## FORECASTS OF THE POPULATION OF THE UNITED STATES 1945-1975

## UNITED STATES DEPARTMENT OF COMMERCE

W. AVERELL HARRIMAN, Secretary

BUREAU OF THE CENSUS
J. C. CAPT. Director

# FORECASTS OF THE POPULATION OF THE <br> UNITED STATES 

1945-1975

By
P. K. WHELPTON

Associate Director of the Scripps Foundation
for Research in Population Problems
Miami University
assisted by
HOPE TISDALE ELDRIDGE and JACOB S. SIEGEL of the Bureau of the Census

Prepared under the supervision of
Dr. LEON E. TRUESDELL
Chief, Population Division
Bureau of the Census

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1947

# BUREAU OF THE CENSUS 

J. C. CAPT, Director<br>Philip M. Hauser, Deputy Director<br>A. Ross Eckler, Assistant Director<br>Howard C. Grieves, Assistant Ditector<br>Morris H. Hansen, Statistical Assistant to the Director<br>Ralph E. Galloway, Executive Assistant to the Director

POPULATION DIVISION

Leon E. Truesdell, Chief
Howard G. Brunsman, Assistant Chief

General Population Statistics-Henry S. Shryock, Jr. Population Estimates-Hope T. Eldridge<br>Population Analyst-JACOB S. Siegel

SCRIPPS FOUNDATION FOR RESEARCH
IN POPULATION PROBLEMS
MIAMI UNIVERSITY

WARREN S. THOMPSON, Director
P. K. WHELPTON, Associate Director

## LETTER OF TRANSMITTAL

Department of Commerce, Bureau of the Census, Washington, D. C., June 9, 1947.

SIR:
I transmit herewith a report on the future population of the United States. Forecasts of the population, by color, nativity, age, and sex, are presented, by 5 -year time intervals, up to 1975 , according to various combinations of assumptions as to the future trends of fertility and mortality. The present report is a revision of an earlier report, Estimates of Future Population of the United States, 1940-2000, which was prepared for the National Resources Planning Board by Warren S. Thompson and P. K. Whelpton of the Scripps Foundation for Research in Population Problems and published in August, 1943. The increasing interest in matters relating to population growth in the future led to an unexpected demand for this earlier report, which soon exhausted the supply. On May•18, 1945, the Census Committee on Demography recommended that the Bureau publish revised estimates of future population, utilizing not only the results of the 1940 census as did the previous report, but also current estimates of population embodying the changes of the war years.

Attention is directed to the fact that these revised forecasts have been prepared during a period of unusual fluctuations in the birth rate and in other social phenomena affecting population growth. Although accurate judgment concerning the implications of these fluctuations for long range population forecasts will not be possible for a number of years, the importance of information concerning prospective population growth is so great that it has seemed to justify the publication of estimates which may later require modification.

The author of this report is Mr. P. K. Whelpton, Associate Director of the Scripps Foundation for Population Research, Miami University, who was assisted by Dr. Hope T. Eldridge and Jacob S. Siegel, of the Bureau of the Census. The preparation of the report and of the statistical materials included therein was under the general direction of Dr. Leon E. Truesdell, Chief of the Population Division; Howard G. Brunsman, Assistant Chief; and Dr. Henry S. Shryock, Jr., Chief, Population Statistics Section.

This report is issued under the authority given to the Bureau of the Census to prepare and publish monographs on Census subjects. In the preparation of the report, extensive use was made of the statistical data available in the Bureau of the Census and of the experience of the Bureau's professional staff. However, the opinions and conclusions presented in the text of the report are the opinions and conclusions of the author and should not necessarily be taken to represent the views of the staff of the Bureau of the Census.

> Respectfully,

J. C. CAPt, Director of the Census.

[^0]
## CONTENTS

Chapter I-IntroductionChapter I.-Introduction1Chapter II.-Assumptions and methods ..... 3
A. Mortality trends, 1945-2000 ..... 3
B. Fertility trends, 1945-2000 ..... 16
C. Completeness of enumeration and registration ..... 34
D. Immigration and future population growth ..... 35
E. Annual forecasts, 1946-49 ..... 37
Chapter III.-Indicated population changes ..... 39
A. Growth of total population ..... 39
B. Color and nativity ..... 42
C. The sex ratio ..... 43
D Age composition ..... 47
Chapter IV.-Implications of the expected trends in population growth and composition ..... 55
A. The effect of past changes in the number of births ..... 55
B. Implications of diminishing population growth ..... 59
C. Implications of the aging of the population ..... 67
D. A pronatal program? ..... 71

## CONTENTS

## TABLES AND FIGURES

[Almost all the computations made in preparing this report have been based on numbers carried to more significant figures than shown in the report, and each number was rounded individually when digits were dropped. For this reason, values for derived measures shown in the tables may differ slightly from values computed from the basic data published in the same or another table. Similarly, published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the figures shown by color, nativity, age, and sex.]

## TEXT TABLES

## MORTALITY TRENDS

Table

1. Death rates and average future lifetime expected at selected ages, by sex, for white persons in the original death registration States, 1900-1902 to 1929-31, and for white and nonwhite persons in the United States, 1929-31 to 1940-44
2. Death rates of white persons at selected ages, by sex, for the United States and for the States with lowest and second lowest rates: 1940
3. Average future lifetime expected for white persons at selected ages, by sex, with death rates of the United States, 1939-40, and of the lowest States, 1940
4. Death rates of native white males at selected ages, for the United States and for specified States with low rates in 1940: Specified periods, 1900 to 1941
5. Average future lifetime expected for white males at selected ages with death rates of the United States, 1939-40, and of foreign countries in recent prewar years
6. Death rates of white persons at selected ages, by sex, for the United States, 1940, and for countries with lowest and second lowest rates in recent prewar years
7. Death rates of males at selected ages for New Zealand and Norway: Specified periods, 1867 to 1940
8. Average future lifetime expected for white persons at selected ages, by sex, with death rates of the United States, 1939-40, and of the lowest country in recent prewar year.
9. Death rates by important causes of death in the registration States, 1900-1902 to 1939-41, in Kansas and Wisconsin, 1939-41, and in New Zealand, 1909-11 and 1937-39
10. Death rates of native white males in the United States, 1929-30 to 1940-44, and projected rates, 1960,1975 , and 2000
11. Average future lifetime expected for native white males at selected ages, for the United States, 1929-30 to 1940-44, and projected values, 1960, 1975 , and 2000
12. Comparison of the current estimate and the forecast of deaths, by color and sex, for the United States, April 1, 1940, to April 1, 1945, and survivors on April 1, 1945
13. Comparison of currently estimated death rates and projected death rates according to medium assumptions, by color, age, and sex, for the United States: 1940-45

## FERTILITY TRENDS

14. Children under 5 years of age per 1,000 women 20 to 44 years of age, by race and nativity of woman, for the United States, by divisions: 1800 to 1940
15. Birth rates by age of mother, births per 100 women living to age 50 , and gross reproduction rates, for native white women in the United States, 1920 to 1945 , and for nonwhite women, 1930 to 1945

FERTILITY TRENDS-Continued

Table
16. Distribution of 1,000 native white and nonwhite women in selected age groups by marital status, and of ever married women by number of children ever born, for the United States: 1940 and 1910
17. Birth rates by order of birth, for native white women in the United States, 1920 to 1945, and for nonwhite women, 1930 to 1945
18. Birth rates by age of mother and gross reproduction rates, for native white women in the United States, by divisions: 1918-21, 1929-31, and 1939-41
19. Gross reproduction rates in selected countries: Specified periods, 1871 to 1939
20. Proportion of native white and nonwhite persons who had ever married, by age and sex, for the United States: 1890 to 1940
21. Marriage rates, 1919 to 1944, and actual and "normal" first birth rates of native white women one year later, for the United States
22. Percent distribution of women 21 to 34 years of age by opinion on ideal number of children in a family: 1941 and 1945.
23. Births per 1,000 native white women living to age 50, by order of birth, for the United States: Average rates, $1935-44$, and projected rates, 1960, 1975, and 2000.
24. Birth rates by age of mother and gross reproduction rates, for native white women in the United States: Average rates, 1935-44, and projected rates, 1960,1975 , and 2000.

## IMMIGRATION AND FUTURE POPULATION GROWTH

25. Assumed distribution by age and sex of specified net numbers of white immigrants in a 5 -year period
26. Additions to the population of the United States which would result from selected amounts of net immigration of white persons in each 5-year period after July 1, 1945, according to various assumptions of fertility and mortality: 1950 to 1975

## INDICATED POPULATION CHANGES

27. Total population of the United States, 1900 to 1945 , forecasts according to assumptions of medium fertility and mortality and no immigration, 1946 to 2000 , and average annual increase, 19001905 to 1995-2000
28. Forecasts of the total population of the United States, according to various assumptions of fertility, mortality, and immigration, 1950 to 1975 , and average annual increase, 1945-50 to 1970-75
29. Population by color and nativity, for the United States, 1900 to 1945, and forecasts, 1950 to 1975.
30. Sex ratios by color and nativity, for the United States, 1900 to 1945 , and forecasts, 1950 to 1975

36
Page

## CONTENTS

## TABLES AND FIGURES - Continued

31. Sex ratios by age, for the total, native white, and nonwhite population of the United States, 1910 1930 , and 1945 , and forecasts according to as sumptions of medium fertility and mortality and no immigration, 1960 and 1975
32. Median age by color and nativity, for the United States, 1900 to 1945 , and forecasts, 1950 to 1975
33. Population by broad age groups, for the United States, 1900 to 1945, and forecasts, 1950 to 1975

## IMPLICATIONS OF THE EXPECTED POPULATION TRENDS

34. Estimated number of native-born persons of specified ages in the United States, September 1, 1940 to 1946, and forecasts, 1947 to 1964
35. Estimated number of families in the United States, July 1, 1940 to 1945, and forecasts, 1946 to 1960

## FIGURES

## Figure

1. Death rates of white males in the United States, in selected States, and in foreign countries, 1900 to 1944; projected rates for native white males in the United States, 1945 to 2000
2. Births per 1,000 native white women living to age 50 , by order of birth, for the United States: Average rates, $1920-24$ to $1940-44$; projected rates, 1945-49 to 1995-99
3. Birth rates by age of mother, for native white women in the United States, 1920 to 1945 ; projected rates, 1950 to 2000
4. Children under 5 years of age per 1,000 white

Page Figure
women 20 to 44 years of age, for the United States, 1800 to 1945 ; projected ratios for native white women, 1950 to 1975.
12 5. Total population of the United States, 1900 to 1945 ; forecasts, 1950 to 2000 .
6. Median age of the population of the United States, 1800 to 1945 ; forecasts, 1950 to 1975.
31 7. Population by broad age groups, for the United States, 1870 to 1945 ; forecasts, 1950 to 1975
8. Estimated population, by color, nativity, age, and sex, for the United States, 1945; forecasts, 1960 and 1975.

## DETAILED TABLES

## Table

I. Forecasts of the population, by color, age, and sex, according to assumptions of medium fertility and mortality and no immigration after July 1, 1945, for the United States: July 1 of each year, 1946 to 1950
II. Forecasts of the population, by color, nativity, age, and sex, according to assumptions of medium fertility and mortality and no immigration after July 1, 1945, for the United States: 1950 to 1975 .
III. Forecasts of the population, by color, nativity, age, and sex, according to assumptions of medium fertility and mortality and net immigration of 500,000 persons during each 5 -year period after July 1, 1945, for the United States: 1950 to 1975
IV. Forecasts of the population, by color, nativity, age, and sex, according to assumptions of low fertility, high mortality, and no immigration

Page

Table
after July 1, 1945, for the United States: 1950 to 1975 .
v. Forecasts of the population, by color, nativity, age, and sex, according to assumptions of high fertility ( $14,000,000$ births during $1945-50$ ), low mortality, and no immigration after July 1, 1945, for the United States: 1950 to 1975. $\qquad$
VI. Forecasts of the population, by color, nativity, age, and sex, according to assumptions of high fertility ( $15,000,000$ births during 1945-50), low mortality, and no immigration after July 1, 1945, for the United States: 1950 to 1975.
VII. Forecasts of the population, by color, nativity, age, and sex, according to assumptions of high fertility ( $15,000,000$ births during $1945-50$ ), low mortality, and net immigration of $1,000,000$ persons during each 5 -year period after July 1, 1945, for the United States: 1950 to 1975.

## APPENDIX TABLES

Table
A. Projected 5-year survival rates, by color, nativity, age, and sex, used in computation of forecasts of population, for the United States: 1945-50 to 1970-75
B. Projected 5-year birth rates, by color, nativity, and age of mother, used in computation of forecasts of population, for the United States: 1950-55 to 1970-75
C. Additions by nativity, age, and sex, made in fore-

Page $\mid$ Table
casts of the white population of the United States to allow for net immigration of 500,000 white persons during each 5 -year period after July 1,1945 , according to assumptions of medium fertility and mortality: 1950 to 1975
D. Forecasts of the population, by color, nativity, age, and sex, according to assumptions of medium fertility and mortality and no immigration after July 1, 1945, for the United States: 1980 to 2000

# FORECASTS OF THE POPULATION OF THE UNITED STATES, 1945-1975 

## CHAPTER I

## INTRODUCTION

## Revision of earlier estimates

The present report on the future population of the United States is a revision of an earlier report, Estimates of Future Population of the United States, 1940-2000, prepared for the National Resources Planning Board by Warren S. Thompson and P. K. Whelpton of the Scripps Foundation for Research in Population Problems, Miami University, and published by the Board in August, $1943 .{ }^{1}$

A revision of the previous report was deemed advisable regardless of whether the experience of 1940-45 indicated serious flaws in the long-time assumptions made earlier regarding fertility and mortality trends. Events peculiar to the war years have caused the population to change in size and composition in a somewhat different way than had been anticipated when the preceding estimates were prepared (in the latter months of 1942). For example, those projections indicated that if war losses were small the population on April 1, 1945, would be between $137,318,000$ (assuming low fertility, high mortality, no immigration) and 137,738,000 (assuming high fertility, low mortality, no immigration). However, in spite of the excess mortality of 200,000 up to April 1, 1945, resulting from the war, the population on the latter date was approximately $139,254,000$ (including persons in the armed forces overseas), or about $1,516,000$ above the highest forecast. Part of the larger increase was due to immigration and the return of citizens from abroad, ${ }^{2}$ part was due to unusually favorable civilian mortality during the war years, but the major part was due to the so-called "baby boom." The projections indicated that children under 5 years of age on April 1, 1945, would number between $11,679,000$ and 11,992 ,000 , but the wartime babies swelled the group to

[^1]$13,058,000$, or $1,066,000$ above the highest forecast.
The differences between the forecasts and the currently estimated population for April 1, 1945, illustrated above, indicated strongly that certain modifications were desirable in the figures for 1950 and later years which appeared in the previous report. Even though such modifications are not large on a percentage basis, their absence introduces undesirable irregularities in comparisons between the 1945 population and the forecasts for 1950. Obviously most users of population forecasts wish to have them begin with a recent figure which is correct rather than one which is too low by even one percent, and to have the material for future years on a comparable basis.

If the events of 1940-45 had indicated that there were serious discrepancies in the assumptions regarding future fertility and mortality trends, a revision of the forecasts would have been even more urgent. For reasons discussed in sections A and B of chapter II of this report, however, only relatively unimportant changes in these assumptions seemed advisable.

## Form of the forecasts

Six series of projections are presented in detail in this report, each based on certain assumptions with respect to the course of fertility, mortality, and immigration in years to come. As in the forecasts previously published, three alternative assumptions - designated as high, medium, and low - have been made as to the future trend of fertility, and also that of mortality. The effect of a net immigration of 500,000 foreign-born white persons every 5 years after July 1, 1945, is shown in combination with the medium fertility and mortality assumptions, and the effect of a net immigration of $1,000,000$ persons is shown in combination with the high fertility and low mortality assumptions.

In each series of forecasts the figures are presented separately for each of three color and nativity groups, namely, native white, foreign-born white, and nonwhite. This division differs in one respect
from that of the previous set of forecasts, in which Negroes and other nonwhites were considered separately. In conformity with current Census practice, persons of Mexican birth or ancestry who are not definitely of Indian or other nonwhite race are classified as white. The estimates are given by sex for 5 -year age groups at 5 -year time intervals, but in this report the projection of population trends stops at 1975 instead of continuing to $2000 .{ }^{3}$ As in the preceding forecasts, two figures are given for children in the 0-4 age group, one being the estimated total number under 5 years of age and the other a smaller number which reflects the incomplete reporting of such children to the census enumerators. Similarly, there are two estimates of total population at each quinquennial interval, one the higher or "true" figure which includes the children who would not be reported in a census, and the other the lower or "enumerated" figure which corresponds to the expected census count.

