	-	-	-	-	1	1	-	1	1	-	1	1	-
Ill-defined diseases peculiar to early infancy, including nutritional maladjustment-----772,773	2	2	-	2	2	-	-	-	-	-	-	-	-	-	-
With immaturity (.5)-----	2	2	-	2	2	-	-	-	-	-	-	-	-	-	-
Immaturity with mention of any other subsidiary condition-----774	4	-	4	-	-	-	2	2	2	2	-	2	-	-	-
Immaturity unqualified-----776	45	44	1	15	15	-	10	9	1	14	14	-	6	6	-
Symptoms and ill-defined conditions-----780-795	2	1	1	-	-	-	-	-	-	1	1	-	1	-	1
All other diseases-----Residual	11	1	10	4	1	3	3	-	3	1	-	1	3	-	3
Accidents-----E800-E962	14	2	12	6	-	6	3	-	3	1	1	-	4	1	3
Tabulation and ingestion of food or other object causing obstruction or suffocation-----E921,E922	7	1	6	3	-	3	2	-	2	-	-	-	2	1	1
Accidental mechanical suffocation in bed and cradle-----E924	4	-	4	2	-	2	1	-	1	-	-	-	1	-	1
All other accidental causes-----E800-E920,E923,E925-E962	3	1	2	1	-	1	-	-	-	1	1	-	1	-	-

Table 10.15. Deaths and Death Rates by Age, Race, and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE AND SEX	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
ALL RACES-----	2,919	337	81	45	101	117	203	353	534	578	431	139
Male----	1,864	191	48	26	60	71	131	236	354	391	280	76
Female--	1,055	146	33	19	41	46	72	117	180	187	151	63
Hawaiian and Part-Hawaiian-----	591	105	25	9	24	29	47	86	106	82	47	21
Male----	324	62	17	6	11	15	24	48	61	49	24	7
Female--	257	43	8	3	13	14	23	38	45	33	23	14
Caucasian-----	633	90	13	5	28	23	43	71	120	117	85	58
Male----	377	49	8	3	22	17	28	51	74	72	42	11
Female--	256	41	5	2	6	6	15	20	46	45	43	27
Japanese-----	977	67	29	18	27	43	40	81	186	261	186	39
Male----	620	42	16	9	15	22	21	48	120	177	128	24
Female--	357	25	13	9	12	21	19	35	66	84	58	15
All other-----	728	75	14	13	22	22	73	115	122	118	113	41
Male----	543	38	7	8	12	17	58	91	99	85	86	34
Female--	185	37	7	5	10	5	15	24	23	25	27	7
RATE												
ALL RACES-----	5.8	26.7	1.6	0.5	1.1	1.3	3.1	5.0	20.5	40.1	83.3	164.3
Male----	6.8	29.6	1.8	0.6	1.2	1.4	3.2	9.1	23.7	45.2	86.9	148.4
Female--	4.7	23.7	1.3	0.4	0.9	1.1	2.8	6.5	16.2	32.5	77.5	188.6
Hawaiian and Part-Hawaiian-----	6.7	33.2	2.0	0.4	1.5	2.5	5.7	16.2	35.7	65.2	128.8	233.3
Male----	7.6	39.4	2.7	0.5	1.4	2.6	6.0	19.0	41.2	81.1	137.9	184.2
Female--	5.9	27.0	1.3	0.3	1.6	2.4	5.4	13.6	30.3	50.5	120.4	269.2
Caucasian-----	5.5	35.7	1.3	0.3	1.3	0.9	2.4	6.7	19.4	39.3	87.6	178.4
Male----	5.8	37.5	1.5	0.4	1.4	1.1	2.8	9.1	22.7	50.5	99.8	125.0
Female--	5.2	33.7	1.0	0.3	0.9	0.5	1.9	4.1	15.7	29.0	78.3	216.0
Japanese-----	6.3	15.9	1.8	0.5	0.7	1.2	2.0	5.8	17.0	35.4	71.7	144.4
Male----	6.6	19.5	1.7	0.5	0.8	1.2	2.0	6.8	21.2	39.4	78.0	133.3
Female--	3.9	12.1	1.5	0.5	0.6	1.1	2.0	4.9	12.5	29.1	61.0	166.7
All other-----	6.4	27.6	1.5	0.7	1.2	1.3	3.6	7.9	20.5	42.4	90.8	150.2
Male----	7.5	26.9	1.3	0.8	1.2	1.7	3.6	8.2	21.9	43.8	87.2	165.0
Female--	4.4	28.9	1.3	0.5	1.1	0.7	3.6	7.1	16.1	37.8	104.7	104.5

<sup>1</sup>No deaths reported for which age was not stated.



Table 10.16. Death Rates for 64 Selected Causes: 1940-50

(By place of occurrence. Exclusive of fetal deaths. Rates per 100,000 population enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1941-49)

Cause of death	SIXTH REVISION OF INTERNATIONAL LISTS, 1948 <sup>1</sup>				FIFTH REVISION OF INTERNATIONAL LISTS, 1938 <sup>1</sup>						
	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
ALL CAUSES	584.0	592.2	600.4	609.7	605.8	418.7	441.7	531.5	611.0	1,165.8	729.7
Tuberculosis, all forms	23.4	21.4	33.8	45.1	48.0	36.4	35.3	39.1	50.0	56.4	60.7
Tuberculosis of respiratory system	21.8	18.6	30.4	43.2	44.8	33.7	32.5	36.9	45.9	52.1	58.1
Tuberculosis, other forms	1.6	2.7	3.5	1.9	3.2	2.7	2.8	2.2	4.1	4.4	2.6
Syphilis and its sequelae	3.4	7.5	5.8	10.8	9.9	5.8	7.7	9.1	10.3	12.0	11.1
Typhoid fever	0	0	0	0	0.4	0.1	0.1	0.2	1.3	1.1	2.4
Cholera	0	0	0	0	0	0	0	0	0	0	0
Dysentery, all forms	0.4	0.6	0.4	1.5	0.4	0.4	0.5	0.5	0	0.4	0.2
Scarlet fever and streptococcal sore throat	0	0.2	2.0	2.0	2.0	2.0	0	2.0	2.0	0.2	0
Diphtheria	0	0	0	0	0	0.1	0.1	0.2	0.2	0.4	1.4
Whooping cough	0	0	0.8	3.0	0	0	0.1	2.2	2.3	2.0	2.1
Meningococcal infections	0.4	0	0.2	0.4	0.8	0.4	0.5	0.3	1.1	0.2	0.5
Plague	0	0	0	0	0	0.1	0.6	1.1	0	0	0
Acute poliomyelitis	0	0.2	0	0	0.4	0	0	0	0	1.1	1.2
Smallpox	0	0	0	0	0	0	0	0	0	0	0
Measles	0	0.8	0.2	0	0	0.9	1.1	0	0.2	1.1	0
Typhus and other rickettsial diseases	0	0	0.2	0.2	0	0	0.4	0	0.2	0	0.2
Malaria	0	0	0	0	0	0	0	0	0	0	0
All other infective and parasitic diseases	2.6	4.7	5.2	7.2	8.8	6.9	5.9	9.5	8.6	15.3	15.1
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	89.0	80.8	81.4	78.6	69.4	47.6	44.2	53.4	51.6	72.1	67.6
Malignant neoplasm of buccal cavity and pharynx	2.8	3.5	2.5	2.3	3.9	1.7	2.1	3.0	2.9	3.5	2.6
Malignant neoplasm of digestive organs and peritoneum	45.4	38.2	45.3	41.7	39.6	26.0	26.9	29.6	27.7	39.2	40.6
Malignant neoplasm of respiratory system	11.2	10.4	8.9	8.1	6.6	5.9	3.8	6.2	4.9	6.5	5.2
Malignant neoplasm of breast	2.2	2.7	2.9	3.0	2.1	2.9	1.9	1.9	3.1	3.3	2.6
Malignant neoplasm of genital organs	9.2	9.0	10.1	10.2	7.9	5.3	3.3	5.2	6.7	7.6	7.3
Malignant neoplasm of urinary organs	2.4	1.4	3.1	3.4	2.6	0.9	0.8	1.7	1.6	2.8	2.6
Malignant neoplasm of other and unspecified sites	7.4	8.4									
Leukemia and aleukemia	5.2	3.9									
Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues	3.2	3.1	8.7	9.8	6.8	4.9	5.3	5.7	4.9	9.2	6.6
Benign neoplasms and neoplasms of unspecified nature	2.6	2.7	2.3	3.4	2.4	2.2	1.2	1.9	2.8	3.1	0.9
Diabetes mellitus	14.0	14.5	20.1	16.1	16.3	9.7	9.4	12.4	13.8	16.7	14.4
Anemias	1.0	1.2	1.2	1.7	0.9	0.4	0.8	0.2	0.9	0.4	0.9
Meningitis, except meningococcal and tuberculous	3.0	1.2	1.9	1.3	1.1	1.0	1.4	1.1	1.1	2.2	1.4
Major cardiovascular-renal diseases	257.3	250.9	212.0	220.6	208.8	127.7	130.0	162.6	195.5	230.9	249.7
Diseases of cardiovascular system	244.3	236.9	168.3	173.1	169.0	103.2	104.1	129.9	150.9	182.1	183.3
Vascular lesions affecting central nervous system	55.8	56.9	40.6	46.0	41.5	26.1	24.3	32.3	37.4	50.3	44.4
Rheumatic fever	1.8	0.8	1.2	1.1	1.5	0.5	0.2	0.3	0.5	0.7	0.9
Diseases of heart	171.5	164.9	117.6	118.2	119.1	72.0	76.3	91.4	105.6	125.9	132.0
Chronic rheumatic heart disease	6.0	6.7	6.6	8.5	8.1	3.3	4.6	6.4	7.2	7.0	8.3
Arteriosclerotic heart disease, including coronary disease	80.0	73.9									
Nonrheumatic chronic endocarditis and other myocardial degeneration	25.6	22.2	111.0	109.7	111.1	68.7	71.7	85.1	98.4	119.0	123.8
Other diseases of heart	3.8	6.7									
Hypertension with heart disease	55.0	55.5									
Hypertension without mention of heart	4.8	4.1	0.4	0.2	0.6	0	0.1	0.3	0.4	0.4	0.7
General arteriosclerosis	6.2	7.5	4.6	4.2	4.9	2.6	2.6	3.7	4.1	3.5	4.3
Other diseases of circulatory system	4.2	2.7	3.9	3.4	1.5	2.0	0.6	1.0	2.9	1.3	0.9
Chronic and unspecified nephritis and other renal sclerosis	13.0	13.9	45.7	47.5	40.7	24.5	25.8	33.7	44.6	48.8	66.4
Influenza and pneumonia, except pneumonia of newborn	21.0	23.1	24.8	25.1	22.7	19.1	18.4	30.0	37.8	39.8	53.9
Influenza	2.6	3.5	0.6	0.8	2.6	2.0	1.4	3.7	2.9	2.6	7.6
Pneumonia, except pneumonia of newborn	18.4	19.6	24.2	22.3	20.1	17.2	16.9	26.4	34.9	36.2	46.3
Bronchitis	1.0	0.4	1.4	2.8	1.5	0.7	0.7	1.3	2.0	0.9	1.9
Ulcer of stomach and duodenum	2.6	7.1	4.8	5.3	5.3	3.9	4.0	5.4	4.1	4.8	9.7
Appendicitis	2.0	1.2	2.3	1.7	2.8	1.2	2.1	2.4	3.6	4.4	7.8
Hernia and intestinal obstruction	3.8	3.9	3.9	4.0	2.4	2.5	2.5	3.3	3.4	2.8	6.6
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	3.8	7.5	3.9	10.4	5.1	3.6	2.7	5.2	7.9	10.0	7.1
Cirrhosis of liver	6.0	6.9	6.8	7.8	6.4	3.6	3.9	5.6	5.0	7.4	8.4
Acute nephritis and nephritis with edema, including nephrosis	2.6	1.6	2.1	1.3	1.1	0.7	0.6	1.3	2.0	0.7	0.7
Hyperplasia of prostate	1.0	1.2	1.9	0.6	1.3	0.7	0.6	1.4	0.5	2.2	0.9
Deliveries and complications of pregnancy, childbirth, and the puerperium	1.6	1.2	3.1	2.3	3.0	2.0	3.0	2.7	5.0	5.2	5.4
Abortion	0	0.2	0.2	0.2	0.6	0.1	0.4	0.3	0.4	0.7	0.5
All other complications	1.6	1.0	2.9	2.1	2.4	1.8	2.6	2.4	4.7	4.6	5.0
Congenital malformations	14.4	11.8	11.8	14.8	14.6	7.4	5.3	11.0	8.5	11.5	13.2
Certain diseases of early infancy	39.0	41.4	51.8	45.8	41.5	23.3	27.0	35.6	37.1	46.4	48.7
Birth injuries, postnatal asphyxia, and atelectasis	23.8	22.2									
Infections of newborn	2.4	2.2									
Other diseases peculiar to early infancy, and immaturity unqualified	12.8	17.1									
Symptoms, senility, and ill-defined conditions	7.6	12.4	18.0	4.5	3.9	3.2	3.3	2.5	4.5	3.5	5.2
All other diseases	29.4	32.2	32.1	32.4	30.0	25.0	24.1	27.0	32.0	35.5	51.0
Accidents	37.4	38.4	50.3	48.1	55.3	65.3	87.1	85.2	92.3	67.3	54.8
Motor-vehicle accidents	14.8	12.5	18.6	13.1	19.7	19.8	18.6	17.3	20.1	20.0	14.9
All other accidents	22.6	25.9	33.7	35.0	65.6	45.5	68.5	67.9	72.1	47.3	39.9
Suicide	11.2	11.8	10.3	10.8	8.4	7.5	10.4	13.2	17.8	14.2	18.7
Homicide	2.4	3.9	5.6	4.0	3.8	4.4	3.9	4.5	4.7	3.9	4.7
Injury resulting from operations of war	0	0	0	0	0	2.9	2.8	0	2.7	488.7	0

<sup>1</sup>For category numbers see table 9.17 for Alaska.  
<sup>2</sup>Excludes Septic sore throat (115b).  
<sup>3</sup>Includes Cancer of jaw bones (45d).  
<sup>4</sup>Excludes Cancer of jaw bones (45d).

Table 10.17. Deaths From 64 Selected Causes, by Age, Race, and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths. Causes in the selected list (table 9.17, Alaska) for which there were no deaths are not shown)

Sixth Revision No.	CAUSE OF DEATH, RACE, AND SEX	Total	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over	Not stated
	ALL CAUSES-----	2,919	337	81	22	23	41	60	117	203	353	534	578	431	139	-
	Hawaiian and Part-Hawaiian-----	Male-----	324	62	17	6	-	6	5	15	24	48	61	49	24	7
	Female-----	257	43	9	1	2	6	7	14	23	38	45	35	25	14	-
	Caucasian-----	Male-----	377	49	6	1	2	5	17	28	51	74	72	42	11	-
	Female-----	256	41	5	1	1	2	4	6	15	20	46	45	43	27	-
	Japanese-----	Male-----	620	42	16	5	4	8	7	22	21	46	120	177	128	24
	Female-----	357	25	13	4	5	7	5	21	19	35	66	84	58	15	
	All other-----	Male-----	543	38	7	1	7	5	7	17	26	91	99	86	34	-
	Female-----	185	37	7	3	2	2	8	5	15	24	23	25	27	7	-
001-019	Tuberculosis, all forms-----	117	1	1	-	-	1	4	12	15	25	24	22	10	2	-
	Hawaiian and Part-Hawaiian-----	Male-----	18	1	-	-	-	-	3	4	4	4	2	-	-	-
	Female-----	16	-	1	-	-	1	-	1	3	3	4	1	1	1	-
	Caucasian-----	Male-----	9	-	-	-	-	-	1	2	5	1	-	-	-	-
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Japanese-----	Male-----	31	-	-	-	-	2	3	2	5	6	10	3	-	-
	Female-----	7	-	-	-	-	-	-	1	-	3	1	2	-	-	
	All other-----	Male-----	30	-	-	-	-	-	3	3	3	9	6	6	1	-
	Female-----	6	-	-	-	-	-	1	1	1	2	-	1	-	-	
001-008	Tuberculosis of respiratory system-----	109	-	1	-	-	1	3	12	15	22	21	22	10	2	-
	Hawaiian and Part-Hawaiian-----	Male-----	17	-	-	-	-	-	3	4	4	4	2	-	-	-
	Female-----	15	-	1	-	-	1	-	1	3	2	4	1	1	1	-
	Caucasian-----	Male-----	8	-	-	-	-	-	-	2	5	1	-	-	-	-
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Japanese-----	Male-----	29	-	-	-	-	2	3	2	4	5	10	3	-	-
	Female-----	7	-	-	-	-	-	-	1	-	3	1	2	-	-	
	All other-----	Male-----	26	-	-	-	-	-	3	3	3	6	6	6	1	-
	Female-----	5	-	-	-	-	-	1	1	1	1	-	1	-	-	
010-019	Tuberculosis, other forms-----	6	1	-	-	-	-	1	-	-	3	3	-	-	-	-
	Hawaiian and Part-Hawaiian-----	Male-----	1	1	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	1	-	-	-	-	-	-	-	-	1	-	-	-	-	
	Caucasian-----	Male-----	1	-	-	-	-	1	-	-	-	-	-	-	-	-
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Japanese-----	Male-----	2	-	-	-	-	-	-	-	1	1	-	-	-	
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	All other-----	Male-----	2	-	-	-	-	-	-	-	-	2	-	-	-	
	Female-----	1	-	-	-	-	-	-	-	-	1	-	-	-	-	
020-029	Syphilis and its sequelae-----	17	1	1	-	-	-	-	1	2	4	3	3	2	-	-
	Hawaiian and Part-Hawaiian-----	Male-----	2	1	-	-	-	-	-	-	-	1	-	-	-	-
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Caucasian-----	Male-----	2	1	-	-	-	-	-	-	-	1	-	-	-	-
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Japanese-----	Male-----	3	-	-	-	-	-	-	-	-	1	-	2	-	
	Female-----	1	-	-	-	-	-	-	-	-	1	-	-	-	-	
	All other-----	Male-----	8	-	-	-	-	-	2	3	-	3	-	-	-	
	Female-----	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
045-048	Dysentery, all forms-----	2	-	-	-	-	-	1	-	-	-	1	-	-	-	-
	Hawaiian and Part-Hawaiian-----	Male-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Caucasian-----	Male-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	1	-	-	-	-	-	-	-	-	-	1	-	-	-	
	Japanese-----	Male-----	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	All other-----	Male-----	1	-	-	-	-	-	-	-	-	-	-	-	-	
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
057	Meningococcal infections-----	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
	Hawaiian and Part-Hawaiian-----	Male-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	1	1	-	-	-	-	-	-	-	-	-	-	-	-	
	Caucasian-----	Male-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Japanese-----	Male-----	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	All other-----	Male-----	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Female-----	1	-	1	-	-	-	-	-	-	-	-	-	-	-	
Residual	All other infective and parasitic diseases-----	13	2	-	1	-	-	1	3	1	1	3	-	1	-	-
	Hawaiian and Part-Hawaiian-----	Male-----	4	1	1	-	-	-	1	1	-	1	-	-	-	-
	Female-----	4	1	-	-	-	-	-	-	-	-	1	-	-	-	
	Caucasian-----	Male-----	1	-	-	-	-	-	-	-	-	-	-	-	-	
	Female-----	1	-	-	-	-	-	-	-	-	-	1	-	-	-	
	Japanese-----	Male-----	1	-	-	-	-	-	1	-	-	-	-	-	-	
	Female-----	3	-	-	-	-	-	-	1	-	1	-	-	1	-	
	All other-----	Male-----	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
140-205	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----	445	2	8	4	5	6	3	18	32	67	113	121	59	7	-
	Hawaiian and Part-Hawaiian-----	Male-----	39	-	-	-	1	-	2	4	13	8	9	1	1	
	Female-----	25	-	-	-	-	1	-	3	4	6	8	1	2	-	
	Caucasian-----	Male-----	52	2	1	1	1	-	2	5	5	18	11	6	-	
	Female-----	36	-	1	-	1	-	1	2	3	5	9	10	3	1	
	Japanese-----	Male-----	139	1	2	1	-	-	3	5	12	36	54	27	-	
	Female-----	60	-	2	-	1	1	1	4	3	7	16	18	7	-	
	All other-----	Male-----	73	-	1	1	2	1	1	7	16	14	15	10	5	
	Female-----	21	1	-	1	-	1	-	2	3	3	4	3	3	-	
140-148	Malignant neoplasm of buccal cavity and pharynx-----	14	-	-	-	-	-	-	1	1	4	2	3	2	1	-
	Hawaiian and Part-Hawaiian-----	Male-----	1	-	-	-	-	-	-	-	1	-	-	-	-	
	Female-----	1	-	-	-	-	-	-	-	-	-	1	-	-		
	Caucasian-----	Male-----	1	-	-	-	-	-	-	-	-	-	1	-		
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Japanese-----	Male-----	4	-	-	-	-	-	-	1	1	-	2	-		
	Female-----	1	-	-	-	-	-	-	1	-	-	-	-	-		
	All other-----	Male-----	4	-	-	-	-	-	-	-	1	1	-	1	1	
	Female-----	2	-	-	-	-	-	-	-	-	1	-	-	1	1	

Table 10.17. Deaths From 64 Selected Causes, by Age, Race, and Sex: 1950—Con.

(By place of occurrence. Exclusive of fetal deaths. Causes in the selected list (table 9.17, Alaska) for which there were no deaths are not shown)

Sixth Revision No.	CAUSE OF DEATH, RACE, AND SEX	Total	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over	Not stated
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues—Continued																
150-156A, 157-159	Malignant neoplasm of digestive organs and peritoneum-----	227	-	-	-	-	-	-	5	12	29	67	74	36	4	-
	Hawaiian and Part-Hawaiian-----	11	-	-	-	-	-	-	1	2	2	4	2	-	-	-
	Female-----	8	-	-	-	-	-	-	1	2	2	4	2	-	-	-
	Caucasian-----	21	-	-	-	-	-	-	-	2	1	11	4	3	-	-
	Female-----	10	-	-	-	-	-	-	-	1	3	3	2	3	1	-
	Japanese-----	99	-	-	-	-	-	-	1	1	9	26	42	19	-	-
	Female-----	54	-	-	-	-	-	-	1	1	5	11	12	4	-	-
	All other-----	36	-	-	-	-	-	-	-	3	8	9	11	4	3	-
	Female-----	7	-	-	-	-	-	-	1	1	1	1	2	-	-	-
160-164	Malignant neoplasm of respiratory system-----	56	-	-	-	-	-	-	1	4	8	24	14	5	-	-
	Hawaiian and Part-Hawaiian-----	12	-	-	-	-	-	-	1	4	4	4	3	-	-	-
	Female-----	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
	Caucasian-----	13	-	-	-	-	-	-	1	2	2	5	1	2	-	-
	Female-----	2	-	-	-	-	-	-	-	-	-	1	1	-	-	-
	Japanese-----	15	-	-	-	-	-	-	-	-	-	8	5	2	-	-
	Female-----	4	-	-	-	-	-	-	-	-	-	3	1	-	-	-
	All other-----	6	-	-	-	-	-	-	-	1	1	1	2	1	-	-
	Female-----	3	-	-	-	-	-	-	-	-	-	1	2	-	-	-
170	Malignant neoplasm of breast-----	11	-	-	-	-	-	-	2	2	3	3	1	-	-	-
	Hawaiian and Part-Hawaiian-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	2	-	-	-	-	-	-	-	-	-	1	-	-	-	-
	Caucasian-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	6	-	-	-	-	-	-	2	1	2	1	-	-	-	-
	Japanese-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	2	-	-	-	-	-	-	-	1	-	1	-	-	-	-
	All other-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
171-179	Malignant neoplasm of genital organs-----	46	-	1	-	-	-	1	2	3	8	9	15	8	1	-
	Hawaiian and Part-Hawaiian-----	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	Female-----	9	-	-	-	-	-	-	-	1	3	4	-	1	-	-
	Caucasian-----	5	-	-	-	-	-	-	-	-	-	1	3	4	1	-
	Female-----	10	-	1	-	-	-	-	-	1	2	2	4	1	-	-
	Japanese-----	3	-	-	-	-	-	-	-	-	-	-	-	2	-	-
	Female-----	10	-	-	-	-	-	1	1	1	2	-	1	5	1	-
	All other-----	5	-	-	-	-	-	-	-	-	-	1	1	2	1	-
	Female-----	3	-	-	-	-	-	-	1	-	-	-	1	1	-	-
180, 181	Malignant neoplasm of urinary organs-----	12	-	-	-	-	-	-	-	2	3	1	4	2	-	-
	Hawaiian and Part-Hawaiian-----	2	-	-	-	-	-	-	-	-	1	-	1	-	-	-
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Caucasian-----	3	-	-	-	-	-	-	-	1	1	-	1	-	-	-
	Female-----	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-
	Japanese-----	4	-	-	-	-	-	-	-	-	1	-	2	1	-	-
	Female-----	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-
	All other-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
156B, 185, 190-199	Malignant neoplasm of other and unspecified sites-----	37	2	3	-	1	2	1	3	4	6	4	8	2	1	-
	Hawaiian and Part-Hawaiian-----	5	-	-	-	-	-	-	1	1	2	-	1	1	-	-
	Female-----	3	-	1	-	-	1	-	1	-	-	-	1	-	-	-
	Caucasian-----	3	-	-	-	-	-	-	-	-	-	1	2	-	-	-
	Female-----	8	1	-	-	-	-	-	1	-	1	2	1	2	-	-
	Japanese-----	4	-	1	-	-	1	-	-	-	-	-	2	-	-	-
	Female-----	10	-	1	-	1	-	1	-	2	3	1	1	-	-	-
	All other-----	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
204	Leukemia and aleukemia-----	26	-	4	4	3	4	1	2	2	3	-	1	2	-	-
	Hawaiian and Part-Hawaiian-----	4	-	-	-	-	1	-	-	-	-	-	-	1	-	-
	Female-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Caucasian-----	4	-	1	1	1	1	-	-	-	-	-	-	-	-	-
	Female-----	3	-	-	-	1	-	1	-	1	-	-	-	-	-	-
	Japanese-----	4	-	2	1	-	-	-	1	-	-	-	-	-	-	-
	Female-----	2	-	1	-	-	-	-	1	-	-	-	-	-	-	-
	All other-----	7	-	-	1	1	1	-	-	1	2	-	-	1	-	-
	Female-----	2	-	-	1	-	1	-	-	-	-	-	-	-	-	-
200-203, 205	Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues-----	16	-	-	-	1	-	-	2	2	3	3	3	2	-	-
	Hawaiian and Part-Hawaiian-----	3	-	-	-	-	-	-	1	-	1	-	1	-	-	-
	Female-----	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Caucasian-----	2	-	-	-	-	-	-	-	-	1	1	-	-	-	-
	Female-----	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
	Japanese-----	3	-	-	-	-	-	-	1	-	-	-	1	1	-	-
	Female-----	2	-	-	-	1	-	-	-	-	-	1	-	-	-	-
	All other-----	2	-	-	-	-	-	-	-	-	1	1	-	1	-	-
	Female-----	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
210-239	Benign neoplasms and neoplasms of unspecified nature-----	13	1	-	-	-	-	1	-	2	1	4	1	1	2	-
	Hawaiian and Part-Hawaiian-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	3	-	-	-	-	-	1	-	-	-	-	-	1	1	-
	Caucasian-----	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
	Female-----	4	1	-	-	-	-	-	-	1	-	2	-	-	-	-
	Japanese-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	3	-	-	-	-	-	-	-	1	-	1	-	-	1	-
	All other-----	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
	Female-----	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-

Table 10.17. Deaths From 64 Selected Causes, by Age, Race, and Sex: 1950—Con.

(By place of occurrence. Exclusive of fetal deaths. Causes in the selected list (table 9.17, Alaska) for which there were no deaths are not shown)

Sixth Revision No.	CAUSE OF DEATH, RACE, AND SEX	Total	Under	1	5	10	15	20	25	35	45	55	65	75	85	Not stated
			1	to 4	to 9	to 14	to 19	to 24	to 34	to 44	to 54	to 64	to 74	to 84	and over	
260	Diabetes mellitus.....	70	-	-	-	-	-	-	1	3	9	21	23	12	1	-
	Hawaiian and Part-Hawaiian.....	6	-	-	-	-	-	-	-	-	2	2	2	-	-	-
	Male.....	6	-	-	-	-	-	-	-	-	2	2	2	-	-	-
	Female.....	8	-	-	-	-	-	-	-	-	1	2	2	1	1	-
	Caucasian.....	7	-	-	-	-	-	-	-	-	2	2	2	1	-	-
	Male.....	7	-	-	-	-	-	-	-	-	2	2	2	1	-	-
	Female.....	13	-	-	-	-	-	-	-	-	1	5	3	4	-	-
	Japanese.....	12	-	-	-	-	-	-	1	1	1	1	6	3	-	-
Male.....	10	-	-	-	-	-	-	-	-	-	1	3	5	1	-	
Female.....	7	-	-	-	-	-	-	-	-	1	3	2	1	-	-	
All other.....	7	-	-	-	-	-	-	-	-	1	3	2	1	-	-	
Male.....	7	-	-	-	-	-	-	-	-	1	1	1	1	-	-	
Female.....	7	-	-	-	-	-	-	-	1	1	-	3	1	-	-	
280-283	Anemia.....	5	-	-	-	-	-	-	1	-	1	-	2	-	1	-
	Hawaiian and Part-Hawaiian.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Male.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Caucasian.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Male.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female.....	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-
	Japanese.....	2	-	-	-	-	-	-	1	-	-	-	-	1	-	-
Male.....	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Female.....	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
All other.....	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
Male.....	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Female.....	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	
340	Meningitis, except meningococcal and tuberculous.....	15	5	4	1	-	-	-	-	2	1	1	1	-	-	-
	Hawaiian and Part-Hawaiian.....	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
	Male.....	3	1	-	-	-	-	-	-	1	1	-	-	-	-	-
	Female.....	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Caucasian.....	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
	Male.....	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
	Female.....	3	1	1	-	-	-	-	-	1	-	-	-	-	-	-
	Japanese.....	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Male.....	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Female.....	2	-	1	1	-	-	-	-	-	-	-	-	-	-	-	
All other.....	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	
Male.....	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Female.....	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
350-354, 400-468, 582-594	Major cardiovascular-renal diseases.....	1,286	-	3	1	5	12	10	19	72	168	292	346	275	93	-
	Hawaiian and Part-Hawaiian.....	134	-	1	1	-	2	-	1	7	21	40	35	22	4	-
	Male.....	114	-	1	-	-	2	1	2	7	26	25	25	14	10	-
	Female.....	170	-	-	-	-	1	3	3	13	22	44	51	24	9	-
	Caucasian.....	117	-	1	-	-	-	-	-	1	2	7	8	18	29	31
	Male.....	260	-	-	-	1	2	1	2	6	16	62	84	69	15	-
	Female.....	180	-	-	-	1	3	2	6	10	21	36	51	41	9	-
	Japanese.....	238	-	-	-	2	2	1	3	14	41	45	53	56	21	-
Male.....	73	-	-	-	-	-	-	1	6	13	12	18	18	5	-	
Female.....	1,221	-	2	1	3	12	8	17	61	149	274	334	268	92	-	
Diseases of cardiovascular system.....	128	-	1	1	-	2	-	-	4	21	39	33	22	4	-	
Male.....	108	-	-	-	1	2	1	2	4	25	34	25	14	10	-	
Female.....	167	-	-	-	-	1	2	3	13	22	43	50	24	9	-	
Caucasian.....	114	-	1	-	-	-	-	1	2	6	8	18	29	29	20	
Male.....	245	-	-	-	-	2	1	1	7	13	56	82	67	14	-	
Female.....	189	-	-	-	1	3	2	5	7	18	36	49	39	9	-	
Japanese.....	220	-	-	-	1	2	1	3	14	31	44	46	55	21	-	
Male.....	70	-	-	-	-	-	-	-	6	11	12	18	18	5	-	
Female.....	279	-	1	-	-	1	1	2	16	36	73	83	55	11	-	
Vascular lesions affecting central nervous system.....	22	-	-	-	-	1	-	-	1	5	4	6	5	-	-	
Male.....	15	-	-	-	-	-	-	1	-	2	2	7	2	1	-	
Female.....	23	-	-	-	-	-	-	1	1	1	9	6	5	1	-	
Caucasian.....	26	-	1	-	-	-	-	-	2	3	6	6	4	4	-	
Male.....	76	-	-	-	-	-	-	-	1	8	20	22	23	2	-	
Female.....	47	-	-	-	-	-	-	-	3	6	13	15	9	1	-	
Japanese.....	58	-	-	-	-	-	-	-	4	8	16	21	8	1	-	
Male.....	12	-	-	-	-	-	-	-	4	3	3	-	1	1	-	
Female.....	9	-	-	1	1	1	1	-	2	2	1	-	-	-	-	
Rheumatic fever.....	1	-	-	1	1	1	1	-	-	-	-	-	-	-	-	
Male.....	2	-	-	-	-	-	-	-	-	2	-	-	-	-	-	
Female.....	2	-	-	-	-	-	-	-	2	-	-	-	-	-	-	
Caucasian.....	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Male.....	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Female.....	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
Japanese.....	2	-	-	-	1	-	-	-	-	-	1	-	-	-	-	
Male.....	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Female.....	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
All other.....	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Male.....	857	-	1	-	1	7	6	14	35	105	198	233	199	68	-	
Female.....	96	-	1	-	1	1	-	1	3	14	31	27	15	3	-	
Hawaiian and Part-Hawaiian.....	82	-	-	-	1	1	1	1	4	13	22	14	11	9	-	
Male.....	131	-	-	-	-	1	1	2	9	19	31	42	21	5	-	
Female.....	78	-	-	-	-	-	1	2	3	5	12	18	23	14	-	
Caucasian.....	158	-	-	-	-	2	-	1	5	5	36	57	41	11	-	
Male.....	112	-	-	-	1	-	2	4	2	12	23	34	28	6	-	
Female.....	147	-	-	-	-	2	1	3	8	23	24	25	44	17	-	
Japanese.....	53	-	-	-	-	-	-	1	8	9	16	16	3	-	-	
Male.....	50	...	-	-	1	4	1	9	5	6	3	1	-	-	-	
Female.....	2	...	-	-	1	-	-	-	-	1	-	-	-	-	-	
Chronic rheumatic heart disease.....	4	...	-	-	2	1	1	1	-	1	-	-	-	-	-	
Male.....	5	...	-	-	-	1	-	-	1	1	1	-	-	-	-	
Female.....	1	...	-	-	-	-	-	-	1	-	-	-	-	-	-	
Caucasian.....	3	...	-	-	-	1	-	-	1	1	1	-	-	-	-	
Male.....	9	...	-	-	1	-	-	4	1	2	1	-	-	-	-	
Female.....	4	...	-	-	-	-	-	2	1	1	-	-	-	-	-	
Japanese.....	2	...	-	-	-	-	-	-	1	-	-	1	-	-	-	
Male.....	400	-	-	-	-	-	-	3	2	15	48	105	131	76	-	
Arteriosclerotic heart disease, including coronary disease.....	55	-	-	-	-	-	-	-	-	1	10	17	19	6	-	
Male.....	32	-	-	-	-	-	-	-	1	5	14	8	2	1	-	
Female.....	80	-	-	-	-	-	-	1	-	6	12	25	11	2	-	
Caucasian.....	45	-	-	-	-	-	-	-	2	3	7	12	13	8	-	
Male.....	75	-	-	-	-	-	-	1	2	2	21	34	14	1	-	
Female.....	31	-	-	-	-											

Table 10.17. Deaths From 64 Selected Causes, by Age, Race, and Sex: 1950—Con.