In addition to the six series of forecasts at quinquennial time intervals, projections of population based on the assumptions of medium fertility, medium mortality, and no immigration are shown for each year, 1946 to 1949. They are presented in the same detail as the other forecasts, except that the native white and foreign-born white population are not shown separately.

## Uses of the forecasts

The primary function of the forecasts is to show what the size, and the color, nativity, age, and sex composition of the population would be at specified future times if birth rates, death rates, and immigration were to follow certain specified trends. The fertility and mortality assumptions have been chosen with regard to what is known about past trends of vital rates in various countries and the factors influencing them, and are believed to be reasonable. Nevertheless, it is certain that the actual course of fertility and mortality rates will differ from these assumed trends. In consequence, the forecasts cannot show the exact size of the future population, nor just what its color, nativity, age, or sex structure will be.

A second function of the forecasts is to serve as

[^2]a bench mark with which the demographic effects of the postwar period and of subsequent changes in fertility, mortality, and immigration can be compared in later years.

Thirdly, by demonstrating the numerical effect of different birth rates, death rates, and amounts of immigration, the forecasts provide a basis for judging how great a departure from the assumed trends would be required to give a different population total or a different composition at some future time. While there is no immediate prospect that the United States will adopt a national program designed to maintain or increase the birth rate and hence to affect the future growth of population, it should be remembered that such programs are already in effect in Canada and several European countries.

Finally, these national forecasts provide a frame of reference within which corresponding estimates may be prepared for smaller units such as regions, States, or cities. Although population changes in these smaller areas will depend primarily on migration within the United States, the size of the migration streams will be affected by national population trends. Similarly, the forecasts may be used in the preparation of estimates for special subgroups or classes in the population, such as heads of families, married persons, or the labor force. ${ }^{4}$

The usefulness of projections of future population for any of the above-mentioned purposes depends in large measure on the reasonableness of the underlying assumptions. In order to facilitate the intelligent use of these forecasts, a detailed statement of the assumptions on which they are based is given in chapter II of this report. Mortality trends are discussed in section A, fertility assumptions in section B, and completeness of enumeration and registration in section C. The method used to show the effect of immigration on the growth and composition of the population is explained in section $D$. In section $E$ is a discussion of the method used in making the forecasts of population for each year, 1946 to 1949. Subsequent chapters contain a brief analysis of some of the prospective changes in the size and composition of the population, and their social and economic implications.

[^3]
## CHAPTER II

## ASSUMPTIONS AND METHODS

## A. MORTALITY TRENDS, 1945-2000

Past mortality trends in the United States
The future course of mortality rates in the United States will be dependent in large measure on changes in the general standard of living, on the level at which public health services are maintained, and on advances in medical science and nutrition. Nevertheless, in evaluating the prospects for the further reduction of death rates it is helpful to begin by considering the past trends. Unfortunately for this
purpose, the record of mortality within the United States is far from complete. An official record of deaths has been kept in a few States for over a hundred years, but the national death registration area was not organized until 1880 , and the annual collection of mortality statistics did not begin until 1900. In that year the area included only 10 States, the District of Columbia, and 153 cities with a population of 8,000 or more in other States; not until 1933 did it become Nation-wide. For this reason, trends of mortality cannot be determined over

Table 1.-DEATH RATES AND AVERAGE FUTURE LIFETIME EXPECTED AT SELECTED AGES, BY SEX, FOR WHITE PERSONS IN THE ORIGINAL DEATH REGISTRATION STATES, 1900-1902 TO 1929-31, AND FOR WHITE AND NONWHITE PERSONS IN THE UNITED STATES, 1929-31 TO 1940-44
[No adjustment has been made for incomplete registration of deaths]

| age and sex | original death regrstantion stateg, ${ }_{\text {l }}^{\text {White }}$ |  |  |  | united states |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | White |  |  | Negro |  | Nonwhite |
|  | 1900-1902 ${ }^{2}$ | 1909-11 ${ }^{2}$ | 1919-20 ${ }^{3}$ | 1929-31 ${ }^{2}$ | 1929-31 ${ }^{2}$ | 1939-414 | 1940-4 ${ }^{5}$ | 1929-31 ${ }^{2}$ | 1939-414 | 1940-445 |
| DEATH RATE FOR AGE GROUP6 Male |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 1 year | 146.9 | 135.3 | 99.4 | 68.0 | 65.6 | 50.2 | 45.6 | 93.4 | 88.2 | 78.8 |
| $\frac{1}{1}$ to ${ }^{\text {to }} 4$ years.... | 17.5 4.4 | $\begin{array}{r}13.9 \\ 3.5 \\ \hline\end{array}$ | 10.2 | 2.2 2 | 5.5 2.0 | 1.2 | 2.4 1.1 |  | 4.7 | 4.0 |
| 10 to 14 years.. | 2.7 | 2.4 | 2.4 | 1.6 | 1.6 | 1.1 | 1.0 | 2.7 | 1.8 | 1.7 |
| 20 to 24 years... | 6.4 | 5.2 | 5.0 | 3.2 | 3.5 | 2.3 | 2.1 | 10.1 | 6.4 | 5.9 |
| 30 to 34 years... 40 to 44 years... | 8.4 | ${ }_{17} 7.3$ | 6.8 9.0 | ${ }_{8.1}{ }^{2}$ | ${ }_{7}^{4.5}$ | 3.1 | 3.0 | 13.9 | 9.5 | 8.6 |
| 50 to 54 years... | 17.4 | 17.5 | 15.2 | 16.3 | 14.8 | 13.8 | 13.6 | 30.4 | 28.5 | 14.4 27.8 |
| 60 to 64 years... | 33.5 | 36.0 | 31.4 | 34.2 | 31.1 | 30.0 | 30.0 | 45.3 | 42.8 | 39.4 |
| 70 to 74 years..... | 71.0 | 74.8 | 71.5 | 73.3 | 69.5 | 66.4 | 65.3 | 81.3 |  | 70.3 |
| Female |  |  |  |  |  |  |  |  |  |  |
| Under 1 year. | 119.5 | 110.2 | 77.9 | 53.1 | 51.6 | 39.1 | 35.4 | 76.1 | 69.6 | 63.7 |
| ${ }^{1} 5$ to 49 years-. | 16.2 4.1 | 12.8 3.2 | 9.1 2.9 | 4.5 | 4.8 1.6 | 2.4 0.9 | $\stackrel{2.0}{2.8}$ | 7.2 2.2 | 4.1 | 3.6 1.2 1. |
| 10 to 14 years... | 2.6 | 2.1 | 2.1 | 1.2 | 1.2 | 0.8 | 0.7 | $\stackrel{2}{2} 5$ | 1.6 | 1.4 |
| 30 to 34 years.. | 8.0 | 6.5 | 5.4 6.9 | 3.0 | 4.15 | ${ }_{2.4}^{1.6}$ | ${ }_{2.2}^{1.5}$ | 12.4 | 5.8 | 5.2 |
| 40 to 44 years. | 9.8 | 8.7 | 7.9 | 6.1 | 6.0 | 4.2 | 4.0 | 18.3 | 13.4 | 12.7 |
| 50 to 54 years. | 15.3 | 14.4 | 13.6 | 12.2 | 11.1 | 9.0 | 8.5 | 30.7 | 24.7 | 23.7 35 |
| 60 to 64 years.... 70 to 74 | 29.3 | 30.6 | 28.4 | 27.5 | 24.6 | 20.6 | 20.0 | 45.5 | 37.7 | 35.8 |
| 75 years and over.... | 64.9 136.4 | 68.1 139.0 | 135.5 | 135.5 | 132.2 | 126.2 | 124.5 | 116.0 | 102.0 | 91.6 |
| AVERAGE YEARS OF LIFE REMAINING TO PERSONS ALIVE AT EXACT AGE |  |  |  |  |  |  |  |  |  |  |
| Male |  |  |  |  |  |  |  |  |  |  |
| Birth... | 48.2 | 50.2 | 54.0 | 58.6 | 59.1 |  |  |  | 52.3 |  |
| 20 years. | 42.2 27.7 | 42.7 27.4 | 44.3 28.8 | 45.5 28.5 | 46.0 29.2 | 47.8 30.0 | 48.0 30.2 | 36.0 23.4 | 39.5 25.1 | 40.6 25.8 |
| 60 years.... | 14.4 | 14.0 | 14.6 | 14.2 | 14.7 | 15.0 | 15.1 | 13.2 | 14.4 |  |
| Female |  |  |  |  |  |  |  |  |  |  |
| Birth. | 51.1 | 53.6 | 56.4 | 62.1 | 62.7 | 67.3 | 68.2 | 49.5 | 55.6 | 57.3 |
| 20 years 40 y ears. | 43.8 29.2 | 44.9 29.3 | 45.2 30.0 | 48.0 30.8 | ${ }_{31.5}^{48.5}$ | 51.4 | 51.9 33.6 | 37.2 24.3 | 42.0 | 43.4 |
| 60 years. | 15.2 | 14.9 | 15.3 | 15.5 | 16.0 | 17.0 | 17.2 | 14.2 | 16.1 | 16.6 |

[^4][^5]any considerable period for the country as a whole, but only for those States and cities which were admitted earliest to the death registration area. Moreover, in this limited area part of the change in rates from year to year has occurred because the proportion of deaths recorded, which in some States barely exceeded the minimum requirement of 90 percent when they were admitted to the area, increased appreciably after they had been in the area a few years. Even now, comparisons of the death rates for certain groups of the population and certain parts of the registration area are affected significantly by differences in the completeness of death registration.

During the 46 years for which annual information is available there has been a striking decline in the death rates of children and young adults within the death registration area (see table 1). For white males in the registration States of 1900, the 1929-31 death rates were less than half those of 1900-1902 at nearly every age up to 35 and less than one-third as large at ages 1-4. Further substantial declines occurred among white males in the entire United States during the 1930's and early 1940's, the 1940 44 death rates being from 30 to 55 percent below those for 1929-31 at most ages under 35. Improvement in the middle years of life has been much less marked. At ages 50-54, for example, the decline from 1900-1902 to 1929-31 was less than 7 percent, and from 1929-31 to 1940-44, about 8 percent. Death rates of white males 60 and older have remained relatively unchanged, being somewhat higher in 1929-31 than in 1900-1902 but somewhat lower in 1940-44 than in 1929-31. At each age the death rates for white females have followed a similar trend, but the declines have been somewhat larger at most ages
under 25 , and substantially larger at most ages from 40 to 75 .

A summary of the influence of the reduction in death rates on the length of life of an average individual is given in the lower section of table 1. With the mortality rates of 1940-44 the average white male would live 63.5 years, approximately 15 years longer than with the 1900-1902 rates. Those reaching age 20 had 48.0 years of life remaining according to the 1940-44 tables, a gain of about 6 years. Future longevity at age 40 increased by approximately $21 / 2$ years to 30.2. At ages above 50 the average future lifetime of white males lengthened little, if any, as would be expected from the slight change in the corresponding death rates. For white females, however, the gains were somewhat larger at most ages.

Less is known about mortality trends among Negroes than among white persons, for most of the States with large Negro populations did not gain admittance to the death registration area until after 1915, and underreporting of Negro deaths was a serious problem for several years. From 1929-31 to 1939-41, the infant death rate of Negroes fell much less rapidly than that of white persons; rates at ages 1-4 to $30-34$ declined in about the same proportion for the two groups; but at ages over 40 Negro rates decreased to a greater degree than white rates (see table 1). Between 1939-41 and 1940-44 relatively little improvement occurred in Negro mortality at middle and later life, but among children and young adults in particular there was more progress than in the white population. ${ }^{1}$ The average length of life of Negro males at 1929-31 death rates would be 47.6

[^6]Table 2.-DEATH RATES OF WHITE PERSONS AT SELECTED AGES, BY SEX, FOR THE UNITED STATESAND FOR THE STATES WITH LOWEST AND SECOND LOWEST RATES: 1940

years and at 1940-44 death rates would be 54.0 years; those of Negro females would be 49.5 and 57.3, respectively. The gains of 6.4 years for Negro males and of 7.8 years for Negro females in this period are well above those of 4.4 years for white males and 5.5 for white females. Increases in expectation of life at ages 20, 40, and 60 also were greater for Negroes than for white persons.

Significantly greater progress in reducing mortality and lengthening life has been made in some States than in others. For white males under 1 the 1940 death rate was lowest in Oregon (36.9) and second lowest in Minnesota (37.3), being in each case more than 25 percent below the average for the United States (50.6). ${ }^{2}$ (See table 2.) At ages 1-4 Connecticut and Minnesota were the two low States, their rates of 1.6 and 1.9 being, respectively, more than 40 and 30 percent below that of 2.8 for the Nation. The situation was similar in each age group from $5-9$ to 60-64, the lowest State (Connecticut, Rhode Island, North Dakota, or South Dakota) having a rate 25 to 60 percent below the United States figure and the second lowest State having a rate close to the lowest State (see table 2). At ages 70-74 the differential narrowed, the lowest and next-to-lowest State rates (North Dakota and South Dakota) being less than 20 percent below the national rate. For white females the general pattern was much the same, but the differences between the rates for the Nation and the two low States were slightly smaller at most ages. National death rates for nonwhite persons of each age in 1940 were well above those of the lowest State, and the differences for both males and females were larger than those for white persons.

If the death rates at each age in the entire Nation could be reduced to the lowest figure reached by any State in 1940 , the average length of life would be increased significantly. For white males it would be 68.4 years, an increase of 6.4 years over the actual national figure for 1939-40 (see table 3), and for white females it would be 71.8 years, an increase of 5.3 years. Gains at older ages would be smaller in numbers of years, though relatively larger. White males aged 20 would have 4.6 years added to their lives, those aged 40 would gain 3.7 years, and even the 60 -year-olds would live 2.1 years longer. The lives of white females of the corresponding ages would be lengthened by $3.7,2.9$, and 1.9 years.

[^7]Table 3.-Average Future Lifetime Expected for White Persons at Selected Ages, by Sex, With Death Rates of the United States, 1939-40, and of the Lowest States, 1940

${ }^{1}$ From life tables computed by the Scripps Foundation for Research in Population Problems. Deaths registered in the United States have been increased by 3.1 percent to allow for incomplete recording. The values shown for 1939-40 differ very slightly from similar values for 1940 .
${ }^{2}$ From life tables computed by the Scripps Foundation, based on lowest death rates for States in table 2 and on corresponding rates for ages not shown in that table.

During recent decades the States with low death rates at any given time have shown fairly well what the death rates of other States and the Nation would be a few years later. In general, national rates have followed those of the leading States most closely at the younger ages, and lagged most at the older ages. For native white males at most ages under 40 the lag was less than 10 years, the low death rates for Minnesota and Kansas during 1919-21 being approached closely or surpassed by the Nation before the end of the 1920 decade, and the low rates for these States during 1929-31 being approached closely or surpassed by the Nation during the 1930's (see table 4). At present the lag at ages under 25 may be somewhat shorter, for the 1940-44 rates of the United States at ages 1 to 24 are about as low as those of Kansas and Minnesota in 1939-41. At ages 40-44 the leading States have been about 20 years ahead. The rate for the United States during 192931 was between the Indiana and Minnesota rates during 1910-11, and the national rate during 1939-41 was between the rates for Kansas and Indiana during 1919-21. At older ages the lag has exceeded 40 years. Even in 1940-44 the death rates for the United States at several ages above 50 were not as low as those of Indiana during 1900-1902.

If the past relationship between the current mortality rates of the Nation and the earlier rates of the States shown in table 4 continues in the future, the national death rate for ages under 40 will be reduced before 1950 to the 1940 level of the lowest States, and for ages $40-44$ before 1960, but for the older ages the record of the best States in 1940 will not be equalled before the end of the century. If the underreporting of deaths in the United States has exceeded the estimates during recent years, this

Table 4.-DEATH RATES OF NATIVE WHITE MALES AT SELECTED AGES, FOR THE UNITED STATES AND FOR SPECIFIED STATES WITH LOW RATES IN 1940: SPECIFIED PERIODS, 1900 TO 1941
[Average annual deaths in age group per 1,000 persons in age group on census date. Death rates for the United States have been adjusted for incomplete registration on the assumption that 96.5 percent of the deaths of native white males were registered in 1929-31 and 97 percent in 1939-41. No adjustment has been made for incomplete registration of deaths in the individual States shown. The population under 5 has been increased to allow for incomplete reporting in the census

| AGE | UNITED STATES |  |  | indiana ${ }^{1}$ |  |  |  |  | KANSAS ${ }^{2}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1929-31 |  | 1939-41 | 1900-1902 | 1909-11 | 1919-21 | 1929-31 | 1939-41 | 1919-21 | 1929-31 | 1939-41 |
| Under 1 year. |  | 63.5 |  |  |  |  | 59.3 | 46.3 | 69.9 | 49.8 | 40.0 |
| 1 to 4 years. |  | 5.6 2.1 | 2.9 1.2 | 13.4 3.5 | 10.8 2.9 | 8.4 3.2 | 5.5 2.2 | 2.6 1.4 | 7.1 | 3.9 1.7 | 2.4 1.1 |
| 10 to 14 years.. |  | 1.7 | 1.1 | 2.7 | 2.3 | 2.2 | 1.8 | 1.2 | 2.2 | 1.6 | 1.1 |
| 20 to 24 years.. |  | 3.5 | 2.4 | 6.3 | 5.2 | 4.3 | 3.7 | 2.5 | 3.6 | 2.9 | 2,1 |
| 30 to 34 years. |  | 4.5 | 3.2 | 6.2 | 5.9 | 5.2 | 3.9 | 3.2 | 4.8 | 3.3 | 2.5 |
| 40 to 44 years.. |  | 7.6 14.3 | $\begin{array}{r}6.2 \\ 13.6 \\ \hline\end{array}$ | 7.9 | 7.8 | 6.7 10.5 | 6.3 | 11.6 | 5.8 9.4 | 5.1 10.2 | 4.5 |
| 60 to 64 years... |  | 30.9 | 29.9 | 26.7 | 26.1 | 23.9 | 26.6 | 27.1 | 20.6 | 23.3 | 19.3 23.4 |
| 70 to 74 years...... |  | 71.4 | 67.0 | 67.4 | 63.7 | 61.8 | 67.8 | 63.4 | 57.6 | 58.7 | 56.6 |
| 75 years and over |  |  | 139.2 | 141.8 | 135.9 | 126.2 | 137.1 | 141.5 | 116.7 | 126.8 | 127.8 |
| AGE | MASSACHUSETTS ${ }^{1}$ |  |  |  |  | minnesota ${ }^{2}$ |  |  |  | OfEGON ${ }^{2}$ |  |
|  | 1900-1902 | 1909-11 | 1919-21 | 1929-31 | 1939-41 | 1910-11 | 1919-21 | 1929-31 | 1939-41 | 1929-31 | 1939-41 |
| Under 1 year.. | $\begin{array}{r} 166.8 \\ 18.8 \\ 4.7 \\ 2.8 \\ 6.7 \\ 8.5 \\ 10.9 \\ 16.4 \\ 32.1 \\ 69.1 \\ 145.2 \end{array}$ | $\begin{array}{r} 145.8 \\ 14.0 \\ 3.4 \\ 2.3 \\ 5.1 \\ 7.7 \\ 9.9 \\ 17.3 \\ 35.7 \\ 73.7 \\ 147.7 \end{array}$ | $\begin{array}{r} 101.1 \\ 9.2 \\ 3.3 \\ 2.2 \\ 3.8 \\ 5.9 \\ 8.0 \\ 13.9 \\ 30.4 \\ 73.2 \\ 138.9 \end{array}$ |  | $\begin{array}{r} 45.1 \\ 2.2 \\ 1.0 \\ 0.9 \\ 1.7 \\ 2.7 \\ 6.4 \\ 15.4 \\ 33.7 \\ 70.0 \\ 142.3 \end{array}$ |  |  |  | 37.72.01.11.02.02.64.710.424.259.4121.4 | 46.43.61.91.73.54.36.712.426.368.1131.1 | 35.62.01.31.33.03.15.512.927.463.7131.9 |
| $\frac{1}{5}$ to ${ }^{4}$ y ${ }^{\text {y }}$ years.... |  |  |  | $\begin{array}{r} 62.7 \\ 5.1 \\ 2.1 \\ 1.5 \\ 2.9 \\ 4.1 \\ 7.1 \\ 15.1 \\ 31.3 \\ 71.2 \\ 137.8 \end{array}$ |  | 84.78.13.22.24.45.77.412.524.051.4115.9 | $\begin{array}{r} 69.8 \\ 5.5 \\ 2.5 \\ 2.1 \\ 3.9 \\ 5.4 \\ 6.8 \\ 11.9 \\ 26.7 \\ 60.6 \\ 120.1 \end{array}$ | $\begin{array}{r} 52.3 \\ 3.5 \\ 1.8 \\ 1.3 \\ 3.0 \\ 3.6 \\ 6.1 \\ 12.1 \\ 27.1 \\ 63.3 \\ 120.4 \end{array}$ |  |  |  |
| 16 to 14 years.. |  |  |  |  |  |  |  |  |  |  |  |
| 20 to 24 years. |  |  |  |  |  |  |  |  |  |  |  |
| 30 to 34 years. |  |  |  |  |  |  |  |  |  |  |  |
| 40 to 44 years. |  |  |  |  |  |  |  |  |  |  |  |
| 50 to 54 years... |  |  |  |  |  |  |  |  |  |  |  |
| 60 to 64 years. |  |  |  |  |  |  |  |  |  |  |  |
| 70 to 74 years. |  |  |  |  |  |  |  |  |  |  |  |
| 75 years and over.. |  |  |  |  |  |  |  |  |  |  |  |

${ }^{1}$ Indiana and Massachusetts were in the death registration area in 1900, when the annual reporting of deaths was begun.
${ }^{2}$ Kansas was admitted to the death registration area in 1914, Minnesota
in 1910, and Oregon in 1918
${ }^{3}$ Current death registration area: Excludes Texas in 1929-31 and South Dakota in 1929.
schedule of reduction of mortality will be more difficult to achieve, for it is expected that death registration will become virtually complete in a decade or two. Moreover, to the extent that the low rates of certain States result from special advantages enjoyed by these States, they may be beyond the reach of the Nation as a whole. This does not mean, however, that the increase in average duration of life shown in table 3 is unobtainable. On the contrary, it is to be expected that death rates at the younger
ages will continue to decline after 1950 and 1960 , and that these reductions of mortality will offset or more than offset any failure to attain the record of the most favored States for the older age groups. In short, to judge from the experience of the States with the lowest mortality, it should be possible to lower the death rates of the white population of the United States so that by the year 2000 the average male will live more than 68.4 years and the average female more than 71.8 years.

Table 5.-AVERAGE FUTURE LIFETIME EXPECTED FOR WHITEMMALES AT SELECTED*AGES WITH DEATH RATES OF THE UNITED STATES, 1939-40, AND OF FOREIGN COUNTRIES IN RECENT PREWAR YEARS
[The years included for each country are shown in parentheses at the right of the name of the country in the column for the youngest age at which it is listed]

| Birth | Exact age 20 | Exact age 40 | Exact age 60 |
| :---: | :---: | :---: | :---: |
| Netherlands (1931-40) ................... 65.7 | Netherlands.................................. 51.0 | Netherlands................................ 32.9 | Norway....................................... 17.0 |
| New Zealand (1934-38) ...............65. 65 | Denmark .-................................ 50.3 | Norway....................................... 32.4 | Sweden - .-......................................... 16.4 |
| Sweden (1936-40) ........................ 64.3 | New Zealand ............................... 49.9 | Sweden.................................... 32.4 | Netherlands.............-................ 16.3 |
| Australia (1932-34) .-_-_- |  | Denmark - $\quad 32.2$ | New Zealand.............................. 16.1 |
| Denmark (1936-40) ............... 63.5 United States (1939-40) | Australia...................................... 48.8 | New Zealand.............................. 32.0 | Denmark - ................................ 16.0 |
| United States (1939-40).............. $6 \mathbf{6 2 . 0}$ Norway (1921-31) | Canada......................................... 48.7 | Canada_..................................... 31.6 Australia 31.1 | Canada ..................................... 16.0 |
| Nwitzerland (1933-37) ..---................. 60.7 | Norway............................................... 47.7 | Germany....................................... 30.8 | Australia |
| England and Wales (1937) -............ 60.2 | United States | Italy .-.................................................. 30.4 | Italy ................................................... 15.2 |
| Germany (1932-34) ....................... 59.9 | England and Wales....................... 47.1 | Ireland._-................................. 30.3 |  |
| Canada (1930-32) ...7. - .-.......... 59.0 | Ireland _................................ 46.8 | United States ..................... 29.6 | South Africa._..........-.................. 15.0 |
| South Africa (1935-37) .-................ 59.0 | Italy (1930-32)........................... 46.8 | England and Wales.................... 29.6 | United States ......................... 14.7 |
| Ireland (1935-37) ....................... 58.2 | Switzerland................................ 46.5 | Belgium (1928-32) .................. 29.5 | Latvia (1934-36) ......................... 14.7 |

[^8]244-245. Figures for the United States are taken from table 3.

Mortality trends in other countries
Before World War II several nations had surpassed the United States in lengthening the lives of their citizens. In five countries the prewar death rates would give newborn white males an average lifetime in excess of the 62.0 year figure for the United States, the longest being 65.7 years for the Netherlands (see table 5). For expected future lifetime at age 20 the United States ranked no better than 9 th ; at older ages it was in a progressively less favorable position. Similar comparisons for white females are somewhat more favorable to the United States, although this Nation was by no means in the leading position.

Although the expectation of life at birth was greatest in the Netherlands, the specific death rates at
some ages were higher there than in certain of the other nations. The Netherlands exceeded all other countries in preventing deaths of males aged 35-54 and females aged $20-44$, and ranked second in preventing male deaths at ages under 1 and 10-34 and female deaths at age under 1 (see table 6). At other ages the first position was held by New Zealand, Denmark, or Norway, and the second by these countries or by Sweden or Australia. At no age level did the United States rank first or second. Several States, however, compare favorably with the leading foreign countries. At most ages under 60 the best State had attained a death rate as low as or lower than the best foreign country (compare tables 2 and 6). At the older ages the best States again fell behind the foreign record.

Table 6.-DEATH Rates of WHite persons at selected ages, by sex, For the united states, 1940, and FOR COUNTRIES WITH LOWEST AND SECOND LOWEST RATES IN RECENT PREWAR YEARS
[Average annual deaths in age group per 1,000 persons in age group at midpoint of period: Deaths registered in the United States have been increased by 3.1 percent to allow for incomplete registration. No allowance is believed needed for the other countries. The years included for each country are given in parentheses at the right of the name of the country in the first column from the left in which it is listed. The last date shown for a particular country applies in every suc-

| AGE | male |  |  | female |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Country |  | United States rate, 1940 | Country |  | United <br> States rate, 1940 |
|  | Lowest rate | Second lowest rate |  | Lowest rate | Second lowest rate |  |
| Under 1 year........ | New Zealand (1935-36) ...36, 0 | Netherlands.............-_41.0 | 50.6 | New Zealand....................28, 4 | Netherlands................ 31,7 | 39.1 |
| 1 to 4 years.....- | New Zealand (1939-40)... 2.4 |  | 2.8 | New Zealand.................... 2.0 | Denmark ................ 2.2 | 2.4 |
| 5 to 9 years. | Denmark (1939-40) | New Zealand | 1.2 | Denmark.........................- 0.6 | New Zealand ............- 0.8 | ${ }_{0}^{0.9}$ |
| 20 to 24 years....... | Denmark_............................. 1.8 | Netherlands..............-----1.8 | 2.4 | Netherlands............................. 1.3 | Denmark...................... 1.4 | 1.7 |
| 30 to 34 years..... | Denmark ...-................ 2.0 | Netherlands..................... 2.2 | 3.2 | Netherlands........................... 2.2 | New Zealand | 2.5 |
| 40 to 44 years.... | Netherlands (1938-39).... 3.4 |  | 6.3 | Netherlands.......................- 3.4 | Denmark.................... 3.6 | 4.4 |
| 50 to 54 years. | Netherlands ...........-8,0 |  | 14.3 | New Zealand .................. 7.1 | Norway .-. | 9.3 |
| 60 to 64 years.-.... | Norway (1938-39).........19.4 | Netherlands...............20.3 | 31.6 | Norway............................15.7 | Australia (1938-39).... 18.2 | 21.5 |
| 70 to 74 years..... | Norway .......................48.8 | Sweden (1937-38) .........56.2 | 70.1 | Norway...........................42,2 | Australia....................46.8 | 55.8 |

Source: The rates for foreign countries are from League of Nations, Statistical Year-Book of the League of Nations for 1940-41 and 1941-42, Geneva, 1941 and 1943. The infant mortality rates given in the year-book
have been converted to central death rates. The rates for the United States are from table 2 .

In the past the course of mortality in the younger age groups in the leading foreign countries has foreshadowed to some extent the trend of mortality in the United States. During the 1930's our infant death rates were similar to those of New Zealand 20 years earlier (compare tables 1 and 7). At ages 1 to 24 the United States followed the leading countries more closely, our rates during the 1930's resembling those of New Zealand some 5 to 15 years before. Above age 25 the lag increases, until at most ages above 60 it is necessary to go back to 1880 or earlier to find death rates in Norway as high as those of the United States during recent years.

There can be no assurance that the trend of mor-
tality in the United States will continue to resemble that of foreign countries as it has in the past. Nevertheless, the lowest foreign rates, like the lowest State rates, should represent attainable levels; hence they should provide a basis for estimating the possible reduction of our mortality. If our death rate at each age were to be reduced to the lowest level reached by any foreign country, the average white male in the United States would live 68.6 years, and the average white female 70.9 years. These would represent increases of 6.6 and 4.4 years over the prewar level (see table 8). These figures differ only fractionally from those obtained above by using the mortality of the leading States.

Table 7.-DEATH RATES OF MALES AT SELECTED AGES FOR NEW ZEALAND AND NORWAY: SPECIFIED PERIODS, 1867 TO 1940

| AGE | new zealand ${ }^{1}$ |  |  |  |  | NORWAY ${ }^{2}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1900-1901 | 1911 | 1920-22 | 1935-36 | 1939-40 | 1867-70 | 1881-85 | 1901-05 | 1911-15 | 1921-22 | 1930-32 | 1938-39 |
| Under 1 year | 86.4 | 68.2 | 54.5 | 36.0 | 38.7 | 126.9 | 115.8 | 92.9 | 75.8 | 61.9 | 54.3 | 45.1 |
| 1 to 4 years..-.......... | 6.5 | 5.3 | 5.0 | 2.7 | 2.4 | 22.8 | 23.2 | 10.9 | 8.0 | 5.5 | 3.8 | 3.1 |
| 5 to 9 years | 2.4 | 2.1 | 2.1 | 1.4 | 1.0 | 6.5 3.9 | 7.9 4.4 | 3.6 3.2 | 3.3 2.6 | 2.3 2.0 | 1.5 | 1.4 |
| 20 to 24 years.-............... | 4.1 | 2.8 | 3.1 | 2.4 | 2.2 | 9.1 | 9.2 | 9.7 | 8.5 | 7.2 | 4.9 | 3.0 |
| 30 to 34 years... | 4.8 | 4.6 | 4.2 | 2.3 | 2.4 | 8.4 | 8.0 | 7.8 | 7.0 | 6.1 | 4.9 | 3.8 |
| 40 to 44 years ............... | 7.1 | 7.1 | 6.4 | 4.6 | 4.2 | 10.5 | 9.2 | 8.6 | 7.9 | 6.3 | 5.8 | 5.2 |
| 50 to 54 years ............. | 15.3 | 13.7 | 11.5 | 9.6 | 10.4 | 16.8 | 14.2 | 12.7 | 12.1 | 10.4 | 9.2 | 9.0 |
| 60 to 64 years................ | 26.8 | 26.2 | 25.1 | 23.0 | 24.0 | 28.9 | 25.7 | 23.1 | 22.9 | 21.9 | 20.7 | 19.4 |
| 70 to 74 years............ | 75.6 | 63.1 | 59.6 | 55.8 | 57.8 | 67.8 | 58.0 | 51.5 | 52.4 | 50.9 | 48.8 | 48.8 |

${ }^{2}$ From Annuaire Statistique de la Norvege, for 1931 and 1938, Oslo, 1931
1From Statistical Year-Boole of the League of Nations, 1941-42, Geneva,
1943; Report on the Vital Statistics of the Dominion of New Zealand, 1942; 1943; Report on the Vital Statisties of the Dominion of New Zealand, 1942; and New Zealand Official Year-Book, 1913, 1925, and 1942.