(By place of occurrence. Exclusive of fetal deaths. Causes in the selected list (table 9.17, Alaska) for which there were no deaths are not shown)

Table with 17 columns: Sixth Revision No., CAUSE OF DEATH, RACE, AND SEX, Total, and age groups (Under 1, 1 to 4, 5 to 9, 10 to 14, 15 to 19, 20 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, 65 to 74, 75 to 84, 85 and over, Not stated). Rows include categories like 'Major cardiovascular-renal diseases—Continued', 'Diseases of cardiovascular system—Continued', and 'Influenza and pneumonia, except pneumonia of newborn'.

Table 10.17. Deaths From 64 Selected Causes, by Age, Race, and Sex:1950—Con.

(By place of occurrence. Exclusive of fetal deaths. Causes in the selected list (table 9.17, Alaska) for which there were no deaths are not shown)

Sixth Revision No.	CAUSE OF DEATH, RACE, AND SEX	Total	Under	1	5	10	15	20	25	35	45	55	65	75	85	Not stated
			1	to 4	to 9	to 14	to 19	to 24	to 34	to 44	to 54	to 64	to 74	to 84	and over	
	Influenza and pneumonia, except pneumonia of newborn—Continued															
490-493	Pneumonia, except pneumonia of newborn-----	92	22	14	1	1	2	-	3	6	11	8	8	13	3	-
	Hawaiian and Part-Hawaiian-----	21	10	6	-	-	1	-	1	1	1	1	-	-	-	-
	Male-----	12	5	2	-	-	-	-	-	2	1	-	-	2	-	-
	Female-----	15	1	-	-	-	-	-	1	1	3	2	2	5	-	-
	Caucasian-----	8	2	1	-	-	1	-	-	-	1	1	-	1	1	-
	Male-----	12	2	1	1	-	-	-	1	-	-	-	1	4	2	-
	Female-----	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Japanese-----	18	1	3	-	-	-	-	-	2	3	3	2	2	2	-
	Male-----	5	1	1	-	-	-	-	-	-	2	-	-	1	-	-
	Female-----															
500-502	Bronchitis-----	5	2	1	-	1	-	-	-	-	-	-	1	-	-	-
	Hawaiian and Part-Hawaiian-----	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
	Male-----	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Caucasian-----	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Male-----	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Female-----	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	
540,541	Ulcer of stomach and duodenum-----	13	-	-	-	-	-	-	-	4	1	4	1	2	1	-
	Hawaiian and Part-Hawaiian-----	2	-	-	-	-	-	-	-	1	1	-	-	-	-	-
	Male-----	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-
	Female-----	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Caucasian-----	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-
	Male-----	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
550-553	Appendicitis-----	10	-	1	1	-	-	3	-	-	1	1	1	2	-	-
	Hawaiian and Part-Hawaiian-----	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-
	Male-----	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-
	Female-----	2	-	-	-	-	-	1	-	-	-	-	-	1	-	-
	Caucasian-----	3	-	1	-	-	-	-	-	-	-	-	-	1	1	-
	Male-----	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-
560,561, 570	Hernia and intestinal obstruction-----	19	6	2	-	-	2	1	1	1	1	3	-	2	-	-
	Hawaiian and Part-Hawaiian-----	4	2	1	-	-	-	-	-	-	-	1	-	-	-	-
	Male-----	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Caucasian-----	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Male-----	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
543,571, 572	Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----	19	11	1	-	-	-	1	-	1	1	-	2	1	1	-
	Hawaiian and Part-Hawaiian-----	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
	Male-----	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
	Female-----	2	-	-	-	-	-	1	-	-	1	-	-	-	-	-
	Caucasian-----	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-
	Male-----	4	1	-	-	-	-	-	-	-	-	-	2	-	1	-
581	Cirrhosis of liver-----	50	1	-	-	-	-	-	1	4	9	8	4	3	-	-
	Hawaiian and Part-Hawaiian-----	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	Male-----	6	-	-	-	-	-	-	-	1	2	-	2	1	-	-
	Female-----	4	-	-	-	-	-	-	1	-	1	2	-	-	-	-
	Caucasian-----	8	-	-	-	-	-	-	-	1	2	3	-	2	-	-
	Male-----	2	-	-	-	-	-	-	-	-	1	1	1	-	-	-
590,591	Acute nephritis and nephritis with edema, including nephrosis-----	13	-	2	-	-	-	3	1	2	1	1	2	-	1	-
	Hawaiian and Part-Hawaiian-----	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
	Male-----	2	-	-	-	-	-	1	-	1	-	-	-	-	-	-
	Female-----	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Caucasian-----	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Male-----	4	-	-	-	-	-	-	-	1	1	1	1	1	-	-
610	Hyperplasia of prostate-----	5	-	-	-	-	-	-	-	-	-	2	1	2	-	-
	Hawaiian and Part-Hawaiian-----	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Male-----	2	-	-	-	-	-	-	-	-	-	1	-	1	-	-
	Female-----	3	-	-	-	-	-	-	-	-	-	-	1	1	-	-
640-609	Deliveries and complications of pregnancy, childbirth, and the puerperium-----	8	...	...	...	-	1	3	2	2	-	-	...	...	...	-
	Hawaiian and Part-Hawaiian-----	3	...	...	...	-	-	-	2	1	-	-	...	...	...	-
	Female-----	2	...	...	...	-	1	1	-	-	-	-	...	...	...	-
	Caucasian-----	1	...	...	...	-	-	1	-	-	-	-	...	...	...	-
	Female-----	2	...	...	...	-	-	1	-	1	-	-	...	...	...	-
640-648, 660-669	All other complications-----	8	...	...	...	-	1	3	2	2	-	-	...	...	...	-
	Hawaiian and Part-Hawaiian-----	3	...	...	...	-	-	-	2	1	-	-	...	...	...	-
	Female-----	2	...	...	...	-	1	1	-	-	-	-	...	...	...	-
	Caucasian-----	1	...	...	...	-	-	1	-	-	-	-	...	...	...	-
	Female-----	2	...	...	...	-	-	1	-	1	-	-	...	...	...	-

Table 10.17. Deaths From 64 Selected Causes, by Age, Race, and Sex: 1950—Con.

(By place of occurrence. Exclusive of fetal deaths. Causes in the selected list (table 9.17, Alaska) for which there were no deaths are not shown)

Sixth Revision No.	CAUSE OF DEATH, RACE, AND SEX	Total	Under	1 to	5 to	10 to	15 to	20 to	25 to	35 to	45 to	55 to	65 to	75 to	85 and over	Not stated
			1	4	9	14	19	24	34	44	54	64	74	84		
750-759	Congenital malformations	72	54	10		3		1	2	1	1					
	Hawaiian and Part-Hawaiian	4	3	1												
	Female	5	2	2				1								
	Caucasian	9	7	1							1					
	Female	6	8													
	Japanese	17	12	4					1	1						
Female	10	7	1		1			1								
All other	8	6			1				1							
Female	11	9	1		1											
760-776	Certain diseases of early infancy	195	185													
	Hawaiian and Part-Hawaiian	35	35													
	Female	23	23													
	Caucasian	34	34													
	Female	25	25													
	Japanese	21	21													
Female	16	16														
All other	24	24														
Female	17	17														
760-762	Birth injuries, postnatal asphyxia, and atelectasis	119	119													
	Hawaiian and Part-Hawaiian	18	18													
	Female	17	17													
	Caucasian	20	20													
	Female	19	19													
	Japanese	9	9													
Female	6	6														
All other	17	17														
Female	13	13														
763-768	Infections of newborn	12	12													
	Hawaiian and Part-Hawaiian	2	2													
	Female	2	2													
	Caucasian	2	2													
	Female	2	2													
	Japanese	1	1													
Female	1	1														
All other	5	5														
Female																
769-776	Other diseases peculiar to early infancy, and immaturity unqualified	64	64													
	Hawaiian and Part-Hawaiian	15	15													
	Female	4	4													
	Caucasian	12	12													
	Female	4	4													
	Japanese	12	12													
Female	9	9														
All other	4	4														
Female	4	4														
780-785	Symptoms, senility, and ill-defined conditions	38	2	3					1	4	1	1	6	7	13	
	Hawaiian and Part-Hawaiian	1											1	1	1	
	Female	3														
	Caucasian	2											1	1	1	
	Female	3								1						
	Japanese	9		1									1	1	3	
Female	8	1	1						1				1	1		
All other	10	1						1	2	1			1	2		
Female	2	1												1		
Residual	All other diseases	147	14	6	6	1	2	5	11	18	18	27	14	20	5	
	Hawaiian and Part-Hawaiian	14	3		1	1			1	1	3	2	1	1	1	
	Female	17	3		1	1			2	4	2	2	2	1	1	
	Caucasian	15	2						2	1	3	2	2	2	2	
	Female	16	2		1				1	1	3	5	1	1	1	
	Japanese	25	4	2					2	3	1	4	4	4	7	
Female	23		3	2		2		2	3	4	2	2	5	3		
All other	30	1	1			2		1	3	6	9	1	4	2		
Female	7	1		1		1		1	2	1		1	1	1		
E800-E862	Accidents	187	14	23	7	6	12	20	28	18	18	18	8	12	5	
	Hawaiian and Part-Hawaiian	24	2	5	3		1	4	5	3	1					
	Female	11	4	1			2	1	1	1			2			
	Caucasian	36		4			2	11	9	1	4	2		3		
	Female	6	3	1									1	1	1	
	Japanese	42	1	5	3	3	5	2	4	2	4	2	3	5	3	
Female	13		4					3	3	1	1	2	1	1		
All other	45	3	1		2	2	2	6	8	9	9	2	2	2		
Female	10	1	2	1		1		1	1	1		1	1	1		
E810-E835	Motor-vehicle accidents	74	2	11	5	2	6	7	16	5	9	6	1	2		
	Hawaiian and Part-Hawaiian	10		3			1	1	3	1	1					
	Female	5	1				1	1	1	1						
	Caucasian	11					1	5	3		1					
	Female	3		1												
	Japanese	17		4	3	1	4		3		1			1		
Female	2		1													
All other	22	1	1		1	1	1	6	3	6	3		1			
Female	4	1			1			1		1			1			
E800-E802, E840-E862	All other accidents	113	12	12	4	4	4	13	12	11	9	10	7	10	5	
	Hawaiian and Part-Hawaiian	14	2	2	3			3	2	2						
	Female	6	3	1			1									
	Caucasian	25		4			1	6	6	1	3			3		
	Female	3	3													
	Japanese	25	1	1		2	1	2	1	2	3	2	3	4	3	
Female	11		3					3					2	2		
All other	23	2			2	1	1	1		5	3	6	2	1		
Female	6	1	1		1								1			





Table 10.18. Deaths and Death Rates for 32 Selected Causes, by Age: 1950

(By place of occurrence. Exclusive of fetal deaths. Rates per 100,000 population in each specified group, enumerated as of April 1. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. Causes in the selected list (table 9.19, Alaska) for which there were no deaths are not shown)

CAUSE OF DEATH	Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 and over	NUMBER												
													2,919	337	81	45	101	117	205	353	534	579	451	139	
ALL CAUSES	2,919	337	81	45	101	117	205	353	534	579	451	139													
Tuberculosis, all forms	117	1	1	-	5	12	15	25	24	22	10	2													
Syphilis and its sequelae	17	1	1	-	-	1	2	4	3	3	2	-													
Dysentery, all forms	2	-	-	-	1	-	-	-	1	-	-	-													
Meningococcal infections	2	1	1	-	-	-	-	-	-	-	-	-													
All other infective and parasitic diseases	15	2	-	1	1	3	1	1	3	-	1	-													
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	140-205	445	2	8	9	9	18	32	67	113	121	59	7												
Diabetes mellitus	260	70	-	-	-	1	3	9	21	23	12	1													
Meningitis, except meningococcal and tuberculous	340	15	5	4	1	-	-	2	1	1	-	-													
Major cardiovascular-renal diseases	330-334,400-468,592-594	1,286	-	5	6	22	19	72	169	282	346	275	93												
Diseases of cardiovascular system	330-334,400-468	1,221	-	2	4	20	17	61	149	274	334	268	92												
Vascular lesions affecting central nervous system	330-334	279	-	1	-	2	2	16	36	73	83	55	11												
Rheumatic fever	409-402	9	-	-	2	2	-	2	2	1	-	-	-												
Diseases of heart	410-443	857	-	1	1	13	14	35	105	188	233	199	68												
Hypertension without mention of heart, and general arteriosclerosis	444-450	55	-	-	-	-	-	6	3	7	14	12	13												
Other diseases of circulatory system	451-468	21	-	-	1	3	1	2	3	5	4	2	-												
Chronic and unspecified nephritis and other renal sclerosis	592-594	65	-	1	2	2	2	11	19	9	12	7	1												
Influenza and pneumonia, except pneumonia of newborn	480-493	105	25	14	2	3	3	6	11	10	9	17	5												
Ulcer of stomach and duodenum	540,541	13	-	-	-	-	-	4	1	4	1	2	1												
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	543,571,572	19	11	1	-	1	-	1	1	-	2	1	1												
Cirrhosis of liver	581	50	1	-	-	-	1	4	9	8	4	3	-												
Acute nephritis and nephritis with edema, including nephrosis	590,591	13	-	2	-	3	1	2	1	1	2	-	1												
Deliveries and complications of pregnancy, childbirth, and the puerperium	640-689	8	...	...	-	4	2	2	-	-	...	...	...												
Congenital malformations	750-759	72	54	10	3	1	2	1	1	-	-	-	-												
Symptoms, senility, and ill-defined conditions	780-795	39	2	3	-	-	1	4	1	1	6	7	13												
Motor-vehicle accidents	E810-E835	74	2	11	5	15	16	5	9	8	1	2	-												
All other accidents	E800-E802, E840-E862	113	12	12	8	17	12	11	9	10	7	10	8												
Suicide	E963, E970-E979	56	-	-	1	3	8	12	11	6	10	3	2												
Homicide	E964, E980-E985	12	-	-	2	4	3	2	1	1	-	-	-												
All other causes	Residual	599	218	10	9	14	13	21	22	37	20	27	8												
ALL CAUSES	584.0	2,672.3	157.6	48.8	107.1	126.4	306.3	501.4	740.7	740.1	414.2	9,468.4													
Tuberculosis, all forms	23.4	7.9	1.9	0	5.3	13.0	22.6	56.8	92.0	152.8	199.3														
Syphilis and its sequelae	3.4	7.9	1.9	0	0	1.1	3.0	9.1	11.5	20.8	33.2														
Dysentery, all forms	0.4	0	0	0	1.1	0	0	0	3.8	0	0														
Meningococcal infections	0.4	7.9	1.9	0	0	0	0	0	0	0	0														
All other infective and parasitic diseases	2.6	15.9	0	1.1	1.1	3.2	1.5	2.3	11.5	0	16.6														
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	140-205	89.0	15.9	15.6	9.8	9.5	19.4	48.3	152.1	433.3	840.3	1,096.3													
Diabetes mellitus	260	14.0	0	0	0	1.1	4.5	20.4	80.5	159.7	215.9														
Meningitis, except meningococcal and tuberculous	340	3.0	39.6	7.8	1.1	0	0	3.0	2.3	3.8	6.9	0													
Major cardiovascular-renal diseases	330-334,400-468,592-594	257.3	0	5.8	6.5	23.3	20.5	108.6	381.4	1,081.4	2,402.9	6,113.0													
Diseases of cardiovascular system	330-334,400-468	244.3	0	3.9	4.3	21.2	18.4	92.0	338.3	1,050.7	2,319.6	5,980.1													
Vascular lesions affecting central nervous system	330-334	55.8	0	1.9	0	2.1	2.2	24.1	81.7	279.9	576.4	1,096.3													
Rheumatic fever	409-402	1.8	0	0	2.2	2.1	0	3.0	4.5	3.8	0	0													
Diseases of heart	410-443	171.5	0	1.9	1.1	13.8	15.1	52.8	236.4	720.9	1,618.2	4,436.2													
Hypertension without mention of heart and general arteriosclerosis	444-450	11.0	0	0	0	0	0	9.1	6.8	26.8	97.2	415.3													
Other diseases of circulatory system	451-468	4.2	0	0	1.1	3.2	1.1	3.0	6.8	19.2	27.8	33.2													
Chronic and unspecified nephritis and other renal sclerosis	592-594	13.0	0	1.9	2.2	2.1	2.2	16.6	43.1	30.7	83.3	132.9													
Influenza and pneumonia, except pneumonia of newborn	480-493	21.0	198.2	27.2	2.2	3.2	3.2	9.1	25.0	38.3	62.5	365.4													
Ulcer of stomach and duodenum	540,541	2.6	0	0	0	0	0	6.0	2.3	15.3	6.9	49.8													
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	543,571,572	3.8	87.2	1.9	0	1.1	0	1.5	2.3	0	13.9	35.2													
Cirrhosis of liver	581	6.0	7.9	0	0	0	1.1	6.0	20.4	30.7	27.8	49.8													
Acute nephritis and nephritis with edema, including nephrosis	590,591	2.6	0	3.9	0	3.2	1.1	3.0	2.3	3.8	13.9	16.6													
Deliveries and complications of pregnancy, childbirth, and the puerperium	640-689	1.6	...	...	0	4.2	2.2	3.0	0	0	...	...													
Congenital malformations	750-759	14.4	426.2	19.5	3.3	1.1	2.2	1.5	2.3	0	0	0													
Symptoms, senility, and ill-defined conditions	780-795	7.6	15.9	5.8	0	0	1.1	6.0	2.3	3.8	41.7	332.2													
Motor-vehicle accidents	E810-E835	14.8	15.9	21.4	5.4	15.9	17.3	7.5	20.4	30.7	6.9	33.2													
All other accidents	E800-E802, E840-E862	22.6	95.2	23.4	8.7	18.0	13.0	16.6	20.4	38.3	48.6	249.2													
Suicide	E963, E970-E979	11.2	0	0	1.1	3.2	8.6	18.1	25.0	23.0	69.4	85.1													
Homicide	E964, E980-E985	2.4	0	0	0	2.1	4.3	4.5	4.5	3.8	0	0													
All other causes	Residual	79.8	1,728.6	19.5	9.8	14.9	14.0	31.7	49.9	141.9	138.9	581.4													

<sup>1</sup>No deaths reported for which age was not stated.

Table 10.19. Deaths From 32 Selected Causes, by Month: 1950

(By place of occurrence. Exclusive of fetal deaths. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. Causes in the selected list (table 9.19, Alaska) for which there were no deaths are not shown)

CAUSE OF DEATH	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
ALL CAUSES-----	2,919	278	211	240	239	262	240	217	238	252	228	258	256
Tuberculosis, all forms-----001-019	117	9	10	5	12	9	11	9	13	10	15	8	8
Syphilis and its sequelae-----020-029	17	1	1	1	1	3	2	1	2	1	2	1	1
Dysentery, all forms-----045-048	2	-	-	-	-	-	-	-	1	-	-	1	-
Meningococcal infections-----057	2	-	-	1	-	-	-	-	-	1	-	-	-
All other infective and parasitic diseases-----030-039,041-044,049-054,058-074,081-084,086-139	13	-	2	-	3	1	1	-	2	1	-	5	-
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	445	38	29	38	31	39	44	32	31	34	41	47	41
Diabetes mellitus-----260	70	4	6	6	6	11	3	4	7	7	7	5	6
Meningitis, except meningococcal and tuberculous-----340	15	2	2	-	2	-	1	-	1	-	3	1	3
Major cardiovascular-renal diseases--330-334,400-468,592-594	1,286	131	97	99	103	121	100	104	109	109	95	100	120
Diseases of cardiovascular system-----330-334,400-468	1,221	124	93	91	99	117	96	97	104	100	88	96	116
Vascular lesions affecting central nervous system-----330-334	279	26	22	25	24	28	19	19	20	20	32	21	23
Rheumatic fever-----400-402	9	1	-	2	1	1	2	-	-	-	-	1	1
Diseases of heart-----410-443	857	91	67	56	69	84	67	72	77	72	52	70	80
Hypertension without mention of heart and general arteriosclerosis-----444-450	55	3	3	5	5	3	7	3	6	5	4	2	9
Other diseases of circulatory system-----451-488	21	3	1	3	-	1	1	3	1	3	-	2	3
Chronic and unspecified nephritis and other renal sclerosis-----592-594	65	7	4	8	4	4	4	7	5	9	5	4	4
Influenza and pneumonia, except pneumonia of newborn-----480-493	105	17	4	11	2	7	10	6	9	13	10	10	6
Ulcer of stomach and duodenum-----510,511	13	3	1	-	2	1	1	1	1	1	1	1	-
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----545,571,572	19	-	-	5	2	4	2	1	-	2	-	2	1
Cirrhosis of liver-----581	30	1	4	3	1	1	1	1	2	3	3	6	4
Acute nephritis and nephritis with edema, including nephrosis-----590,591	13	-	-	1	2	1	-	-	2	3	-	4	-
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	8	-	-	-	2	1	-	-	-	3	-	-	2
Congenital malformations-----750-759	72	5	6	11	5	8	7	3	2	5	8	6	3
Symptoms, senility, and ill-defined conditions-----780-795	38	4	4	3	2	3	2	5	2	2	2	4	5
Motor-vehicle accidents-----E810-E835	74	10	7	8	3	5	5	11	4	3	4	5	9
All other accidents-----E800-E802,E840-E862	113	9	6	10	12	5	11	5	13	12	3	14	13
Suicide-----E965,E970-E979	56	4	7	6	6	5	6	5	3	6	-	5	3
Homicide-----E984,E980-E985	12	2	3	-	1	-	-	1	2	2	1	-	-
All other causes-----Residual	399	58	22	52	41	37	33	28	32	34	36	35	31

Table 10.20. Deaths From 32 Selected Causes: Each County and Specified Urban Places, 1950

(By place of occurrence. Exclusive of fetal deaths. Includes data for urban places with populations of 10,000 or more in 1950. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. Causes in the selected list (table 9.19, Alaska) for which there were no deaths are not shown)

CAUSE OF DEATH	Hawaii	HAWAII COUNTY			HONOLULU COUNTY			Kauai County	Maui County
		Total	Hilo (city)	Balance of county	Total	Honolulu (city)	Balance of county		
ALL CAUSES	2,919	482	245	237	1,946	1,641	305	182	309
Tuberculosis, all forms-----001-019	117	20	15	5	80	69	11	4	13
Syphilis and its sequelae-----020-029	17	1	-	1	12	6	6	3	1
Dysentery, all forms-----045-048	2	-	-	-	2	1	1	-	-
Meningococcal infections-----057	2	-	-	-	2	2	-	-	-
All other infective and parasitic diseases-----Residual	13	2	-	2	8	2	6	1	2
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	445	57	25	32	313	286	17	28	47
Diabetes mellitus-----260	70	12	10	2	42	32	3	5	11
Meningitis, except meningococcal and tuberculous-----340	15	2	1	1	12	11	1	1	-
Major cardiovascular-renal diseases-----330-334,400-468,592-594	1,286	217	112	105	861	715	146	73	135
Diseases of cardiovascular system-----330-334,400-468	1,221	199	100	99	825	696	139	69	128
Vascular lesions affecting central nervous system-----330-334	279	66	34	32	156	119	37	17	40
Rheumatic fever-----400-402	9	1	-	1	8	5	3	-	-
Diseases of heart-----410-443	857	122	58	64	607	518	89	48	80
Hypertension without mention of heart and general arteriosclerosis-----444-450	55	8	7	1	38	30	8	3	6
Other diseases of circulatory system-----451-468	21	2	1	1	16	14	2	1	2
Chronic and unspecified nephritic and other renal sclerosis-----592-594	65	18	12	6	38	29	7	4	7
Influenza and pneumonia, except pneumonia of newborn-----480-493	105	22	8	14	58	38	20	8	17
Ulcer of stomach and duodenum-----540-541	13	1	-	1	10	8	2	2	-
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543,571,572	19	5	1	4	12	10	2	1	1
Cirrhosis of liver-----581	30	5	2	3	18	17	1	1	6
Acute nephritis and nephritis with edema, including nephrosis-----590,591	13	3	2	1	10	8	2	-	-
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	8	4	1	3	3	1	2	1	-
Congenital malformations-----750-759	72	8	7	1	60	53	7	2	2
Symptoms, senility, and ill-defined conditions-----780-795	38	16	4	12	17	9	8	4	1
Motor-vehicle accidents-----E810-E835	74	9	3	6	44	28	16	9	12
All other accidents-----E800-E802,E840-E862	113	25	11	14	69	51	18	12	7
Suicide-----E963,E970-E979	56	14	10	4	33	24	9	1	8
Homicide-----E964,E980-E985	12	-	-	-	8	4	2	3	3
All other causes-----Residual	399	59	33	26	274	249	25	23	43

## PUERTO RICO

**Table 11.01. Population; Crude Marriage, Divorce, Birth, and Death Rates; Fetal Death Ratios; and Infant, Neonatal, and Maternal Mortality Rates: 1940-50**

(By place of occurrence. Births and deaths exclusive of fetal deaths. Marriage, divorce, birth, and death rates per 1,000 population; fetal death ratios, and infant and neonatal mortality rates per 1,000 live births; maternal mortality rates per 10,000 live births)

YEAR	POPULATION <sup>1</sup>		Crude marriage rate <sup>2</sup>	Crude divorce rate <sup>4</sup>	Crude birth rate <sup>4</sup>	Crude death rate <sup>5</sup>	Fetal death ratio <sup>6</sup>	Infant mortality rate <sup>6</sup>	Neonatal mortality rate <sup>7</sup>	Maternal mortality rate <sup>8</sup>
	Total <sup>2</sup>	Civilian								
1950	2,210,703	2,203,000	9.3	<sup>10</sup> 1.6	38.9	9.9	46.4	67.5	26.4	25.0
1949	2,195,000	2,184,000	7.4	1.6	39.0	10.7	47.5	67.7	26.5	25.2
1948	2,172,000	2,165,000	7.1	1.5	40.4	12.1	50.0	78.3	28.3	29.0
1947	2,140,000	2,131,000	7.8	1.7	42.7	11.9	53.4	71.5	28.7	28.4
1946	2,098,000	2,092,000	9.7	1.9	42.5	13.1	55.1	83.7	29.1	28.0
1945	2,071,000	2,040,000	8.4	1.6	42.5	13.9	57.8	93.0	29.5	30.0
1944	2,038,000	2,010,000	7.9	1.6	41.1	14.6	---	99.5	30.0	33.2
1943	2,013,000	1,975,000	7.1	1.3	39.1	14.4	---	86.4	30.9	36.9
1942	1,975,000	1,939,000	8.2	1.3	---	16.3	---	---	---	---
1941	1,927,000	1,904,000	7.8	1.3	---	18.4	---	---	---	---
1940	1,869,255	1,866,000	10.4	1.4	---	18.4	---	---	---	---

<sup>1</sup>For 1940 and 1950, enumerated as of April 1; for other years, estimated as of July 1.

<sup>2</sup>Includes armed forces stationed in area.

<sup>3</sup>For 1940 and 1950, based on population enumerated as of April 1; for other years, based on total population estimated as of July 1.

<sup>4</sup>For 1940 and 1950, based on population enumerated as of April 1; for 1941-46 based on civilian population estimated as of July 1; for 1947-49, based on total population estimated as of July 1.

<sup>5</sup>Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.

<sup>6</sup>Based on deaths under 1 year.

<sup>7</sup>Based on deaths under 1 month.

<sup>8</sup>Based on deaths from Deliveries and complications of pregnancy, childbirth, the puerperium. For 1949 and 1950, classified according to the Sixth Revision of the International Lists, 1948; for 1940-48, according to the Fifth Revision.

<sup>9</sup>Census count of total population minus estimate of armed forces stationed in area.

<sup>10</sup>Includes annulments.