Table 8.-Average Future Lifetime Expected for White Persons at Selected Ages, by Sex, with Death Rates of the United States, 1939-40, and of the Lowest Country in Recent Prewar Years

| exict age | male |  |  | female |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United States | $\begin{aligned} & \text { Lowest } \\ & \text { country } \end{aligned}$ | $\begin{aligned} & \text { Differ- } \\ & \text { ence } \end{aligned}$ | United States 1 | $\begin{aligned} & \text { Lowest } \\ & \text { country }{ }^{2} \end{aligned}$ | Differ- ence |
| Birth. | 62.0 | 68.6 |  | 66.5 | 70.9 |  |
| 20 40 years, | 47.3 29 | 52.3 | 5.0 | 50.8 32 | 53.8 | 3.0 |
| 60 years.. | 14.7 | 17.3 | ${ }_{2.6}^{4 .}$ |  |  | 2.0 |

${ }^{1}$ Taken from table 3.
= From life tables computed by the Scripps Foundation, based on lowest death rates for countries in table 6 and on corresponding rates for ages not shown in that table.

To summarize, it may be difficult if not actually impossible for the United States to reduce the death rates in the older age groups to the lowest points currently maintained in the leading States and foreign countries. In contrast, however, it should be quite feasible during the next 50 years to reduce the mortality among children and young adults to or below the present State and national minimum levels. Since improvement of mortality at the younger ages has much more effect on the average length of life than improvement at the older ages, the better outlook for attaining or surpassing the present record low points of mortality among young people should more than compensate for the poorer prospect for comparable improvement of mortality at the older ages. It is entirely conceivable, therefore, that by the year 2000 the national averages for the length of life of white males and females will exceed 69 and 71 years, respectively, a greater average longevity than now prevails in any considerable body of people.
and 1938, and Statistical Year-Boole of the League of Nations, 1941-42.

## Mortality trends by cause of death

An examination of trends in mortality by specific causes gives further evidence concerning the opportunity for extending the average length of life. Through a combination of scientific progress, general economic betterment, and expanded public health programs, certain diseases which were important causes of death 40 years ago have been almost eliminated, while the mortality from others has been greatly reduced. Typhoid fever and diphtheria each killed more than 28 persons annually out of every 100,000 of the population in 1900-1902, and measles, scarlet fever, and whooping cough more than 10 , but now each takes a toll of not more than 1 or $2 .{ }^{3}$ (See table 9.) The bronchitis death rate has been reduced by a larger absolute amount in the same period, from over 40 to less than 3 , and the pneumonia and influenza rate still more, from nearly 190 to less than 65. The largest reduction of all is in tuberculosis mortality, the rate for which has been cut from over 165 to less than 35 . A numerically smaller but proportionately larger reduction has been achieved in diarrhea and enteritis, from over 122 to fewer than 10 deaths per 100,000 persons per annum. The effect on average longevity of this latter saving of life is particularly marked since the greater part of the mortality from these intestinal diseases occurs among young children.

[^9]Table 9.-DEATH RATES BY IMPORTANT CAUSES OF DEATH IN THE REGISTRATION STATES, 1900-1902 TO 1939-41, IN KANSAS AND WISCONSIN, 1939-41, AND IN NEW ZEALAND, 1909-11 AND 1937-39

| cause | hegistration states |  |  |  |  | Kansas and Wisconsin,1939-41 | new zealand |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All classes |  | White |  |  |  |  |  |
|  | 1900-1902 | 1909-11 | 1919-21 | 1929-31 | 1939-41 |  | 1909-11 | 1937-392 |
| All causes. | 1,636.2 | 1,427.7 | 1,203.8 | 1,088.9 | 1.027 .6 | 996.7 | 944.1 | 932.7 |
| Typhoid and paratyphoid fever | 28.4 | 20.9 | 7.3 | 3.5 | 0.9 | 0.3 | 6.2 | 0.5 |
| Measles. | 10.0 | 10.8 | 5.9 | 1.6 2.9 | 0.6 0.9 | 0.1 | 2.3 | 0.1 3.8 |
| Scarlet fever. | 11.7 | 10.4 | 4.6 | 2.3 | 0.5 | 0.7 | 1.6 | 0.2 |
| Whooping cough | 11.1 | 10.9 | 8.2 | 4.3 | 2.0 | 1.3 | 6.9 | 0.8 |
| Cerebrospinal (meningococcus) meningitis |  | 0.5 | 1.6 | 3.2 | 0.5 | 0.3 | 13.8 | 0.4 |
| Diphtheria............... | 34.5 | 19.8 | 16.6 | 5.4 | 1.1 | 0.3 | 8.3 | 1.7 |
| Pneumonia (all forms) and influenza.... | 186.9 | 149.8 134.1 | 168.1 85.8 | 109.7 51.6 | 63.6 33.7 | 56.3 21.6 | 54.2 356.2 | 60.6 32.8 |
| Tuberculosis (other forms) .-...... | 20.1 | 20.9 | 12.6 | 6.5 | 2.9 | 1.8 1.8 | 20.0 | 3.6 |
| Syphilis (all forms). | ${ }^{4} 12.5$ | 413.9 | ${ }^{14.2}$ | 11.6 | 9.9 | 7.9 | 1.8 | 3.8 |
| Cancer and other malignant tumors. | 65.6 | 74.8 | 86.5 | 101.9 | 124.1 | 129.4 | 75.9 | 117.9 |
| Diabetes mellitus..- | 11.4 | 14.8 | 16.7 | 20.2 | 26.8 | 27.6 | 11.9 | 19.8 |
| Intracranial lesions of vascular origin ${ }^{5}$. | 105.9 | 94.4 | 91.1 | 87.1 | 86.8 | 97.0 | 34.4 | 55.8 |
| Diseases of the heart ${ }^{6}$......................... | 140.9 | 156.1 | 154.3 | 212.4 | 291.1 | 284.6 | 128.2 | 271.6 |
| Bronchitis............. | 41.7 | 22.8 | 11.6 | 4.2 | 2.9 | 2.8 | 26.7 | 12.7 |
| Diarrhea, enteritis, and ulceration of the intestinesi. | 122.1 | 101.3 | 51.7 | 21.3 | 9.4 | 5.5 | 42.1 | 4.7 |
| Appendicitis....i.inal obstructions ${ }^{3}$ Hernia and intest............. | 8.9 12.1 | 10.7 12.0 | 13.0 10.3 | 15.3 | 8.5 | 10.6 | 9.0 | 7.5 |
| Cirrhosis of the liver............ | 12.9 | 13.5 | 10.3 7.5 | 10.1 | 8.7 | 8.8 7.9 | 5.5 4.3 | 5.5 1.9 |
| Distases of pregnancy, childbirth, and the puerperium Congenital malformations and diseases peculiar to first year of life | 89.713.2 | 93.8 | 84.9 | 85.0 | 75.1 | 70.6 | 25.1 | 37.3 |
|  |  | 15.3 | 16.3 | 11.2 | 5.5 | 4.9 | 12.3 | 6.8 |
|  | 72.847.910.31.2 | 89.725.215.84.8101.781.2 | $\begin{array}{r} 81.6 \\ 12.3 \\ 12.0 \\ 5.3 \\ 1010.8 \\ 59.0 \end{array}$ | $\begin{array}{r} 58.6 \\ 8.5 \\ 16.6 \\ 5.5 \\ 26.9 \\ 52.3 \end{array}$ | 47.4 | 44.6 | ${ }^{2} 64.0$ | 45.0 |
| Senility.. |  |  |  |  | 6.5 | 8.1 | 62.9 | 23.9 |
| Suicide. |  |  |  |  | 14.8 | 14.5 | 11.5 | 11.7 |
| Homicide- Motor vehicle accidents |  |  |  |  | 3.1 | 1.4 |  | 0.5 |
| Motor vehicle accidents. Other accidents.......... | 76.2 |  |  |  | 27.2 46.0 | 25.6 45.4 | 61.0 | $\left\{\begin{array}{l}15.1 \\ 23.6\end{array}\right.$ |

${ }^{1}$ From New Zealand Official Year-Book, 1913, p. 177.
2From Report on the Vital Statistios of the Dominion of New Zealand, 1939, p. 26.
${ }^{3}$ Based on deaths from phthisis.
*Excludes aneurysm of the aorta.
${ }^{5}$ Includes all embolism and thrombosis, except puerperal, in registration States, 1900-1920. 1909-11 rate for New Zealand is based on deaths due to apoplexy and cerebral hemorrhage, and 1937-39 rate on cerebral hemorrhage, embolism, and thrombosis.
${ }^{6}$ Excludes disease of coronary arteries in registration States, 1900-1920.

1909-11 rate for New Zealand is based on deaths due to organic heart disease, arteriosclerosis, embolism, and thrombosis.
${ }^{7}$ Includes ulcer of duodenum in registration States, 1909-20; excludes ulceration of the intestines in New Zealand.
8Excludes adhesions of intestines in registration States, 1900-1920, and hernia in New Zealand, 1909-11.
${ }^{9}$ Based on deaths due to congenital debility and premature birth
10 Excludes collisions of automobiles with trains and street cars, and motorcycle accidents, 1909-20.

In contrast to the large measure of success achieved in the control of mortality due to epidemic and infectious diseases is the relatively small reduction in the rates of death from certain other causes. Intracranial lesions of vascular origin ${ }^{4}$ killed 105.9 persons of each 100,000 in 1900-1902 and 86.8 in 1939 41 ; a slightly smaller decline occurred for nephritis (from 89.7 to 75.1 ) ; the rate for accidental deaths was almost unchanged ( 76.2 and 73.2 ) ; while cancer and diseases of the heart kill now at about twice the former rate and each is responsible for many more deaths than any other cause. Part of the greater incidence of cancer and of certain of the so-called degenerative diseases is apparent rather than real, because diagnosis has become more accurate ${ }^{5}$ and because there has been an increase in the proportion of

[^10]the population in the older age groups where these causes of death are most prevalent. But aside from such factors the increase in the rates for these causes has been sufficiently large to justify the attention given to them in the national health program.

Whether or not the over-all death rate will decline substantially during the next 50 years will depend in part on the continuation of the progress made in controlling such diseases as tuberculosis, influenza, and pneumonia. Here the outlook is favorable, for the more widespread utilization of present knowledge regarding the causes and control of these diseases would lower the number of deaths to a point substantially below the present levels. There is also a reasonable expectation that more effective measures for the control of these diseases will be developed, and that they will be applied to larger sections of the population, as public health programs are intensified and extended. The experience of Kansas
and Wisconsin-two States with relatively low death rates and in the registration area for many yearsis encouraging in this connection. The 1939-41 death rate from tuberculosis of the respiratory system was 21.6 in these two States combined as compared with 33.7 for the United States, a difference of over onethird. For pneumonia and influenza the difference was smaller, the rates being 56.3 and 63.6 , respectively. In contrast, the experience of New Zealand is discouraging, for in spite of a significantly longer expectation of life than in the United States the death rate for these causes is about as large there as here.

Although the degenerative diseases have not as yet been brought under control, there is continued hope for the future. Because certain damaging infectious diseases (e.g., scarlet fever, diphtheria, and typhoid fever) have almost been eliminated, a substantial reduction should occur in the organic impairments and after-effects so common with such diseases. As these sequelae are reduced in frequency there should be a reduction in the number of organic breakdowns or a postponement of these breakdowns until later in life. Similar gains should result from the more recent campaigns to control venereal disease. For this reason and because of improved techniques for early diagnosis, there should be some reduction in the mortality from the degenerative diseases even without the discovery of better methods for their prevention or treatment. In view of the great amount of research being done on the causes and control of cancer, it is quite possible that the number of deaths from this disease will be much lower before many years pass.

The longer life expectancy in New Zealand than in the United States is due in part to lower death rates for the degenerative diseases, the rate for diseases of the heart being lower by several points. Striking differences are found also with nephritis, for which the recent New Zealand rate of 37.3 is about half that of the United States (75.1), and with cirrhosis of the liver, for which the New Zealand rate of 1.9 is less than one-fourth that of the United States (8.9). The New Zealand rate for intracranial lesions of vascular origin, as shown in table 9, is also well below that for the United States, but part of the difference is due to differences in classification of deaths by cause. The lower rate for diarrhea and enteritis in New Zealand (4.7) than in the United States (9.4) is more important than its size indicates, because a large majority of these deaths occur during infancy and thus have a maximum effect on life expectancy.

## Hypothetical mortality trends in the

United States, 1945-2000
A study of the material presented above leads inevitably to the conclusion that death rates at most ages in the United States will be lower in future years than they have been recently. Opinion may vary widely, however, as to exactly how large the reductions will be, how rapidly they will occur, and how they will differ for age groups, white and nonwhite persons, and males and females. In consequence, it has seemed desirable in the preparation of these forecasts of future population to make three alternative sets of mortality assumptions, designated as "high mortality," "low mortality," and "medium mortality." The first represents the smallest declines in the age-specific death rates that seem probable, the second the largest declines that are considered reasonable, and the third a position approximately midway between the extremes.

With each of these assumptions it is possible to extrapolate past trends according to some formula and arrive at hypothetical death rates for any future year. An alternative procedure is to consider past trends and the likelihood of future changes, form an opinion as to the percentage reduction in death rates to be expected by a given future year, and obtain rates for intervening years by interpolation. The former method may seem to have the advantage of being less influenced by personal bias, nevertheless the personal element would remain in the choice between two or more formulas fitting past trends equally well but giving different results for the future. More important, the extrapolation of past trends according to such formulas might lead to future rates which would seem incompatible with present knowledge regarding causes of death and means of controlling them. After some experimentation with both methods, the second alternative was chosen as the more desirable for the purpose at hand. Three sets of estimates were made regarding the probable relative decrease of the age-specific death rates of native white males between 1939-40 and 2000. ${ }^{6}$ (See table 10.) Applying these percentages to the 1939-40 rates gave the high, medium, and low death rates for 2000. Corresponding rates for native white females, foreign-born white males and females, and nonwhite males and females were then obtained by narrowing the differential between the rates for each of these

[^11]Table 10.-DEATH RATES OF NATIVE WHITE MALES IN THE UNITED STATES, 1929-30 TO 1940-44, AND PROJECTED RATES, 1960, 1975, AND 2000

| AGE | 1929-30 ${ }^{1}$ | 1939-40 ${ }^{1}$ | 1940-44 ${ }^{2}$ | HIGH ASSUMPTIONS |  |  |  | medium assumptions |  |  |  | Low Assumptions |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1960 | 1975 | 2000 | Percent decrease, 1939-40 to $2000^{3}$ | 1960 | 1975 | 2000 | Percent decrease, $1939-40$ $\text { to } 2000^{3}$ | 1960 | 1975 | 2000 | Percent decrease, 1939-40 to $2000^{1}$ |
| Under 1 year. | 68.0 | 49.4 | 46.7 | 30.4 | 27.7 | 27.2 | 45 | 29.9 | 24.7 | 22.2 | 55 | 29.7 | 23.0 | 19.7 | 60 |
| 1 to 4 years. | 5.6 | 2.9 | 2.4 | 1.7 | 1.7 | 1.6 | 43 | 1.6 | 1.4 | 1.3 | 55 | 1.6 | 1.2 | 1.0 | 65 |
| 5 to 9 years. | 2.2 | 1.2 | 1.1 | 0.9 | 0.8 | 0.7 | 40 | 0.7 | 0.6 | 0.6 | 55 | 0.7 | 0.5 | 0.4 | 70 |
| 10 to 14 years. | 1.7 | 1.2 | 1.1 | 0.9 | 0.8 | 0.7 | 40 | 0.8 | 0.6 | 0.5 | 60 | 0.7 | 0.5 | 0.3 | 75 |
| 15 to 19 years. | 2.7 | 1.8 | 1.5 | 1.2 | 1.1 | 1.1 | 40 | 1.0 | 0.8 | 0.7 | 60 | 0.9 | 0.7 | 0.4 | 75 |
| 20 to 24 years.. | 3.6 | 2.4 | 2.1 | 1.6 | 1.4 | 1.4 | 40 | 1.4 | 1.1 | 1.0 | 60 | 1.2 | 0.8 | 0.6 | 75 |
| 25 to 29 years. | 4.0 | 2.6 | 2.4 | 1.8 | 1.6 | 1.6 | 40 | 1.6 | 1.3 | 1.2 | 55 | 1.4 | 1.0 | 0.8 | 70 |
| 30 to 34 years. | 4.6 | 3.2 | 3.0 | 2.3 | 2.1 | 2.1 | 35 | 2.0 | 1.6 | 1.4 | 55 | 1.8 | 1.2 | 1.0 | 70 |
| 35 to 39 years. | 5.6 | 4.3 | 4.1 | 3.1 | 2.9 | 2.8 | 35 | 2.8 | 2.4 | 2.2 | 50 | 2.6 | 1.9 | 1.5 | 65 |
| 40 to 44 years. | 7.6 | 6.2 | 6.0 | 4.8 | 4.5 | 4.4 | 30 | 4.0 | 3.4 | 3.1 | 50 | 3.5 | 2.5 | 2.2 | 65 |
| 45 to 49 years. | 10.2 | 9.2 | 8.9 | 7.9 | 7.4 | 7.3 | 20 | 6.2 | 5.3 | 5.0 | 45 | 5.3 | 4.0 | 3.7 | 60 |
| 50 to 54 years. | 14.4 | 13.6 | 13.4 | 12.5 | 12.4 | 12.3 | 10 | 10.4 | 9.2 | 8.9 | 35 | 8.2 | 6.0 | 5.4 | 60 |
| 55 to 59 years. | 21.1 | 20.6 | 20.1 | 19.8 | 19.6 | 19.6 | 5 | 17.6 | 15.9 | 15.4 | 25 | 14.6 | 10.5 | 9.3 | 55 |
| 60 to 64 years. | 30.8 | 30.0 | 29.9 | 29.9 | 29.9 | 29.9 |  | 27.7 | 26.2 | 25.5 | 15 | 22.5 | 17.4 | 15.0 | 50 |
| 65 to 69 years. | 47.8 | 44.2 | 44.0 | 44.0 | 44.0 | 44.0 | .-. | 42.7 | 42.0 | 42.0 | 5 | 33.6 | 28.7 | 26.5 | 40 |
| 70 to 74 years.. | 71.6 | 66.6 | 65.9 | 65.9 | 65.9 | 65.9 | ........... | 65.9 | 65.9 | 65.9 | -......... | 57.1 | 54.3 | 53.3 | 20 |
| 75 to 79 years.. | 109.6 | 106.1 | 100.1 | 100.1 | 100.1 | 100.1 | -...-..... | 100.1 | 100.1 | 100.1 | - | 97.9 | 95.7 | 95.5 | 10 |
| 80 to 84 years. | 166.0 | 160.4 | 160.8 | 160.8 | 160.8 | 160.8 |  | 160.8 | 160.8 | 160.8 |  | 160.8 | 160.8 | 160.8 |  |
| 85 to 89 years. | 233.0 | 238.5 | 226.6 | 226.6 | 226.6 | 226.6 |  | 226.6 | 226.6 | 226.6 |  | 226.6 | 226.6 | 226.6 | .-...-.... |
| 90 to 94 years.... | 322.1 | 329.6 | 326.9 | 326.9 | 326.9 | 326.9 |  | 326.9 | 326.9 | 326.9 | ........... | 326.9 | 326.9 | 326.9 | ...-.... |

${ }^{1}$ From life tables computed by the Scripps Foundation for Research in Population Problems. Registered deaths have been increased by 3.6 percent in 1929.30 and 8.1 percent in 1939-40 to allow for incomplete recording, and the number of children under 5 increased by 7 percent to allow for underenumeration in the census. South Dakota and Texas are not included in 1929-30.
${ }^{2}$ From life tables computed by the Bureau of the Census. Registered deaths have been increased by 2.5 percent and the number of children under 5 by 6.5 percent.
${ }^{3}$ Percent decrease in the death rates between 1939-40 and 2000 assumed for the 1943 report. Leaders indicate those ages where no change was assumed. In the present report the 1940-44 rates for these ages have been held constant.
groups and those for native white males. ${ }^{7}$
After the hypothetical death rates were set for the year 2000 , trend lines were chosen for interpolating during the period from 1939-40 to the end of the century. It was assumed that the greater part of the decline in mortality before 2000 would occur by 1990 , that there would be little if any decline after 2000 , and hence that the trend lines would be nearly horizontal by 2000. Experimentation with several conventional types of curves indicated that for most ages a simple logistic curve would best meet these requirements, pass through the observed rates for 1929-30 and 1939-40 and the assumed rates for 2000 , and give reasonable values for years prior to 1929. This type of curve was accordingly used in the interpolations for the high mortality assumptions at all ages and for the low assumptions at ages under 40. At older ages simple logistic curves gave values for the low mortality assumptions that were much too high when projected back to years before 1929; hence it was necessary to modify them empirically to decrease

[^12]the rate of decline during the decades immediately preceding 1930 and following 1940. The medium trend values were set approximately midway between the high and the low series (see table 10).

The hypothetical mortality trends given by this procedure are characterized by a relatively large decrease at the younger ages and a relatively small decrease at the older ages (see fig. 1). This pattern is followed exactly by the high mortality assumptions, which provide for a 45 percent reduction in infant mortality rates between 1939-40 and 2000 and a gradually diminishing reduction until age 60, above which point a continuation of the 1939-40 death rates is assumed. The high mortality assumptions for the year 2000 are somewhat below the prewar rates attained by any foreign country at ages under 30 , but the differences are not large numerically (see tables 6 and 10). Only at ages $0-4$ and $10-14$ are the high mortality assumptions for 2000 less than the lowest State rates in 1940. With high mortality the average future lifetime of native white males would be increased by the end of the century to 66.2 years at birth, 49.1 at age $20,30.7$ at age 40 , and 15.0 at age 60 (see table 11). This is considered the least improvement that is to be expected.


Figure 1.-DEATH RATES OF WHite Males IN THE UNITED STATES, IN SELECTED STATES, AND IN FOREIGN COUNTRIES, 1900 TO 1944; PROJECTED RATES FOR NATIVE WHITE MALES IN THE UNITED STATES, 1945 TO 2000

Table 11.-AVERAGE FUTURE LIFETIME EXPECTED FOR NATIVE WHITE MALES AT SELECTED AGES, FOR THE UNITED STATES, 1929-30 TO 1940-44, AND PROJECTED VALUES, 1960, 1975, AND 2000

| exact age | 1929-30 | 1939-40 | 1940-44 | High mortality assumptions |  |  |  | MEDIUM MORTALITY ASSUMPTIONS |  |  |  | LOW MORTALITY ASSUMPTIONS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1960 | 1975 | 2000 | $\begin{aligned} & \text { Increase, } \\ & 1939-10 \\ & \text { to } 2000 \end{aligned}$ | 1960 | 1975 | 2000 | $\begin{aligned} & \text { Increase, } \\ & 1939-40 \\ & \text { to } 2000 \end{aligned}$ | 1960 | 1975 | 2000 | Increase, <br> 1939-40 <br> to 2000 |
| Birth. | 58.8 | 62.6 | 63.3 | 65.6 | 66.0 | 66.2 | 3.6 | 66.6 | 67.8 | 68.6 | 6.0 | 68.2 | 70.6 | 72.1 | 9.5 |
| 20 years. | 45.9 | 47.6 | 47.9 | 48.9 | 49.0 | 49.1 | 1.5 | 49.8 | 50.5 | 50.9 | 3.3 | 51.4 | 53.1 | 54.1 | 6.5 |
| 40 years. | 29.2 | 29.9 | 30.1 | 30.5 | 30.6 | 30.7 | 0.8 | 31.3 | 31.8 | 32.0 | 2.1 | 32.9 | 34.3 | 34.9 | 5.0 |
| 60 years. | 14.5 | 14.9 | 15.0 | 15.0 | 15.0 | 15.0 | 0.1 | 15.2 | 15.3 | 15.4 | 0.5 | 16.3 | 17.0 | 17.3 | 2.4 |

A different age pattern of mortality reduction is followed in the low mortality assumptions. Here the hypothetical reduction of the death rates between 1939-40 and 2000 is 60 percent for infants, rises to 75 percent in the teen ages and early adult life, and then falls to 10 percent at ages 75-79. By far the most important departure from the present record low point of mortality occurs under 1 year of age, the rate of 19.7 per 1,000 assumed for the year 2000 being 15 points below the lowest New Zealand rate (34.6 in 1941) and 16 points below the lowest State rate ( 35.7 in Connecticut in 1942). ${ }^{8}$ Between ages 1 and 60 the differences between the rates for the year 2000 and the lowest rates for States or foreign countries could not be large in absolute numbers for the rates are small, but they exceed 60 percent at ages $10-14$ and 25 percent at other ages under 60 . If these reductions in death rates occur, the average future lifetime of native white males in 2000 will be 72.1 years at birth, 54.1 years at age 20, 34.9 years at age 40 , and 17.3 years at age 60 . To achieve such longevity seems within the range of possibility, but it will require outstanding progress in medicine and public health.

The smaller percentage decrease in the death rate for infants than in the death rates at the immediately succeeding ages in the low mortality assumptions may need explanation. In recent years about 30 percent of the infant deaths have been due to premature birth and more than 10 percent to congenital malformations. While infant death rates for all the other important causes were reduced sharply ( 45 to 90 percent) between 1900 and 1943 , the rate for premature births declined only 10 percent and that for congenital malformations rose nearly 10 percent. Because deaths from these causes are influenced in part by a wide variety of factors affecting prenatal

[^13]health and in part by the biological ability of the reproductive mechanism to function perfectly, their prevention may continue to be difficult. Between the ages of 1 and 45 , however, the irreducible minimum in the light of present and anticipated future knowledge is further below current mortality rates; hence larger percentage decreases appear possible.

In the medium assumptions the percentage declines of death rates from 1939-40 to 2000 are approximately midway between those of the high and low assumptions. They result in an average future lifetime for native white males of 68.6 years at birth, 50.9 years at age $20,32.0$ years at age 40 , and 15.4 years at age 60 . The figure for infants at birth is approximately the same as those based on the lowest death rates achieved in 1940 in a State or a foreign nation ( 68.4 and 68.6 years, respectively, as shown in tables 3 and 8). At adult ages, however, the medium values for future lifetime are less than those of the leading States or nations. This difference increases with age, the medium expectancy of 15.4 years at age 60 being significantly below the 16.8 years of the low States and 17.3 years of the low nations.

As mentioned earlier, the death rates for native white males were used as the basis for obtaining the rates for other groups. Three principles were followed in this connection. The first is that past differences between the death rates of native white, for-eign-born white, and nonwhite persons of the same sex and age are due chiefly to differences in socioeconomic status rather than to inherent biological differences, and hence are subject in large measure to human control. The second is that an important part of the difference between the age-specific death rates of males and females of the same race and nativity group is due to biological differences which are not subject to this measure of control. Although these two principles cannot be demonstrated beyond question, they are supported by the available information. The third principle is that the larger the decline in the native white male death rates by the
year 2000 , the smaller the differentials will become. This is derived from the first two, for a larger decline implies a greater control and therefore a closer approach to the biological minimum of mortality.

In accordance with these principles the foreignborn white males and the nonwhite males were assigned death rates for the year 2000 which exceeded those of the native white males at each age level by a specified fraction of the corresponding percentage difference in 1939-40. In the high assumptions the fraction used was three-fourths, in the medium assumptions it was one-half, and in the low assumptions it was one-fourth. The corresponding fractions for years between 1940 and 2000 were obtained by straight line interpolation. Since the mortality of foreign-born white males was lower than that of nonwhite males in 1939-40, this procedure gave death rates for nonwhite males which decreased more rapidly than those for foreign-born white males, which in turn decreased more rapidly than those of native white males.

Death rates for native white, foreign-born white, and nonwhite females were obtained from the corresponding rates for males. In the high mortality assumptions the percentage by which the male death rate exceeded the female death rate at each age was left unchanged. In the medium assumptions it was reduced by one-sixth between 1940 and 2000, and in the low assumptions it was reduced by one-third.

The foregoing discussion of mortality assumptions relates with minor exceptions to those made in 1942 and used in preparing the previous series of esti-
mates. At that time detailed mortality statistics were available for 1940 but not for later years; hence the death rates to be applied to the 1940 population in computing the number of survivors in 1945 were estimated as explained above. The projected rates and the resulting numbers of persons dying and surviving may now be compared with the corresponding figures based on the current estimates for the 5 -year period.

According to the projected mortality trends the number of deaths between April 1, 1940, and April 1, 1945, excluding deaths due to World War II, was expected to be between $7,552,000$ (high assumptions) and $7,444,000$ (low assumptions), and close to $7,513,000$ (medium assumptions). ${ }^{9}$ The current estimate of the number of deaths which would have occurred without war losses is $7,311,000$; hence the medium mortality assumptions give an estimate of deaths which is too high by about 202,000 , or 2.8 percent (see table 12). The purpose of forecasts of population, however, is not to show the probable number of deaths, but rather the probable number of survivors. The estimate for this group on April 1, 1945 , based on the medium mortality rates (with no allowance for war deaths), is too low by the same amount, $i$. $e$., 202,000 , but the relative difference is only about 0.1 percent, which is too small to be important.

[^14] each 100,000 white males and 10,000 nonwhite males.

Table 12.-COMPARISON OF THE CURRENT ESTIMATE AND THE FORECAST OF DEATHS, BY COLOR AND SEX, FOR THE UNITED STATES, APRIL 1, 1940, TO APRIL 1, 1945, AND SURVIVORS ON APRIL 1, 1945
[Figures for deaths and survivors in thousands. Percent not shown where less than 0.1]

| COLOR AND SEX | DEATHS ${ }^{1}$ |  |  |  |  | SURVIVORS ${ }^{2}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current estimate | Forecast |  |  | Percent deviation of medium forecast from current estimate | Current estimate | Forecast |  |  | Percent deviation of medium foreeast from current estimate |
|  |  | High mortality | Medium mortality | Low mortality |  |  | High mortality | Medium mortality | Low mortality |  |
| All classes.. | 7,311 | 7,552 | 7,513 | 7,444 | +2.8 | 139,681 | 139,440 | 139,479 | 139,548 | -0.1 |
| White Male | $\begin{aligned} & 6,333 \\ & 3,587 \\ & 2,746 \end{aligned}$ | $\begin{aligned} & 6,529 \\ & 3,631 \\ & 2,898 \end{aligned}$ | $\begin{aligned} & 6,503 \\ & 3,613 \\ & 2,890 \end{aligned}$ | $\begin{aligned} & 6,445 \\ & 3,577 \\ & 2,868 \end{aligned}$ | $\begin{aligned} & +2.7 \\ & +0.7 \\ & +5.2 \end{aligned}$ | $\begin{array}{r} 124,997 \\ 62,620 \\ 62,377 \end{array}$ | $\begin{array}{r} 124,801 \\ 62,576 \\ 62,225 \end{array}$ | $\begin{array}{r} 124,827 \\ 62,594 \\ 62,233 \end{array}$ | $\begin{array}{r} 124,885 \\ 62,630 \\ 62,255 \end{array}$ | -0.1 |
| Female. |  |  |  |  |  |  |  |  |  | -0.2 |
| Nonwhite... | 978527451 | $\begin{array}{r} 1,023 \\ 546 \\ 477 \end{array}$ | $\begin{array}{r} 1,010 \\ 539 \\ 471 \end{array}$ | $\begin{array}{r} 999 \\ -\quad 533 \\ 466 \end{array}$ | +3.3+2.3+4.4 | $\begin{array}{r} 14,684 \\ 7,209 \\ 7,475 \end{array}$ | $\begin{array}{r} 14,639 \\ 7,190 \\ 7,449 \end{array}$ | $\begin{array}{r} 14,652 \\ 7,197 \\ 7,455 \end{array}$ | $\begin{array}{r} 14,663 \\ 7,203 \\ 7,460 \end{array}$ | $\begin{aligned} & -0.2 \\ & =0.2 \\ & =0.3 \end{aligned}$ |
| Male |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

[^15]1945. In computing survivors, the population figures were adjusted for underenumeration of children and the births for underregistration.

The forecast of white persons surviving is closer to the current estimate than is that for nonwhite persons, the former being 0.1 percent too low and the latter 0.2 percent too low. In other words the white-nonwhite mortality differential was reduced more rapidly than was anticipated. The medium estimate of the number of white males surviving is very close (within 26,000 ), but the white females surviving were underestimated by 0.2 percent. Nonwhite survivors were underestimated for both sexes, but the error for females ( 0.3 percent) is larger than that for males ( 0.2 percent). With both white and nonwhite persons the excess mortality of males did not decrease as had been expected.

A much more rigorous test of the accuracy of the mortality assumptions may be made from rates for the various color, age, and sex groups. For white males the medium projected rates are within 2.1 per 1,000 of the currently estimated rates, except at ages 70-79 where mortality is high and the population relatively small. ${ }^{10}$ (See table 13.) Even at these ages the relative differences are less than three percent. The differences between the projections and the current estimates for white females are 1.6 or less per 1,000 at ages under 50 , but are 3.0 or larger at ages

[^16]over 50. Again, however, the relative differences are small (less than 7.0 percent) at these older ages. The medium assumptions for nonwhite persons differ from the current estimates by less than 2.0 per 1,000 at ages from $10-14$ to $40-44$, but by larger amounts at most of the other ages. The most important difference occurs in the group born between April 1, 1940, and April 1, 1945, the forecast of mortality being too low by 12.0 per 1,000 for males and 11.2 for females. ${ }^{11}$ But even here the effect on survivors is small relatively, the forecast being too high by less than 1.3 percent.