**Table 11.02. Birth and Death Rates; Fetal Death Ratios; Infant, Neonatal, and Maternal Mortality Rates; by Race: 1950**

(By place of occurrence. Births and deaths exclusive of fetal deaths. Birth and death rates per 1,000 population in each specified group, enumerated as of April 1; fetal death ratios, and infant and neonatal mortality rates per 1,000 live births; maternal mortality rates per 10,000 live births)

RACE	Birth rate	Death rate	Fetal death ratio <sup>1</sup>	Infant mortality rate <sup>2</sup>	Neonatal mortality rate <sup>3</sup>	Maternal mortality rate <sup>4</sup>
ALL RACES	38.9	9.9	46.4	67.5	26.4	25.0
White	36.2	10.2	46.3	79.6	31.7	24.6
Nonwhite	49.4	8.7	46.7	32.5	11.0	18.5

<sup>1</sup>Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.

<sup>2</sup>Based on deaths under 1 year.

<sup>3</sup>Based on deaths under 1 month.

<sup>4</sup>Based on deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium, classified according to the Sixth Revision of the International Lists, 1948.

**Table 11.03. Marriages and Divorces: 1940-50**

(By place of occurrence)

YEAR	Number of marriages	Number of divorces
1950	20,532	13,591
1949	16,156	3,409
1948	15,379	3,334
1947	16,779	3,582
1946	20,345	4,047
1945	17,490	3,247
1944	16,190	3,281
1943	14,341	2,509
1942	16,114	2,433
1941	15,007	2,464
1940	19,457	2,600

<sup>1</sup>Includes annulments.

Table 11.04. Marriages by Age of Bride by Age of Groom: 1950  
(By place of occurrence)

AGE OF GROOM	Total	AGE OF BRIDE														
		Under 15 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75 years and over	Not stated
ALL AGES-----	20,532	204	6,392	6,908	2,974	1,527	1,131	565	384	215	99	69	38	7	11	8
Under 15 years-----	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years-----	1,321	63	1,026	201	24	6	-	-	-	-	-	-	-	-	-	-
20-24 years-----	7,436	102	3,445	3,183	565	99	33	7	2	-	-	-	-	-	-	2
25-29 years-----	4,813	24	1,288	2,166	977	246	75	11	3	1	-	-	-	-	-	2
30-34 years-----	2,453	7	359	796	687	397	143	44	17	3	-	-	-	-	-	-
35-39 years-----	1,665	6	165	334	401	365	283	68	33	8	1	-	-	-	-	1
40-44 years-----	952	1	51	117	145	198	238	118	37	23	1	2	-	-	-	1
45-49 years-----	654	-	24	61	69	106	169	107	82	25	6	4	-	-	-	1
50-54 years-----	483	-	17	28	40	52	90	103	89	45	13	3	3	-	-	-
55-59 years-----	312	-	12	16	34	27	46	42	58	34	25	12	5	1	-	-
60-64 years-----	239	-	1	4	7	22	32	38	38	36	29	22	10	-	-	-
65-69 years-----	112	-	-	2	4	5	14	15	14	22	11	12	8	3	2	-
70-74 years-----	57	1	-	-	3	3	6	5	7	11	5	8	7	1	1	-
75 years and over-----	50	-	-	-	-	1	2	7	4	7	8	5	5	3	8	-
Not stated-----	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Table 11.05. Marriages and Divorces, and Crude Rates, by Month: 1950

(By place of occurrence. Rates on an annual basis per 1,000 population enumerated as of April 1)

MONTH	MARRIAGES		DIVORCES <sup>1</sup>	
	Number	Rate	Number	Rate
TOTAL-----	20,532	9.3	3,591	1.6
January-----	1,354	7.2	223	1.2
February-----	1,390	8.1	286	1.7
March-----	1,647	8.6	333	1.8
April-----	1,657	9.1	268	1.5
May-----	1,622	8.6	291	1.5
June-----	1,343	10.7	380	2.1
July-----	2,124	11.3	284	1.5
August-----	1,683	8.9	289	1.5
September-----	1,999	11.0	394	2.2
October-----	1,788	9.4	296	1.6
November-----	1,385	7.5	277	1.5
December-----	2,010	10.7	273	1.5

<sup>1</sup>Includes annulments.

Table 11.06. Divorces by Legal Grounds and Party to Whom Granted: 1950

(By place of occurrence)

LEGAL GROUNDS	Total <sup>1</sup>	GRANTED TO--	
		Husband	Wife
ALL CAUSES-----	3,591	1,756	1,835
Separation of both spouses for a period of 3 years or more-----	1,479	773	706
Abandonment-----	1,234	615	619
Cruel treatment and grave injury-----	685	289	416
Adultery-----	163	82	81
Other and unknown causes-----	30	17	13

<sup>1</sup>Includes annulments.

Table 11.07. Live Births; Fetal Deaths; Total and Infant Deaths; by Race, Sex, and Month: 1950

(By place of occurrence. Fetal deaths include only those for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated. Deaths exclusive of fetal deaths)

RACE AND SEX	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
LIVE BIRTHS													
ALL RACES-----	86,036	7,580	6,755	7,345	7,382	7,386	6,855	7,042	6,980	7,346	7,398	6,823	7,146
Male-----	43,785	3,900	3,433	3,697	3,679	3,790	3,432	3,609	3,601	3,715	3,839	3,490	3,602
Female-----	42,253	3,680	3,322	3,648	3,703	3,596	3,423	3,433	3,379	3,633	3,559	3,333	3,544
White-----	63,885	5,654	4,958	5,493	5,546	5,434	5,024	5,185	5,128	5,401	5,536	5,114	5,412
Male-----	32,504	2,887	2,508	2,745	2,769	2,792	2,504	2,663	2,672	2,715	2,898	2,625	2,751
Female-----	31,381	2,767	2,450	2,748	2,777	2,642	2,520	2,522	2,456	2,686	2,643	2,489	2,661
Nonwhite-----	22,153	1,926	1,797	1,852	1,836	1,952	1,831	1,857	1,852	1,945	1,862	1,709	1,734
Male-----	11,281	1,013	925	952	910	998	926	946	929	998	946	885	871
Female-----	10,872	913	872	900	926	954	905	911	923	947	916	824	863
FETAL DEATHS													
ALL RACES-----	3,992	349	290	369	357	325	329	372	311	324	330	306	340
Male-----	2,353	206	170	214	214	184	200	241	177	178	195	177	197
Female-----	1,633	143	120	145	143	141	129	131	133	146	134	126	143
Not stated--	6	-	-	-	-	-	1	-	1	-	1	3	-
White-----	2,958	263	223	258	273	236	244	275	232	234	251	227	242
Male-----	1,753	154	134	154	172	133	148	175	136	130	148	127	142
Female-----	1,202	109	89	104	101	103	96	100	96	104	103	97	100
Not stated--	3	-	-	-	-	-	-	-	-	-	-	3	-
Nonwhite-----	1,034	86	67	101	84	89	85	97	79	90	79	79	98
Male-----	600	52	36	60	42	51	52	66	41	48	47	50	55
Female-----	431	34	31	41	42	38	32	31	37	42	31	29	43
Not stated--	3	-	-	-	-	-	1	-	1	-	1	-	-
DEATHS UNDER 1 YEAR													
ALL RACES-----	5,807	547	480	513	430	509	510	512	506	452	454	424	470
Male-----	3,255	327	266	276	230	277	262	298	284	250	257	242	266
Female-----	2,552	220	214	237	200	232	228	214	222	202	197	182	204
White-----	5,087	524	427	440	370	439	448	441	441	395	398	360	414
Male-----	2,856	314	243	239	200	235	241	259	250	209	228	207	231
Female-----	2,231	210	184	201	170	204	207	182	191	176	170	153	183
Nonwhite-----	720	23	53	73	60	70	62	71	65	67	56	64	56
Male-----	389	13	23	37	30	42	41	39	34	41	29	35	35
Female-----	321	10	30	36	30	28	21	32	31	26	27	29	21
TOTAL DEATHS													
ALL RACES-----	21,895	1,975	1,765	1,906	1,734	1,919	1,768	1,859	1,895	1,749	1,821	1,706	1,796
Male-----	11,600	1,086	936	976	910	1,037	920	979	986	846	877	874	973
Female-----	10,295	889	829	930	824	882	848	880	909	803	844	834	823
White-----	18,009	1,675	1,457	1,525	1,414	1,571	1,441	1,530	1,573	1,431	1,491	1,413	1,488
Male-----	9,510	921	769	766	740	859	752	806	802	765	805	720	805
Female-----	8,499	754	688	759	674	712	689	724	771	666	686	693	683
Nonwhite-----	3,886	300	308	381	320	348	327	329	322	318	330	295	308
Male-----	2,090	165	167	210	170	178	168	173	164	161	172	154	168
Female-----	1,796	135	141	171	150	170	159	156	158	157	156	141	140

Table 11.08. Live Births by Attendant; Fetal Deaths, Total, Infant, and Neonatal Deaths; by Race: Each Municipality and Specified Urban Places, 1950.

(By place of occurrence. Includes data for all urban places with populations of 10,000 or more in 1950. Fetal deaths include only those for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.)

AREA AND RACE	LIVE BIRTHS <sup>a</sup>					Fetal deaths	DEATHS (EXCLUSIVE OF FETAL DEATHS)		
	Total	In hospital	Not in hospital, attended by:				Total	Under 1 year	Under 28 days
			Physician	Midwife	Other and not specified				
PUERTO RICO	86,038	30,494	924	52,756	1,324	3,992	21,895	5,807	2,268
White	63,885	21,769	721	39,975	1,422	2,958	18,009	5,087	2,025
Nonwhite	22,153	8,695	203	12,765	502	1,034	3,886	720	243
Adjuntas	920	4210	3	580	127	50	226	62	16
White	903	207	3	568	125	46	225	62	16
Nonwhite	17	3		12	2	4	1		
Aguada	791	77	3	698	13	21	174	37	17
White	676	61	3	600	12	19	153	33	13
Nonwhite	115	16		98	1	2	21	4	4
Aguadilla	2,359	1,548	30	904	77	155	659	179	76
White	2,309	614	18	633	47	104	567	158	64
Nonwhite	1,050	737	12	271	30	51	92	21	12
Aguadilla	186	75	8	87	16	12	323	83	45
White	137	58	5	65	11	12	276	70	34
Nonwhite	49	17	3	24	5		45	13	11
Balance of municipality	2,173	1,273	22	817	61	143	356	96	31
White	1,172	553	15	570	36	92	289	88	30
Nonwhite	1,001	720	9	247	25	51	47	8	1
Aguas Buenas	623	82	1	497	45	22	127	35	8
White	396	57	1	311	27	16	95	30	8
Nonwhite	227	25		186	18	6	32	5	
Aibonito	716	107	8	592	9	42	174	55	23
White	604	95	7	495	7	35	145	46	18
Nonwhite	112	12	1	97	2	7	29	9	4
Anasco	697	54	10	630	3	33	208	57	17
White	605	44	7	553	1	28	186	57	17
Nonwhite	92	10	3	77	2	7	22		
Arecibo	3,518	2,151	22	1,275	70	261	1,328	355	125
White	3,228	2,011	18	1,132	67	241	1,228	334	123
Nonwhite	290	140	4	143	3	20	100	21	2
Arecibo	1,576	1,336	15	223	2	89	701	182	91
White	1,468	1,253	12	201	2	82	656	174	90
Nonwhite	108	83	3	22		7	45	8	1
Balance of municipality	1,942	815	7	1,052	68	172	627	173	34
White	1,760	758	6	931	65	159	572	160	33
Nonwhite	182	57	1	121	3	13	55	13	1
Arroyo	597	162	1	428	6	29	166	55	22
White	256	79	1	174	2	10	96	28	12
Nonwhite	341	83		254	4	19	70	27	10
Barceloneta	681	129	5	539	8	31	181	49	20
White	620	95	3	426	5	25	157	47	19
Nonwhite	161	43	2	113	3	6	24	2	1
Barranquitas	710	54	9	642	5	39	107	36	21
White	699	50	9	635	5	38	105	36	21
Nonwhite	11	4		7		1	2		
Bayamón	3,228	2,435	36	741	16	178	840	280	135
White	2,218	1,618	27	562	11	125	671	224	129
Nonwhite	1,010	817	9	179	5	53	169	56	6
Bayamón	891	798	9	183	1	48	163	54	20
White	876	538	7	130	1	31	125	28	17
Nonwhite	315	260	2	53		15	38	6	3
Balance of municipality	2,237	1,637	27	558	15	132	677	216	115
White	1,542	1,080	20	432	10	94	546	196	112
Nonwhite	695	557	7	126	5	38	131	20	3
Cabo Rojo	960	317	23	618	2	50	246	70	30
White	784	250	19	513	2	37	219	61	27
Nonwhite	176	67	4	105		13	27	9	3
Caguas	2,285	930	14	1,315	26	102	604	126	49
White	2,110	859	13	1,214	24	89	545	125	48
Nonwhite	175	71	1	101	2	13	59	1	1
Caguas	1,403	922	9	462	10	72	367	80	34
White	1,287	851	9	417	10	63	330	79	33
Nonwhite	116	71		45		9	37	1	1
Balance of municipality	892	8	5	653	16	30	237	46	15
White	823	8	4	797	14	26	215	46	15
Nonwhite	59		1	56	2	4	22		
Camuy	661	1	1	637	22	24	181	48	18
White	620	1	1	596	22	24	176	48	18
Nonwhite	41			41			5		
Carolina	854	328		526	2	36	181	43	16
White	350	131		219		13	84	19	10
Nonwhite	504	195		307	2	23	97	24	6
Cataño	546	2	6	530	8	16	142	46	14
White	417	1	5	407	4	9	115	42	12
Nonwhite	129	1	1	123	4	7	27	4	2
Cayey	1,490	246	4	1,229	11	80	428	107	37
White	1,276	205	4	1,057	10	66	363	100	36
Nonwhite	214	41		172	1	14	65	7	1
Cayey	681	245	1	431	4	45	169	51	15
White	579	205	1	370	3	39	146	48	14
Nonwhite	102	40		61	1	4	23	3	1
Balance of municipality	609	1	3	798	7	37	259	56	22
White	697		3	687	7	27	217	52	22
Nonwhite	112	1		111		10	42	4	
Ceiba	103	2	1	95	7	1	41	6	4
White	75			70	3	1	29	5	4
Nonwhite	28		1	23	4		12	1	

<sup>a</sup>Includes births in hospitals attended by physician, midwife, or other person.

Table 11.08. Live Births by Attendant; Fetal Deaths; Total, Infant, and Neonatal Deaths; by Race: Each Municipality and Specified Urban Places, 1950—Con.

(See headnote on p. 317)

MUNICIPALITY AND RACE	LIVE BIRTHS					Fetal deaths	DEATHS (EXCLUSIVE OF FETAL DEATHS)		
	Total	In hospital	Not in hospital, attended by—				Total	Under 1 year	Under 28 days
			Physician	Midwife	Other and not specified				
Ciales	670	102	6	550	12	34	150	38	9
White	604	90	6	497	11	30	135	36	9
Nonwhite	66	12	-	53	1	4	15	2	-
Cidra	736	3	3	694	36	19	112	31	15
White	508	2	2	480	24	13	86	28	14
Nonwhite	228	1	1	214	12	6	26	3	1
Coamo	1,031	117	88	825	1	39	185	46	23
White	1,002	115	86	800	1	36	182	46	23
Nonwhite	29	2	2	25	-	3	3	-	-
Coamo	491	116	52	323	-	21	121	29	15
White	472	114	50	308	-	19	118	29	13
Nonwhite	19	2	2	15	-	2	3	-	-
Balance of municipality	540	1	36	502	1	18	64	17	10
White	530	1	36	492	1	17	64	17	10
Nonwhite	10	-	-	10	-	1	-	-	-
Comerio	690	11	5	664	10	21	110	27	9
White	581	8	5	561	7	20	94	26	9
Nonwhite	109	3	-	103	3	1	16	1	-
Corozal	814	-	-	810	4	21	137	39	15
White	796	-	-	794	4	21	131	38	15
Nonwhite	16	-	-	16	-	-	6	1	-
Culebra	21	-	1	19	1	2	3	-	-
White	9	-	-	7	1	1	1	-	-
Nonwhite	13	-	1	12	-	2	2	-	-
Dorado	252	26	1	224	1	10	58	13	8
White	115	12	-	100	1	3	35	9	6
Nonwhite	139	14	1	124	-	7	23	4	2
Fajardo	1,658	1,464	27	150	17	112	461	129	78
White	1,091	979	20	80	12	75	305	100	66
Nonwhite	567	485	7	70	5	37	156	29	12
Fajardo	1,269	1,218	7	39	5	106	376	115	75
White	834	804	7	20	3	72	254	89	63
Nonwhite	435	414	-	19	2	36	122	26	12
Balance of municipality	389	246	20	111	12	4	85	14	3
White	257	175	13	60	9	3	51	11	3
Nonwhite	132	71	7	51	3	1	34	3	-
Guánica	634	67	3	564	-	29	148	55	12
White	599	56	2	561	-	15	129	52	12
Nonwhite	35	11	1	205	-	14	19	3	-
Guayama	1,501	196	6	952	147	64	420	138	57
White	719	110	5	524	80	32	506	109	28
Nonwhite	562	86	1	428	67	25	114	29	9
Guayama	786	195	5	539	46	38	250	88	23
White	432	110	4	293	25	23	174	68	16
Nonwhite	354	85	1	245	21	15	76	19	7
Balance of municipality	515	86	1	415	101	26	170	50	14
White	287	-	1	231	55	16	132	40	12
Nonwhite	228	-	-	182	46	10	38	10	2
Guayanilla	614	4	3	584	23	19	128	42	18
White	515	3	3	490	19	18	113	37	18
Nonwhite	99	1	-	94	4	1	15	5	-
Guaynabo	669	104	-	552	13	25	110	28	12
White	460	66	-	384	10	11	80	23	10
Nonwhite	209	38	-	168	3	14	30	5	2
Gurabo	470	200	1	269	-	19	125	31	15
White	251	108	-	145	-	11	77	21	9
Nonwhite	219	92	1	126	-	8	48	10	6
Hatillo	495	-	2	478	18	20	157	36	15
White	454	-	2	437	15	18	145	35	15
Nonwhite	42	-	-	39	3	2	12	1	-
Hormigueros	214	12	6	192	4	11	74	22	9
White	131	8	5	114	4	7	57	19	7
Nonwhite	83	4	1	78	-	4	17	3	2
Humacao	1,534	700	5	812	17	70	378	96	54
White	867	434	5	418	10	46	270	79	28
Nonwhite	667	266	-	394	7	24	109	17	6
Humacao	797	675	-	117	5	41	165	50	18
White	478	413	-	61	4	25	130	46	17
Nonwhite	319	262	-	56	1	16	35	4	1
Balance of municipality	737	25	5	695	12	29	214	46	16
White	389	21	5	357	6	21	140	33	11
Nonwhite	348	4	-	338	6	8	74	13	5
Isabela	820	2	8	792	18	31	280	84	11
White	728	2	8	702	16	26	249	74	8
Nonwhite	92	-	-	90	2	5	31	10	3
Jayuya	607	95	2	487	53	33	157	37	18
White	597	93	2	450	52	32	156	37	18
Nonwhite	10	2	-	7	1	1	1	-	-
Juana Díaz	1,177	413	2	554	208	56	272	69	20
White	687	246	1	335	105	37	192	55	15
Nonwhite	490	167	1	219	103	21	80	14	5
Juncos	766	205	5	555	3	35	201	39	13
White	646	169	5	471	2	24	166	36	12
Nonwhite	120	37	-	82	1	11	35	3	1
Lajas	529	135	3	393	-	31	120	45	16
White	442	105	3	334	-	23	99	36	12
Nonwhite	87	28	-	59	-	8	21	7	4
Lares	1,160	156	12	994	98	68	351	86	29
White	1,137	151	12	978	96	66	344	85	28
Nonwhite	23	5	-	16	2	2	7	1	1

<sup>1</sup>Includes births in hospitals attended by physician, midwife, or other person.



Table 11.08. Live Births by Attendant; Fetal Deaths; Total, Infant, and Neonatal Deaths; by Race: Each Municipality and Specified Urban Places, 1950—Con.

(See headnote on p. 317)

AREA AND RACE	LIVE BIRTHS					Fetal deaths	DEATHS (EXCLUSIVE OF FETAL DEATHS)		
	Total	In hospital <sup>1</sup>	Not in hospital, attended by—				Total	Under 1 year	Under 28 days
			Physician	Midwife	Other and not specified				
Las Marias	393	58	1	314	20	16	68	24	12
	White	327	43	1	266	17	64	22	11
	Nonwhite	66	15	-	48	3	4	2	1
Las Piedras	558	29	1	521	7	27	150	27	10
	White	408	18	-	388	2	133	25	9
	Nonwhite	150	11	1	133	5	17	2	1
Loíza	919	210	4	695	10	45	215	60	29
	White	335	105	2	228	-	92	28	14
	Nonwhite	584	105	2	467	10	123	32	15
Luguillo	191	1	2	185	3	7	76	19	6
	White	104	-	2	101	1	47	12	5
	Nonwhite	87	1	-	84	2	29	7	1
Manatí	1,147	428	15	697	7	61	247	72	20
	White	683	248	15	415	5	185	58	17
	Nonwhite	464	180	-	282	2	62	14	3
Manatí	581	428	14	139	-	47	86	31	11
	White	353	248	14	91	-	68	27	9
	Nonwhite	228	180	-	48	-	18	4	2
Balance of municipality	566	-	1	558	7	14	161	41	9
	White	330	-	1	324	5	117	31	8
	Nonwhite	236	-	-	234	2	44	10	1
Maricao	262	31	1	220	10	17	69	19	7
	White	151	17	1	128	6	64	18	7
	Nonwhite	111	14	-	92	5	5	-	-
Mounabo	432	30	1	397	4	26	104	35	16
	White	216	14	-	199	3	44	16	9
	Nonwhite	216	16	1	198	1	60	19	7
Mayagüez	3,234	1,642	90	1,454	48	161	1,028	265	89
	White	2,345	1,235	66	1,008	36	437	239	81
	Nonwhite	889	407	24	446	12	191	26	8
Mayagüez	2,535	1,634	49	665	9	116	656	166	63
	White	1,724	1,230	41	446	7	535	150	56
	Nonwhite	831	404	8	217	2	121	16	7
Balance of municipality	879	8	41	791	39	49	372	99	26
	White	621	5	25	562	29	302	69	25
	Nonwhite	258	3	16	229	10	70	10	1
Moca	752	2	7	734	9	35	160	53	25
	White	705	2	6	687	8	155	52	25
	Nonwhite	49	-	1	47	1	5	1	-
Morovis	649	37	2	608	2	25	114	25	12
	White	611	34	2	573	2	110	24	12
	Nonwhite	38	3	-	35	-	4	1	-
Naguabo	725	326	11	375	13	21	145	25	8
	White	351	164	6	177	4	98	22	8
	Nonwhite	374	162	5	198	9	45	3	-
Naranjito	517	-	5	514	-	10	103	31	13
	White	504	-	2	502	-	98	31	13
	Nonwhite	13	-	1	12	-	5	-	-
Orocovis	811	3	2	792	14	39	146	42	17
	White	754	3	2	756	13	34	38	14
	Nonwhite	57	-	-	56	1	10	4	3
Patillas	762	57	7	677	21	24	197	55	22
	White	378	27	2	338	11	138	45	19
	Nonwhite	384	30	5	339	10	59	10	3
Penuelas	495	-	1	491	3	22	128	35	14
	White	451	-	1	428	2	116	33	13
	Nonwhite	64	-	-	63	1	12	2	1
Ponce	5,581	1,852	38	3,586	105	311	1,701	406	150
	White	4,677	1,606	36	2,950	85	248	377	138
	Nonwhite	904	246	2	636	20	206	29	12
Ponce	4,011	1,852	37	2,046	76	258	1,308	298	122
	White	3,391	1,606	35	1,687	83	202	1,158	293
	Nonwhite	620	246	2	389	13	56	15	7
Balance of municipality	1,570	-	1	1,540	29	53	393	108	28
	White	1,286	-	1	1,263	22	339	94	23
	Nonwhite	284	-	-	277	7	54	14	5
Quebradillas	450	1	-	448	1	26	131	38	10
	White	437	1	-	435	1	126	38	10
	Nonwhite	13	-	-	13	-	5	-	-
Rincón	261	-	3	252	6	11	67	18	9
	White	258	-	3	249	6	66	18	9
	Nonwhite	3	-	-	3	-	1	-	-
Río Grande	385	10	2	366	7	16	98	16	4
	White	143	9	1	132	1	6	11	3
	Nonwhite	242	1	1	234	6	10	5	1
Río Piedras	4,366	3,150	21	1,154	41	157	1,306	294	120
	White	2,568	1,677	16	650	22	1,030	225	100
	Nonwhite	1,801	1,273	5	504	19	276	69	20
Río Piedras	3,985	3,100	20	831	34	145	770	248	103
	White	2,384	1,833	16	496	19	610	194	88
	Nonwhite	1,621	1,267	4	335	15	160	54	15
Balance of municipality	381	50	1	323	7	12	536	46	17
	White	201	44	-	154	3	420	31	12
	Nonwhite	180	6	1	189	4	116	15	5
Sabana Grande	551	167	21	354	9	50	142	46	15
	White	325	108	16	194	7	108	35	13
	Nonwhite	226	59	5	160	2	34	11	2
Salinas	1,015	339	-	589	107	58	195	56	11
	White	717	242	-	399	76	129	46	9
	Nonwhite	298	97	-	170	31	66	12	2

<sup>1</sup>Includes births in hospitals attended by physician, midwife, or other person.

Table 11.08. Live Births by Attendant; Fetal Deaths; Total, Infant, and Neonatal Deaths; by Race: Each Municipality and Specified Urban Places, 1950—Con.

(See headnote on p. 317)

AREA AND RACE	LIVE BIRTHS					Fetal deaths	DEATHS (EXCLUSIVE OF FETAL DEATHS)		
	Total	In hospital <sup>1</sup>	Not in hospital, attended by—				Total	Under 1 year	Under 28 days
			Physician	Midwife	Other and not specified				
San Germán	998	367	13	575	43	68	77	33	
	White	799	305	11	461	24	57	68	
	Nonwhite	199	64	2	114	19	38	9	
San Juan, coextensive with San Juan (city)	10,664	7,411	159	3,065	29	312	2,105	585	
	White	7,267	5,419	110	1,719	19	213	1,610	
	Nonwhite	3,397	1,992	49	1,346	10	99	495	
San Lorenzo	1,116	97	6	1,002	11	46	300	71	
	White	873	66	5	793	9	36	228	
	Nonwhite	243	31	1	209	2	10	72	
San Sebastián	1,452	193	33	1,204	22	76	429	140	
	White	1,281	167	29	1,065	20	63	401	
	Nonwhite	171	26	4	139	2	13	28	
Santa Isabel	582	169	-	375	36	36	135	40	
	White	352	98	-	229	25	24	96	
	Nonwhite	230	71	-	146	13	12	36	
Toa Alta	352	122	3	221	6	8	78	20	
	White	269	90	3	171	5	8	60	
	Nonwhite	83	32	-	50	1	16	1	
Toa Baja	452	143	15	286	6	27	117	27	
	White	192	69	6	115	2	11	60	
	Nonwhite	260	74	9	173	4	16	57	
Trujillo Alto	293	3	42	247	1	8	55	7	
	White	153	2	25	125	1	5	39	
	Nonwhite	140	1	17	122	-	3	16	
Utuado	1,733	216	20	1,364	131	90	408	103	
	White	1,679	212	19	1,319	129	90	391	
	Nonwhite	54	6	1	45	2	17	2	
Vega Alta	517	9	3	502	3	7	125	27	
	White	356	6	2	344	2	4	104	
	Nonwhite	161	1	1	159	1	3	21	
Vega Baja	1,066	130	2	932	2	43	258	65	
	White	678	87	1	588	2	33	163	
	Nonwhite	388	43	1	344	-	10	73	
Vieques	252	135	5	112	-	14	69	9	
	White	148	82	4	82	-	12	52	
	Nonwhite	104	53	1	50	-	2	17	
Villalba	602	4	4	594	-	28	119	25	
	White	349	2	3	344	-	16	93	
	Nonwhite	253	2	1	250	-	10	26	
Yabucoa	1,274	250	13	993	18	59	291	84	
	White	907	146	8	743	8	40	248	
	Nonwhite	367	102	5	250	10	19	43	
Yauco	1,627	187	7	1,405	28	82	394	121	
	White	1,375	159	4	1,197	25	61	371	
	Nonwhite	252	28	3	218	3	23	2	

<sup>1</sup>Includes births in hospitals attended by physician, midwife, or other person.

Table 11.09. Live Births by Age of Mother, Birth Order, and Race: 1950

(By place of occurrence. Birth order refers to number of children born alive to mother)

AGE OF MOTHER AND RACE OF CHILD	Total	BIRTH ORDER													
		1st	2d	3d	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th and over	Not stated
<b>ALL RACES</b>	86,038	17,483	14,575	12,985	9,699	7,435	6,154	4,811	3,848	2,748	2,150	1,385	1,029	1,420	318
10-14 years	53	45	6	1	-	-	-	-	-	-	-	-	-	-	1
15-19 years	10,119	6,013	2,739	1,031	205	36	12	4	1	1	-	-	-	-	77
20-24 years	26,097	6,585	6,625	5,937	3,566	1,815	969	345	140	55	35	17	10	3	95
25-29 years	19,475	2,299	2,788	3,205	3,065	2,655	2,155	1,501	897	444	213	101	56	46	52
30-34 years	11,937	820	957	1,225	1,284	1,349	1,507	1,434	1,248	830	580	324	203	149	27
35-39 years	6,648	346	367	452	574	697	927	900	950	934	906	603	473	614	15
40-44 years	2,116	76	60	85	84	112	150	146	199	210	197	198	184	415	4
45-49 years	353	17	5	4	9	20	15	18	25	36	51	35	105	1	
50 years and over	30	2	-	2	4	1	1	1	2	4	3	5	2	3	
Not stated	7,210	1,280	1,028	1,045	908	760	622	462	588	254	180	106	66	87	44
<b>WHITE</b>	63,885	12,833	10,980	9,760	7,134	5,452	4,534	3,547	2,869	2,053	1,599	1,036	784	1,079	225
10-14 years	38	31	5	1	-	-	-	-	-	-	-	-	-	-	1
15-19 years	7,171	4,261	1,959	720	148	25	6	2	1	-	-	-	-	-	50
20-24 years	19,371	4,942	4,970	4,465	2,598	1,295	619	285	98	39	26	12	8	3	72
25-29 years	14,619	1,750	2,212	2,452	2,271	1,852	1,607	1,098	644	312	155	75	39	31	33
30-34 years	8,970	583	751	960	953	1,000	1,121	1,086	933	631	434	232	157	112	17
35-39 years	6,506	258	282	355	418	522	615	673	738	727	685	468	356	472	11
40-44 years	1,577	56	44	60	57	76	104	110	145	151	151	150	155	314	4
45-49 years	261	12	2	-	3	16	9	16	18	30	29	22	26	79	
50 years and over	20	1	-	2	3	-	-	1	4	1	4	1	1	2	
Not stated	5,352	959	756	765	695	566	455	345	293	164	138	75	48	66	37
<b>NONWHITE</b>	22,153	4,650	3,595	3,225	2,565	1,983	1,620	1,264	979	695	551	349	245	341	91
10-14 years	15	14	1	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years	2,948	1,752	781	321	57	11	6	2	1	-	-	-	-	-	27
20-24 years	6,728	1,843	1,855	1,472	988	520	251	119	42	17	9	5	2	-	23
25-29 years	4,856	549	576	753	784	703	548	413	253	132	58	28	17	15	19
30-34 years	2,967	237	206	285	331	349	398	349	315	199	146	92	46	37	10
35-39 years	2,142	108	85	117	158	165	212	227	214	211	241	135	123	142	4
40-44 years	539	20	16	23	27	36	46	36	54	59	46	48	29	99	
45-49 years	92	5	3	4	6	4	5	2	5	6	7	9	9	1	
50 years and over	10	1	-	-	1	1	1	-	1	-	2	1	1	1	
Not stated	1,858	321	272	280	223	194	167	117	95	70	42	31	18	21	7

Table 11.10. Total Live Births and Cases of Plural Births in Which at Least One Child Was Born Alive, by Race: 1950

(By place of occurrence. The term "cases" refers to confinements resulting in either single or plural issue and is synonymous with "sets" in figures for plural births. Total number of cases is necessarily less than total number of births for any given period)

RACE	Total live births	Total cases (single and plural)	CASES OF PLURAL BIRTHS IN WHICH AT LEAST ONE CHILD WAS BORN ALIVE		
			Total	Twins <sup>1</sup>	Triples
<b>ALL RACES</b>	86,038	65,342	810	801	9
White	63,885	63,349	577	571	6
Nonwhite	22,153	21,993	233	230	3

<sup>1</sup>Excludes 13 cases of twins in which one mate was reported.