In view of the close agreement in most cases between the current estimates and the medium assumptions for color-age-sex specific mortality rates during 1940-45 when the excess deaths due to the war are omitted, it seemed advisable in this revision to make minimum changes in the estimated rates for 2000 (obtained as explained above), and to modify the rates for the $1945-2000$ period so that they follow smoothed curves connecting the current estimates for $1940-45$ and the earlier forecasts for 2000. Accordingly, no changes have been made in the rates for 2000 except at those ages where the rates had earlier been assumed to remain constant between 1939-40 and 2000 but actually changed somewhat

[^17]Table 13.-COMPARISON OF CURRENTLY ESTIMATED DEATH RATES AND PROJECTED DEATH RATES ACCORDING TO MEDIUM ASSUMPTIONS, BY COLOR, AGE, AND SEX, FOR THE UNITED STATES: 1940-45
[Deaths during the 5-year period 1940 to 1945 per 1,000 persons grouped by age at the beginning of the period. The current estimates were computed according to the formula $1,000-1,000 \frac{5^{\mathrm{L} X}+5}{5^{\mathrm{L} X}}$ from unpublished life tables prepared by the Bureau of the Census on the basis of registered deaths for the years 1940 to 1944. The medium projections are those used in the earlier report. Rates are adjusted for underregistration and exclude the excess deaths resulting from the war]

| AGE IN 1940 | White male |  |  | White female |  |  | NONWHITE MALE |  |  | Nonwhite female |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current estimate | Medium projection | Deviation of projection from current estimate | Current estimate | Medium projection | Deviation of projection from current estimate | Current estimate | Medium projection | Deviation of projection from current estimate | Current estimate | Medium projection | Deviation of projection from current estimate |
| Born in 5-year period.... | 47.8 | 47.0 | $-0.8$ | 37.8 | 37.2 | $-0.6$ | 86.1 | 74.1 | -12.0 | 70.9 | 59.7 | -11.2 |
| Under 5 years.............. | 9.4 | 11.1 | +1.7 | 7.9 | 8.9 | $+1.0$ | 16.7 | 18.1 | +1.4 | 14.6 | 15.4 | +0.8 |
| 5 to 9 years. | 5.3 | 3.2 | -2.1 | 3.8 | 2.2 | $-1.6$ | 8.2 | 4.6 | -3.6 | 7.1 | 4.0 | -3.1 |
| 10 to 14 years. | 6.8 | 6.5 | $-0.3$ | 3.9 | 4.5 | $+0.6$ | 12.9 | 13.1 | +0.2 | 13.0 | 14.2 | +1.2 |
| 15 to 19 years. | 8.8 | 9.4 | +0.6 | 6.6 | 6.7 | +0.1 | 24.0 | 24.7 | $+0.7$ | 23.7 | 25.2 | $+1.5$ |
| 20 to 24 years. | 11.5 | 11.3 | $\underline{0.2}$ | 8.0 9.8 | 8.6 10.8 | +0.6 | 34.5 | 34.6 | +0.1 +0.4 | 29.7 | 31.2 36.8 | $+1.5$ |
| 25 to 29 years. | 13.2 | 13.1 | -0.1 -0.4 | 9.8 12.6 | 10.8 13.4 | +1.0 +0.8 | 41.7 51.2 | 42.1 51.2 | +0.4 | 34.9 44.1 | 36.8 44.4 | +1.9 +0.3 |
| 35 to 39 years. | 24.8 | 24.2 | $-0.6$ | 17.2 | 17.8 | +0.6 | 66.0 | 65.5 | $-0.5$ | 57.9 | 58.3 | +0.4 |
| 40 to 44 years. | 36.8 | 36.3 | $-0.5$ | 24.4 | 25.4 | +1.0 | 89.0 | 87.7 | $-1.3$ | 75.6 | 77.2 | +1.6 |
| 45 to 49 years. | 55.4 | 55.2 | $-0.2$ | 35.5 | 37.1 | +1.6 | 122.0 | 120.8 | $-1.2$ | 102.4 | 106.0 | +3.6 |
| 50 to 54 years | 81.8 | 82.6 | +0.8 | 52.1 | 55.1 | $+3.0$ | 153.8 | 158.4 | +4.6 | 135.2 | 143.5 | +8.3 |
| 55 to 59 years. | 119.4 | 120.4 | +1.0 | 78.9 | 84.2 | +5.3 | 180.3 | 192.0 | +11.7 | 164.0 | 179.0 | +15.0 |
| 60 to 64 years. | 171.1 | 171.6 | +0.5 | 121.8 | 127.2 | +5.4 | 230.9 | 219.0 | -11.9 | 205.8 | 195.5 | -10.3 |
| 65 to 69 years | 242.2 | 244.1 | +1.9 | 187.1 | 195.2 | +8.1 | 297.1 | 267.5 | $-29.6$ | 250.7 | 228.1 | $-22.6$ |
| 70 to 74 years | 339.7 | 348.3 | +8.6 | 283.6 | 294.2 | +10.6 | 352.1 | 350.1 | $-2.0$ | 283.9 | 300.2 | +16.3 |
| 75 to 79 years. | 476.6 | 480.9 | +4.3 | 423.0 | 430.1 | $+7.1$ | 414.8 | 431.6 | +16.8 | 325.6 | 352.4 | +26.8 |
| 80 to 84 years. | 625.1 | 625.7 | +0.6 | 579.3 | 592.9 | +13.6 | 506.6 | 548.6 | +42.0 | 395.4 | 432.8 | $+37.4$ |

between 1939-40 and 1940-45. The 1940-45 rates for these ages were in most cases lower than those for 1939-40 and 2000. This occurred with the medium mortality assumptions for native white males at ages 70-74 and over, for foreign-born white and nonwhite males at ages 75-79 and over, and for white and nonwhite females at ages 65-69 and over. The differences between the 1939-40 rates and the 1940-45 rates for whites are small, however, and those for nonwhites may be affected in important degree by the incorrect reporting of the age of elderly nonwhite persons. In these few cases it is assumed in this revision that the currently estimated 1940-45 rates continue unchanged. At other ages the trends between the currently estimated 1940-45 rates and the projected rates for 2000 which are used in this revision are obtained from those previously established, the divergences found for 1940 45 being reduced to zero by $2000 .^{12}$ The resulting central death rates are shown in table 10 and figure $1 .{ }^{13}$

While it is not expected that the actual course of mortality in the future will follow exactly any of the assumed trends, it is believed that it will be between the high and the low, and nearest to the medium series.

[^18]
## B. FERTILITY TRENDS, 1945-2000

Past fertility trends in the United States
Changes in fertility have been larger and less regular than those in mortality during past years, and are likely to be so in the future. Although it is true that there have been important fluctuations in the death rate from year to year under the conditions of modern civilization, notably because of epidemics or war, most changes have been gradual decreases due to the development of medical and sanitary science. The birth rate, in contrast, is more directly dependent on individual behavior, hence it has varied more widely both up and down. Changing economic and social conditions not only affect the opportunity that people have for marrying and for raising families, but also influence their attitudes toward assuming such responsibilities. For these reasons an analysis of past trends of fertility, while aiding in the formation of opinion concerning future developments, must be supplemented with more information on underlying causes and attitudes than is the case with mortality.

The recording of births in the United States developed less rapidly than the recording of deaths, the national birth registration area being formed 15 years after the death registration area commenced to function on a yearly basis. Beginning in 1915 with 10 States and the District of Columbia, the birth registration area grew to 23 States in 1920, to 46 in 1930, and became Nation-wide in 1933. Since birth data have been available for the entire United States for such a short time, it is fortunate that another measure of fertility, the ratio of children to women, is available for census years as far back as 1800. In

TAble 14.-CHILDREN UNDER 5 YEARS OF AGE, PER 1,000 WOMEN 20 TO 44 YEARS OF AGE, BY RACE AND NATIVITY OF WOMAN, FOR THE UNITED STATES, BY DIVISIONS: 1800 TO 1940

> In an attempt to improve the comparability of white and Negro ratios, all ratios have been adjusted for underenumeration of children, and all except those for whites in 1800 to 1820 have been standardized indirectly to the age distribution of women in the United States in 1930 . The number of enumerated white chidren under 5 in the United States has been increased by 5 percent, and the number of Negro children by 13 percent, these being factors obtained from a study of data for $1925-30$. Leaders indicate that data are not available]

| YEAR | total white |  |  |  |  |  |  |  |  |  | Native white, United States | Negro. United States |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United States | New England | Middle Atlantic | East North Central | West North Central | South Atlantic | East South Central | $\begin{aligned} & \text { West } \\ & \text { South } \\ & \text { Central } \end{aligned}$ | Mountain | Pacific |  |  |
| 1800. | 1,342 | 1,164 | 1,334 | 1,918 |  | 1,402 | 1,875 |  |  |  |  |  |
| 1810 1820 | 1,358 1,295 | 1,111 980 | 1,365 1,244 1,044 | 1,777 1,683 | 1,915 1,768 | 1,382 | 1,875 1,794 1 | 1,446 | ..... |  |  |  |
| 1830. | 1,145 | 826 | 1,044 | 1,473 | 1,685 | 1,189 | 1,530 | 1,369 | -.......... |  |  |  |
| 1840 | 1,085 | 770 | 951 | 1,280 | 1,446 | 1,162 | 1,424 | 1,310 | -.......... |  |  |  |
| 1850 | 892 | 636 | 776 | 1,037 | 1,122 | 957 | 1,115 | 1,061 | 875 | 896 |  |  |
| 1860 | 905 | 639 | 784 | 1,016 | 1,118 | 840 | 1,056 | 1,103 | 1.054 | 1,035 |  | 1,072 |
| 1880. | 814 | 564 | 702 648 | 892 | $\begin{array}{r}1,012 \\ 930 \\ \hline\end{array}$ | 833 879 | 922 | 953 1,066 | 982 892 | 916 808 |  | 997 |
| 1890. | 685 | 456 | 563 | 668 | 797 | 802 | 873 | ,994 | 770 | 600 |  | 1,090 |
| 1900 | 666 | 497 | 567 | 620 | 731 | 802 | 855 | 942 | 742 | 532 |  | 845 |
| 1910 | 631 | 505 | 554 | 576 | 650 | 780 | 836 | 861 | 680 | 478 |  | 736 |
| 1920 | 604 | 543 | 562 | 570 | 605 | 720 | 760 | 706 | 686 | 447 | 555 | 608 |
| 1930. | 506 419 | 467 365 | 447 387 | 482 407 | 520 452 | 618 480 | 680 556 | 586 492 | 582 546 | 357 358 | 499 | 554 |
| 1940. | 419 | 365 | 337 | 407 | 452 | 480 | 556 | 492 | 546 | 358 | 426 | 518 |

its customary form this ratio shows the number of children under 5 per 1,000 women of childbearing age. It depends primarily on the births in the 5 years preceding the census date, but is affected in minor degree by child mortality during that period.

Caution must be exercised in the use and interpretation of both birth rates and ratios of children to women because of the underregistration of births and underreporting of young children. Since this matter is discussed in section C all that need be said here is that the fertility rates for the United States and its subdivisions which are presented in this section have been adjusted for underreporting.

The ratios of children to women for census years from 1800 to date show clearly that the long-time trend of fertility in the United States has been downward and that a great decrease has occurred. In 1800 there were approximately 1,342 children under 5 for every 1,000 white women aged $20-44$. After 1810 the ratio fell rapidly, reaching 1,085 in 1840 , 780 in 1880, 604 in 1920, and 419 in 1940 (see table 14). The 1940 figure is less than half of that for 1860 and less than one-third of that for 1800. A more accurate measure of fertility should show a larger decline, for during the 140 -year period there was a decrease of over 80 percent in infant and child mortality. Ratios of children to women can be computed for Negroes from 1850 to 1940. During this period the fertility of Negro women, like that of white women, dropped by a little over 50 percent.

A much more accurate idea of fertility trends since 1920 is given by age-specific birth rates, that is, the number of births per thousand women aged 15-19, $20-24$, and so on up to 45-49. Rates for the various age groups can be used separately or can be combined to obtain single figures showing the average number of births per 100 women living through the childbearing period and the average number of females borne by such women (the gross reproduction rate). ${ }^{14}$

From the end of the demobilization after World War I to the worst year of the depression, there was a large and almost uninterrupted drop in the gross reproduction rate. In 1921 the rate for native white women in the birth registration area was 155 , but by 1933 it was only 104, a decline of 33 percent (see table 15). From 1936 to 1943 the long-time

[^19]downward trend was not followed, for the rate rose 25 percent and the 1943 rate of 130 was the highest

Table 15.-Birth Rates by Age of Mother, Births per 100 Women Living to Age 50 , and Gross Reproduction Rates, for Native White Women in the United States, 1920 то 1945, and for Nonwhite Women, 1930 to 1945

IStillbirths are excluded. Births in the registration area have been increased t allow for incomplete recording. Births outside the registration area (in 1920 to 1932) have been estimated according to the method explained by Whelpton P. K., "Corrected Birth Rate Tables by States, 1918-21, 1929-31," in National Resources Committee, Population Statistics, 2. State Data, Government Printing Office, Washington, 1937 ]

| COLOR AND NATIVITY of woman AND YEAR | bihth rate ${ }^{1}$ for women aged- |  |  |  |  |  |  |  | Births per 100 women living to age $50^{5}$ | Gross repro-duction rates |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 15 \text { to } \\ 49 \\ \text { years? } \end{gathered}$ | $\left\|\begin{array}{c} 15 \text { to } \\ 19 \\ \text { years }^{3} \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & 20 \text { to } \\ & 24 \\ & \text { years } \end{aligned}\right.$ | $\begin{gathered} 25 \text { to } \\ 29 \\ \text { years } \end{gathered}$ | $\left\|\begin{array}{c} 30 \text { to } \\ 34 \\ \text { years } \end{array}\right\|$ | $\begin{gathered} 35 \text { to } \\ 39 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 40 \text { to } \\ & 44 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 45 \text { to } \\ 49 \\ \text { years } \end{gathered}$ |  |  |
| $\begin{aligned} & \text { NATIVE } \\ & \text { WHITE } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| 1920 | 99 | 55 | 166 | 160 | 122 | 85 | 35 | 5 | 314 | 152 |
| 1921 | 101 | 59 | 166 | 164 | 125 | 87 | 35 | 5 | 320 | 155 |
| 1922 | 94 | 54 | 153 | 155 | 119 | 80 | 33 | 4 | 209 | 145 |
| 1923 | 94 | 54 | 152 | 155 | 120 | 80 | 32 | 4 | 298 | 145 |
| 1924. | 94 | 58 | 154 | 153 | 120 | 79 | 32 | 4 | 300 | 145 |
| 1925. | 91 | 57 | 148 | 148 | 116 | 76 | 31 | 4 | 290 | 140 |
| 1926 | 88 | 55 | 144 | 142 | 112 | 72 | 29 | 4 | 279 | 136 |
| 1927. | 86 | 55 | 144 | 139 | 109 | 71 | 28 | 3 | 274 | 133 |
| 1928 | 81 | 52 | 138 | 131 | 101 | 67 | 26 | 3 | 259 | 126 |
| 1929. | 77 | 49 | 133 | 127 | 94 | 62 | 24 | 3 | 246 | 119 |
| 1930. | 78 | 50 | 136 | 128 | 95 | 61 | 24 |  | 249 | 121 |
| 1931. | 74 | 47 | 129 | 123 | 89 | 59 | 23 | 3 | 236 | 115 |
| 1932 | 71 | 45 | 125 | 119 | 85 | 56 | 23 | 3 | 228 | 111 |
| 1933. | 67 | 42 | 117 | 113 | 80 | 53 | 21 | 2 | 214 | 104 |
| 1934. | 69 | 44 | 123 | 117 | 82 | 52 | 21 | 2 | 220 | 107 |
| 1935. | 68 | 44 | 123 | 115 | 79 | 51 | 20 | 2 | 217 | 106 |
| 1936 | 67 | 44 | 124 | 114 | 77 | 48 | 18 | 2 | 214 | 104 |
| 1937 | 68 | 45 | 128 | 116 | 78 | 46 | 17 | 2 | 216 | 105 |
| 1938 | 70 | 47 | 132 | 120 | 80 | 46 | 17 | 2 | 222 | 108 |
| 1939. | 68 | 45 | 127 | 118 | 80 | 45 | 16 | 2 | 216 | 105 |
| 1940 | 70 | 46 | 131 | 123 | 82 | 45 | 15 | 2 | 222 | 108 |
| 1941. | 74 | 48 | 142 | 131 | 85 | 45 | 15 | 2 | 234 | 113 |
| 1942 | 82 | 53 | 162 | 147 | 91 | 47 | 14 | 1 | 259 | 125 |
| 1943 | 85 | 54 | 160 | 153 | 99 | 53 | 15 | 1 | 268 | 130 |
| 1944 | 79 | 47 | 146 | 140 | 98 | 54 | 16 | 1 | 251 | 122 |
| 1945. | 76 | 43 | 133 | 135 | 100 | 56 | 16 | 1 | 242 | 118 |
| NONWHITE |  |  |  |  |  |  |  |  |  |  |
| 1930 | 99 | 114 | 165 | 123 | 100 93 | 70 | 29 | 8 |  | 149 |
| 1931. | 92 | 107 108 | 155 <br> 159 <br> 15 | 11. | 93 94 | 64 | 27 28 | 6 | 284 | 141 |
| 1933. | 90 | 104 | 155 | 113 | 90 | 60 | 26 | 6 | 277 | 136 |
| 1934 | 93 | 110 | 164 | 114 | 92 | 60 | 26 | 6 | 286 | 140 |
| 1935. | 91 | 110 | 160 | 114 | 85 | 60 | 25 |  | 280 | 138 |
| 1936. | 87 | 107 | 154 | 111 | 79 | 57 | 23 | 5 | 268 | 132 |
| 1937 | 90 | 116 | 161 | 113 | 80 | 57 | 22 | 5 | 277 | 137 |
| 1938 | 91 | 120 | 160 | 114 | 81 | 57 | 21 | 4 | 279 | 138 |
| 1939. | 90 | 123 | 160 | 114 | 80 | 55 | 19 | 4 | 278 | 137 |
| 1940 | 92 | 125 | 168 | 116 | 83 | 54 | 21 |  | 285 | 141 |
| 1941 | 96 | 132 | 176 | 119 | 86 | 56 | 21 | 3 | 297 | 147 |
| 1942. | 99 | 138 | 184 | 122 | 88 | 58 | 20 | 4 | 306 | 151 |
| 1943. | 103 | 141 | 191 | 129 | 92 | 64 | 21 | , | 320 | 158 |
| 1944 | 101 | 131 | 187 | 133 | 95 | 67 | 21 | 3 | 318 | 158 |
| 1945. | 100 | 131 | 179 | 134 | 94 | 70 | 20 | 3 | 316 | 156 |
|  |  |  |  |  |  |  |  |  |  |  |