Table 11.11. Live Births by Birth Weight, Race, and Period of Gestation: 1950  
(By place of occurrence)

RACE AND PERIOD OF GESTATION	Total	BIRTH WEIGHT <sup>1</sup>										Not stated
		500 grams or less	501-1,000 grams	1,001-1,500 grams	1,501-2,000 grams	2,001-2,500 grams	2,501-3,000 grams	3,001-3,500 grams	3,501-4,000 grams	4,001-4,500 grams	4,501 grams or more	
ALL RACES-----	86,038	7	95	253	841	3,438	10,835	18,474	14,946	3,494	1,611	32,044
Under 20 weeks-----	10	-	-	1	1	-	1	1	1	-	3	2
20-27 weeks-----	158	2	19	30	18	10	7	13	17	4	-	38
28-31 weeks-----	665	1	17	70	86	89	45	85	61	12	6	195
32-35 weeks-----	1,660	-	17	33	100	225	493	433	221	33	5	100
36 weeks-----	11,144	1	5	24	126	675	1,694	2,684	1,953	447	209	3,336
37-39 weeks-----	13,603	1	7	25	86	458	1,629	2,745	1,953	528	234	5,955
40 weeks-----	57,673	2	29	69	416	1,964	6,929	12,412	10,671	2,451	1,150	21,560
41-42 weeks-----	94	-	-	-	-	1	9	12	11	1	1	59
43 weeks and over-----	406	-	-	1	1	3	20	42	32	5	-	302
Reported as premature-----	-	-	-	-	-	-	-	-	-	-	-	-
Not stated-----	625	-	1	-	3	13	18	49	46	13	3	479
WHITE-----	63,895	5	69	163	624	2,499	7,851	13,717	11,137	2,639	1,226	23,955
Under 20 weeks-----	6	-	-	1	1	-	-	-	1	-	1	2
20-27 weeks-----	118	2	14	22	11	9	5	9	13	2	-	31
28-31 weeks-----	493	1	11	49	62	61	38	64	44	9	5	149
32-35 weeks-----	840	-	10	21	60	140	210	191	105	18	3	82
36 weeks-----	6,336	1	2	19	103	519	1,249	2,011	1,480	363	161	2,428
37-39 weeks-----	9,602	-	7	19	64	329	1,134	1,942	1,414	380	170	4,143
40 weeks-----	43,727	1	25	52	321	1,430	5,160	9,424	8,017	1,853	893	16,561
41-42 weeks-----	85	-	-	-	-	1	6	11	10	1	1	55
43 weeks and over-----	265	-	-	-	-	2	17	29	23	5	-	189
Reported as premature-----	-	-	-	-	-	-	-	-	-	-	-	-
Not stated-----	413	-	-	-	2	8	12	36	30	8	2	315
NONWHITE-----	22,153	2	26	70	217	939	3,004	4,757	3,809	655	385	8,089
Under 20 weeks-----	4	-	-	-	-	-	1	1	-	-	2	-
20-27 weeks-----	40	-	5	8	7	1	2	4	4	2	-	7
28-31 weeks-----	172	-	6	21	26	29	7	19	17	3	1	44
32-35 weeks-----	620	-	7	12	40	85	283	242	116	15	2	18
36 weeks-----	2,808	-	3	5	23	156	435	673	473	84	48	808
37-39 weeks-----	4,001	1	-	6	24	129	495	805	519	148	64	1,812
40 weeks-----	13,946	1	4	17	95	534	1,769	2,988	2,654	598	267	5,019
41-42 weeks-----	9	-	-	-	-	-	3	1	1	-	-	4
43 weeks and over-----	141	-	-	1	1	1	3	13	9	-	-	113
Reported as premature-----	-	-	-	-	-	-	-	-	-	-	-	-
Not stated-----	212	-	1	-	1	5	6	13	16	5	1	164

<sup>1</sup>The equivalents of the gram weights in terms of pounds and ounces are as follows:  
 500 grams or less = 1 lb. 1 oz. or less  
 501-1,000 grams = 1 lb. 2 oz.-2 lbs. 3 oz.  
 1,001-1,500 grams = 2 lbs. 4 oz.-3 lbs. 4 oz.  
 1,501-2,000 grams = 3 lbs. 5 oz.-4 lbs. 6 oz.  
 2,001-2,500 grams = 4 lbs. 7 oz.-5 lbs. 8 oz.  
 2,501-3,000 grams = 5 lbs. 9 oz.-6 lbs. 9 oz.  
 3,001-3,500 grams = 6 lbs. 10 oz.-7 lbs. 11 oz.  
 3,501-4,000 grams = 7 lbs. 12 oz.-8 lbs. 13 oz.  
 4,001-4,500 grams = 8 lbs. 14 oz.-9 lbs. 14 oz.  
 4,501 grams or more = 9 lbs. 15 oz. or more

Table 11.12. Infant Mortality Rates by Race and Sex: 1943-50

(By place of occurrence. Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births in each specified group)

RACE AND SEX	1950	1949	1948	1947	1946	1945	1944	1943
ALL RACES-----	67.5	67.7	78.3	71.5	85.7	93.0	99.3	96.4
Male-----	74.3	73.9	84.2	78.4	91.9	99.9	106.7	102.8
Female-----	60.4	61.4	72.1	64.3	75.1	86.0	91.6	89.8
White-----	79.6	79.0	91.7	80.2	96.1	108.4	115.9	109.3
Male-----	87.9	85.4	98.1	87.5	105.7	116.4	124.0	117.1
Female-----	71.1	72.3	84.9	72.6	86.2	100.1	107.6	101.2
Nonwhite-----	32.5	35.1	41.0	44.2	47.6	54.0	55.4	63.3
Male-----	35.4	39.9	45.5	50.0	52.2	57.7	60.6	65.9
Female-----	29.5	30.2	36.4	38.2	42.9	50.1	50.1	60.5

Table 11.13. Deaths Under 1 Year, by Detailed Age, Race, and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths)

AGE	Total	ALL RACES		WHITE		NONWHITE	
		Male	Female	Male	Female	Male	Female
UNDER 1 YEAR-----	5,807	3,255	2,552	2,856	2,231	399	321
Under 1 day-----	623	369	254	313	228	56	26
1 day-----	238	148	90	126	83	20	7
2 days-----	214	132	82	119	74	13	6
3 days-----	179	120	59	112	49	8	10
4 days-----	126	75	51	67	45	6	6
5 days-----	96	67	29	64	26	3	3
6 days-----	62	34	28	31	25	3	3
7-15 days-----	337	198	139	180	125	18	14
16-20 days-----	221	119	102	111	90	8	12
21-27 days-----	172	100	72	91	64	9	8
Under 28 days-----	2,268	1,362	906	1,216	809	146	97
28-59 days-----	559	334	225	296	193	38	32
2 months-----	501	274	227	239	193	35	34
3 months-----	467	235	232	216	201	19	31
4 months-----	354	183	171	162	155	21	16
5 months-----	305	154	151	131	130	23	21
6 months-----	267	135	132	113	139	22	23
7 months-----	243	140	103	116	89	24	14
8 months-----	247	131	116	114	101	17	15
9 months-----	204	117	87	98	76	21	11
10 months-----	184	97	87	76	76	21	11
11 months-----	178	83	85	81	69	12	16

Table 11.14. Deaths Under 1 Year and Under 28 Days, From 45 Selected Causes, by Race: 1950

(By place of occurrence. Exclusive of fetal deaths. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

CAUSE OF DEATH	ALL RACES			WHITE			NONWHITE		
	Under 1 year	Under 28 days	28 days-11 months	Under 1 year	Under 28 days	28 days-11 months	Under 1 year	Under 28 days	28 days-11 months
ALL CAUSES	5,807	2,268	3,539	5,087	2,025	3,062	780	245	477
Tuberculosis, all forms	78	3	75	65	2	63	13	1	12
Syphilis and its sequelae	31	20	11	24	15	9	7	5	2
Dysentery, all forms	34	6	28	27	5	22	7	1	6
Whooping cough	107	4	103	89	3	86	18	1	17
All other infective and parasitic diseases	74	18	56	70	17	53	4	1	3
Diseases of thymus gland	3	2	1	3	2	1	-	-	-
Meningitis, except meningococcal and tuberculous	61	8	53	51	6	45	10	2	8
All other diseases of nervous system and sense organs	31	8	23	25	6	19	6	2	4
Influenza and pneumonia, except pneumonia of newborn	683	5	678	602	5	597	81	-	81
Influenza	36	5	31	33	5	28	3	-	3
Pneumonia, except pneumonia of newborn	647	...	647	569	...	569	78	...	78
All other diseases of respiratory system	79	18	61	72	16	56	7	2	5
Hernia and intestinal obstruction	28	10	18	25	9	16	3	1	2
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	1,582	2	1,580	1,367	2	1,365	225	-	225
All other diseases of digestive system	39	9	30	37	9	28	2	-	2
Congenital malformations	257	157	100	229	141	88	28	16	12
Spina bifida and meningocele	36	14	22	30	10	20	6	4	2
Congenital malformations of circulatory system	125	76	48	112	68	44	13	8	5
All other congenital malformations	96	67	29	87	63	24	9	4	5
Certain diseases of early infancy	1,913	1,679	234	1,685	1,496	199	219	183	35
Birth injuries	200	195	5	177	172	5	23	23	-
Without mention of immaturity (.0)	154	151	3	139	135	3	16	16	-
With immaturity (.5)	46	44	2	39	37	2	7	7	-
Intracranial and spinal injury at birth	107	104	3	94	91	3	13	13	-
Without mention of immaturity (.0)	91	89	2	80	78	2	11	11	-
With immaturity (.5)	16	15	1	14	13	1	2	2	-
Other birth injury	93	91	2	83	81	2	10	10	-
Without mention of immaturity (.0)	63	62	1	58	57	1	5	5	-
With immaturity (.5)	30	29	1	25	24	1	5	5	-
Postnatal asphyxia and atelectasis	164	157	7	149	142	7	15	15	-
Without mention of immaturity (.0)	121	115	6	107	101	6	14	14	-
With immaturity (.5)	43	42	1	42	41	1	1	1	-
Pneumonia of newborn	211	211	...	195	195	...	16	16	...
Without mention of immaturity (.0)	176	176	...	161	161	...	15	15	...
With immaturity (.5)	35	35	...	34	34	...	1	1	...
Diarrhea of newborn	188	189	-	173	173	-	15	15	-
Without mention of immaturity (.0)	174	174	-	159	159	-	15	15	-
With immaturity (.5)	14	14	-	14	14	-	-	-	-
Other infections of newborn	13	13	-	13	13	-	-	-	-
Without mention of immaturity (.0)	10	10	-	10	10	-	-	-	-
With immaturity (.5)	3	3	-	3	3	-	-	-	-
Neonatal disorders arising from maternal toxemia	11	11	-	10	10	-	1	1	-
Without mention of immaturity (.0-4)	6	6	-	5	5	-	1	1	-
With immaturity (.5-9)	5	5	-	5	5	-	-	-	-
Hemolytic disease of newborn (erythroblastosis)	50	47	3	43	41	2	7	6	1
Without mention of immaturity (.0-2)	47	45	2	40	39	1	7	6	1
With immaturity (.5-7)	3	2	1	3	2	1	-	-	-
Hemorrhagic disease of newborn	36	36	-	32	32	-	4	4	-
Without mention of immaturity (.0)	29	29	-	25	25	-	4	4	-
With immaturity (.5)	7	7	-	7	7	-	-	-	-
Ill-defined diseases peculiar to early infancy, including nutritional maladjustment	667	483	184	578	421	157	89	62	27
Without mention of immaturity (.0)	499	341	158	436	302	134	63	39	24
With immaturity (.5)	168	142	26	142	119	23	26	23	3
Immaturity with mention of any other subsidiary condition	35	15	20	30	15	15	5	-	5
Immaturity unqualified	538	323	15	295	282	13	43	41	2
Symptoms and ill-defined conditions	589	286	303	532	261	271	57	25	32
All other diseases-Residual	176	20	156	146	18	128	30	2	28
Accidents	29	11	18	26	11	15	3	-	3
Inhalation and ingestion of food or other object causing obstruction or suffocation	8	6	2	7	6	1	1	-	1
Accidental mechanical suffocation in bed and cradle	3	-	3	2	-	2	1	-	1
All other accidental causes	18	5	13	17	5	12	1	-	1
Homicide	3	2	1	2	1	1	1	1	-

Table 11.15. Deaths and Death Rates by Age, Race, and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE AND SEX	Total <sup>1</sup>	Under	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85 years
		1 year	years	years	years	years	years	years	years	years	years	and over
NUMBER												
ALL RACES-----	21,895	5,807	2,911	964	1,221	1,464	1,487	1,418	1,644	2,018	1,484	1,460
Male----	11,900	3,255	1,420	476	589	759	802	812	937	1,157	765	619
Female--	10,295	2,552	1,491	488	632	705	685	606	707	861	721	841
White-----	18,008	5,087	2,469	799	939	1,139	1,157	1,125	1,266	1,626	1,218	1,173
Male----	9,510	2,856	1,203	397	446	581	619	644	731	925	617	495
Female--	8,499	2,231	1,266	412	493	558	538	481	535	701	601	678
Nonwhite-----	5,888	720	442	165	282	325	330	293	376	392	266	287
Male----	2,090	399	217	89	143	178	183	188	206	232	146	124
Female--	1,796	321	225	76	139	147	147	105	170	160	120	163
RATE												
ALL RACES-----	9.9	81.8	9.9	1.6	3.0	5.1	6.6	9.6	17.2	37.0	68.7	155.7
Male----	10.4	90.5	9.5	1.6	2.9	5.3	7.0	10.6	18.5	42.3	78.1	171.4
Female--	9.4	72.7	10.2	11.7	3.0	4.8	6.3	8.6	15.7	31.6	62.2	145.8
White-----	10.2	91.1	10.6	1.7	2.9	4.8	6.4	9.4	16.3	36.1	68.5	160.1
Male----	10.8	101.3	10.3	1.6	2.8	5.0	6.6	10.4	17.6	40.8	73.9	175.5
Female--	9.7	80.8	11.0	1.8	2.9	4.6	6.1	8.4	14.7	31.4	63.7	150.5
Nonwhite-----	8.7	47.3	7.0	1.3	3.3	6.1	7.8	10.5	21.3	40.9	69.5	139.7
Male----	9.2	51.4	6.8	1.4	3.3	6.6	8.4	11.6	22.6	49.6	87.1	156.8
Female--	8.1	43.1	7.2	1.2	3.3	5.6	7.1	9.3	20.0	32.7	55.7	129.0

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 11.16 Deaths From 255 Selected Causes, by Race and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. Causes for which there were no deaths are not shown)

CAUSE OF DEATH	Total	ALL RACES		WHITE		NONWHITE	
		Male	Female	Male	Female	Male	Female
ALL CAUSES	21,895	11,600	10,295	9,510	8,499	2,080	1,796
I. Infective and parasitic diseases	3,714	1,869	1,825	1,465	1,479	424	346
Tuberculosis, all forms	2,849	1,420	1,429	1,099	1,152	321	277
Tuberculosis of respiratory system	2,664	1,321	1,343	1,021	1,080	300	263
Tuberculosis of meninges and central nervous system	143	73	70	54	60	19	10
Tuberculosis of intestines, peritoneum, and mesenteric glands	12	9	3	8	3	1	-
Tuberculosis of vertebral column	4	3	1	3	-	-	1
Tuberculosis of genito-urinary system	1	-	1	-	-	-	-
Tuberculosis of lymphatic system and other organs	7	4	3	4	2	-	1
Disseminated tuberculosis	18	10	8	9	6	1	2
Syphilis and its sequelae	139	96	43	87	31	29	12
Congenital syphilis	33	21	12	15	11	5	1
Aneurysm of aorta	26	18	8	10	5	8	3
Other cardiovascular syphilis	26	21	5	17	2	4	3
Tabes dorsalis	1	1	-	1	-	-	-
General paralysis of insane	15	7	8	6	8	1	-
Other syphilis of central nervous system	23	19	4	11	5	8	1
Other syphilis	15	9	6	6	2	5	4
Typhoid Fever	6	5	1	4	1	1	-
Other Salmonella infections	2	2	-	2	-	-	-
Brucellosis (undulant fever)	2	-	2	-	2	-	-
Dysentery, all forms	61	51	30	25	27	8	5
Erysipelas	2	2	2	2	1	-	1
Septicemia and pyemia	14	5	9	4	9	1	-
Diphtheria	39	23	16	22	15	1	1
Whooping cough	190	76	114	63	96	13	19
Meningococcal infections	8	4	2	3	2	1	-
Leprosy	3	3	-	3	-	-	-
Tetanus	78	50	28	39	25	11	5
Acute poliomyelitis	4	2	2	2	1	-	1
Acute infectious encephalitis	1	-	1	-	-	-	1
Measles	31	15	16	13	16	2	2
Infectious hepatitis	25	11	14	9	12	2	2
Typhus, other and unspecified, and other rickettsial diseases	2	1	1	-	1	1	-
Malaria	53	25	28	19	24	6	4
Schistosomiasis	21	18	3	13	3	5	-
Filariasis	1	1	-	-	-	-	-
Ankylostomiasis	22	14	8	1	1	-	-
Other diseases due to helminths	126	84	62	9	5	5	3
All other infective and parasitic diseases	35	24	11	19	7	5	4
II. Neoplasms	1,349	636	713	537	569	99	144
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	1,279	601	678	508	541	92	137
Malignant neoplasm of buccal cavity and pharynx	46	28	18	27	14	1	4
Of lip	1	-	1	-	1	-	-
Of tongue	12	8	4	8	4	-	-
Of other and unspecified parts of buccal cavity	7	4	3	4	1	-	2
Of pharynx	26	16	10	15	8	1	2
Malignant neoplasm of digestive organs and peritoneum	606	342	264	289	209	53	55
Of esophagus	74	46	28	37	21	9	7
Of stomach	348	216	132	190	103	36	29
Of intestine, except rectum	15	15	31	12	25	3	6
Of rectum	15	7	8	4	7	3	1
Of biliary passages and of liver (stated to be primary site)	12	5	7	5	5	-	2
Of liver not specified whether primary or secondary	65	27	38	26	32	1	6
Of pancreas	32	19	13	19	10	-	3
Of peritoneum and of unspecified digestive organs	14	7	7	6	6	1	1
Malignant neoplasm of respiratory system	109	76	33	69	25	7	8
Of larynx	56	39	17	37	14	2	3
Of trachea, and of bronchus and lung specified as primary	11	3	2	7	1	2	1
Of lung and bronchus, unspecified as primary or secondary	35	25	10	23	9	2	1
Of other parts of respiratory system	7	3	4	2	1	1	3
Malignant neoplasm of breast	36	1	35	1	32	-	3
Malignant neoplasm of genital organs	280	49	231	40	181	9	50
Of cervix uteri	56	-	56	-	44	-	12
Of other and unspecified parts of uterus	165	-	165	-	129	-	36
Of ovary, fallopian tube, and broad ligament	4	-	4	-	4	-	-
Of other and unspecified female genital organs	6	-	6	-	4	-	2
Of prostate	40	-	40	-	31	-	9
Of testis, and of other and unspecified male genital organs	9	-	9	-	9	-	-
Malignant neoplasm of urinary organs	58	29	9	22	9	7	-
Of kidney	6	3	3	2	3	1	-
Of bladder and other urinary organs	32	26	6	20	6	6	-
Malignant neoplasm of other and unspecified sites	98	43	55	33	47	10	8
Of skin	18	6	12	6	9	-	3
Of eye	3	2	1	-	1	2	-
Of brain and other parts of nervous system	4	2	2	2	2	-	-
Of thyroid gland	3	1	2	-	1	1	1
Of bone (including jaw bone)	14	6	6	6	6	2	-
Of connective tissue	2	-	-	2	-	-	-
Of other specified sites, not stated to be secondary	27	13	14	11	12	2	2
Of unspecified site	27	9	18	6	16	3	2
Leukemia and aleukemia	38	16	22	14	15	2	7
Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues	28	17	11	14	9	3	2
Lymphosarcoma and reticulosarcoma	7	6	1	6	1	-	-
Hodgkin's disease	16	9	7	7	5	2	2
Other neoplasms of lymphatic and hematopoietic tissues	5	2	3	1	3	1	-

Table 11.16 Deaths From 255 Selected Causes, by Race and Sex: 1950—Con.

(See headnote on p. 325)

CAUSE OF DEATH	Total	ALL RACES		WHITE		NONWHITE	
		Male	Female	Male	Female	Male	Female
<b>II. Neoplasms—Continued</b>							
Benign neoplasms and neoplasms of unspecified nature-----210-259	70	55	35	28	28	7	7
Benign neoplasms of female genital organs-----214-217	4	...	4	...	5	...	1
Other benign neoplasms-----210-213, 218-222, 224-229	5	2	3	2	2	-	1
Neoplasm of unspecified nature of female genital organs-----235-236	2	...	2	...	1	...	1
Neoplasm of unspecified nature of brain and other parts of nervous system-----237	27	18	9	14	7	4	2
Other neoplasms of unspecified nature-----230-232, 238, 256, 259	32	15	17	12	15	5	2
<b>III. Allergic, endocrine system, metabolic, and nutritional diseases-----</b>							
	621	273	348	212	283	61	65
Asthma-----241	129	55	74	42	61	13	13
Thyrotoxicosis with or without goiter-----252	4	-	4	-	5	-	2
Myxedema, cretinism, and other diseases of thyroid gland-----253, 254	3	-	3	-	3	-	-
Diabetes mellitus-----280	87	50	47	40	38	10	9
Diseases of thymus gland-----273	3	-	3	-	3	-	-
Diseases of adrenal glands-----274	1	-	1	-	1	-	-
Pellagra-----281	8	2	6	2	3	-	3
All other avitaminoses and nutritional deficiency states-----280, 282-286	365	162	203	124	168	38	35
Other allergic, endocrine, and metabolic diseases-----Residual	11	4	7	4	4	-	3
<b>IV. Diseases of the blood and blood-forming organs-----</b>							
	266	138	128	110	108	28	20
Anemias-----290-293	250	128	122	100	104	28	19
Pernicious and other hyperchromic anemias-----290	81	41	40	33	33	8	7
Anemias of other and unspecified type-----291-293	169	87	82	67	71	20	11
Purpura and other hemorrhagic conditions-----296	4	2	2	2	2	-	-
All other diseases of blood and blood-forming organs-----294, 295, 297-299	12	8	4	8	2	-	2
<b>V. Mental, psychoneurotic, and personality disorders-----</b>							
	52	42	10	31	8	11	2
Senile psychosis-----304	3	3	-	2	-	1	-
Alcoholic psychosis-----307	6	6	-	5	-	1	-
Other psychoses-----300-303, 305, 306, 308, 309	14	8	6	7	5	1	1
Alcoholism-----322	27	24	3	16	2	6	1
Mental deficiency-----325	2	1	1	1	1	-	-
<b>VI. Diseases of the nervous system and sense organs-----</b>							
	1,049	549	500	423	401	126	99
Vascular lesions affecting central nervous system-----330-334	694	359	335	275	264	84	71
Subarachnoid hemorrhage-----330	9	4	5	3	5	1	-
Cerebral hemorrhage-----331	559	289	270	216	209	73	61
Cerebral embolism and thrombosis-----332	65	34	31	30	27	4	4
Other vascular lesions affecting central nervous system-----333, 334	61	32	29	26	23	6	6
Meningitis, except meningococcal and tuberculous-----340	148	80	68	64	60	16	8
Multiple sclerosis-----345	2	-	2	-	2	-	-
Paralysis agitans-----350	3	1	2	1	2	-	-
Cerebral spastic infantile paralysis-----351	3	2	1	2	1	-	-
Epilepsy-----353	82	43	39	32	30	11	9
Otitis media and mastoiditis-----391-393	18	7	11	7	9	-	2
Other diseases of nervous system and sense organs-----Residual	99	57	42	42	33	15	9
<b>VII. Diseases of the circulatory system-----</b>							
	2,684	1,472	1,412	1,181	1,129	291	283
Rheumatic fever-----400-402	21	7	14	4	11	3	3
Diseases of heart-----410-443	2,366	1,213	1,153	978	921	235	232
Chronic rheumatic heart disease-----410-416	105	48	57	42	40	6	17
Diseases of mitral valve-----410	39	21	18	18	12	3	6
Diseases of pulmonary valve and other endocarditis specified as rheumatic-----413, 414	6	1	5	-	3	1	2
Other diseases of heart specified as rheumatic-----415, 416	60	26	34	24	25	2	9
Arteriosclerotic heart disease, including coronary disease-----420	727	403	324	308	252	94	72
Arteriosclerotic heart disease so described-----420.0	198	99	99	73	73	26	26
Heart disease specified as involving coronary arteries-----420.1	500	289	211	226	170	63	41
Angina pectoris without mention of coronary disease-----420.2	29	15	14	10	8	5	5
Chronic endocarditis not specified as rheumatic-----421	105	49	56	38	47	11	9
Of mitral valve, specified as nonrheumatic-----421.0	1	-	1	-	1	-	-
Of aortic valve, not specified as rheumatic-----421.1	15	9	6	7	5	2	1
Of other valves, not specified as rheumatic-----421.2-421.4	89	40	49	31	41	9	8
Other myocardial degeneration-----422	730	345	385	282	327	63	58
With arteriosclerosis-----422.1	125	53	72	39	61	14	11
Without mention of arteriosclerosis-----422.0, 422.2	605	292	313	243	266	49	47
Other diseases of heart-----430-434	412	220	192	185	147	37	45
Acute and subacute endocarditis-----430	9	6	3	4	2	2	1
Acute myocarditis not specified as rheumatic-----431	12	6	4	8	2	-	2
Functional disease of heart-----433	56	27	29	25	24	2	5
Other and unspecified diseases of heart-----434	335	179	156	146	119	33	37
Hypertension with heart disease-----440-443	287	148	139	124	108	24	31
Hypertensive heart disease with arteriolar nephrosclerosis-----442	99	47	52	44	42	3	10
Essential hypertension with heart disease, other and unspecified hypertensive heart disease-----440, 441, 443	188	101	87	80	66	21	21
Hypertension without mention of heart-----444-447	96	55	41	43	32	12	9
Hypertension with arteriolar nephrosclerosis without mention of heart-----446	20	14	6	10	4	4	2
Essential hypertension and other hypertensive disease without mention of heart-----444, 445, 447	76	41	35	33	28	8	7
Diseases of arteries-----450-456	379	185	194	149	155	36	39
General arteriosclerosis-----450	344	166	178	131	145	35	33
Aortic aneurysm specified as nonsyphilitic, and dissecting aneurysm-----451	5	2	3	2	1	-	2
Gangrene of unspecified cause-----455	20	11	9	10	6	1	3
Other arterial diseases-----452-454, 456	10	6	4	6	3	-	1
Diseases of veins and other diseases of circulatory system-----460-468	22	12	10	7	10	5	-



Table 11.16 Deaths From 255 Selected Causes, by Race and Sex: 1950-Con.

(See headnote on p. 325)

CAUSE OF DEATH	Total	ALL RACES		WHITE		NONWHITE	
		Male	Female	Male	Female	Male	Female
<b>VIII. Diseases of the respiratory system</b>	<b>1,876</b>	<b>905</b>	<b>975</b>	<b>774</b>	<b>843</b>	<b>129</b>	<b>130</b>
Acute upper respiratory infections-----470-475	5	1	4	1	4	-	-
Influenza-----480-483	100	53	47	45	40	8	7
Pneumonia, except pneumonia of newborn-----490-493	1,528	720	805	615	701	105	104
Lobar pneumonia-----490	161	83	78	67	68	15	10
Bronchopneumonia-----491	969	443	526	378	457	65	69
Primary atypical pneumonia-----492	10	3	7	2	5	1	2
Pneumonia, other and unspecified-----493	385	191	194	168	171	23	23
Acute bronchitis-----500	61	36	25	37	19	1	5
Bronchitis, chronic and unqualified-----501,502	95	45	50	41	46	4	4
Hypertrophy of tonsils and adenoids-----510	3	1	2	1	1	-	1
Empyema and abscess of lung-----514,521	7	5	2	4	1	1	1
Pleurisy-----519	8	5	1	3	1	2	-
All other respiratory diseases-----Residual	74	35	39	27	31	8	8
<b>IX. Diseases of the digestive system</b>	<b>3,407</b>	<b>1,858</b>	<b>1,549</b>	<b>1,859</b>	<b>1,317</b>	<b>299</b>	<b>232</b>
Diseases of teeth and supporting structures-----530-535	4	1	3	1	3	-	-
Ulcer of stomach-----540	51	35	16	29	14	6	2
Ulcer of duodenum-----541	15	12	3	6	3	6	-
Gastritis and duodenitis-----543	18	12	6	12	6	-	-
Appendicitis-----550-553	19	9	10	7	9	2	1
Hernia and intestinal obstruction-----560,561,570	98	59	39	51	34	8	5
Gastro-enteritis and colitis, except diarrhea of newborn-----571,572	2,859	1,509	1,350	1,277	1,150	232	200
Cirrhosis of liver-----581	201	145	56	112	44	33	12
Without mention of alcoholism-----581.0	157	105	52	83	40	22	12
With alcoholism-----581.1	44	40	4	29	4	11	-
Cholelithiasis and cholecystitis-----584,585	21	7	14	5	9	2	5
Other diseases of digestive system-----Residual	121	69	52	59	45	10	7
<b>X. Diseases of the genito-urinary system</b>	<b>781</b>	<b>411</b>	<b>370</b>	<b>322</b>	<b>289</b>	<b>89</b>	<b>81</b>
Nephritis and nephrosis-----590-594	694	352	342	274	267	78	75
Acute nephritis-----590	114	51	63	39	47	13	16
Nephritis with edema, including nephrosis-----591	57	30	27	23	19	7	8
Chronic and unspecified nephritis and other renal sclerosis-----592-594	523	271	252	213	201	59	51
Infections of kidney-----600	23	12	11	8	8	4	3
Calculi of urinary system-----602,604	7	6	1	6	1	-	-
Other diseases of urinary system-----601,603,605-609	24	19	5	17	4	2	1
Hyperplasia of prostate-----610	20	20	...	15	...	5	...
Other diseases of male genital organs-----611-617	2	2	...	2	...	-	...
Diseases of female genital organs-----622-637	11	...	11	...	9	...	2
<b>XI. Deliveries and complications of pregnancy, childbirth, and the puerperium</b>	<b>196</b>	<b>...</b>	<b>198</b>	<b>...</b>	<b>157</b>	<b>...</b>	<b>41</b>
Sepsis of pregnancy, childbirth, and puerperium-----640,641,681,682,684	22	...	22	...	19	...	3
Toxemia of pregnancy and puerperium, except abortion with toxemia-----642,685,686	60	...	60	...	45	...	15
Hemorrhage of pregnancy and childbirth-----643,644,670-672	73	...	73	...	60	...	13
Ectopic pregnancy-----645	3	...	3	...	2	...	1
Abortion without mention of sepsis or toxemia-----650	5	...	5	...	4	...	1
Abortion with sepsis-----651	5	...	5	...	2	...	3
Abortion with toxemia, without mention of sepsis-----652	1	...	1	...	1	...	-
Other complications of pregnancy, childbirth, and puerperium-----Residual	29	...	29	...	24	...	5
<b>XII. Diseases of the skin and cellular tissue</b>	<b>33</b>	<b>18</b>	<b>15</b>	<b>17</b>	<b>13</b>	<b>1</b>	<b>2</b>
Infections of skin and subcutaneous tissue-----690-698	23	14	9	13	8	1	1
Other diseases of skin and subcutaneous tissue-----700-716	10	4	6	4	5	-	1
<b>XIII. Diseases of the bones and organs of movement</b>	<b>29</b>	<b>12</b>	<b>17</b>	<b>9</b>	<b>15</b>	<b>3</b>	<b>2</b>
Arthritis and spondylitis-----720-725	15	4	11	2	9	2	2
Muscular rheumatism and rheumatism, unspecified-----726,727	9	3	6	3	6	-	-
Osteomyelitis and periostitis-----730	5	5	-	4	-	1	-
<b>XIV. Congenital malformations</b>	<b>300</b>	<b>194</b>	<b>106</b>	<b>173</b>	<b>85</b>	<b>21</b>	<b>11</b>
Spina bifida and meningocele-----751	41	19	22	18	16	1	6
Congenital hydrocephalus and other congenital malformations of nervous system and sense organs-----752,753	20	12	8	9	8	3	-
Congenital malformations of circulatory system-----754	151	98	53	88	49	10	4
Other congenital malformations-----750,755-759	88	65	23	58	22	7	1
<b>XV. Certain diseases of early infancy</b>	<b>1,914</b>	<b>1,124</b>	<b>790</b>	<b>999</b>	<b>697</b>	<b>125</b>	<b>93</b>
Birth injuries-----760,761	200	128	72	110	67	18	5
Postnatal asphyxia and atelectasis-----762	164	96	68	89	61	8	7
Infections of newborn-----763-768	412	229	183	215	166	14	17
Hemolytic disease of newborn (erythroblastosis)-----770	50	34	16	28	15	6	1
All other defined diseases of early infancy-----769,771,772	163	84	79	72	67	12	12
Ill-defined diseases peculiar to early infancy, and immaturity unqualified-----773-776	925	553	372	486	321	67	51
<b>XVI. Symptoms, senility, and ill-defined conditions</b>	<b>2,137</b>	<b>1,086</b>	<b>1,051</b>	<b>911</b>	<b>862</b>	<b>175</b>	<b>189</b>
Senility without mention of psychosis-----794	449	189	260	144	201	45	59
Symptoms, ill-defined and unknown causes-----780-793,795	1,688	897	791	767	661	130	130
<b>XVII. Accidents, poisonings, and violence</b>	<b>1,285</b>	<b>995</b>	<b>290</b>	<b>787</b>	<b>234</b>	<b>208</b>	<b>56</b>
Accidents-----E800-E892	646	484	162	380	133	104	29
Railway accidents-----E800-E802	11	11	-	8	-	3	-
Motor-vehicle accidents-----E810-E835	230	183	37	160	33	33	4
Motor-vehicle traffic accidents-----E810-E825	226	169	37	157	33	32	4
Motor-vehicle traffic accident to pedestrian-----E812	98	80	18	70	16	10	2

Table 11.16 Deaths From 255 Selected Causes, by Race and Sex: 1950—Con.