${ }^{1}$ Births during year to women in a specified age group per 1,000 midyear female population in that age group.
2Births to women of all ages per 1,000 female population 15 to 49 years of age.

Includes births to women under 15 years of age.
Includes births to women 50 years of age and over.
IIt is assumed that (a) the age-specific birth rates in the columns to the left apply to a cohort throughout the life span and (b) no women die before age 50 . The figures in this column are obtained by multiplying by five the figures in the seven columns to the left (because each of them is for a 5 -year age group), adding the products, and dividing by 10 .
6These rates are obtained by multiplying "births per 100 women living to age 50 " by the percentage of girls among the babies of native white or nonwhite mothers in the year indicated.
since 1927. From 1943 to 1945, however, a decline occurred again, the 1944 rate being 122 and the 1945 rate $118 .^{15}$ On the basis of the information which is available, it appears that the variations from year to


#### Abstract

${ }^{15}$ The record-breaking rise in the number of births during the last half of 1946 probably will raise the gross reproduction rate of native white women in that year to about 140, or approximately to its size in 1925. The relative increase from 1945 to 1946 (estimated at 19 percent) is the largest annual change on record. (The 1946 rate cannot be computed accurately until births during 1946 have been tabulated by color, nativity, and age of mother. These data probably will not be available until December, 1947.


year of the gross reproduction rate for nonwhites usually have been in the same direction as those for native whites, but somewhat smaller.

Wide differences are found in the trends of the birth rates for native white women in different 5year age groups within the childbearing period. Rates for the 3 groups of younger women (aged 15-19, 20 24 , and $25-29$ ) have fluctuated the most, dropping about 30 percent from 1921 to 1933 and then regaining most of the loss by climbing 28 to 37 percent from

Table 16.-DISTRIBUTION OF 1,000 NATIVE WHITE AND NONWHITE WOMEN IN SELECTED AGE GROUPS BY MARITAL STATUS, AND OF EVER MARRIED WOMEN BY NUMBER OF CHILDREN EVER BORN, FOR THE UNITED STATES: 1940 AND 1910

| COLOR, NATIVITY, <br> AGE, AND YEAR | $\begin{gathered} \text { Total } \\ \text { women } \end{gathered}$ | $\underset{\text { Women }^{1}}{\substack{\text { Single }}}$ | ever mirtied women who had borne ${ }^{\text {a }}$ - |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\underset{\text { child }}{\text { No }}$ | One | $\begin{gathered} \text { Two } \\ \text { children } \end{gathered}$ | Three children | Four children | $\begin{aligned} & \text { Five or } \\ & \text { children } \end{aligned}$ | $\begin{aligned} & \text { Seven to } \\ & \text { chilidren } \end{aligned}$ | $\begin{aligned} & \text { Ten or } \\ & \text { chidren } \\ & \text { children } \end{aligned}$ |
| Native whites | 1,0001,000 | $\begin{aligned} & 513 \\ & 481 \\ & \hline-6 \end{aligned}$ | $\begin{gathered} 118 \\ 191 \\ +62 \end{gathered}$ | 184-196+7 | $\begin{gathered} 114 \\ -91 \\ -20 \end{gathered}$ | $\begin{array}{r} 49 \\ \begin{array}{r} 40 \\ -30 \end{array} \\ \hline-8 \end{array}$ | $\begin{array}{r} 16 \\ -50 \\ -50 \end{array}$ | $\begin{array}{r} 5 \\ -4 \\ -40 \end{array}$ |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & 1,000 \\ & 1,000 \end{aligned}$ | $\begin{gathered} 269 \\ 229 \\ -15 \end{gathered}$ | $\begin{aligned} & 127 \\ & 210 \\ & +65 \end{aligned}$ | $\begin{gathered} 186 \\ +36 \\ +36 \end{gathered}$ | $\begin{aligned} & \mathrm{I} 68 \\ & { }^{172} \\ & +2 \end{aligned}$ | $\begin{gathered} 1160 \\ -31 \\ -31 \end{gathered}$ | $\begin{aligned} & { }_{3}^{77} 3 \\ & -49 \end{aligned}$ | $\begin{array}{r} 53 \\ -37 \\ -37 \end{array}$ | $\begin{array}{r} 8 \\ -5 \\ \hline \end{array}$ |  |
| $\begin{gathered} 30 \text { to } 34 \text { years: } \\ 1901 \\ \text { Percent change } \end{gathered}$ | ${ }_{1}^{1,000} 1$ | $\begin{gathered} 199 \\ 149 \\ -17 \end{gathered}$ | $\begin{aligned} & 115 \\ & 1176 \\ & +53 \end{aligned}$ | $\begin{aligned} & 153 \\ & 219 \\ & +43 \end{aligned}$ | $\begin{aligned} & 159 \\ & 204 \\ & +28 \end{aligned}$ | $\begin{aligned} & 125 \\ & -113 \\ & -10 \end{aligned}$ | $\begin{array}{r} 96 \\ \text { 93 } \\ -34 \end{array}$ | $\begin{aligned} & 120 \\ & -5 . \\ & -54 \end{aligned}$ | $\begin{aligned} & 50 \\ & 19 \\ & 19 \end{aligned}$ |  |
| 35 to 39 years: 1910 1940 <br> Percent change | 1,000 1,000 | $\begin{aligned} & 140 \\ & -1118 \end{aligned}$ | $\begin{gathered} 102 \\ \text { 153 } \\ +50 \end{gathered}$ | $\begin{aligned} & 125 \\ & 190 \\ & +52 \end{aligned}$ | $\begin{aligned} & 139 \\ & \begin{array}{l} 1300 \\ +44 \end{array} \end{aligned}$ | $\begin{gathered} 120 \\ 130 \\ +8 \end{gathered}$ | $\begin{gathered} 98 \\ -19 \\ -19 \end{gathered}$ | $\begin{aligned} & 144 \\ & \text { s } \\ & \hline 14 \end{aligned}$ | $\begin{aligned} & 108 \\ & \left.\begin{array}{c} 42 \\ \hline \\ \hline 61 \end{array}\right) \end{aligned}$ | 25 88 -68 |
|  | $\begin{aligned} & \text { 1,000 } \end{aligned}$ | $\begin{gathered} 119 \\ -110 \\ -12 \end{gathered}$ | $\begin{array}{r} 96 \\ \begin{array}{c} 940 \\ +46 \end{array} \end{array}$ | $\begin{aligned} & 112 \\ & 173 \\ & +54 \end{aligned}$ | $\begin{aligned} & 1284 \\ & 194 \\ & +55 \end{aligned}$ | $\begin{aligned} & 153 \\ & 113 \\ & +16 \end{aligned}$ | $\begin{aligned} & 97 \\ & \hline 88 \\ & \hline-98 \end{aligned}$ | $\begin{gathered} 144 \\ -35 \\ -35 \end{gathered}$ | $\begin{gathered} 131 \\ -55 \\ -585 \end{gathered}$ | $\begin{array}{r}58 \\ 18 \\ \text { 189 } \\ \hline 6\end{array}$ |
|  | $\begin{aligned} & 1,000 \\ & 1.000 \end{aligned}$ | $\begin{aligned} & 105 \\ & 98 \\ & -7 \end{aligned}$ | $\begin{gathered} 90 \\ \begin{array}{c} 92 \\ +58 \end{array}+8 \end{gathered}$ | $\begin{aligned} & 103 \\ & \text { 161 } \\ & +56 \end{aligned}$ | $\begin{aligned} & 122 \\ & 182 \\ & +49 \end{aligned}$ | $\begin{aligned} & 110 \\ & 133 \\ & +13 \end{aligned}$ | $\begin{aligned} & 100 \\ & 91 \\ & -9 \end{aligned}$ | $\begin{aligned} & 152 \\ & 105 \\ & -3105 \end{aligned}$ | $\begin{gathered} 142 \\ -55 \\ -55 \end{gathered}$ |  |
|  | $\begin{aligned} & 1.000 \\ & 1,000 \\ & \hline \end{aligned}$ | $\begin{array}{r} 96 \\ 100 \\ +4 \end{array}$ | $\begin{gathered} 85 \\ 145 \\ +77 \end{gathered}$ | $\begin{gathered} 92 \\ 151 \\ +64 \end{gathered}$ | $\begin{aligned} & 114 \\ & 172 \\ & +51 \end{aligned}$ | $\begin{aligned} & 109 \\ & 131 \\ & +20 \end{aligned}$ | $\begin{array}{r} 98 \\ 92 \\ -68 \end{array}$ | $\begin{gathered} 160 \\ 112 \\ -30 \end{gathered}$ | $\begin{gathered} 159 \\ -56 \\ -56 \end{gathered}$ | $\begin{array}{r}86 \\ 27 \\ -69 \\ \hline 69\end{array}$ |
| $\begin{aligned} & 55 \text { to } 64 \text { years: } \\ & 1910 \\ & \text { Percent change. } \end{aligned}$ | 1,0001,000 | $\begin{gathered} 84 \\ 103 \\ +23 \end{gathered}$ | $\begin{gathered} 81 \\ 145 \\ +79 \end{gathered}$ | $\begin{array}{r} 86 \\ 137 \\ +59 \end{array}$ | $\begin{aligned} & 107 \\ & 158 \\ & +48 \end{aligned}$ | $\begin{aligned} & 106 \\ & \begin{array}{l} 127 \\ +20 \end{array} \end{aligned}$ | $\begin{array}{r} 99 \\ 95 \\ -95 \end{array}$ | $\begin{aligned} & 165 \\ & -119 \end{aligned}$ | $\begin{gathered} 173 \\ -53 \\ -53 \end{gathered}$ | ( $\begin{array}{r}99 \\ \text { 95 } \\ -65\end{array}$ |
| NONWHITE* |  |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} 45 \text { to } 49 \text { years: } \\ \text { 1910 } 1940 \\ \text { Percent change. } \end{gathered}$ | $\begin{aligned} & 1,000 \\ & \hline, 000 \end{aligned}$ | $\begin{array}{r} 48 \\ 51 \\ +6 \end{array}$ | $\begin{gathered} 83 \\ \text { 203 } \\ +145 \end{gathered}$ | $\begin{gathered} 90 \\ \left.\begin{array}{c} 138 \\ +53 \end{array}\right) . \end{gathered}$ | $\begin{aligned} & 79 \\ & \begin{array}{l} 131 \\ +66 \end{array} \end{aligned}$ | $\begin{gathered} 73 \\ \begin{array}{c} 106 \\ +45 \end{array} \end{gathered}$ | $\begin{gathered} 75 \\ \begin{array}{c} 75 \\ +13 \end{array} \end{gathered}$ | $\begin{gathered} 131 \\ 126 \\ \hline-4 \end{gathered}$ | $\begin{array}{r} 179 \\ -98 \\ -45 \end{array}$ | $\begin{array}{r} 242 \\ \\ \hline 61 \\ \hline 75 \end{array}$ |
|  | ${ }_{1}^{1,000}$ | $\begin{array}{r} 47 \\ 49 \\ +4 \end{array}$ | $\begin{array}{r} 748 \\ \begin{array}{r} 168 \\ +127 \end{array} \end{array}$ | $\begin{array}{r} 80 \\ 124 \\ +55 \end{array}$ | $\begin{gathered} 77 \\ \begin{array}{c} 124 \\ +61 \end{array} \end{gathered}$ | $\begin{aligned} & 68 \\ & 17 \\ & +727 \end{aligned}$ | $\begin{gathered} 66 \\ \begin{array}{c} 600 \\ +50 \end{array} \\ \hline \end{gathered}$ | $\begin{aligned} & 132 \\ & 1+2 \\ & +6 \end{aligned}$ | $\begin{gathered} 186 \\ 107 \\ -42 \end{gathered}$ | 269 -72 -73 |
| $\begin{aligned} & 55 \text { to } 64 \text { years: } \\ & \text { 1910 } \\ & \text { Percent change. } \end{aligned}$ | 1,000 1,000 | $\begin{array}{r} 40 \\ 46 \\ +15 \end{array}$ | $\begin{array}{r} 65 \\ \begin{array}{r} 625 \\ +154 \end{array} \\ \hline 15 \end{array}$ | $\begin{gathered} 74 \\ \begin{array}{c} 73 \\ +53 \end{array} \end{gathered}$ | $\begin{array}{r} 71 \\ \begin{array}{c} 125 \\ +76 \end{array} \end{array}$ | $\begin{gathered} 10 \\ 110 \\ +64 \end{gathered}$ | $\begin{gathered} 71 \\ \hline 99 \\ +39 \end{gathered}$ | $\begin{aligned} & 130 \\ & 148 \\ & +14 \end{aligned}$ | $\begin{array}{r} 191 \\ -119 \\ -38 \end{array}$ | 290 <br> 88 <br> -70 |

[^20]1933 to 1943. From 1943 to 1945, however, declines of 11 to 19 percent occurred. At ages $30-34$ the changes were about as large as those for younger women and included a drop of over 38 percent from 1921 to 1936, a smaller rise (nearly 30 percent) from 1936 to 1943, and a slight-increase (1 percent) from 1943 to 1945. Birth rates of older women fell farther and until a more recent year. At ages $35-39$ the low point reached in 1940 was barely 50 percent of the 1921 rate, and only one-fourth of the loss was recovered from 1940 to 1945 . At ages $40-44$ the decline lasted until 1942, the rate in that year was barely 40 percent of the 1921 rate, and the rise from 1942 to 1945 was less than one-tenth of the decline. Finally, the rate for women aged 45-49 was only onefifth as large in 1945 as in 1921, and the decline apparently had not stopped. In general, therefore, the younger the age, the less the 1945 rate is below that for 1921 on a relative basis. Among nonwhite women similar differences are found since 1930 in the trends of the birth rates of the various age groups. ${ }^{16}$

Changes in the distribution of families by number of children

Persons familiar with population trends have known for many decades that the large decline in birth rates in the United States was being accompanied by a substantial reduction in the proportion of families with many children and a corresponding increase in the proportion with few or none. Only since 1943, however, has there been accurate information regarding the character and scope of these changes in the Nation as a whole. In that year the first of a series of reports showing the distribution of ever married women in 1910 and 1940 by the number of children ever born to them, and the changes which took place during this 30 -year period, was published by the Bureau of the Census. ${ }^{17}$ Among native white women aged 45-49 (nearly all of whom had completed their families) the proportion that had borne five or more children fell almost 48 percent, the proportion with three or four children changed relatively little, and the proportion with no child, or with one or two, jumped over 52 percent

[^21](see table 16). Among nonwhite women there was little change in the proportion that had borne four, five, or six children, but large decreases occurred in the proportion with seven or more children, and large increases in the proportion with three or fewer. Similar changes took place between 1910 and 1940 among women aged $50-54$ and $55-64$ on these census dates.