(See headnote on p. 325)

CAUSE OF DEATH	Total	ALL RACES		WHITE		NONWHITE	
		Male	Female	Male	Female	Male	Female
		XVII. Accidents, poisonings, and violence—Continued					
Accidents—Continued							
Motor-vehicle accidents—Continued							
Motor-vehicle traffic accidents—Continued							
Other motor-vehicle traffic accidents involving collision-----E811,E813-E819	52	27	5	25	5	2	-
Motor-vehicle noncollision traffic accidents-----E820-E824	36	34	2	24	2	10	2
Motor-vehicle traffic accident of unspecified nature-----E825	60	48	12	38	10	10	2
Motor-vehicle nontraffic accidents-----E830-E835	4	4	-	5	-	1	-
Other road-vehicle accidents-----E840-E845	14	11	3	7	2	4	1
Water-transport accidents-----E850-E858	3	3	-	3	-	-	-
Aircraft accidents-----E860-E866	4	4	-	3	-	1	-
Accidental poisoning by solid and liquid substances-----E870-E888	16	9	7	4	6	5	1
Accidental falls-----E900-E904	97	60	37	49	33	11	4
Fall from one level to another-----E900-E902	43	35	8	31	6	4	2
Fall on same level-----E903	18	5	13	2	14	1	1
Unspecified falls-----E904	36	22	14	16	13	6	1
Blow from falling object-----E910	5	5	-	3	-	2	-
Accident caused by machinery-----E912	9	9	-	6	-	3	-
Accident caused by electric current-----E914	15	14	1	12	1	2	-
Accident caused by fire and explosion of combustible material-----E916	23	10	13	8	9	2	4
Accident caused by hot substance, corrosive liquid, steam, and radiation-----E917,E918	11	4	7	3	6	1	1
Accident caused by firearm-----E919	17	14	3	9	3	5	-
Inhalation and ingestion of food or other object causing obstruction or suffocation-----E921,E922	13	6	7	5	6	1	1
Accidental drowning-----E929	118	95	23	71	17	24	6
Complications due to nontherapeutic medical and surgical procedures, therapeutic misadventure, and late complications of therapeutic procedures-----E940-E959	8	2	6	2	5	-	1
All other accidents-----Residual	52	34	18	27	12	7	6
Suicide-----E963,E970-E979							
Suicide by poisoning-----E970-E973	157	93	44	77	34	16	10
Suicide by hanging and strangulation-----E974	123	104	19	87	18	17	3
Suicide by firearms and explosives-----E976	70	64	6	54	8	10	-
Suicide by all other means-----E963,E975,E977-E979	38	25	13	18	10	7	3
Homicide-----E964,E980-E985							
Assault by firearms and explosives-----E981	110	87	23	64	19	23	4
Assault by cutting and piercing instruments-----E982	109	92	17	68	13	23	4
Assault by other means-----E964,E980,E985	52	46	6	38	3	8	3

Table 11.17. Death Rates for 64 Selected Causes: 1940-50

(By place of occurrence. Exclusive of fetal deaths. Rates per 100,000 population enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1941-49)

Cause of death	SIXTH REVISION OF INTERNATIONAL LISTS, 1948 <sup>1</sup>					FIFTH REVISION OF INTERNATIONAL LISTS, 1938 <sup>1</sup>					
	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
ALL CAUSES	990.4	1,066.5	1,206.7	1,187.2	1,311.6	1,392.4	1,462.0	1,441.6	1,635.0	1,841.8	1,843.9
Tuberculosis, all forms	128.9	146.0	177.8	194.4	205.1	200.0	212.5	227.0	241.3	240.4	261.7
Tuberculosis of respiratory system	120.5	137.7	167.3	185.8	197.4	193.7	205.0	219.5	232.4	235.2	252.7
Tuberculosis, other forms	8.4	8.3	10.5	7.6	7.6	6.3	7.5	7.5	8.9	7.2	9.0
Syphilis and its sequelae	6.3	7.4	8.4	9.5	10.1	13.2	15.5	16.9	20.7	25.3	28.4
Typhoid fever	0.3	0.6	1.1	1.7	1.8	3.2	2.8	1.7	1.8	3.0	3.2
Cholera	0	0	0	0	0	0	0	0	0	0	0
Dysentery, all forms	2.8	2.8	3.6	4.5	7.1	5.1	5.2	5.7	12.1	11.4	5.2
Scarlet fever and streptococcal sore throat	0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.5	0.2
Diphtheria	1.8	2.6	4.0	4.0	3.6	3.2	2.6	2.5	5.6	3.1	3.0
Whooping cough	8.6	11.1	5.6	6.7	6.7	12.9	11.3	8.5	9.7	15.2	11.8
Meningococcal infections	0.5	0.5	0.4	0.7	0.9	0.7	0.4	0.5	0.8	0.4	0.7
Plague	0	0	0	0	0	0	0	0	0	0	0
Acute poliomyelitis	0.2	0.5	0.1	0.5	1.0	0.2	0.1	0.2	0.4	0.2	0.2
Smallpox	0	0	0	0	0.1	0.0	0	0	0	0	0
Measles	1.5	1.1	10.3	0.7	2.8	7.0	2.6	0	1.0	10.5	4.4
Typhus and other rickettsial diseases	0.1	0.0	0.3	0.4	0.5	0.7	0.3	0.3	0.3	0.1	0.1
Malaria	2.4	4.3	11.4	19.5	31.7	42.7	48.5	56.7	96.5	121.8	95.5
All other infective and parasitic diseases	15.0	20.5	18.3	19.9	22.4	25.6	31.2	30.7	37.7	50.8	44.3
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	57.9	59.8	56.7	54.0	48.4	48.0	50.9	48.6	52.9	55.0	51.4
Malignant neoplasm of buccal cavity and pharynx	2.1	2.6	2.7	2.7	2.4	2.1	2.7	2.3	3.4	2.5	1.8
Malignant neoplasm of digestive organs and peritoneum	27.4	28.6	27.4	26.6	23.5	21.5	22.9	23.5	25.3	26.1	25.5
Malignant neoplasm of respiratory system	4.8	4.2	3.5	4.1	2.6	3.6	2.5	2.6	2.6	3.0	2.5
Malignant neoplasm of breast	1.6	1.7	1.2	1.4	1.2	2.0	1.0	1.3	1.7	1.7	2.4
Malignant neoplasm of genital organs	12.7	13.1	14.9	12.6	12.2	15.1	15.6	15.2	14.9	14.3	14.4
Malignant neoplasm of urinary organs	1.7	2.4	2.0	1.9	1.3	1.8	2.2	1.2	1.6	1.7	2.0
Malignant neoplasm of other and unspecified sites	4.4	4.5									
Leukemia and leukemia	1.7	1.8									
Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues	1.3	0.7	4.8	4.9	5.2	4.5	4.1	4.0	3.4	3.8	2.8
Benign neoplasms and neoplasms of unspecified nature	3.2	4.2	3.8	3.3	2.6	2.7	2.3	2.9	1.9	2.3	1.7
Diabetes mellitus	4.4	5.4	4.8	4.5	4.7	4.6	5.0	4.5	4.5	4.7	4.4
Anemia	11.3	10.7	12.5	13.4	14.4	15.4	16.7	18.1	23.3	22.1	19.6
Meningitis, except meningococcal and tuberculous	6.7	7.4	8.3	7.6	7.3	9.4	7.0	7.3	8.5	7.7	6.9
Major cardiovascular-renal diseases	185.5	187.3	192.2	184.9	185.7	187.3	206.5	216.6	235.6	254.3	269.4
Diseases of cardiovascular system	161.8	161.7	160.3	151.8	145.9	146.3	152.8	157.0	168.2	181.7	186.7
Vascular lesions affecting central nervous system	31.4	30.5	35.6	29.5	29.8	30.9	30.2	29.8	27.5	32.7	27.6
Rheumatic fever	0.9	0.7	1.0	1.1	0.8	0.5	0.8	0.9	1.4	1.1	0.9
Diseases of heart	107.0	107.8	104.7	99.8	95.5	93.8	100.6	100.9	110.3	116.1	125.5
Chronic rheumatic heart disease	4.7	4.8	4.2	4.9	5.4	6.3	7.0	6.6	7.3	6.5	8.0
Arteriosclerotic heart disease, including coronary disease	32.9	28.0									
Nonrheumatic chronic endocarditis and other myocardial degeneration	37.8	43.0	100.6	95.0	91.1	87.5	93.6	94.3	105.0	109.6	117.4
Other diseases of heart	18.6	17.1									
Hypertension with heart disease	13.0	14.6									
Hypertension without mention of heart	4.3	3.8	1.7	1.1	1.2	1.2	1.3	0.7	1.3	0.5	0.4
General arteriosclerosis	15.6	16.1	16.5	17.3	14.8	17.0	16.0	20.2	24.0	27.1	28.2
Other diseases of circulatory system	2.6	2.9	2.7	2.9	2.8	3.0	3.9	4.4	3.6	4.3	4.1
Chronic and unspecified nephritis and other renal scleroses	23.7	25.6	31.9	33.1	39.8	40.9	55.7	59.6	67.4	72.7	82.7
Influenza and pneumonia, except pneumonia of newborn	73.5	101.7	127.1	107.1	126.7	120.5	135.3	135.5	145.6	171.8	237.4
Influenza	4.5	14.4	7.8	6.4	10.7	9.5	15.6	16.2	6.7	15.0	64.7
Pneumonia, except pneumonia of newborn	69.0	67.3	119.3	100.7	116.0	111.0	119.8	119.3	138.9	156.8	172.7
Bronchitis	7.1	6.5	12.2	15.1	17.2	16.6	20.8	19.8	22.6	25.8	31.6
Ulcer of stomach and duodenum	3.0	3.7	4.4	3.3	3.7	3.8	4.0	4.8	4.3	5.0	4.5
Appendicitis	0.9	1.6	1.2	1.7	1.3	1.8	2.1	2.6	3.1	3.5	3.5
Hernia and intestinal obstruction	4.4	4.5	3.9	4.4	5.0	4.6	5.0	5.9	7.5	6.2	7.0
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	130.1	128.9	180.6	172.9	221.0	280.0	298.0	279.8	326.4	413.7	405.1
Cirrhosis of liver	9.1	9.1	10.9	10.7	11.9	10.0	9.2	11.0	11.6	10.6	11.5
Acute nephritis and nephritis with edema, including nephrosis	7.7	8.6	10.7	13.2	16.4	14.4	15.3	20.3	30.2	33.9	27.9
Hyperplasia of prostate	0.9	0.8	0.9	0.8	1.0	0.7	0.5	0.6	0.5	0.9	0.8
Deliveries and complications of pregnancy, childbirth, and the puerperium	9.0	9.1	11.7	10.8	11.8	12.6	13.4	14.2	17.0	20.2	17.9
Abortion	0.5	0.5	0.6	0.7	1.0	0.9	1.1	0.7	1.0	1.7	1.1
All other complications	8.5	8.6	11.1	10.1	10.9	11.7	12.3	13.4	16.1	18.6	16.7
Congenital malformations	13.6	14.5	14.3	13.4	12.1	11.2	8.8	9.3	9.3	8.6	6.7
Certain diseases of early infancy	86.6	85.5	87.8	80.0	92.4	88.5	92.5	91.8	105.4	108.8	102.0
Birth injuries, postnatal asphyxia, and atelectasis	16.5	15.8									
Infections of newborn	18.6	15.4									
Other diseases peculiar to early infancy, and immaturity unqualified	51.5	54.3									
Symptoms, senility, and ill-defined conditions	96.7	100.1	102.5	97.3	107.7	119.8	117.2	82.6	86.5	67.0	46.5
All other diseases	52.9	57.7	54.3	51.2	57.8	57.2	52.1	49.5	56.9	60.1	56.2
Accidents	29.2	32.0	29.6	30.1	29.6	27.8	27.2	30.0	33.6	37.6	34.0
Motor-vehicle accidents	10.4	9.3	10.7	10.7	10.9	7.8	7.4	9.0	9.5	13.5	12.8
All other accidents	18.8	22.7	18.9	19.5	18.7	20.0	19.8	21.0	24.0	24.0	21.2
Suicide	16.6	17.7	21.1	23.7	24.8	23.2	21.3	19.8	24.9	27.7	25.4
Homicide	12.3	10.3	14.1	13.4	14.3	14.9	15.9	15.6	15.4	15.6	15.7
Injury resulting from operations of war	0	0	0	0	0	0	0	0	0	0	0

<sup>1</sup>For category numbers, see table 9.17 for Alaska.

<sup>2</sup>Excludes Septic sore throat (115b).

Table 11.18. Deaths From 64 Selected Causes, by Age, Race, and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths)

Sixth Revision No.	CAUSE OF DEATH, RACE, AND SEX	Total	Under 1	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 to 94	95 to 99	100 & over & not stated	
	ALL CAUSES-----	21,895	5,807	1,333	765	475	518	672	292	472	749	750	714	820	667	670	748	668	976	1,004	1,014	659	825	524	453	222	276	
	White-----M	9,510	2,856	549	334	177	143	261	126	157	289	282	299	342	277	285	359	317	414	463	462	297	320	211	142	72	71	
	F	8,499	2,231	589	343	208	126	299	113	208	285	311	247	300	239	239	242	223	314	347	354	246	355	228	227	105	122	
	Nonwhite--M	2,090	399	98	47	47	25	60	29	50	93	87	91	98	85	80	86	70	136	124	108	65	81	42	38	21	24	
	F	1,796	321	97	61	43	24	52	24	57	82	70	77	80	67	66	59	58	112	70	90	49	71	43	48	26	5	
001-019	Tuberculosis, all forms	2,849	78	63	30	33	21	53	49	174	344	369	318	328	216	183	159	110	108	67	68	23	29	13	7	3		
	White-----M	1,099	37	23	15	11	13	17	11	41	114	120	122	145	90	71	82	51	41	35	31	8	11	5	3			
	F	1,152	28	32	12	18	1	23	25	95	145	186	119	121	79	64	52	37	37	19	24	9	13	6	4	3		
	Nonwhite--M	323	8	7	2	1	6	6	13	39	33	39	34	30	22	17	14	23	9	9	5	4						
	F	277	5	1	3	2	6	7	6	25	45	30	38	28	19	26	8	8	7	4	4	1	1					
001-008	Tuberculosis of respiratory system	2,664	34	16	17	15	9	32	44	170	340	362	317	327	216	183	159	109	107	67	67	22	28	13	6	3		
	White-----M	1,021	15	9	9	5	4	10	9	40	114	117	122	144	88	71	81	50	41	35	30	8	10	5	2			
	F	1,080	15	7	7	9	1	14	24	93	141	183	119	121	79	64	52	37	37	19	24	8	13	6	4	3		
	Nonwhite--M	300	3	1	1	1	1	4	5	12	38	32	38	34	30	22	17	14	22	9	9	5	4					
	F	263	1	1	1	1	4	4	6	25	46	30	38	28	19	26	6	8	7	4	4	1	1	2				
010-019	Tuberculosis, other forms	185	44	47	13	18	12	21	4	4	4	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	White-----M	79	22	14	6	6	9	7	1	1	1	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
	F	72	13	25	5	9	9	9	1	2	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Nonwhite--M	21	5	7	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	F	14	4	1	2	2	2	3																				
020-029	Syphilis and its sequelae	139	31	2	1		1	2	2	2	4	4	6	6	10	12	9	9	7	14	5	7	2	2	2	2		
	White-----M	67	15	1	1						1	1	2	2	2	7	6	6	6	2	2	9	5	4	1	1		
	F	31	9	1	1		1	1					2	4	2	2	2	2	1	2	1	1		1	1	1		
	Nonwhite--M	29	6	1	1					2	2	2	2	3	1	3	1	1	3	4	4	1	1	1	1	1		
	F	12	1	1	1			1		1	3	1	3	2	1	1	1	1	1	1	1				2			
040	Typhoid fever	6		1				2		2					1	1												
	White-----M	4						2		2					1	1												
	F	1		1																								
	Nonwhite--M	1																										
	F																											
045-048	Dysentery, all forms	61	34	7	1		1	6	1	1		1			2		2		1	1	1	2						
	White-----M	23	12	2			2	1	1	1		1			2		1		1		1	1						
	F	27	15	3	1		1	4									1				1	1						
	Nonwhite--M	8	7	1																								
	F	3															1		1									
050-051	Scarlet fever, etc.*																											
	White-----M																											
	F																											
	Nonwhite--M																											
	F																											
055	Diphtheria	39	5	16	12	3	3																					
	White-----M	22	3	7	9	1	2																					
	F	15	1	9	3	1	1																					
	Nonwhite--M	1																										
	F	1																										
056	Whooping cough	190	107	35	20	11	9	5	1																			
	White-----M	63	31	15	4	8	3	2																				
	F	95	58	13	12	2	4	3	1																			
	Nonwhite--M	13	9	3	1																							
	F	19	9	4	3	1	2																					
057	Meningococcal infections	6		1	2	1	1																					
	White-----M	3			2	1																						
	F	2		1																								
	Nonwhite--M	1				1																						
	F																											
080	Acute poliomyelitis	4		1	1		1													1								
	White-----M	2			1		1													1								
	F	1																										
	Nonwhite--M	1																										
	F	1																										
084	Smallpox																											
	White-----M																											
	F																											
	Nonwhite--M																											
	F																											
085	Measles	33	9	11	4																							

Table 11.18. Deaths From 64 Selected Causes, by Age, Race, and Sex: 1950—Con.

(By place of occurrence. Exclusive of fetal deaths)

Sixth Revision No.	CAUSE OF DEATH, RACE, AND SEX	Total	Under 1	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 to 94	95 to 99	100 & over & not stated
140-205	Malignant neoplasms, etc.*	1,279	5	2	2	8	2	4	9	9	10	16	19	48	66	99	116	123	175	197	117	79	86	44	17	15	9
	White—M	509	2	1	1	5	1	3	3	2	2	4	7	18	23	31	39	57	68	95	61	39	28	14	5	1	3
	White—F	541	2	1	1	3	1	3	5	5	3	11	11	21	31	49	51	52	64	72	41	28	42	23	11	1	1
	Nonwhite—M	92	-	-	-	-	-	-	2	1	2	1	3	2	4	10	8	6	17	18	8	4	5	1	1	1	1
	Nonwhite—F	137	1	-	-	-	1	-	1	3	3	-	6	10	15	16	6	8	26	12	7	9	11	3	2	4	1
140-148	Of buccal cavity and pharynx	46	-	-	-	-	-	-	-	-	-	1	-	2	-	4	6	6	5	6	4	3	3	3	2	1	-
	White—M	27	-	-	-	-	-	-	-	-	-	-	-	2	-	4	2	3	2	6	4	2	2	1	1	1	-
	White—F	14	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2	3	1	6	4	2	2	3	1	1	-
	Nonwhite—M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—F	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
150-156A, 157-159	Of digestive organs and peritoneum	606	1	-	-	2	-	-	1	2	2	5	3	15	25	39	62	56	92	105	58	46	53	20	8	7	6
	White—M	289	-	-	-	-	-	-	1	1	2	2	2	7	12	17	27	32	44	56	34	24	18	5	3	1	2
	White—F	208	1	-	-	-	-	-	1	1	2	2	7	9	15	21	16	25	31	18	16	16	11	5	4	1	1
	Nonwhite—M	53	-	-	-	-	-	-	-	1	1	1	1	1	3	6	4	4	9	3	3	1	2	3	1	1	1
	Nonwhite—F	55	-	-	-	-	-	-	-	-	1	-	-	-	3	4	6	4	9	9	3	5	8	1	-	-	1
160-164	Of respiratory system	108	-	-	-	-	-	-	-	-	-	-	1	4	9	5	10	12	18	19	13	3	6	5	1	-	1
	White—M	69	-	-	-	-	-	-	-	-	-	-	1	2	7	5	4	9	11	16	9	3	4	1	-	-	-
	White—F	25	-	-	-	-	-	-	-	-	-	-	1	1	2	1	3	3	5	1	3	5	5	1	-	-	-
	Nonwhite—M	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	1	-	-	-	-	-
	Nonwhite—F	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-
170	Of breast	36	-	-	-	-	-	-	-	-	2	3	4	4	4	3	6	6	4	3	1	1	1	1	2	2	1
	White—M	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	White—F	32	-	-	-	-	-	-	-	-	2	3	3	3	4	2	6	4	4	3	1	1	1	2	1	1	1
	Nonwhite—M	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—F	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
171-179	Of genital organs	280	-	-	-	1	-	-	2	2	8	6	15	21	34	23	35	34	34	30	16	16	8	5	4	2	1
	White—M	40	-	-	-	-	-	-	-	-	-	-	2	2	2	2	4	3	3	10	5	5	5	2	2	2	
	White—F	141	-	-	-	1	-	-	2	2	4	6	9	14	21	16	22	27	27	16	7	9	4	4	4	2	1
	Nonwhite—M	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	2	1	1	1	1	
	Nonwhite—F	50	-	-	-	-	-	-	-	-	-	2	4	5	11	5	2	12	3	3	3	2	2	2	2	2	
180-181	Of urinary organs	38	-	-	1	-	-	-	-	-	-	-	-	-	1	1	2	2	5	4	2	2	2	2	2	2	1
	White—M	22	-	-	1	-	-	-	-	-	-	-	-	-	1	1	2	2	4	4	2	2	2	2	2	2	1
	White—F	9	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1
	Nonwhite—M	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	
	Nonwhite—F	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
156B, 165, 190-199	Of other sites, etc.*	98	1	1	-	1	-	2	3	3	-	-	2	3	7	8	9	8	6	16	7	6	5	4	1	3	
	White—M	33	-	-	-	1	-	1	1	1	1	-	1	-	2	2	2	2	4	2	2	2	1	1	1	3	
	White—F	47	1	1	-	-	-	1	1	1	2	-	1	1	4	6	6	6	8	8	2	2	2	1	3	1	
	Nonwhite—M	10	-	-	-	-	-	-	-	1	-	-	1	1	1	1	1	1	1	2	2	1	1	1	1	1	
	Nonwhite—F	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	2	-	-	-	
204	Leukemia and leukemia	38	2	-	1	4	-	2	5	3	3	1	2	2	1	-	-	4	4	2	1	1	-	-	-	-	
	White—M	14	1	-	1	2	-	2	2	1	1	1	1	1	1	-	-	2	1	1	1	-	-	-	-	-	
	White—F	15	-	-	2	-	2	1	2	1	1	1	1	1	1	-	-	2	2	2	1	1	-	-	-	-	
	Nonwhite—M	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Nonwhite—F	7	1	-	-	-	-	2	1	1	2	2	-	-	-	-	-	-	1	1	-	-	-	-	-	-	
200-203, 205	Lymphomas, etc.*	28	1	-	1	-	1	1	1	1	1	1	2	3	1	1	-	-	6	3	2	2	1	1	1	1	
	White—M	14	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	White—F	9	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Nonwhite—M	3	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	3	2	-	-	-	-	-	-	
	Nonwhite—F	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	
210-239	Benign and unspecified neoplasms	70	2	2	-	1	-	1	3	3	4	3	2	2	5	4	3	7	8	7	3	1	4	-	-	-	
	White—M	28	2	1	-	1	-	1	1	2	3	2	1	1	1	1	1	3	3	3	1	1	2	-	-	-	
	White—F	28	-	-	-	-	-	-	1	1	1	1	1	1	2	4	1	4	3	3	1	1	1	1	2	1	
	Nonwhite—M	7	-	-	-	-	-	-	1	1	1	1	-	-	1	1	-	1	1	1	-	-	-	-	-	-	
	Nonwhite—F	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
260	Diabetes mellitus	97	1	1	-	-	-	1	1	1	2	2	4	4	4	4	8	13	18	12	9	8	4	1	1	1	
	White—M	40	1	1	-	-	-	-	1	1	2	2	1	1	2	3	1	3	7	4	4	6	3	1	1	1	
	White—F	38	1	1	-	-	-	-	1	1	1	1	1	1	1	2	5	6	9	5	4	4	1	1	1	1	
	Nonwhite—M	10	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	2	1	1	-	-	-	-	
	Nonwhite—F	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	
290-293	Anemias	250	22	22	6	11	5	25	8	7	11	4	8	6	6	4	3	7	1								

. Table 11.18. Deaths From 64 Selected Causes, by Age, Race, and Sex: 1950—Con.  
(By place of occurrence. Exclusive of fetal deaths)

Sixth Revision No.	CAUSE OF DEATH, RACE, AND SEX	Total	Age Group																								100 & over & not stated	
			Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99					
410-443	Diseases of heart	2,366	7	6	2	3	2	14	12	23	30	32	31	60	89	92	146	124	267	264	292	197	254	167	127	50	75	
	White—M—	978	6	2	2	—	—	6	6	7	10	8	11	20	32	39	71	58	121	123	130	86	94	66	42	13	23	
	F—	821	1	2	—	2	—	6	4	13	13	11	9	27	44	34	48	33	85	103	103	77	105	77	67	27	30	
	Nonwhite—M—	235	—	1	—	1	—	1	1	1	1	7	5	6	8	11	15	10	32	36	33	21	18	13	6	2	7	
	F—	232	—	1	—	—	—	2	1	2	6	6	6	7	5	8	12	23	28	22	26	13	17	11	12	8	15	
410-416	Chronic rheumatic heart disease	105	—	—	—	—	—	4	4	12	4	7	7	14	8	3	3	5	9	6	10	3	3	2	—	—	1	
	White—M—	42	—	—	—	—	—	1	2	3	—	2	4	5	2	1	—	—	4	9	2	3	2	1	—	—	—	
	F—	40	—	—	—	—	—	1	2	8	3	2	1	8	5	—	1	1	1	4	3	—	—	—	—	—	—	
	Nonwhite—M—	6	—	—	—	—	—	—	—	—	—	2	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	
	F—	17	—	—	—	—	—	2	—	1	1	1	2	1	1	1	2	—	—	—	—	2	1	—	—	—	1	
420	Arteriosclerotic heart dis., etc.*	727	1	—	—	—	—	—	1	5	6	6	17	23	32	63	49	100	97	98	56	59	38	42	10	24		
	White—M—	509	1	—	—	—	—	—	1	1	1	1	1	7	11	17	32	26	50	36	44	23	21	15	11	5	9	
	F—	252	—	—	—	—	—	—	1	3	3	2	4	9	5	20	9	27	38	35	19	25	16	25	3	9	9	
	Nonwhite—M—	94	—	—	—	—	—	—	1	1	1	2	5	3	6	6	3	10	17	12	11	6	5	2	2	2	2	
	F—	72	—	—	—	—	—	—	—	—	—	1	1	1	1	4	5	11	13	6	7	4	7	4	4	—	4	
421, 422	Nonrheumatic chronic endocarditis, etc.*	855	—	2	2	1	1	4	2	4	15	11	10	14	23	24	40	39	71	93	105	71	109	86	57	24	27	
	White—M—	320	—	—	—	—	—	1	2	1	3	6	3	4	3	5	7	20	14	25	38	45	36	43	32	21	3	6
	F—	374	—	1	—	1	—	2	—	1	5	3	2	9	16	15	13	17	31	37	41	28	53	45	26	17	11	
	Nonwhite—M—	74	—	1	—	—	—	—	—	—	—	3	2	—	1	2	6	2	10	10	12	4	8	6	3	—	4	
	F—	67	—	—	—	—	—	1	—	4	2	2	2	1	—	—	1	6	5	8	7	3	5	3	7	4	8	
430-434	Other diseases of heart	412	5	4	—	2	1	5	5	6	6	6	4	9	23	15	23	19	43	47	44	37	54	25	22	12	16	
	White—M—	185	4	2	—	—	1	3	3	1	3	2	1	3	10	5	13	7	19	25	20	14	19	10	8	4	6	
	F—	147	1	1	—	1	—	2	1	3	2	1	2	4	9	8	7	4	11	12	15	17	10	11	13	6	6	
	Nonwhite—M—	37	—	—	—	—	—	1	1	—	—	1	1	1	3	2	1	3	7	6	3	2	2	1	1	—	—	
	F—	45	—	1	—	—	—	—	1	1	2	—	1	1	—	—	2	4	6	4	6	4	3	3	—	—	4	
440-443	Hypertension with heart dis.	287	1	—	—	—	1	1	—	—	—	2	4	6	12	18	17	13	44	41	35	30	29	16	6	4	7	
	White—M—	124	—	—	—	—	—	—	—	—	—	1	2	4	9	6	7	18	22	18	12	10	10	10	2	1	2	2
	F—	108	—	—	—	—	—	—	—	—	—	—	2	2	5	6	7	2	16	12	9	14	16	5	3	1	4	
	Nonwhite—M—	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	5	3	4	4	1	—	—	1	
	F—	31	—	—	—	—	—	—	—	—	—	—	1	2	2	3	2	2	5	4	4	4	2	—	—	—	—	
444-447	Hypertension without mention of heart	96	—	—	—	—	—	—	1	3	1	—	1	6	5	6	6	6	13	13	12	8	3	5	4	—	3	
	White—M—	43	—	—	—	—	—	—	1	3	—	—	1	2	2	3	3	2	7	7	4	4	3	3	—	—	1	
	F—	32	—	—	—	—	—	—	—	—	—	—	—	2	3	2	2	2	2	2	5	4	3	1	4	—	2	
	Nonwhite—M—	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2	2	2	2	2	—	—	—	—	
	F—	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	1	1	—	—	—	
450	General arterio-sclerosis	544	—	—	—	—	—	—	—	—	—	—	1	1	2	3	4	12	24	24	56	26	65	40	53	23	34	
	White—M—	151	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	2	3	12	25	13	29	11	17	8	8	
	F—	145	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	3	8	28	7	25	22	24	9	19	
	Nonwhite—M—	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	5	3	7	5	4	4	
	F—	33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	2	5	3	6	4	5	1	3	
451-456	Other diseases of circulatory sys.	57	—	1	1	1	—	1	—	2	3	3	1	1	1	2	3	7	2	2	9	1	5	6	2	1	—	
	White—M—	25	—	—	1	—	—	1	—	—	—	1	1	1	1	1	1	1	1	2	6	1	2	2	3	—	—	
	F—	20	—	—	—	—	—	—	—	1	3	2	—	—	—	—	—	—	—	—	—	—	—	2	2	—	—	
	Nonwhite—M—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	
	F—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
592-594	Chronic nephritis, etc.*	523	12	20	21	18	15	44	8	8	15	9	11	16	18	18	22	24	40	31	43	36	44	23	15	7	5	
	White—M—	213	7	9	10	4	8	15	3	2	6	5	3	7	6	5	10	11	17	12	19	15	15	12	7	3	2	
	F—	201	5	7	10	11	4	25	5	3	7	4	5	3	6	7	8	7	10	11	16	12	15	9	6	2	3	
	Nonwhite—M—	58	—	2	—	2	2	1	—	1	—	—	—	1	3	4	1	3	1	6	7	5	6	9	2	1	—	
	F—	51	—	2	1	1	1	3	—	2	2	—	2	3	2	5	1	5	7	1	3	3	5	—	1	1	—	
480-483	Influenza and pneumonia, etc.*	1,625	683	291	105	64	41	74	19	10	16	13	11	14	12	15	16	18	33	25	33	31	37	30	15	9	10	
	White—M—	660	300	121	41	20	14	24	6	4	6	3	6	5	3	5	9	6	11	11	12	15	11	15	10	6	4	2
	F—	741	302	148	52	33	21	36	10	4	6	6	2	7	5	6	6	9	9	13	14	18	10	8	3	4	4	
	Nonwhite—M—	113	41	11	5	7	2	8	2	1	—	2	1	—	3	1	3	7	5	4	—	—	5	4	—	—	1	
	F—	111	40	11	7	4	4	6	1	1	4	2	3	1	4	1	—	—	—	—	4	2	3	1	1	2	3	
480-483	Influenza	100	36	12	5	2	1	8	—	—	—	—	—	—	—	—	—	3	5	4	5	5	3	3	—	—	2	
	White—M—	45	19	5	2	1	—	3	—	—	—	—	—	—	—	—	—	—	3	2	2	1	—	—	—	—	1	
	F—	40	14	5	2	1	1	4	—	—	—	—	—	—	—	—	—	2	1	2	3	2	2	—	—	—	1	
	Nonwhite—M—	8	2	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	F—	7	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	
490-493	Pneumonia, etc.*	1,525	647	279	100	62	40	66	19	10	15	11	11	14	12	15	16	15	29	21	28	26	32	27	15	8	8	
	White—M—	615	281	116	39	19	14	21	6	4	5	2	6	5	3	5	9	6	8	9	11	12	9	14	6	4	1	
	F—	701	286	143	60	32	20	32	10	4	6	6	2	7	5	6	6	7	8	7	10							

Table 11.18. Deaths From 64 Selected Causes, by Age, Race, and Sex: 1950—Con.

(By place of occurrence. Exclusive of fetal deaths)

Sixth Revision No.	CAUSE OF DEATH, RACE, AND SEX	Total	Under 1	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 to 94	95 to 99	100 & over & not stated
545, 571, 572	Gastritis, etc.*	2,877	1,582	469	274	127	92	125	25	4	7	3	7	13	10	14	7	12	13	15	15	11	10	7	14	6	4
	White—M	1,289	751	195	114	46	38	60	13	4	4	2	3	6	1	7	2	4	4	6	5	7	5	3	7	4	1
	White—F	1,156	616	199	121	52	47	48	9	-	-	3	4	5	6	5	3	6	4	5	5	2	2	2	7	2	1
	Nonwhite—M	232	123	36	22	17	6	8	-	-	-	-	1	1	2	1	1	2	2	2	2	-	2	1	1	-	-
	Nonwhite—F	200	102	37	17	12	1	9	3	-	-	-	1	1	1	1	1	3	2	1	2	-	-	2	3	-	2
581	Cirrhosis of liver	201	1	-	-	-	-	2	7	5	2	10	20	13	26	16	16	14	21	8	18	12	4	5	2	-	-
	White—M	112	-	-	-	-	-	2	3	1	1	2	12	5	15	11	14	9	10	6	10	6	1	2	2	-	-
	White—F	44	1	-	-	-	-	1	1	1	1	2	7	2	4	3	1	4	1	4	3	4	1	2	1	-	-
	Nonwhite—M	33	-	-	-	-	-	1	1	-	-	6	1	4	6	2	1	1	5	1	2	-	-	2	-	-	-
	Nonwhite—F	12	-	-	-	-	-	2	-	-	-	-	-	2	1	-	-	-	2	-	2	-	-	1	-	-	-
590, 591	Acute nephritis, etc.*	171	10	13	15	17	19	35	8	4	3	1	3	6	5	-	2	2	4	3	7	6	1	4	2	1	1
	White—M	61	5	7	4	5	11	10	3	-	1	-	-	2	1	-	2	4	3	7	6	1	3	2	1	1	1
	White—F	86	4	4	8	5	6	20	3	1	1	1	1	1	1	-	1	1	2	2	3	-	1	1	1	-	1
	Nonwhite—M	20	-	-	-	1	3	1	1	1	1	-	-	1	1	-	-	-	2	4	-	-	-	-	1	-	-
	Nonwhite—F	24	1	1	2	4	1	2	1	2	-	1	1	2	2	-	-	1	1	1	1	-	-	-	-	-	-
610	Hypertrophy of prostate	20	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	3	1	7	2	4	2	-	-
	White—M	15	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	1	5	1	4	1	1	-	-
	Nonwhite—M	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-
640-689	Complications of pregnancy, etc.*	198	...	...	...	...	...	...	2	23	33	36	37	47	15	5	-	-	...	...	...	...	...	...	...	...	-
	White—F	157	...	...	...	...	...	...	1	18	26	28	28	39	12	5	-	-	...	...	...	...	...	...	...	...	-
	Nonwhite—F	41	...	...	...	...	...	...	1	5	7	8	9	8	3	-	-	-	...	...	...	...	...	...	...	...	-
650-652	Abortion	11	...	...	...	...	...	...	1	3	2	-	3	2	-	-	-	-	...	...	...	...	...	...	...	...	-
	White—F	7	...	...	...	...	...	...	1	2	1	-	2	2	-	-	-	-	...	...	...	...	...	...	...	...	-
	Nonwhite—F	4	...	...	...	...	...	...	1	1	1	-	1	-	-	-	-	-	...	...	...	...	...	...	...	...	-
640-648, 660-689	All other complications	187	...	...	...	...	...	...	1	20	31	36	34	45	15	5	-	-	...	...	...	...	...	...	...	...	-
	White—F	150	...	...	...	...	...	...	1	16	25	28	26	37	12	5	-	-	...	...	...	...	...	...	...	...	-
	Nonwhite—F	37	...	...	...	...	...	...	-	4	6	8	8	8	3	-	-	-	...	...	...	...	...	...	...	...	-
750-759	Congenital malformations	300	257	8	5	7	2	7	3	2	2	2	3	-	-	1	-	-	-	-	-	-	-	-	-	-	-
	White—M	173	148	5	3	5	2	3	2	2	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	White—F	95	81	4	1	1	1	2	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—M	21	17	-	1	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—F	11	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
760-776	Certain diseases of early infancy	1,914	1,913	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	White—M	999	999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	White—F	697	696	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—M	125	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—F	93	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
760-762	Birth injuries, etc.*	364	364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	White—M	198	198	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	White—F	128	128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—M	26	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—F	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
763-768	Infections of newborn	412	412	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	White—M	215	215	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	White—F	166	166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—M	14	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—F	17	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
769-776	Other diseases of infancy, and immaturity unspecified	1,138	1,137	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	White—M	586	586	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	White—F	405	405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—M	85	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nonwhite—F	64	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
780-795	Sentility, etc.*	2,137	589	147	87	52	29	74	16	21	25	30	31	45	25	35	42	40	65	76	107	72	150	85	123	64	107
	White—M	911	308	63	42	18	11	23	6	7	10	14	12	19	10	13	21	20	29	50	47	30	56	35	33	26	28
	White—F	862	284	98	37	26	13	37	10	9	12	6	10	20	6	14	12	14	21	27	42	35	62	31	65	24	49
	Nonwhite—M	178	28	14	2	2	3	6	-	2	2	4	5	3	3	5	4	7	11	11	7	16	9	12	7	8	
	Nonwhite—F	189	29	14	6	2	8	-	3	1	4	4	4	3	6	3	5	4	7	11	7	16	10	13	7	22	
Re- sidual	All other diseases	1,169	189	107	95	52	28	71	27	25	39	37	41	52	46	42	36	43	65	76	107	72	150	85	123	64	107
	White—M	457	84	46	35	14	9	28	8	7	16	12	11	8	21	20	15	21	18	17	26	7	12	10	17	14	10
	White—F	479	75	42	40	24	12	37	15	13	13	16	20	13	12	12	14	14	15	14	18	10	17				

Table 11.19. Deaths and Death Rates for 32 Selected Causes, by Age: 1950

(By place of occurrence. Exclusive of fetal deaths. Rates per 100,000 population in each specified group, enumerated as of April 1. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

CAUSE OF DEATH	Total <sup>1</sup>	NUMBER										
		Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 and over
ALL CAUSES-----	21,895	5,607	2,911	964	1,221	1,484	1,487	1,418	1,644	2,019	1,494	1,460
Tuberculosis, all forms-----001-019	2,849	78	147	101	518	687	548	342	218	135	52	24
Syphilis and its sequelae-----020-029	139	31	2	3	2	8	17	22	18	21	10	5
Typhoid fever-----040	6	-	1	-	2	-	1	1	-	1	-	-
Dysentery, all forms-----045-048	61	34	9	7	1	1	2	2	1	2	2	-
Diphtheria-----055	39	5	34	-	-	-	-	-	-	-	-	-
Whooping cough-----056	190	107	75	6	-	1	-	-	-	-	1	-
Meningococcal infections-----057	6	-	5	-	-	-	1	-	-	-	-	-
Acute poliomyelitis-----080	4	-	2	1	-	-	-	-	1	-	-	-
Measles-----085	35	9	19	5	-	-	-	-	-	-	-	-
All other infective and parasitic diseases-----030-039, 041-044, 049-054, 058-074, 081-084, 086-138	307	60	134	56	35	25	18	17	14	16	8	6
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	1,279	5	14	13	19	37	114	215	298	324	165	85
Diabetes mellitus-----260	97	1	1	1	4	8	5	12	31	20	12	2
Meningitis, except meningococcal and tuberculous-----340	148	61	56	14	6	4	2	2	2	1	-	-
Major cardiovascular-renal diseases-----330-334, 400-468, 592-594	4,101	24	92	88	95	110	229	370	622	976	758	731
Diseases of cardiovascular system-----330-334, 400-468	3,578	12	19	36	72	90	195	350	558	902	678	682
Vascular lesions affecting central nervous system-----330-334	694	4	1	2	6	18	33	71	128	210	127	92
Rheumatic fever-----400-402	21	1	1	7	4	4	2	-	2	-	-	-
Diseases of heart-----410-443	2,366	7	13	26	53	63	149	239	391	576	451	415
Hypertension without mention of heart and general arteriosclerosis-----444-450	440	-	-	-	4	1	9	16	28	106	111	165
Other diseases of circulatory system-----451-466	57	-	3	1	5	4	2	5	9	10	9	9
Chronic and unspecified nephritis and other renal sclerosis-----592-594	523	12	74	52	23	20	34	40	64	74	80	49
Influenza and pneumonia, except pneumonia of newborn-----480-493	1,625	683	501	93	26	24	26	31	51	58	68	64
Ulcer of stomach and duodenum-----540, 541	66	1	-	-	6	6	9	21	5	11	5	2
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543, 571, 572	2,877	1,592	962	151	11	10	23	21	25	30	21	31
Cirrhosis of liver-----581	201	1	1	9	5	30	39	32	35	26	16	7
Acute nephritis and nephritis with edema, including nephrosis	171	10	64	43	7	4	11	2	7	13	5	4
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	198	...	...	2	56	75	62	5	-	...	...	...
Congenital malformations-----750-759	300	257	23	10	4	5	-	1	-	-	-	-
Symptoms, senility, and ill-defined conditions-----780-795	2,137	589	315	90	46	61	70	77	105	183	222	377
Motor-vehicle accidents-----E810-E835	230	1	10	55	46	28	30	27	13	9	7	4
All other accidents-----E800-E802, E840-E862	416	28	50	60	71	61	41	32	24	21	15	10
Suicide-----E865, E870-E879	368	-	-	6	93	87	73	59	27	13	4	4
Homicide-----E884, E890-E895	271	3	3	4	73	91	56	21	11	5	4	-
All other causes-----Residual	3,696	2,227	391	146	97	105	112	106	136	163	109	104
		RATE										
ALL CAUSES-----	990.4	8,175.2	965.5	163.7	295.5	505.3	662.8	964.7	1,719.1	3,896.9	9,866.9	15,565.0
Tuberculosis, all forms-----001-019	128.9	109.8	49.8	17.2	125.4	237.1	243.4	232.7	228.0	247.3	240.6	255.9
Syphilis and its sequelae-----020-029	6.3	43.6	0.7	0.5	0.5	2.6	7.6	15.0	18.8	38.5	46.3	53.3
Typhoid fever-----040	0.3	0	0.3	0	0.5	0	0.4	0.7	0	1.8	0	0
Dysentery, all forms-----045-048	2.8	47.9	3.0	1.2	0.2	0.3	1.4	1.0	3.7	9.3	0	0
Diphtheria-----055	1.8	7.0	11.5	0	0	0	0	0	0	0	0	0
Whooping cough-----056	8.6	150.8	25.4	1.0	0	0.3	0	0	0	0	4.6	0
Meningococcal infections-----057	0.3	0	1.7	0	0	0	0.4	0	0	0	0	0
Acute poliomyelitis-----080	0.2	0	0.7	0.2	0	0	0	0	1.0	0	0	0
Measles-----085	1.5	12.7	6.4	0.8	0	0	0	0	0	0	0	0
All other infective and parasitic diseases-----030-039, 041-044, 049-054, 058-074, 081-084, 086-138	17.5	84.5	45.4	9.5	8.0	8.6	8.0	11.6	14.6	29.3	37.0	64.0
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	57.9	7.0	4.7	2.2	4.6	12.8	50.8	146.3	311.6	575.2	765.5	906.2
Diabetes mellitus-----260	4.4	1.4	0.3	0.2	1.0	2.8	2.2	8.2	32.4	36.6	55.5	31.3
Meningitis, except meningococcal and tuberculous-----340	6.7	85.9	18.0	2.4	1.5	1.4	0.9	1.4	2.1	1.8	0	0
Major cardiovascular-renal diseases-----330-334, 400-468, 592-594	185.5	35.8	31.1	14.9	33.0	38.0	102.1	251.7	650.4	1,798.0	3,507.5	7,795.2
Diseases of cardiovascular system-----330-334, 400-468	161.8	16.9	6.1	6.1	17.4	31.1	86.9	224.5	585.5	1,832.4	3,157.3	7,270.8
Vascular lesions affecting central nervous system-----330-334	31.4	5.6	0.3	0.3	1.5	6.2	14.7	48.3	133.8	394.7	587.7	980.8
Rheumatic fever-----400-402	0.9	1.4	0.3	1.2	1.0	1.4	0.9	0	2.1	0	0	0
Diseases of heart-----410-443	107.0	9.9	4.4	4.4	12.8	21.7	68.4	161.9	408.9	1,055.2	1,894.4	4,435.0
Hypertension without mention of heart and general arteriosclerosis-----444-450	19.9	0	0	0	1.0	0.3	4.0	10.9	29.3	194.2	513.6	1,759.1
Other diseases of circulatory system-----451-466	2.6	0	1.0	0.2	1.2	1.4	0.9	3.4	9.4	18.3	41.6	95.9
Chronic and unspecified nephritis and other renal sclerosis-----592-594	25.7	16.9	25.1	8.8	5.6	6.9	15.2	27.2	66.9	135.6	370.2	522.4
Influenza and pneumonia, except pneumonia of newborn-----480-493	75.5	961.5	169.6	15.8	6.3	8.3	11.6	21.1	53.3	106.3	314.7	682.3
Ulcer of stomach and duodenum-----540, 541	3.0	1.4	0	0	1.5	2.1	4.0	14.3	5.2	20.2	25.1	21.3
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543, 571, 572	130.1	2,241.2	325.7	25.6	2.7	3.5	10.3	14.3	26.1	55.0	97.2	330.5
Cirrhosis of liver-----581	9.1	1.4	0.3	1.5	1.2	10.4	17.4	21.8	36.6	47.6	74.0	74.6
Acute nephritis and nephritis with edema, including nephrosis	7.7	14.1	21.7	7.3	1.7	1.4	4.9	1.4	7.3	23.8	23.1	42.6
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	9.0	...	...	0.3	13.6	25.2	27.6	3.4	0	...	...	...
Congenital malformations-----750-759	15.6	361.8	7.8	1.7	1.0	1.7	0	0.7	0	0	0	0
Symptoms, senility, and ill-defined conditions-----780-795	96.7	829.2	106.6	15.3	11.1	21.1	31.2	52.4	109.8	335.2	1,027.3	4,019.2
Motor-vehicle accidents-----E810-E835	10.4	1.4	3.4	9.3	11.1	9.7	13.4	18.4	13.6	16.5	32.4	42.6
All other accidents-----E800-E802, E840-E862	19.8	39.4	16.9	10.2	17.2	21.1	18.3	21.8	25.1	38.5	69.4	105.6
Suicide-----E865, E870-E879	16.6	0	0	1.0	22.5	30.0	32.5	40.1	28.2	23.8	16.5	42.6
Homicide-----E884, E890-E895	12.3	4.2	1.0	0.7	17.7	31.4	25.0	14.3	11.5	9.2	18.5	0
All other causes-----Residual	167.2	3,135.2	132.4	24.8	23.5	35.6	49.9	72.1	142.2	298.6	504.4	1,108.7

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.



Table 11.20. Deaths From 32 Selected Causes, by Month: 1950

(By place of occurrence. Exclusive of fetal deaths. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

CAUSE OF DEATH	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
ALL CAUSES-----	21,895	1,975	1,765	1,906	1,734	1,919	1,766	1,859	1,895	1,749	1,821	1,708	1,796
Tuberculosis, all forms-----001-019	2,849	234	240	307	252	265	205	230	260	207	221	211	217
Syphilis and its sequelae-----020-029	139	13	18	12	10	14	9	15	11	8	14	7	8
Typhoid fever-----040	6	-	-	1	-	-	-	2	-	1	1	-	1
Dysentery, all forms-----045-048	61	6	2	7	4	1	7	3	7	7	7	5	5
Diphtheria-----055	39	6	1	2	2	2	2	1	4	4	7	3	5
Whooping cough-----056	190	25	16	30	28	13	17	17	12	10	7	5	10
Meningococcal infections-----057	6	-	1	1	2	-	-	-	-	-	-	1	1
Acute poliomyelitis-----090	4	1	-	1	-	-	1	-	1	-	-	-	-
Mumps-----095	83	-	-	-	-	-	-	-	2	2	3	13	13
All other infective and parasitic diseases-----030-039,041-044,049-054,058-074,081-084,086-158	387	28	28	37	27	29	30	42	32	36	43	23	32
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	1,279	125	110	100	94	114	112	102	104	110	123	89	96
Diabetes mellitus-----280	97	3	5	12	7	4	15	9	11	8	6	8	9
Meningitis, except meningococcal and tuberculous-----340	148	10	8	16	12	7	6	11	15	16	15	15	19
Major cardiovascular-renal diseases-----330-334,400-468,592-594	4,101	378	358	353	383	379	305	345	328	296	296	310	370
Diseases of cardiovascular system-----350-354,400-468	3,578	326	305	302	344	325	270	300	289	257	262	270	328
Vascular lesions affecting central nervous system-----350-354	694	72	63	54	64	59	54	49	59	49	58	57	56
Rheumatic fever-----400-402	21	-	3	1	1	1	1	1	1	3	4	2	3
Diseases of heart-----410-443	2,366	211	200	199	236	219	182	213	190	170	164	165	212
Hypertension without mention of heart and general arteriosclerosis-----444-450	440	40	38	42	38	45	26	24	35	31	33	41	47
Other diseases of circulatory system-----451-468	57	3	1	6	5	1	7	8	4	4	3	5	10
Chronic and unspecified nephritis and other renal sclerosis-----592-594	523	52	53	51	39	54	35	45	39	39	34	40	42
Influenza and pneumonia, except pneumonia of newborn-----480-483	1,625	163	125	123	97	138	120	137	170	133	165	122	132
Ulcer of stomach and duodenum-----540,541	66	9	1	5	6	5	9	5	6	8	4	5	3
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543,571,572	2,877	250	227	260	204	263	259	266	259	211	206	240	232
Cirrhosis of liver-----581	201	21	12	15	18	17	17	20	16	17	16	16	16
Acute nephritis and nephritis with edema, including nephrosis-----590,591	171	25	11	10	14	13	18	8	8	15	22	12	15
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	198	14	16	19	18	17	13	14	15	14	18	20	20
Congenital malformations-----750-759	300	29	27	22	18	17	35	28	29	23	21	21	30
Symptoms, senility, and ill-defined conditions-----780-795	2,137	204	174	172	160	196	166	185	166	208	177	170	158
Motor-vehicle accidents-----E810-E835	230	16	18	21	23	36	18	16	17	23	11	11	20
All other accidents-----E800-E802,E840-E862	416	32	35	41	25	41	34	42	32	38	36	41	19
Suicide-----E965,E970-E979	368	39	18	29	35	30	27	30	35	37	27	24	37
Homicide-----E984,E990-E985	271	16	12	18	20	23	14	17	28	28	47	24	24
All other causes-----Residual	3,696	328	302	292	275	285	328	310	351	298	330	312	304

Table 11.21. Deaths From 32 Selected Causes:

(By place of occurrence. Exclusive of fetal deaths. Includes data for urban places with populations of 10,000 or more)

1	AREA	Total	Tuber-	Syph-	Ty-	Dysen-	Diph-	Whoop-	Menin-	Acute	Meas-	All other	Malignant	Diabetes	Menin-	Major	Diseases
			culosis, all forms	illis and its sequelae	phoid fever	tery, all forms	theria	oping cough	gococcal infections	acute poliomyelitis	lesles	infective and parasitic diseases	neoplasms, including neoplasms of lymphatic and hematopoietic tissues	mel-litus	gitis, except meningococcal and tuberculous	cardio-vascular diseases	of cardio-vascular system
			001-019	020-029	040	045-048	055	055	057	060	085	030-039, 041-044, 048-054, 058-074, 081-084, 086-139	140-205	260	340	330-334, 400-468, 592-594	330-334, 400-468
1	PUEBLO RICO-----	21,895	2,849	139	6	61	39	190	6	4	33	387	1,279	97	146	4,101	5,578
2	Adjuntas-----	226	14	2	-	2	-	4	-	-	-	13	19	1	-	37	31
3	Aguada-----	174	19	-	-	2	-	1	-	-	-	2	6	1	2	19	16
4	Aguadilla-----	659	72	4	-	1	3	4	-	1	-	29	45	3	7	100	91
5	Aguadillo-----	323	13	2	-	1	3	2	-	1	-	14	21	2	6	41	36
6	Balance of municipality-----	336	59	2	-	-	-	2	-	-	-	15	24	1	1	59	55
7	Aguas Buenas-----	127	15	-	-	-	-	-	-	-	-	7	1	-	1	25	22
8	Albouto-----	174	30	3	-	-	1	4	-	-	-	3	9	-	2	16	15
9	Añasco-----	208	25	3	1	-	-	-	-	-	-	6	7	2	-	22	21
10	Arecibo-----	1,328	183	4	-	2	3	11	-	-	-	34	62	6	16	239	216
11	Arecibo	701	83	2	-	2	3	6	-	-	-	25	34	5	13	117	112
12	Balance of municipality-----	627	100	2	-	-	-	5	-	-	-	9	28	1	3	122	106
13	Arroyo-----	166	8	12	-	-	-	-	-	-	-	3	6	-	1	36	33
14	Barceloneta-----	181	28	1	-	-	-	1	-	-	-	6	5	-	-	45	42
15	Barranquitas-----	107	10	1	-	-	-	1	-	-	1	-	3	1	-	22	18
16	Bayamón-----	640	98	8	-	14	7	2	-	1	1	16	50	4	18	157	136
17	Bayamón	163	28	2	-	1	-	-	-	-	-	2	11	-	-	39	33
18	Balance of municipality-----	677	70	6	-	13	7	2	-	1	1	14	39	4	18	119	103
19	Cabo Rojo-----	246	13	-	-	2	-	2	-	-	-	4	23	2	2	73	71
20	Caguas-----	604	84	2	-	6	-	8	-	-	1	9	37	1	4	148	135
21	Caguas	567	57	1	-	1	-	2	-	-	-	6	28	1	4	92	86
22	Balance of municipality-----	237	27	1	-	5	-	6	-	-	1	3	9	-	-	56	49
23	Camuy-----	181	24	-	-	-	-	3	-	-	-	-	10	-	-	40	37
24	Carolina-----	181	14	1	-	-	-	2	-	-	5	7	4	-	1	33	27
25	Cataño-----	142	25	1	-	1	-	1	-	-	1	1	7	-	2	21	17
26	Cayey-----	428	126	4	-	2	1	17	-	-	-	11	11	1	-	52	45
27	Cayey	169	17	3	-	1	1	7	-	-	-	8	8	-	-	30	26
28	Balance of municipality-----	259	109	1	-	1	-	10	-	-	-	3	3	1	-	22	19
29	Ceiba-----	41	6	-	-	-	-	-	-	-	-	-	5	1	-	8	7
30	Ciales-----	150	21	1	-	1	1	-	-	-	-	-	3	-	5	33	27
31	Cidra-----	112	14	-	-	-	-	1	-	-	1	-	9	-	-	18	18
32	Coamo-----	185	27	-	-	-	-	-	-	-	-	1	11	-	1	36	33
33	Coamo	121	16	-	-	-	-	-	-	-	1	1	8	-	1	22	21
34	Balance of municipality-----	64	11	-	-	-	-	-	-	-	-	-	3	-	-	14	12
35	Comerio-----	110	12	1	-	-	-	-	-	-	-	1	3	-	-	30	29
36	Corozal-----	137	18	1	-	-	-	2	-	-	1	-	6	-	-	36	24
37	Culebra-----	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	Dorado-----	58	2	3	-	-	-	-	-	-	-	-	8	-	-	12	11
39	Fajardo-----	461	53	1	1	2	7	5	-	1	17	17	30	3	4	65	55
40	Fajardo	376	39	1	1	2	7	4	-	1	14	14	22	3	4	46	41
41	Balance of municipality-----	85	14	-	-	-	-	1	-	-	-	3	8	-	-	17	14
42	Guanica-----	148	14	-	1	-	-	2	-	-	-	6	6	2	2	22	21
43	Guayama-----	420	81	-	-	1	-	22	-	1	-	8	18	4	-	69	58
44	Guayama	250	25	-	-	1	-	14	-	1	-	7	14	3	-	49	40
45	Balance of municipality-----	170	56	-	-	-	-	8	-	-	-	1	4	1	-	20	18
46	Guayani Ila-----	128	3	-	-	-	-	-	-	-	-	1	12	2	-	28	24
47	Guayama	110	20	1	-	-	-	1	-	1	2	2	12	-	-	15	11
48	Gurabo-----	125	13	-	-	-	-	3	-	-	1	-	9	-	1	26	24
49	Hatillo-----	157	23	-	-	1	2	2	-	-	-	8	6	-	1	32	28
50	Hormigueros-----	74	7	1	-	-	-	2	-	-	-	-	4	1	-	15	14
51	Humacao-----	379	59	2	-	1	11	11	-	-	-	3	18	2	3	60	45
52	Humacao	165	26	-	-	-	-	4	-	-	-	1	7	1	1	31	25
53	Balance of municipality-----	214	33	2	-	1	7	7	-	-	-	2	11	1	2	29	20
54	Isabela-----	280	24	2	-	-	-	1	-	-	-	10	9	1	-	62	49
55	Jayuya-----	157	5	2	-	-	-	1	-	-	-	5	10	-	1	28	27
56	Juana Díaz-----	272	40	5	1	-	-	2	-	-	-	8	15	2	1	36	22
57	Juncos-----	201	28	1	-	-	-	-	-	-	-	3	5	1	5	39	31
58	Lajas-----	120	8	3	-	1	-	1	-	-	-	2	10	2	-	13	10
59	Lares-----	351	27	1	-	-	-	4	-	-	-	5	10	1	-	93	69
60	Las Marías-----	68	2	-	-	-	-	-	-	-	-	2	-	-	-	1	1
61	Las Piedras-----	150	26	-	-	-	-	1	-	-	-	1	7	-	1	22	17
62	Lóiza-----	215	21	1	-	1	-	4	-	-	1	10	11	-	-	24	22
63	Luquillo-----	76	5	-	-	-	-	-	-	-	-	-	3	-	-	7	7
64	Manatí-----	247	34	3	-	1	-	3	-	-	-	-	20	1	3	58	54
65	Manatí	86	7	1	-	-	-	-	-	-	-	-	7	-	2	27	26
66	Balance of municipality-----	161	27	2	-	1	-	3	-	-	-	-	13	1	1	31	28
67	Maricao-----	69	7	-	-	-	-	-	-	-	-	-	-	1	-	19	11
68	Maunabo-----	104	5	1	-	-	-	2	-	-	-	2	2	-	-	4	4
69	Mayagüez-----	1,029	159	6	-	3	-	3	-	-	-	19	78	5	6	222	174
70	Mayagüez	658	57	5	-	2	-	1	1	1	168	11	67	4	4	168	136
71	Balance of municipality-----	372	102	1	-	1	-	2	-	-	-	8	11	1	2	54	38
72	Moca-----	160	8	-	-	-	-	-	-	-	-	-	6	-	-	6	6
73	Morovis-----	114	20	-	-	-	-	2	-	-	-	5	8	1	1	25	24
74	Naguabo-----	143	14	1	-	-	-	-	-	-	-	2	4	-	-	8	8
75	Naranjito-----	103	10	1	-	-	-	7	-	-	-	1	2	-	-	14	13
76	Orocovis-----	146	7	-	-	-	-	-	-	-	-	-	3	-	-	28	25
77	Petillas-----	197	6	-	-	-	-	6	1	-	-	7	7	1	-	15	15
78	Penuelas-----	128	2	-	-	-	-	-	-	-	-	-	1	-	-	2	2
79	Ponce-----	1,701	207	11	2	2	6	3	1	1	7	7	128	6	6	413	355
80	Ponce	1,508	166	10	2	2	6	3	1	-	7	7	109	6	5	331	298
81	Balance of municipality-----	393	41	1	-	-	-	-	-	-	-	-	19	-	1	82	67
82	Quebradillas-----	131	18	-	-	-	-	-	-	-	-	-	12	1	1	31	27
83	Rincón-----	67	8	1	-	-	-	-	-	-	-	-	1	-	-	7	7
84	Río Grande-----	99	14	1	-	-	-	1	-	-	-	3	8	1	6	7	6
85	Río Piedras-----	1,306	423	9	-	8	-	4	-	-	5	18	79	5	8	223	199
86	Río Piedras	770	112	4	-	6	-	4	-	-	2	16	65	5	8	151	141
87	Balance of municipality-----	536	311	5	-	2	-	-	-	-	3	2	14	-	-	72	58

# Each Municipality and Specified Urban Places, 1950

in 1950. Numbers under causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

Vascular lesions affecting central nervous system	Rheumatic fever	Diseases of heart	Hypertension without mention of heart and general arteriosclerosis	Other diseases of circulatory system	Chronic unspecified nephritis and other renal sclerosis	Influenza and pneumonia, except pneumonia of newborn	Ulcer of stomach and duodenum	Gastritis, duodenitis, and colitis, except diarrhea of newborn	Cirrhosis of liver	Acute nephritis and nephritis with edema, including nephrosis	Deliveries and complications of pregnancy, childbirth, and the puerperium	Con-genital mal-formations	Symptoms, senility, and ill-defined conditions	Motor-vehicle accidents	All other accidents	Suicide	Homicide	All other causes		
350-354	400-402	410-445	444-450	451-468	592-594	480-493	540, 541	543, 571, 572	581	590, 591	640-689	750-759	780-795	E810-E835	E800-E822, E840-E862	E863, E870-E879	E864, E860-E865	Residual		
694	21	2,366	440	57	523	1,625	66	2,877	201	171	198	300	2,157	250	416	368	271	5,696	1	
7	-	20	3	1	6	14	1	15	1	1	1	2	54	1	2	3	1	38	2	
1	-	15	-	-	3	8	-	48	-	-	1	-	30	1	3	-	1	30	5	
15	-	66	8	2	9	35	3	71	9	9	21	19	29	15	13	18	4	146	4	
5	-	26	3	2	5	16	2	18	5	6	19	10	13	14	10	8	3	95	5	
10	-	40	5	-	4	19	1	55	4	3	2	9	16	1	3	8	1	53	6	
4	-	8	10	-	3	9	-	26	1	1	-	-	15	1	4	4	1	20	7	
4	-	5	4	2	1	11	-	25	5	5	-	4	30	1	1	5	1	25	8	
-	-	18	2	1	1	28	1	69	-	3	2	2	3	-	-	-	4	28	9	
29	-	173	13	2	21	110	6	242	8	8	21	16	19	25	26	41	27	217	10	
20	-	82	8	3	5	44	6	72	5	5	17	13	9	17	18	29	18	159	11	
9	-	91	5	1	16	66	2	170	3	3	4	3	10	8	8	12	9	59	12	
4	-	14	15	-	3	14	1	13	3	3	1	2	4	1	1	-	-	57	13	
6	-	15	-	-	3	4	1	33	-	-	-	4	3	1	3	-	1	21	14	
2	-	60	-	-	4	24	-	9	-	-	-	-	-	1	1	-	-	22	15	
35	-	80	15	6	21	68	-	44	-	-	22	20	35	22	15	15	19	183	16	
5	-	23	6	-	5	8	-	13	-	-	1	3	15	3	2	3	3	27	17	
50	-	58	9	5	16	60	1	31	3	-	21	17	20	19	13	16	16	166	18	
9	-	55	5	2	2	17	-	33	5	-	4	3	4	1	5	6	3	44	19	
19	-	92	14	2	13	59	1	69	6	-	6	7	11	8	14	15	9	92	20	
17	-	60	8	2	6	36	-	28	5	-	6	6	7	7	8	12	6	60	21	
2	-	39	8	-	7	23	-	43	5	-	4	4	4	4	3	7	3	32	22	
14	-	24	1	-	3	37	1	37	3	-	-	2	1	1	1	7	2	21	23	
4	-	22	-	-	6	10	-	26	3	-	1	1	1	1	2	4	3	32	24	
6	-	10	1	-	4	17	-	19	1	-	-	-	2	1	3	1	1	32	25	
12	-	30	3	-	7	18	2	57	4	-	2	1	1	3	3	-	-	73	26	
9	-	15	2	-	4	10	-	30	2	-	1	1	1	2	1	-	-	30	27	
3	-	15	1	-	3	8	-	27	2	-	1	1	1	2	2	1	1	43	28	
2	-	4	1	-	2	6	-	3	-	-	-	-	-	2	7	-	-	7	29	
8	-	16	1	-	8	15	-	13	2	11	1	1	1	1	2	4	2	24	30	
3	-	7	1	-	1	6	-	17	-	-	1	1	9	1	1	1	1	25	31	
11	-	17	5	-	3	16	-	29	3	-	1	4	28	-	3	8	8	16	32	
10	-	6	3	-	1	12	-	24	2	-	1	1	10	-	3	5	-	12	33	
1	-	9	2	-	2	4	-	5	1	-	-	1	1	-	-	3	-	4	34	
6	-	15	1	-	1	7	-	25	-	2	-	-	8	-	4	1	-	16	35	
3	-	15	5	1	12	14	-	8	1	1	2	3	9	2	4	2	-	27	36	
8	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	37	-
3	-	4	4	-	1	5	-	5	1	-	-	-	8	-	2	1	1	13	38	
14	2	32	6	1	8	18	1	26	11	2	13	6	14	6	22	11	13	131	39	
9	2	25	6	1	5	14	1	11	9	2	12	6	11	5	19	10	13	119	40	
5	-	9	5	-	4	14	-	15	2	-	1	4	3	1	3	1	-	12	41	
2	1	13	5	-	1	10	-	29	3	1	4	5	5	2	3	3	3	29	42	
9	-	43	6	-	11	21	-	74	4	1	5	3	31	3	3	4	4	63	43	
8	-	27	5	-	9	16	-	48	3	1	4	2	20	2	3	3	3	34	44	
1	-	16	1	-	2	5	-	26	1	-	1	1	11	1	4	-	-	29	45	
5	-	13	6	-	4	14	-	23	1	2	-	1	10	-	3	4	-	24	46	
5	-	6	-	-	4	9	1	11	3	-	-	-	10	1	2	1	3	15	47	
5	-	8	9	2	2	7	1	17	2	1	2	4	15	1	1	3	-	18	48	
5	-	21	2	-	4	5	-	22	1	1	1	1	10	-	1	3	-	39	49	
4	-	6	4	-	1	8	-	12	-	-	-	-	4	2	-	-	1	15	50	
12	-	29	2	2	15	20	1	94	2	5	4	2	28	1	7	5	1	60	51	
7	-	16	-	2	8	9	1	32	-	2	2	-	12	-	3	1	-	32	52	
5	-	13	2	-	9	11	-	52	2	2	2	2	16	1	4	4	1	28	53	
10	-	32	7	-	13	19	-	46	5	-	3	6	7	1	7	4	1	76	54	
1	-	23	1	2	1	18	-	16	3	2	1	1	9	1	3	1	3	46	55	
5	-	15	2	-	14	18	-	28	1	6	1	3	27	5	6	2	7	58	56	
2	-	20	3	1	8	10	-	19	1	3	2	2	49	1	7	4	1	22	57	
1	-	8	-	-	3	8	-	15	1	2	1	1	18	-	4	4	-	25	58	
8	1	37	22	1	24	46	-	40	3	-	5	6	36	-	8	2	3	61	59	
1	-	-	-	-	-	1	-	2	-	-	-	1	48	2	1	1	3	4	60	-
3	-	14	-	-	5	4	2	28	-	-	-	-	32	-	1	1	-	23	61	
11	-	11	-	-	2	20	-	38	-	1	-	-	27	-	7	-	-	46	62	
1	-	6	-	-	-	3	-	8	-	1	-	-	42	-	2	2	-	3	63	-
9	-	37	8	-	4	25	-	40	-	1	-	-	14	7	4	3	-	22	64	-
4	-	18	3	-	1	6	-	13	-	-	-	-	3	2	1	-	-	9	65	-
5	-	19	5	-	3	19	-	27	-	1	-	-	11	5	3	2	-	13	66	-
1	-	10	-	-	7	7	-	16	-	-	-	-	-	-	1	1	-	18	67	-
4	-	4	-	-	-	4	-	2	-	-	-	-	52	1	2	-	-	23	68	-
46	2	98	27	1	48	116	6	165	5	6	9	11	26	8	12	15	10	138	69	-
41	1	74	20	-	32	72	5	89	4	2	9	9	17	8	8	8	7	99	70	-
5	1	24	7	1	16	44	1	76	1	4	4	4	9	-	4	4	3	39	71	-
4	-	2	-	-	-	1	-	9	-	-	-	-	110	1	1	1	-	16	72	-
6	-	12	6	-	1	6	-	14	-	-	-	-	15	1	3	1	-	12	73	-
-	-	7	-	-	-	2	1	3	1	1	-	-	81	1	1	1	3	19	74	-
1	-	10	2	-	1	4	1	2	1	1	-	-	30	-	4	1	1	20	75	-
4	1	18	1	1	3	22	-	8	-	-	1	5	57	-	2	2	1	10	76	-
5	-	10	-	-	13	40	-	1	-	-	1	1	66	-	4	3	1	23	77	-
1	-	1	1	-	1	1	-	-	-	-	-	-	111	1	4	4	-	2	78	-
46	2	245	59	3	58	116	10	309	19	8	21	22	57	16	30	19	21	260	79	-
42	2	197	44	3	43	84	10	193	17	6	20	17	43	15	25	12	17	202	80	-
4	-	48	15	-	15	32	-	116	2	2	1	5	14	1	7	4	-	58	81	-
5	-	20	-	-	6	14	-	23	2	3	-	4	3	2	1	2	2	13	82	-
7	-	7	-	-	-	5	1	1	1	1	1	1	27	3	1	1	1	8	83	-
3	-	3	-	-	1	6	1	11	2	-	-	-	21	1	5	5	1	9	84	-
42	1	126	26	4	24	57	6	115	10	10	6	19	42	19	20	17	10	193	85	-
31	1	65	20	4	10	44	5	86	7	7	5	14	28	12	13	9	7	160	86	-
11	-	41	6	-	14	13	1	29	3	3	1	5	14	7	7	8	3	35	87	-

Table 11.21. Deaths From 32 Selected Causes:

(By place of occurrence. Exclusive of fetal deaths. Includes data for urban places with populations of 10,000 or more

AREA	Total	Tuber-	Syph-	Ty-	Dysen-	Diph-	Whoop-	Menin-	Acute	Mea-	All other	Malignant	Diab-	Menin-	Major	Diseases
		culosis, all forms	illis and its sequelae	phoid fever	tery, all forms	theria	ping cough	gococ- cal infect- ions	polio- mye- litis	sles	infective and para- sitic diseases	neoplasms, including neoplasms of lym- phatic and hemato- poietic tissues	betes mel- litus	gitis, except menin- gococ- cal and tuber- culous	cardio- vascular- renal diseases	Diseases of cardio- vascular system
		001- 019	020- 029	040	045- 048	055	056	057	080	085	030-039, 041-044, 049-054, 058-074, 081-084, 086-138	140-205	260	340	330-334, 400-468, 592-594	330-334, 400-468
1 Sabana Grande-----	142	2	-	-	-	1	1	-	-	-	3	8	-	-	24	15
2 Salinas-----	195	19	-	-	1	-	4	-	-	-	4	14	1	1	40	37
3 San Germain-----	275	16	1	-	1	1	-	-	-	-	6	19	1	4	58	55
4 San Juan, coextensive with San Juan (city)-----	2,105	267	24	-	4	4	7	2	-	9	27	192	18	19	480	451
5 San Lorenzo-----	500	34	-	-	-	1	5	-	-	-	6	19	2	-	72	57
6 San Sebastian-----	429	19	1	-	-	-	7	-	1	-	2	21	3	3	73	66
7 Santa Isabel-----	155	15	-	-	-	-	-	-	-	-	2	7	-	1	14	5
8 Toa Alta-----	78	11	-	-	-	-	1	-	-	1	1	7	-	-	14	12
9 Toa Baja-----	117	12	4	-	-	-	-	-	-	-	3	6	-	-	22	19
10 Trujillo Alto-----	55	8	-	-	1	-	1	-	-	1	-	1	-	-	16	16
11 Utuado-----	408	37	1	-	-	-	2	1	-	-	5	12	-	1	62	59
12 Vega Alta-----	125	14	-	-	-	-	-	1	-	-	-	9	-	-	32	30
13 Vega Baja-----	256	53	1	-	1	-	1	-	-	-	6	26	2	6	54	52
14 Vieques-----	89	4	1	-	-	-	-	-	-	-	2	6	2	1	18	18
15 Villalba-----	119	7	-	-	-	-	-	-	-	-	-	2	1	1	33	19
16 Yabucca-----	291	32	-	-	1	-	4	-	-	-	4	11	-	1	30	27
17 Yauco-----	394	32	-	-	-	1	-	-	-	-	5	17	1	3	63	51

Each Municipality and Specified Urban Places, 1950—Continued

in 1950. Numbers under causes of death are category numbers of the Sixth Revision of the International Lists, 1948)

Vas- cular lesions af- fecting central nervous system	Rheu- matic fever	Dis- eases of heart	Hyper- tension without men- tion of heart and general arteri- oscle- rosis	Other dis- eases of cir- cu- la- tory system	Chronic and un- speci- fied nephri- tis and other renal sclero- sis	Influen- za and pneu- monia, except pneu- monia of newborn	Ulcer of stom- ach and duo- denum	Gastritis, duo- denitis, and colitis, except diarrhea of newborn	Cir- rho- sis of liver	Acute nephri- tis and nephri- tis with edema, includ- ing ne- phrosis	Deliveries and compli- cations of pregnancy, childbirth, and the puerperium	Con- geni- tal mal- for- ma- tions	Symp- toms, senil- ity, and ill- defined con- di- tions	Motor- ve- hicle acci- dents	All other acci- dents	Suicide	Homi- cide	All other causes	
330-334	400- 402	410-443	444-450	451-468	592-594	480-493	540, 541	543, 571,572	581	590,591	640-689	750- 759	780-795	E810- E835	E800- E802, E840- E862	E965, E970- E979	E964, E980- E985	Resid- ual	
5	-	9	1	-	9	15	1	25	1	3	-	4	24	2	3	5	-	30	1
9	-	23	4	1	3	13	1	46	2	4	1	-	4	2	7	1	4	26	2
10	-	38	6	1	3	25	1	39	-	5	1	4	25	3	6	5	2	52	3
106	4	291	34	16	29	125	5	165	40	9	8	40	48	25	58	31	40	458	4
9	-	19	29	-	15	17	1	61	-	1	2	1	2	1	3	11	2	57	5
12	1	48	5	-	7	33	-	59	-	2	4	2	110	6	6	6	6	65	6
4	-	-	1	-	9	6	-	23	1	-	1	-	52	1	-	-	1	11	7
5	-	4	3	-	2	3	-	2	-	-	1	1	21	1	4	-	2	9	8
3	-	13	2	1	3	4	1	22	2	-	2	-	5	2	4	5	2	21	9
2	-	16	-	-	-	4	-	8	-	-	1	-	3	-	-	-	-	7	10
5	-	49	5	-	3	28	-	27	4	-	5	3	160	1	11	11	11	25	11
1	-	28	1	-	2	18	-	19	1	-	-	-	4	3	5	1	1	19	12
16	-	32	2	2	2	25	1	31	5	2	-	5	5	3	8	-	5	33	13
3	-	14	1	-	-	4	2	3	2	-	-	2	7	-	-	-	-	10	14
-	-	11	8	-	14	22	-	23	3	1	3	-	2	-	-	-	4	15	15
4	1	19	3	-	3	35	-	38	3	-	3	18	34	4	5	3	2	66	16
11	-	36	4	-	12	54	1	56	-	13	6	2	71	2	6	6	3	52	17

## VIRGIN ISLANDS

Table 12.01. Population; Marriage License, Divorce, Birth, and Death Rates; Fetal Death Ratios; and Infant, Neonatal, and Maternal Mortality Rates: 1940-50

(By place of occurrence. Births and deaths exclusive of fetal deaths. Marriage, divorce, birth, and death rates per 1,000 population; fetal death ratios, and infant and neonatal mortality rates per 1,000 live births; maternal mortality rates per 10,000 live births)

YEAR	POPULATION <sup>1</sup>		Crude marriage license rate <sup>2, 4</sup>	Crude divorce rate <sup>5, 6</sup>	Crude birth rate <sup>5</sup>	Crude death rate <sup>5</sup>	Fetal death ratio <sup>7</sup>	Infant mortality rate <sup>8</sup>	Neonatal mortality rate <sup>9</sup>	Maternal mortality rate <sup>10</sup>
	Total <sup>2</sup>	Civilian								
1950	26,665	1126,700	125.2	10.2	33.5	14.0	45.9	57.0	22.4	44.7
1949	26,700	26,700	7.3	6.8	33.2	13.6	22.6	90.3	42.9	22.6
1948	26,900	26,900	5.8	5.3	30.7	12.6	29.1	88.4	37.5	24.2
1947	27,200	27,100	7.0	4.6	32.2	14.5	38.8	89.0	44.5	34.2
1946	27,100	27,000	7.2	3.3	34.0	15.1	34.9	91.6	37.1	43.8
1945	26,700	26,500	8.9	2.0	37.4	15.0	41.7	124.0	38.6	81.3
1944	27,100	26,200	12.6	2.4	40.4	14.8	---	101.0	38.7	47.2
1943	27,400	24,900	10.7	3.1	37.4	14.2	---	83.6	27.9	96.7
1942	26,100	24,800	11.9	---	35.8	18.5	---	101.2	28.1	123.7
1941	25,600	25,400	9.6	---	32.6	18.1	---	112.2	39.8	48.3
1940	24,689	1124,700	4.9	---	30.6	22.2	---	136.2	39.7	92.6

<sup>1</sup>For 1940 and 1950, enumerated as of April 1; for other years, estimated as of July 1.  
<sup>2</sup>Includes armed forces stationed in area.  
<sup>3</sup>For 1940 and 1950, based on population enumerated as of April 1; for other years, based on total population estimated as of July 1.  
<sup>4</sup>Data are for fiscal year ended June 30.  
<sup>5</sup>For 1940 and 1950, based on population enumerated as of April 1; for 1941-46, based on civilian population estimated as of July 1; for 1947-49, based on total population estimated as of July 1.  
<sup>6</sup>Includes annulments.  
<sup>7</sup>Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.  
<sup>8</sup>Based on deaths under 1 year.  
<sup>9</sup>Based on deaths under 1 month.  
<sup>10</sup>Based on deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium. For 1949 and 1950, classified according to the Sixth Revision of the International Lists, 1948; for 1940-48, according to the Fifth Revision.  
<sup>11</sup>Census count of total population minus estimate of armed forces stationed in area.  
<sup>12</sup>Marriages performed.

Table 12.02. Birth and Death Rates; Fetal Death Ratios; Infant, Neonatal, and Maternal Mortality Rates; by Race: 1950

(By place of occurrence. Births and deaths exclusive of fetal deaths. Birth and death rates per 1,000 population in each specified group, enumerated as of April 1; fetal death ratios, and infant and neonatal mortality rates per 1,000 live births; maternal mortality rates per 10,000 live births)

RACE	Birth rate	Death rate	Fetal death ratio <sup>1</sup>	Infant mortality rate <sup>2</sup>	Neonatal mortality rate <sup>3</sup>	Maternal mortality rate <sup>4</sup>
ALL RACES	33.5	14.0	45.9	57.0	22.4	44.7
White	13.2	8.5	102.6	76.9	25.6	0
Negro	39.7	16.3	43.5	54.3	21.7	54.3
Mixed and other	23.1	9.1	42.0	67.2	25.2	0

<sup>1</sup>Includes only fetal deaths for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated.  
<sup>2</sup>Based on deaths under 1 year.  
<sup>3</sup>Based on deaths under 1 month.  
<sup>4</sup>Based on deaths from Deliveries and complications of pregnancy, childbirth, and the puerperium, classified according to the Sixth Revision of the International Lists, 1948.

Table 12.03. Marriage Licenses, and Divorces and Annulments: 1940-50

(By place of occurrence)

YEAR	Number of marriage licenses <sup>1</sup>	Number of divorces and annulments
1950	2139	271
1949	194	181
1948	156	143
1947	190	124
1946	195	90
1945	239	52
1944	342	63
1943	293	76
1942	311	---
1941	348	---
1940	122	---

<sup>1</sup>Data are for fiscal year ended June 30.  
<sup>2</sup>Marriages performed.

Table 12.04. Live Births; Fetal Deaths; Total and Infant Deaths; by Race, Sex, and Month: 1950

(By place of occurrence. Fetal deaths include only those for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated. Deaths exclusive of fetal deaths)

RACE AND SEX	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
LIVE BIRTHS													
ALL RACES	894	86	65	74	77	65	56	71	72	79	67	87	75
Male	462	49	30	36	37	34	33	38	29	37	52	42	45
Female	432	37	35	38	40	31	23	33	43	42	35	45	30
White	39	2	3	7	5	4	2	2	2	4	3	3	2
Male	19	-	1	3	2	2	2	1	2	2	2	2	-
Female	20	2	2	4	3	2	-	1	-	2	1	1	2
Negro	736	75	54	54	62	52	46	59	59	68	72	74	61
Male	376	43	25	26	27	29	27	31	23	33	40	35	37
Female	360	32	29	28	35	23	19	28	36	35	32	39	24
Mixed and other	119	9	8	13	10	9	8	10	11	7	12	10	12
Male	67	6	4	7	6	3	4	6	4	2	10	8	8
Female	52	3	4	6	2	6	4	4	7	5	2	5	4
FETAL DEATHS													
ALL RACES	41	3	4	4	-	4	5	3	3	3	3	5	4
Male	22	2	1	2	-	2	3	2	1	1	2	3	3
Female	19	1	3	2	-	2	2	1	2	2	1	2	1
White	4	-	1	2	-	-	-	-	-	-	1	-	-
Male	2	-	-	1	-	-	-	-	-	-	1	-	-
Female	2	-	1	1	-	-	-	-	-	-	-	-	-
Negro	32	2	3	2	-	3	5	2	3	3	1	4	4
Male	16	1	1	1	-	1	3	1	1	1	1	2	3
Female	16	1	2	1	-	2	2	1	2	2	-	2	1
Mixed and other	5	1	-	-	-	1	-	1	-	-	1	1	-
Male	4	1	-	-	-	1	-	1	-	-	1	1	-
Female	1	-	-	-	-	-	-	-	-	-	-	-	-
DEATHS UNDER 1 YEAR													
ALL RACES	51	9	4	6	4	5	1	4	1	6	3	4	4
Male	24	4	1	4	3	3	-	2	1	2	-	2	2
Female	27	5	3	2	1	2	1	2	4	4	3	2	2
White	3	-	1	-	-	-	1	-	-	-	-	-	1
Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Female	3	-	1	-	-	-	1	-	-	-	-	-	1
Negro	40	8	3	4	3	5	-	1	1	6	3	4	2
Male	20	4	1	3	2	3	-	1	1	2	-	2	1
Female	20	4	2	1	1	2	-	-	-	4	3	2	1
Mixed and other	8	1	-	2	1	-	-	3	-	-	-	-	1
Male	4	-	-	1	1	-	-	1	-	-	-	-	1
Female	4	1	-	1	-	-	-	2	-	-	-	-	-
TOTAL DEATHS													
ALL RACES	374	43	32	37	59	43	21	26	34	21	27	27	24
Male	179	21	15	22	20	15	7	11	20	10	9	14	16
Female	195	22	17	15	19	28	14	15	14	11	18	13	9
White	25	2	1	2	1	1	5	3	3	2	1	-	4
Male	11	1	-	1	-	1	2	1	1	2	1	-	1
Female	14	1	1	1	1	-	3	2	2	-	-	-	3
Negro	302	35	26	30	34	37	15	15	28	18	25	24	17
Male	141	16	11	17	17	15	4	6	18	6	7	13	11
Female	161	19	15	13	17	22	11	9	10	10	16	11	6
Mixed and other	47	6	5	5	4	5	1	8	3	1	3	3	3
Male	27	4	4	4	3	1	1	4	1	-	1	1	3
Female	20	2	1	1	1	4	-	4	2	1	2	2	-

Table 12.05. Live Births by Attendant; Fetal Deaths; Total, Infant, and Neonatal Deaths; by Race: Each Municipality and Specified Urban Places, 1950

(By place of occurrence. Includes data for all urban places with populations of 2,500 or more in 1950. Fetal deaths include only those for which the period of gestation was given as 20 weeks (or 5 months) or more, or was not stated)

AREA AND RACE	LIVE BIRTHS					Fetal deaths	DEATHS (EXCLUSIVE OF FETAL DEATHS)		
	Total	In hospital <sup>1</sup>	Not in hospital, attended by--				Total	Under 1 year	Under 28 days
			Physician	Midwife	Other and not specified				
VIRGIN ISLANDS-----	894	627	5	258	4	41	374	51	20
White-----	39	28	-	11	-	4	25	3	1
Negro-----	736	514	4	215	3	32	302	40	16
Mixed and other--	119	85	1	32	1	5	47	8	3
Municipality of St. Croix-----	370	275	2	90	3	18	208	18	7
White-----	6	6	-	-	-	1	6	-	-
Negro-----	267	192	2	71	2	13	170	12	4
Mixed and other--	97	77	-	19	1	4	30	6	3
Christiansted-----	185	148	2	34	1	11	120	9	5
White-----	4	4	-	-	-	1	4	-	-
Negro-----	148	112	2	33	1	9	103	5	2
Mixed and other--	33	32	-	1	-	1	13	4	3
Balance of municipality-----	185	127	-	56	2	7	86	9	2
White-----	2	2	-	-	-	-	2	-	-
Negro-----	119	80	-	56	1	4	67	7	2
Mixed and other--	64	45	-	18	1	3	17	2	-
Municipality of St. Thomas and St. John-----	524	352	3	168	1	23	168	33	13
White-----	33	22	-	11	-	3	19	3	1
Negro-----	469	322	2	144	1	19	132	28	12
Mixed and other--	22	8	1	13	-	1	17	2	-
Charlotte Amalie-----	499	350	3	145	1	22	163	33	13
White-----	31	22	-	9	-	3	18	3	1
Negro-----	448	320	2	125	1	18	129	28	12
Mixed and other--	20	8	1	11	-	1	16	2	-
Balance of municipality-----	25	2	-	23	-	1	5	-	-
White-----	2	-	-	2	-	-	1	-	-
Negro-----	21	2	-	19	-	1	3	-	-
Mixed and other--	2	-	-	2	-	-	1	-	-

<sup>1</sup>Includes births in hospitals attended by physician, midwife, or other person.



Table 12.06. Live Births by Age of Mother, Birth Order, and Race: 1950

(By place of occurrence. Birth order refers to number of children born alive to mother)

AGE OF MOTHER AND RACE OF CHILD	Total	BIRTH ORDER													Not stated
		1st	2d	3d	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th and over	
ALL RACES	894	155	174	152	107	95	84	49	32	35	10	7	8	8	-
10-14 years	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years	162	80	53	25	2	2	-	-	-	-	-	-	-	-	-
20-24 years	246	42	73	55	33	21	18	3	-	1	-	-	-	-	-
25-29 years	252	22	27	33	43	45	29	20	6	6	1	-	-	-	-
30-34 years	137	5	12	13	17	15	24	17	17	14	2	2	1	1	1
35-39 years	63	3	4	5	8	9	10	6	9	10	6	4	4	5	2
40-44 years	25	-	4	1	3	2	2	2	2	4	1	1	3	2	-
45 years and over	3	-	1	-	-	-	-	1	-	-	-	-	-	1	-
Not stated	3	-	-	-	1	1	1	-	-	-	-	-	-	-	-
WHITE	39	10	13	4	5	1	3	-	1	1	-	1	-	-	-
10-14 years	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years	7	4	2	1	-	-	-	-	-	-	-	-	-	-	-
20-24 years	6	2	4	-	-	-	-	-	-	-	-	-	-	-	-
25-29 years	8	2	4	1	-	-	-	-	-	1	-	-	-	-	-
30-34 years	9	-	2	2	2	1	-	-	1	-	-	-	-	-	-
35-39 years	5	2	-	-	1	-	2	-	-	-	-	-	-	-	-
40-44 years	3	-	-	-	1	-	1	-	-	-	-	1	-	-	-
45 years and over	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Not stated	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
NEGRO	736	123	146	104	88	82	71	41	25	27	8	6	8	7	-
10-14 years	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years	156	66	44	22	2	2	-	-	-	-	-	-	-	-	-
20-24 years	205	31	62	43	30	18	16	2	-	1	-	-	-	-	-
25-29 years	191	18	22	26	36	41	25	15	3	4	1	-	-	-	-
30-34 years	114	5	10	9	12	11	21	16	14	11	2	2	1	-	-
35-39 years	66	1	4	3	6	6	7	5	8	4	4	4	4	4	2
40-44 years	21	-	4	1	2	2	1	2	3	1	-	3	1	3	2
45 years and over	2	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Not stated	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-
MIXED AND OTHER	119	22	15	24	14	10	10	8	6	7	2	-	-	1	-
10-14 years	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19 years	19	10	7	2	-	-	-	-	-	-	-	-	-	-	-
20-24 years	57	9	7	12	3	3	2	1	-	-	-	-	-	-	-
25-29 years	33	2	1	6	7	4	4	5	3	1	-	-	-	-	-
30-34 years	15	-	-	2	3	1	3	1	2	3	1	-	-	-	-
35-39 years	12	-	-	2	1	1	1	1	1	2	2	-	-	1	-
40-44 years	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-
45 years and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not stated	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-

Table 12.07. Total Live Births and Cases of Plural Births in Which at Least One Child Was Born Alive, by Race: 1950

(By place of occurrence. The term "cases" refers to confinements resulting in either single or plural issue and is synonymous with "sets" in figures for plural births. Total number of cases is necessarily less than total number of births for any given period)

RACE	Total live births	Total cases (single and plural)	CASES OF PLURAL BIRTHS IN WHICH AT LEAST ONE CHILD WAS BORN ALIVE	
			Total	Twins
ALL RACES	894	885	10	10
White	39	39	-	-
Negro	736	727	9	9
Mixed and other	119	119	1	1

Table 12.08. Live Births by Birth Weight and Period of Gestation: 1950

(By place of occurrence)

PERIOD OF GESTATION	Total	BIRTH WEIGHT <sup>1</sup>										Not stated
		500 grams or less	501-1,000 grams	1,001-1,500 grams	1,501-2,000 grams	2,001-2,500 grams	2,501-3,000 grams	3,001-3,500 grams	3,501-4,000 grams	4,001-4,500 grams	4,501 grams or more	
TOTAL BIRTHS-----	894	-	4	3	9	59	192	396	201	35	11	4
Under 20 weeks-----	-	-	-	-	-	-	-	-	-	-	-	-
20-27 weeks-----	11	-	3	1	-	-	2	3	2	-	-	-
28-31 weeks-----	10	-	1	2	2	3	2	-	-	-	-	-
32-35 weeks-----	7	-	-	-	1	5	1	-	-	-	-	-
36 weeks-----	11	-	-	-	1	4	5	-	1	-	-	-
37-39 weeks-----	68	-	-	-	2	5	14	30	15	2	-	-
40 weeks-----	784	-	-	-	3	22	168	362	183	33	11	2
41-42 weeks-----	-	-	-	-	-	-	-	-	-	-	-	-
43 weeks and over-----	1	-	-	-	-	-	-	1	-	-	-	-
Reported as premature-----	-	-	-	-	-	-	-	-	-	-	-	-
Not stated-----	2	-	-	-	-	-	-	-	-	-	-	2

<sup>1</sup>The equivalents of the gram weights in terms of pounds and ounces are as follows:

500 grams or less = 1 lb. 1 oz. or less

2,001-2,500 grams = 4 lbs. 7 oz.-5 lbs. 8 oz.

3,501-4,000 grams = 7 lbs. 12 oz.-8 lbs. 13 oz.

501-1,000 grams = 1 lb. 2 oz.-2 lbs. 3 oz.

2,501-3,000 grams = 5 lbs. 9 oz.-6 lbs. 9 oz.

4,001-4,500 grams = 8 lbs. 14 oz.-9 lbs. 14 oz.

1,001-1,500 grams = 2 lbs. 4 oz.-3 lbs. 4 oz.

3,001-3,500 grams = 6 lbs. 10 oz.-7 lbs. 11 oz.

4,501 grams or more = 9 lbs. 15 oz. or more

1,501-2,000 grams = 3 lbs. 5 oz.-4 lbs. 6 oz.

Table 12.09. Infant Mortality Rates by Race and Sex: 1940-50

(By place of occurrence. Exclusive of fetal deaths. Deaths under 1 year per 1,000 live births in each specified group)

RACE AND SEX	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
ALL RACES-----	57.0	90.3	86.4	89.0	91.6	124.0	101.0	85.8	101.2	112.2	136.2
Male----	51.9	111.4	108.6	106.9	94.0	139.1	115.7	83.7	106.9	81.8	160.4
Female--	62.5	69.5	68.9	70.3	89.1	108.6	86.0	83.9	95.5	132.5	112.6
White-----	76.9	50.0	75.0	60.6	73.2	85.3	100.0	76.9	155.2	89.3	111.1
Male----	0	62.5	---	---	111.1	137.9	181.3	74.1	233.3	64.5	160.0
Female--	150.0	41.7	---	---	43.5	32.3	0	80.0	71.4	120.0	69.0
Negro-----	54.3	88.9	93.8	92.6	95.7	130.1	93.3	83.1	110.0	100.3	141.6
Male----	53.2	95.6	---	---	91.7	137.7	104.5	84.3	103.2	90.0	165.5
Female--	55.6	81.9	---	---	100.0	122.3	81.9	82.0	117.3	110.1	117.2
Mixed and other-----	67.2	111.1	64.0	75.8	80.6	111.1	139.7	89.7	44.3	177.8	125.6
Male----	59.7	224.1	---	---	100.0	146.3	184.8	84.5	71.4	111.1	140.8
Female--	76.9	14.7	---	---	62.5	78.7	123.6	94.6	22.7	254.0	112.5

Table 12.10. Deaths Under 1 Year, by Detailed Age, Race, and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths)

AGE	Total	ALL RACES		WHITE		NEGRO		MIXED AND OTHER	
		Male	Female	Male	Female	Male	Female	Male	Female
		24	27	-	3	20	20	4	4
UNDER 1 YEAR	51	24	27	-	3	20	20	4	4
Under 1 day	9	5	4	-	-	3	3	2	1
1 day	2	-	2	-	-	-	2	-	-
2 days	1	1	-	-	-	1	-	-	-
3 days	-	-	-	-	-	-	-	-	-
4 days	2	2	-	-	-	2	-	-	-
5 days	-	-	-	-	-	-	-	-	-
6 days	1	1	-	-	-	1	-	-	-
7-15 days	3	1	2	-	1	1	1	-	-
14-20 days	2	-	2	-	-	-	2	-	-
21-27 days	-	-	-	-	-	-	-	-	-
Under 28 days	20	10	10	-	1	8	8	2	1
28-59 days	2	1	1	-	-	1	1	-	-
2 months	7	5	2	-	1	5	1	-	-
3 months	4	3	1	-	-	3	1	-	-
4 months	3	2	1	-	-	-	2	2	1
5 months	3	1	2	-	-	1	2	-	-
6 months	1	-	1	-	-	-	1	-	-
7 months	2	-	2	-	-	-	2	-	-
8 months	3	-	3	-	1	-	2	-	-
9 months	1	-	1	-	-	-	1	-	1
10 months	2	-	2	-	-	-	2	-	1
11 months	3	2	1	-	-	2	1	-	-

Table 12.11. Deaths Under 1 Year and Under 28 Days, From 45 Selected Causes, by Race: 1950

(By place of occurrence. Exclusive of fetal deaths. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. Causes in the selected list (table 9.16, Alaska) for which there were no deaths are not shown)

CAUSE OF DEATH	ALL RACES			WHITE			NEGRO			MIXED AND OTHER		
	Under 1 year	Under 28 days	28 days-11 months	Under 1 year	Under 28 days	28 days-11 months	Under 1 year	Under 28 days	28 days-11 months	Under 1 year	Under 28 days	28 days-11 months
	51	20	31	3	1	2	40	16	24	8	3	5
ALL CAUSES	51	20	31	3	1	2	40	16	24	8	3	5
All other infective and parasitic diseases	4	-	4	2	-	2	2	-	2	-	-	-
Diseases of thymus gland	1	-	1	-	-	-	-	-	1	-	-	1
Influenza and pneumonia, except pneumonia of newborn	4	-	4	-	-	-	4	-	4	-	-	-
Pneumonia, except pneumonia of newborn	4	...	4	-	...	-	4	...	4	-	...	-
All other diseases of respiratory system	2	-	2	-	-	-	1	-	1	1	-	1
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn	9	-	9	-	-	-	8	-	8	1	-	1
Congenital malformations	2	-	2	-	-	-	-	-	-	2	-	2
Spina bifida and meningocele	1	-	1	-	-	-	-	-	1	-	-	1
All other congenital malformations	1	-	1	-	-	-	-	-	1	-	-	1
Certain diseases of early infancy	24	19	5	1	1	-	20	15	5	3	3	-
Birth injuries	2	2	-	-	-	-	-	-	2	2	-	-
Without mention of immaturity (.0)	2	2	-	-	-	-	-	-	2	2	-	-
Other birth injury	2	2	-	-	-	-	-	-	2	2	-	-
Without mention of immaturity (.0)	2	2	-	-	-	-	-	-	2	2	-	-
Postnatal asphyxia and atelectasis	3	3	-	1	1	-	2	2	-	-	-	-
Without mention of immaturity (.0)	2	2	-	1	1	-	1	1	-	-	-	-
With immaturity (.5)	1	1	-	-	-	-	1	1	-	-	-	-
Pneumonia of newborn	3	3	...	-	-	...	3	3	...	-	-	...
Without mention of immaturity (.0)	1	1	...	-	-	...	1	1	...	-	-	...
With immaturity (.5)	2	2	...	-	-	...	2	2	...	-	-	...
Ill-defined diseases peculiar to early infancy, including nutritional maladjustment	10	5	5	-	-	-	10	5	5	-	-	-
Without mention of immaturity (.0)	5	5	5	-	-	-	5	5	5	-	-	-
With immaturity (.5)	5	5	-	-	-	-	5	-	-	-	-	-
Immaturity with mention of any other subsidiary condition	2	2	-	-	-	-	2	2	-	-	-	-
Immaturity unqualified	4	4	-	-	-	-	3	3	-	1	1	-
Symptoms and ill-defined conditions	3	1	2	-	-	-	3	1	2	-	-	-
All other diseases	1	-	1	-	-	-	1	-	1	-	-	-
Residual	1	-	1	-	-	-	1	-	1	-	-	-
Accidents	1	-	1	-	-	-	1	-	1	-	-	-
All other accidental causes	1	-	1	-	-	-	1	-	1	-	-	-

Table 12.12. Deaths and Death Rates by Age, Race, and Sex: 1950

(By place of occurrence. Exclusive of fetal deaths. Rates per 1,000 population in each specified group, enumerated as of April 1)

RACE AND SEX		Total <sup>1</sup>	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
		NUMBER											
ALL RACES		374	51	15	9	12	13	17	15	40	73	57	71
	Male	179	24	10	4	7	5	13	7	20	41	22	26
	Female	195	27	5	5	5	8	4	8	20	32	35	45
White	Male	25	3	-	1	-	1	2	1	4	4	5	4
	Female	11	-	-	1	-	-	1	-	3	3	3	-
	Female	14	3	-	-	-	1	1	1	1	1	2	4
Negro	Male	302	40	7	4	7	9	12	13	35	68	47	59
	Female	141	20	5	2	2	2	9	6	16	37	19	23
	Female	161	20	2	2	5	7	3	7	19	31	28	36
Mixed and other	Male	47	8	8	4	5	3	3	1	1	1	5	8
	Female	27	4	5	1	5	3	3	1	1	1	-	3
	Female	20	4	3	3	-	-	-	-	-	-	5	5
		RATE											
ALL RACES		14.0	66.8	4.8	1.4	3.0	3.7	6.2	8.8	21.9	55.0	202.2	
	Male	13.7	63.8	6.3	1.2	3.5	2.8	9.6	6.7	25.8	71.9	205.4	
	Female	14.3	69.8	3.3	1.5	2.6	4.7	2.9	6.9	20.2	39.6	201.5	
White	Male	8.5	48.4	0	2.0	0	1.8	4.7	3.1	19.1	37.4	166.7	
	Female	7.1	0	0	4.1	0	0	4.4	0	30.3	57.7	166.7	
	Female	10.1	85.3	0	0	0	4.7	5.2	6.7	9.1	18.2	166.7	
Negro	Male	16.3	76.2	3.3	0.9	2.7	3.9	6.4	8.4	26.2	62.1	221.5	
	Female	15.8	79.1	4.6	0.9	1.5	1.8	10.1	8.5	26.7	83.7	222.2	
	Female	16.7	73.5	1.9	0.9	3.8	5.9	3.1	8.4	25.8	47.5	220.7	
Mixed and other	Male	9.1	45.5	11.2	2.9	5.9	4.5	6.6	2.9	3.5	5.7	130.0	
	Female	10.4	41.2	13.5	1.4	11.8	8.6	12.6	6.0	7.0	13.2	103.4	
	Female	7.8	50.6	8.7	4.4	0	0	0	0	0	0	140.8	

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

8 0 5 5 9

Table 12.13. Death Rates for 64 Selected Causes: 1940-50

(By place of occurrence. Exclusive of fetal deaths. Rates per 100,000 population enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1941-49)

Cause of death	SIXTH REVISION OF INTERNATIONAL LISTS, 1948 <sup>1</sup>		FIFTH REVISION OF INTERNATIONAL LISTS, 1958 <sup>2</sup>								
	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
ALL CAUSES-----	1,402.6	1,355.8	1,263.9	1,448.5	1,505.5	1,501.9	1,483.4	1,419.7	1,850.6	1,814.0	2,221.9
Tuberculosis, all forms-----	22.5	22.5	37.2	55.1	55.4	67.4	75.8	32.8	76.6	89.1	60.3
Tuberculosis of respiratory system-----	22.5	18.7	37.2	55.1	55.4	59.9	75.8	29.2	69.0	89.1	60.3
Tuberculosis, other forms-----	0	3.7	0	0	0	7.5	0	3.6	7.7	0	0
Syphilis and its sequelae-----	22.5	18.7	52.0	40.4	59.0	52.4	33.2	54.7	80.5	89.1	184.8
Typhoid fever-----	0	0	0	0	0	3.7	3.7	0	0	0	0
Cholera-----	0	0	0	0	0	0	0	0	0	0	0
Dysentery, all forms-----	0	3.7	0	3.7	0	3.7	3.7	0	0	11.6	0
Scarlet fever and streptococcal sore throat-----	0	3.7	0	0	0	0	0	0	0	0	0
Diphtheria-----	0	0	0	0	0	0	0	0	0	0	0
Whooping cough-----	0	0	0	7.4	0	0	0	25.5	85.1	0	0
Meningococcal infections-----	0	0	0	3.7	3.7	0	3.7	0	0	0	8.0
Flague-----	0	0	0	0	0	0	0	0	0	0	0
Acute poliomyelitis-----	0	0	0	0	3.7	0	0	0	0	0	0
Smallpox-----	0	0	0	0	0	0	0	0	0	0	0
Measles-----	0	0	0	0	0	3.7	0	0	0	0	0
Typhus and other rickettsial diseases-----	0	0	0	0	0	0	3.7	0	0	0	0
Malaria-----	0	0	0	0	0	0	0	3.6	0	0	0
All other infective and parasitic diseases-----	41.3	22.5	29.7	18.4	36.9	30.0	44.2	14.6	53.6	23.3	36.2
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----	75.0	67.4	81.8	69.9	103.3	78.7	73.8	69.3	107.3	85.3	72.3
Malignant neoplasm of buccal cavity and pharynx-----	3.8	0	7.4	0	3.7	3.7	3.7	0	25.8	0	12.1
Malignant neoplasm of digestive organs and peritoneum-----	22.5	30.0	48.3	25.7	33.2	30.0	33.2	25.5	46.0	34.9	24.1
Malignant neoplasm of respiratory system-----	0	0	0	3.7	0	0	0	10.9	0	3.9	4.0
Malignant neoplasm of breast-----	11.3	0	7.4	14.7	14.8	7.5	14.8	3.6	7.7	3.9	8.0
Malignant neoplasm of genital organs-----	11.3	15.0	7.4	22.1	40.6	33.7	11.1	18.2	23.0	27.1	20.1
Malignant neoplasm of urinary organs-----	7.5	3.7	3.7	3.7	0	0	0	0	7.7	0	0
Malignant neoplasm of other and unspecified sites-----	18.8	18.7	0	0	0	0	0	0	0	0	0
Leukemia and leukemia-----	0	0	0	0	0	0	0	0	0	0	0
Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues-----	0	0	7.4	0	11.1	3.7	11.1	10.9	19.2	15.5	4.0
Benign neoplasms and neoplasms of unspecified nature-----	3.8	3.7	0	7.4	3.7	7.5	3.7	7.3	0	15.5	0
Diabetes mellitus-----	15.0	11.2	14.9	16.4	16.5	15.0	33.2	29.2	19.2	23.3	32.1
Anemias-----	0	11.2	0	11.0	22.1	11.2	3.7	7.3	7.7	3.9	24.1
Meningitis, except meningococcal and tuberculous-----	3.8	11.2	3.7	3.7	3.7	3.7	0	7.3	0	3.9	0
Major cardiovascular-renal diseases-----	626.3	625.5	498.1	602.9	535.1	486.9	487.1	547.4	701.1	728.7	898.0
Diseases of cardiovascular system-----	592.5	599.3	461.0	558.8	501.8	434.5	413.5	456.2	605.4	612.4	747.3
Vascular lesions affecting central nervous system-----	105.0	93.6	78.1	91.9	88.6	78.7	51.7	51.1	99.6	127.9	76.3
Rheumatic fever-----	15.0	7.5	0	0	0	0	0	0	0	0	0
Diseases of heart-----	362.5	400.7	327.1	364.0	296.9	303.4	324.7	375.9	423.3	457.4	634.8
Chronic rheumatic heart disease-----	11.3	7.5	22.3	14.7	11.1	15.0	18.5	14.6	19.2	19.4	48.2
Arteriosclerotic heart disease, including coronary disease-----	225.0	209.7	0	0	0	0	0	0	0	0	0
Nonrheumatic chronic endocarditis and other myocardial degeneration-----	18.8	48.7	304.8	349.3	287.8	288.4	306.3	361.3	406.1	438.0	586.6
Other diseases of heart-----	15.0	26.2	0	0	0	0	0	0	0	0	0
Hypertension with heart disease-----	112.5	108.6	0	0	0	0	0	0	0	0	0
Hypertension without mention of heart-----	41.3	33.7	7.4	11.0	3.7	3.7	0	0	0	0	0
General arteriosclerosis-----	45.0	52.4	40.9	89.2	107.0	48.7	36.9	25.5	65.1	27.1	36.2
Other diseases of circulatory system-----	3.8	11.2	7.4	3.7	3.7	0	0	3.6	15.3	0	0
Chronic and unspecified nephritis and other renal sclerosis-----	33.8	26.2	37.2	44.1	33.2	52.4	75.8	91.2	95.8	116.3	148.7
Influenza and pneumonia, except pneumonia of newborn-----	41.3	93.6	107.8	62.5	92.3	148.8	125.5	91.2	137.9	131.8	128.6
Influenza-----	0	0	3.7	0	0	3.7	0	0	0	0	16.1
Pneumonia, except pneumonia of newborn-----	41.3	93.6	104.1	62.5	92.3	146.1	125.5	91.2	137.9	131.8	112.5
Bronchitis-----	7.5	7.5	0	3.7	7.4	3.7	7.4	7.3	7.7	15.5	8.0
Ulcer of stomach and duodenum-----	0	0	11.2	0	7.4	0	0	7.3	11.5	7.8	4.0
Appendicitis-----	0	3.7	0	7.4	7.4	7.5	7.4	10.9	7.7	3.9	4.0
Hernia and intestinal obstruction-----	18.8	18.7	3.7	14.7	29.5	15.0	22.1	3.6	3.8	7.8	0
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----	41.3	74.9	89.2	114.0	118.1	209.7	169.7	113.1	122.6	170.5	180.8
Cirrhosis of liver-----	11.3	3.7	14.9	14.7	0	7.5	3.7	7.3	7.7	11.6	16.1
Acute nephritis and nephritis with edema, including nephrosis-----	11.3	0	7.4	7.4	7.4	0	3.7	3.6	3.8	7.8	0
Hypertrophy of prostate-----	3.8	0	3.7	3.7	0	3.7	7.4	3.6	0	3.9	0
Deliveries and complications of pregnancy, childbirth, and the puerperium-----	15.0	7.5	7.4	11.0	14.8	30.0	18.5	32.8	42.1	15.5	28.1
Abortion-----	3.8	0	0	0	0	0	0	0	0	7.8	4.0
All other complications-----	11.3	7.5	7.4	11.0	14.8	30.0	18.5	32.8	42.1	7.8	24.1
Congenital malformations-----	7.5	18.7	7.4	11.0	7.4	11.2	18.5	21.9	7.7	23.3	12.1
Certain diseases of early infancy-----	90.0	134.8	111.5	121.3	84.9	138.6	132.8	83.9	105.4	120.2	128.6
Birth injuries, postnatal asphyxia, and atelectasis-----	18.8	26.2	---	---	---	---	---	---	---	---	---
Infections of newborn-----	11.3	11.2	---	---	---	---	---	---	---	---	---
Other diseases peculiar to early infancy, and immaturity unqualified-----	60.0	97.4	---	---	---	---	---	---	---	---	---
Symptoms, senility, and ill-defined conditions-----	187.5	82.4	70.6	121.3	95.9	65.7	33.2	47.4	49.8	15.5	76.3
All other diseases-----	78.8	71.2	56.8	68.9	121.8	56.2	66.4	120.4	107.3	131.8	217.0
Accidents-----	71.3	26.2	37.2	29.4	40.6	35.7	62.7	58.4	92.0	65.9	92.4
Motor-vehicle accidents-----	15.0	0	3.7	7.4	7.4	3.7	14.8	18.2	19.2	7.8	4.0
All other accidents-----	56.3	26.2	33.5	22.1	33.2	30.0	48.0	40.1	72.8	58.1	88.4
Suicide-----	0	0	3.7	11.0	14.8	3.7	14.8	7.3	19.2	7.8	8.0
Homicide-----	7.5	11.2	14.9	3.7	11.1	3.7	22.1	0	15.3	0	4.0
Injury resulting from operations of war-----	0	0	0	0	0	0	0	0	0	0	0

<sup>1</sup>For category numbers, see table 9.17 for Alaska.

<sup>2</sup>Excludes Septic sore throat (115b).

<sup>3</sup>Includes Cancer of jaw bone (45A).

<sup>4</sup>Excludes Cancer of jaw bone (45A).











Table 12.15. Deaths and Death Rates for 32 Selected Causes, by Age: 1950

(By place of occurrence. Exclusive of fetal deaths. Rates per 100,000 population in each specified group, enumerated as of April 1. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. Causes in the selected list (table 9.19, Alaska) for which there were no deaths are not shown)

CAUSE OF DEATH	Total <sup>1</sup>	Under	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85 and
		1 year	years	years	years	years	years	years	years	years	years	over
NUMBER												
ALL CAUSES-----	374	51	15	9	12	13	17	15	40	73	57	71
Tuberculosis, all forms-----001-019	6	-	-	-	1	1	3	1	-	-	-	-
Syphilis and its sequelae-----020-029	6	-	-	-	-	-	1	1	-	2	-	2
All other infective and parasitic diseases-----030-039, 041-044, 049-054, 058-074, 081-084, 086-138	11	4	-	-	-	1	2	1	1	-	-	2
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	20	1	-	-	-	-	1	2	4	3	3	6
Diabetes mellitus-----260	4	-	-	-	-	-	-	-	1	2	-	1
Meningitis, except meningococcal and tuberculous-----540	1	-	1	-	-	-	-	-	-	-	-	-
Major cardiovascular-renal diseases-----330-334, 400-469, 592-594	167	-	2	3	4	2	4	6	28	49	35	36
Diseases of cardiovascular system-----330-334, 400-469	158	-	1	3	4	1	4	5	25	48	35	32
Vascular lesions affecting central nervous system-----330-334	28	-	1	1	-	1	1	-	5	9	5	5
Rheumatic fever-----400-402	4	-	-	1	2	-	1	-	-	-	-	-
Diseases of heart-----410-443	102	-	-	1	2	-	-	4	17	32	27	19
Hypertension without mention of heart and general arteriosclerosis-----444-450	23	-	-	-	-	-	2	1	2	7	3	6
Other diseases of circulatory system-----451-468	1	-	-	-	-	-	-	-	1	-	-	0
Chronic and unspecified nephritis and other renal sclerosis-----592-594	9	-	1	-	-	1	-	1	1	1	-	4
Influenza and pneumonia, except pneumonia of newborn-----480-493	11	4	4	-	-	-	-	1	-	1	-	1
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543, 571, 572	11	9	1	-	-	-	-	-	1	-	-	-
Cirrhosis of liver-----581	3	-	-	-	-	1	-	-	-	-	-	2
Acute nephritis and nephritis with edema, including nephrosis-----590, 591	3	-	1	-	-	-	-	-	-	2	-	-
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	4	...	...	-	1	3	-	-	-	...	...	...
Congenital malformations-----750-759	2	2	-	-	-	-	-	-	-	-	-	-
Symptoms, senility, and ill-defined conditions-----780-795	50	3	2	-	-	1	-	5	11	15	15	12
Motor-vehicle accidents-----E810-E835	4	-	-	1	1	-	2	-	-	-	-	-
All other accidents-----E800-E802, E840-E862	15	1	3	3	3	2	1	-	-	1	1	-
Homicide-----E964, E980-E985	2	-	-	1	1	-	-	-	-	-	-	-
All other causes-----Residual	54	27	1	1	1	2	3	3	2	2	3	9
RATE												
ALL CAUSES-----	1,402.6	6,894.1	483.4	137.2	304.5	370.7	619.1	681.2	2,165.8	5,297.5	20,221.2	
Tuberculosis, all forms-----001-019	22.5	0	0	0	25.4	26.5	109.2	45.4	0	0	0	
Syphilis and its sequelae-----020-029	22.5	0	0	0	0	0	36.4	45.4	0	145.1	316.0	
All other infective and parasitic diseases-----030-039, 041-044, 049-054, 058-074, 081-084, 086-138	41.3	524.2	0	0	0	28.5	72.8	45.4	54.6	0	316.0	
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	75.0	131.1	0	0	0	0	36.4	90.8	218.6	217.7	1,421.8	
Diabetes mellitus-----260	15.0	0	0	0	0	0	0	0	54.6	146.1	158.0	
Meningitis, except meningococcal and tuberculous-----540	3.8	0	32.2	0	0	0	0	0	0	0	0	
Major cardiovascular-renal diseases-----330-334, 400-468, 592-594	626.3	0	64.5	45.7	101.5	57.0	145.7	272.5	1,420.8	3,555.9	11,216.4	
Diseases of cardiovascular system-----330-334, 400-468	592.5	0	32.2	45.7	101.5	28.5	145.7	227.1	1,366.1	3,485.3	10,564.5	
Vascular lesions affecting central nervous system-----330-334	105.0	0	32.2	15.2	0	28.5	36.4	0	273.2	653.1	1,579.8	
Rheumatic fever-----400-402	15.0	0	0	15.2	50.7	0	36.4	0	0	0	0	
Diseases of heart-----410-443	382.5	0	0	15.2	50.7	0	0	181.7	929.0	2,322.2	7,267.0	
Hypertension without mention of heart and general arteriosclerosis-----444-450	86.3	0	0	0	0	0	72.8	45.4	109.3	508.0	1,737.8	
Other diseases of circulatory system-----451-468	3.8	0	0	0	0	0	0	0	54.6	0	0	
Chronic and unspecified nephritis and other renal sclerosis-----592-594	33.8	0	32.2	0	0	28.5	0	45.4	54.6	72.6	631.9	
Influenza and pneumonia, except pneumonia of newborn-----480-493	41.3	524.2	128.9	0	0	0	0	45.4	0	72.6	158.0	
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543, 571, 572	41.3	1,179.6	32.2	0	0	0	0	0	54.6	0	0	
Cirrhosis of liver-----581	11.3	0	0	0	0	28.5	0	0	0	0	316.0	
Acute nephritis and nephritis with edema, including nephrosis-----590, 591	11.3	0	32.2	0	0	0	0	0	0	145.1	0	
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	15.0	...	...	0	25.4	85.5	0	0	0	...	...	
Congenital malformations-----750-759	7.5	262.1	0	0	0	0	0	0	0	0	0	
Symptoms, senility, and ill-defined conditions-----780-795	187.5	393.2	64.5	0	0	28.5	0	0	273.2	798.3	4,265.4	
Motor-vehicle accidents-----E810-E835	15.0	0	0	15.2	25.4	0	72.8	0	0	0	0	
All other accidents-----E800-E802, E840-E862	56.3	131.1	96.7	45.7	76.1	57.0	36.4	0	0	72.6	158.0	
Homicide-----E964, E980-E985	7.5	0	0	15.2	25.4	0	0	0	0	0	0	
All other causes-----Residual	202.5	3,539.7	32.2	15.2	25.4	57.0	109.2	136.2	109.3	145.1	1,895.7	

<sup>1</sup>Figures for age not stated included in the "Total," but not distributed among the specified age groups.

Table 12.16. Deaths From 32 Selected Causes, by Month: 1950

(By place of occurrence. Exclusive of fetal deaths. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. Causes in the selected list (table 9.19, Alaska) for which there were no deaths are not shown)

CAUSE OF DEATH	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
ALL CAUSES-----	374	43	52	57	59	43	21	26	34	21	27	27	24
Tuberculosis, all forms-----001-019	6	1	1	-	-	-	2	-	-	-	-	1	1
Syphilis and its sequelae-----020-029	6	1	2	-	-	1	-	-	-	1	-	-	1
All other infective and parasitic diseases-----030-039,041-044,049-054,058-074,081-084,086-138	11	2	1	1	1	2	3	-	-	-	-	-	1
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	20	2	1	1	1	4	1	1	2	1	1	1	4
Diabetes mellitus-----260	4	-	-	-	-	2	-	-	-	-	-	2	-
Meningitis, except meningococcal and tuberculous-----540	1	-	-	1	-	-	-	-	-	-	-	-	-
Major cardiovascular-renal diseases-----330-334,400-468,592-594	167	19	13	14	23	19	8	15	15	8	13	15	5
Diseases of cardiovascular system-----330-334,400-468	158	19	12	13	22	19	7	14	14	8	12	13	5
Vascular lesions affecting central nervous system-----330-334	28	4	2	1	6	-	2	2	5	1	3	2	-
Rheumatic fever-----400-402	4	1	-	-	-	1	1	-	1	-	-	-	-
Diseases of heart-----410-443	102	15	8	10	13	14	2	11	7	6	7	8	3
Hypertension without mention of heart and general arteriosclerosis-----444-450	23	1	1	2	3	4	2	1	1	1	2	3	2
Other diseases of circulatory system-----451-468	1	-	1	-	-	-	-	-	-	-	-	-	-
Chronic and unspecified nephritis and other renal sclerosis-----592-594	9	-	1	1	1	-	1	1	1	-	1	2	-
Influenza and pneumonia, except pneumonia of newborn-----480-493	11	1	-	2	1	1	-	1	2	-	1	1	1
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543,571,572	11	3	-	2	-	1	-	-	1	2	1	1	-
Cirrhosis of liver-----581	3	-	-	-	-	-	1	-	1	-	1	-	-
Acute nephritis and nephritis with edema, including nephrosis-----590,591	3	-	-	-	-	1	-	-	-	1	1	-	-
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	4	-	-	1	-	-	1	1	-	-	1	-	-
Congenital malformations-----750-759	2	1	-	-	-	-	-	-	-	-	-	-	1
Symptoms, senility, and ill-defined conditions-----780-795	50	6	7	9	4	5	1	2	6	1	1	3	5
Motor-vehicle accidents-----E810-E835	4	1	1	1	1	-	-	-	-	-	-	-	-
All other accidents-----E800-E802,E840-E962	15	-	1	2	1	3	-	2	1	2	2	-	1
Homicide-----E964,E980-E985	2	-	-	-	-	-	1	1	-	-	-	-	4
All other causes-----Residual	54	6	5	3	7	4	3	3	6	5	5	3	4

Table 12.17. Deaths From 32 Selected Causes: Each Municipality and Specified Urban Places, 1950

(By place of occurrence. Exclusive of fetal deaths. Includes data for urban places with populations of 2,500 or more in 1950. Numbers after causes of death are category numbers of the Sixth Revision of the International Lists, 1948. Causes in the selected list (table 9.19, Alaska) for which there were no deaths are not shown)

CAUSE OF DEATH	Virgin Islands	MUNICIPALITY OF ST. CROIX		MUNICIPALITY OF ST. THOMAS AND ST. JOHN			
		Total	Christiansted	Balance of municipality	Total	Charlotte Amalie	Balance of municipality
ALL CAUSES-----	374	206	120	86	168	163	5
Tuberculosis, all forms-----001-019	6	-	-	-	6	6	-
Syphilis and its sequelae-----020-029	6	1	1	-	5	5	-
All other infective and parasitic diseases-----030-039,041-044,049-054,058-074,081-084,086-138	11	4	3	1	7	7	-
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	20	13	5	8	7	6	1
Diabetes mellitus-----260	4	2	2	-	2	2	-
Meningitis, except meningococcal and tuberculous-----540	1	-	-	-	1	1	-
Major cardiovascular-renal diseases-----330-334,400-468,592-594	167	90	67	23	77	74	3
Diseases of cardiovascular system-----330-334,400-468	158	88	65	23	70	69	1
Vascular lesions affecting central nervous system-----330-334	28	23	19	4	5	5	-
Rheumatic fever-----400-402	4	3	2	1	1	1	-
Diseases of heart-----410-443	102	50	38	12	52	51	1
Hypertension without mention of heart and general arteriosclerosis-----444-450	23	12	6	6	11	11	-
Other diseases of circulatory system-----451-468	1	-	-	-	1	1	-
Chronic and unspecified nephritis and other renal sclerosis-----592-594	9	2	2	-	7	5	2
Influenza and pneumonia, except pneumonia of newborn-----480-493	11	5	1	2	6	6	-
Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543,571,572	11	1	1	-	10	10	-
Cirrhosis of liver-----581	3	-	-	-	3	3	-
Acute nephritis and nephritis with edema, including nephrosis-----590,591	3	-	-	-	3	3	-
Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689	4	1	1	-	3	3	-
Congenital malformations-----750-759	2	1	-	1	1	1	-
Symptoms, senility, and ill-defined conditions-----780-795	50	19	19	50	50	50	-
Motor-vehicle accidents-----E810-E835	4	1	1	-	3	2	1
All other accidents-----E800-E802,E840-E962	15	9	2	7	6	6	-
Homicide-----E964,E980-E985	2	2	2	-	-	-	-
All other causes-----Residual	54	28	16	12	26	26	-