Comparisons for younger women are of interest, though of less value because there is no way of determining the number of children borne by these women after the years in question. Such comparisons show changes for younger women like those for older women, namely, a large increase in the proportion with small families and a large decrease in the proportion with large families. For native white women the proportion married but childless jumped between 46 and 65 percent at ages under 45 from 1910 to 1940 (see table 16). In addition, large increases (over 28 percent) occurred in the proportion with only 1 child at ages 25-44 and with 2 children at ages $30-44$. Important decreases are found in the proportion with 2 or more children at ages $20-24$, with 3 or more children at ages 25-29, with 4 or more at ages $30-39$, and with 5 or more at ages 40-44.

The foregoing shifts in the distribution of families by size have been accompanied by corresponding shifts in birth rates by order of child in the family, i.e., in the number of first births, of second births, etc., per 1,000 women aged $15-49$. Rates for the higher birth orders have had the steepest downward trend, and those for the lower orders the slightest downward trend. Near one extreme for native white women are the rates for eighth or higher order births, which fell from 6.8 in 1921 to 2.5 in 1942 and 1945 (a drop of 63 percent), and in only 2 years (1921 and 1943) were fractionally higher than in the preceding year. ${ }^{18}$ (See table 17.) At the other extreme are the rates for first births. They declined from 32.6 in 1921 to 22.2 in 1933, their drop of 32 percent being three-fourths as large as that for eighth and higher order births in the same period. But instead of continuing to fall after 1933 they began a rise which carried them to 35.8 in 1942, over 60 percent above 1933 and nearly 10 percent above 1921. From 1942 to 1945, however, there was another rapid decline, which lowered this rate to 26.9 and cancelled two-thirds of the 1933-42 rise. In spite of this reversal the long-time straight line trend has been slightly upward. Rates for intermediate birth

[^22]orders followed intermediate trends, the general relationship being the higher the order, the longer and larger the decline, and the shorter and smaller the subsequent rise. The second birth rate fell from 21.6 in 1923 to 15.6 in 1933 and 1935 (over 25 percent), rose to a new high of 23.8 in 1943 , and then receded to 21.4 in 1945. The long-time straight line trend was slightly downward. For third births the low rate of 9.0 in 1936-37 was nearly 40 percent below the high rate of 14.7 in 1921, and less than three-fifths of the loss was recovered by 1944. The fourth birth rate was almost halved from 1921 to 1939, and less than one-fourth of the drop was regained by 1944. The fifth birth rate fell nearly 55 percent, and the sixth and seventh birth rates over 60 percent, from 1921 to 1942 , with a recovery by

| Table 17.-Birth Rates by Order of Birth, for Native White Women in the United States, 1920 to 1945, AND For Nonwhite Women, 1930 to 1945 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| [Births of specified order per 1,000 female population 15 to 49 years of age Birth order refers to number of children ever born alive to mother. S ee head note to table 15] |  |  |  |  |  |  |  |
| COLOR AND NATIVITY OF WOMAN AND YEAR | First births | Second births | Third | Fourth births | Fifth |  |  |
| $\begin{aligned} & \text { NATIVE } \\ & \text { WHITE } \end{aligned}$ |  |  |  |  |  |  |  |
| 1920 | 31.8 |  |  |  |  |  |  |
| 1921 | 32.6 | 21.0 | 14.7 | 10.2 | 6.8 6.9 | 8.3 8.6 | 6.5 6.8 |
| 1922 | 28.6 | 21.4 | 13.6 | 9.4 | 6.5 | 7.9 | 6.4 |
| 1923 | 27.8 28.9 | ${ }_{21}^{21.6}$ | 13.8 | 9.4 | 6.5 | 8.0 | 6.4 |
| 1924 | 28.9 | 20.9 | 14.1 | 9.3 | 6.4 | 7.8 | 6.4 |
| 1925 | 28.0 | 20.2 | 13.6 | 9.0 | 6.2 | 7.5 |  |
| 1928 | 27.0 | 19.8 | 13.0 | 8.8 | 5.9 | 7.2 | 5.8 |
| 1927 | 27.0 | 19.2 | 12.6 | 8.6 | 5.8 | 7.0 | 5.7 |
| 1929. | 25.9 25.0 | 18.3 17.6 | 11.9 11.2 | 7.9 | 5.4 5.0 | 6.4 6.0 | 5.3 4.9 |
| 1930 | 25.9 | 17.7 |  |  |  |  |  |
| 1931 | 24.6 | 17.0 | 10.6 | 6.9 | 5.0 | 5.9 | 7 |
| 1932 | 23.5 | 16.5 | 10.3 | 6.7 | 4.5 | 5.4 | 4.3 |
| 1933 | 22.2 | 15.6 | 9.7 | 6.3 | 4.2 | 5.0 | 4.0 |
| 1934 | 23.9 | 15.9 | 9.8 | 6.3 | 4.2 | 4.9 | 4.0 |
| 1935. | 25.1 | 15.6 | 9.3 | 6.0 |  |  |  |
| 1936 | 25.3 | 15.9 | 9.0 | 5.6 | 3.7 | 4.3 | 3.5 |
| 1938 | 27.6 | 17.3 | 9.2 | 5. 4 | 3.5 3.5 | 4.1 | 3.4 |
| 1939 | 26.8 | 17.3 | 9.1 | 5.2 | 3.2 | ${ }_{3.7}$ | 3.2 2.9 |
| 1940 | 27.4 | 18.4 | 9.6 |  |  |  |  |
| 1941 | 30.4 | 19.2 | 9.8 | 5.4 | 3.2 | 3.6 | 2.9 2.7 |
| 1942 | 35.8 | 21.4 | 10.5 | 5.5 | 3.2 | 3.3 | . 5 |
| 1944 | 32.4 | 2.8 | 12. | 6.3 | 3.6 | 3.6 | 2.7 |
| 1945 | 26.9 | 21.4 | 12.0 | 6.3 | 3.5 | 3.6 3.5 |  |
| $\begin{aligned} & \text { NON- } \\ & \text { WHITE } \end{aligned}$ |  |  |  |  |  |  |  |
| 1930 | 29.2 | 17.6 | 12.7 | 9.8 | 7.7 | 10.5 | 11.5 |
| 1931. | 26.5 | 16.6 | 12.0 | 9.4 | 7.1 | 10.1 | 10.8 |
| 1932 | 26.9 | 17.0 | 12.2 | 9.4 | 7.1 | 10.1 | 11.0 |
| 1934 | 26.8 | 16.6 | 12.2 | 9.4 | 7.1 | 9.8 | 10.4 10.9 |
|  | 27.0 | 16.6 | 11.9 |  | 6.9 | 9.3 |  |
| 1936 | 25.6 | 16.4 | 11.4 | 8.7 | 6.6 | 8.8 | 9.5 |
| 1937. | 26.9 | 17.0 | 11.9 | 8.8 | 6.7 | 9.0 | 9.7 |
| 1938 | 27.4 | 17.1 | 12.2 | 8.9 | 6.7 | 9.1 | 9.5 |
| 1939 _-.... | 27.0 | 17.4 | 12.1 | 8.9 | 6.6 | 8.9 | 9.3 |
| 1940 | 26.5 | 17.9 | 12.8 | 9.4 | 6.9 | 9.2 |  |
| 1941 | 27.9 | 19.0 | 13.3 | 9.5 | 2 | 9.4 | 9.7 |
| 1943 | 29.4 | 20.9 | 14.4 | 10.4 | 7.6 | 9.4 | ${ }_{10}{ }_{1}^{9.6}$ |
| 1944 | 27.4 | 20.0 | 14.7 | 10.8 | 7.9 | 10.3 | 10.3 |
| 1945 | 26.9 | 19.3 | 13.9 | 10.6 | 8.1 | 10.5 | 10.8 |

1944 of one-ninth or less in each case. Rates for each order were lower in 1945 than in 1944. ${ }^{19}$

Trends of birth rates for nonwhite women by order of child can be determined fairly accurately since 1930. They resemble in a general way those for native white women, but the depression drop and recovery rise were smaller and the differences between the trends for the various birth orders are less marked. For first, second, and third births the low year was the same for nonwhite as for native white women (1933, 1933, and 1936, respectively), but for fourth and higher order births the rates for nonwhite women reached the low point and started upward from 3 to 6 years earlier than the rates for native white women. Perhaps the most important difference is the smaller decrease from 1930-34 to 1940-44 in the rates for fourth and higher birth orders for nonwhite women than in those for native white women. For the latter the 1940-44 rates were below those of 10 years earlier by 14 percent for fourth births, 25 percent for fifth births, 35 percent for sixth and seventh births (combined), and 38 percent for eighth and higher order births (combined). But for nonwhite women there were increases of 6 and 2 percent, respectively, for fourth and fifth birth rates, and declines of only 4 percent for sixth and seventh birth rates and of not quite 10 percent for eighth and higher order birth rates. Furthermore, although the rates for births of each order to native white women declined from 1944 to 1945, those for fifth and higher order births to nonwhite women rose during this period.

## Regional differences in fertility

Important regional differences in fertility are known to have existed for 150 years and probably date back another century or more. In 1800 the ratio of children to white women was highest in the East North Central States $(1,918)$ and lowest in New England (1,164). (See table 14.) In 1940 it was highest in the East South Central States (556) and lowest in the Middle Atlantic States (337). At both times the low ratio of children to women was almost exactly three-fifths of the high.

Age-specific birth rates of native white women in the various divisions can be computed for years centering on the last three censuses. Differences in these rates resemble in general those in the ratios of children to women, for the ranking of the divisions ac-

[^23]cording to the birth rate at any age is close to that according to the broader ratio. Birth rates for the years in question were highest in the East South Central States for women aged 15-19 and 30-49, and in these States or the Mountain States for women in their twenties (see table 18). At the other extreme, rates were lowest in the New England and the Middle Atlantic States for women under 25, and in the Pacific States for those aged $25-49$. On a relative basis the difference between the highest and lowest regional rate was large (nearly 3 to 1 ) at ages $15-19$, narrowed to less than 2 to 1 at ages 25-29, and then increased to a maximum (over 4 to 1) at ages $45-49 .{ }^{20}$


#### Abstract

20For 1939-41 the percent which the low rate is of the high rate is as follows: New England, 33 percent of East South Central at ages 15-19; Middle Atlantic, 57 percent of Mountain at ages $20-24$; Pacific, 75 percent of Mountain at ages 25-29; Pacific, 63 percent of East South Central at ages $30-34,42$ percent at ages $35-39,28$ percent at ages $40-44$, and 21 percent at ages 45-49.


Table 18.-Birth Rates by Age of Mother and Gross Reproduction Rates, for Native White Women in the United States, By Divisions: 1918 - $21,1929-31$, and 1939-41
[See notes to table 15]

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{\begin{tabular}{l}
division \\
and year
\end{tabular}} \& \multicolumn{7}{|c|}{Birth fute for women aged-} \& \multirow[b]{2}{*}{Gross repro-duction rate} \\
\hline \& \[
\begin{gathered}
15 \text { to } \\
19 \\
\text { years }
\end{gathered}
\] \& \[
\begin{aligned}
\& 20 \text { to } \\
\& 24 \\
\& \text { years }
\end{aligned}
\] \& \[
\begin{gathered}
25 \text { to } \\
29 \\
\text { years }
\end{gathered}
\] \& \[
\begin{aligned}
\& 30 \text { to } \\
\& 34 \\
\& \text { years }
\end{aligned}
\] \& \[
\begin{gathered}
35 \text { to } \\
39 \\
\text { years }
\end{gathered}
\] \& \[
\begin{gathered}
40 \text { to } \\
44 \\
\text { years }
\end{gathered}
\] \& \begin{tabular}{l}
\[
\begin{gathered}
45 \text { to } \\
49
\end{gathered}
\] \\
years
\end{tabular} \& \\
\hline \multirow[t]{3}{*}{\[
\begin{aligned}
\& \text { UNITED STATES: } \\
\& 1918-21 \\
\& 1929-31 \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~
\end{aligned}
\]} \& \multirow[b]{3}{*}{\[
\begin{aligned}
\& 52 \\
\& 49 \\
\& 46
\end{aligned}
\]} \& \multirow[b]{3}{*}{\[
\begin{aligned}
\& 160 \\
\& 133 \\
\& 133
\end{aligned}
\]} \& \multirow[b]{3}{*}{\[
\begin{aligned}
\& 157 \\
\& 126 \\
\& 124
\end{aligned}
\]} \& \multirow[b]{3}{*}{\[
\begin{array}{r}
121 \\
93 \\
82
\end{array}
\]} \& \multirow[b]{3}{*}{\[
\begin{aligned}
\& 83 \\
\& 61 \\
\& 45
\end{aligned}
\]} \& \multirow[b]{3}{*}{\[
\begin{aligned}
\& 33 \\
\& 24 \\
\& 15
\end{aligned}
\]} \& \multirow[b]{3}{*}{4
3
2} \& \multirow[b]{3}{*}{\[
\begin{aligned}
\& 148 \\
\& 118 \\
\& 109
\end{aligned}
\]} \\
\hline \& \& \& \& \& \& \& \& \\
\hline \& \& \& \& \& \& \& \& \\
\hline \multicolumn{9}{|l|}{New England: |} \\
\hline 1929-31... \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 29 \\
\& 28 \\
\& 24
\end{aligned}
\]} \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 117 \\
\& 106 \\
\& 104
\end{aligned}
\]} \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 133 \\
\& 119 \\
\& 119
\end{aligned}
\]} \& \multirow[t]{2}{*}{\[
\begin{array}{r}
100 \\
89 \\
84
\end{array}
\]} \& 60
52 \& 20 \& 2
1 \& 112
100 \\
\hline 1939-41. \& \& \& \& \& \multirow[t]{4}{*}{\[
\begin{aligned}
\& 61 \\
\& 46 \\
\& 36
\end{aligned}
\]} \& 12 \& \multirow[t]{4}{*}{1

3
1
1} \& \multirow[t]{4}{*}{93

119
96
88} <br>
\hline \multirow[t]{3}{*}{Middle Atlantic:

$$
\begin{aligned}
& 1918-21 \\
& 1929-31 \\
& 1939-41
\end{aligned}
$$} \& \multirow[b]{3}{*}{38

33

25} \& \multirow[b]{3}{*}{$$
\begin{aligned}
& 132 \\
& 110 \\
& 102
\end{aligned}
$$} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 135 \\
& 112 \\
& 113
\end{aligned}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 98 \\
& 78 \\
& 75
\end{aligned}
$$

\]} \& \& \multirow[t]{3}{*}{\[

$$
\begin{aligned}
& 23 \\
& 16 \\
& 10
\end{aligned}
$$
\]} \& \& <br>

\hline \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& \& \& \& \& <br>
\hline \multirow[t]{3}{*}{} \& \multirow[b]{3}{*}{46
43

40} \& \multirow[b]{3}{*}{$$
\begin{aligned}
& 152 \\
& 127 \\
& 131
\end{aligned}
$$} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 147 \\
& 121 \\
& 124
\end{aligned}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{array}{r}
110 \\
86 \\
80
\end{array}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 71 \\
& 53 \\
& 42
\end{aligned}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 28 \\
& 20 \\
& 13
\end{aligned}
$$
\]} \& \multirow[b]{3}{*}{3

2
1} \& \multirow[b]{3}{*}{135
110
105} <br>
\hline \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& \& \& \& \& <br>

\hline \multirow[t]{3}{*}{} \& \multirow[b]{3}{*}{$$
\begin{aligned}
& 42 \\
& 42 \\
& 41
\end{aligned}
$$} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 154 \\
& 131 \\
& 134
\end{aligned}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 162 \\
& 134 \\
& 130
\end{aligned}
$$

\]} \& \multirow[t]{3}{*}{\[

$$
\begin{array}{r}
126 \\
100 \\
88
\end{array}
$$

\]} \& \multirow[t]{3}{*}{\[

$$
\begin{aligned}
& 87 \\
& 65 \\
& 50
\end{aligned}
$$

\]} \& \multirow[t]{3}{*}{\[

$$
\begin{aligned}
& 36 \\
& 26 \\
& 17
\end{aligned}
$$
\]} \& \multirow[b]{3}{*}{4

3
2

2} \& \multirow{4}{*}{$$
\begin{aligned}
& 148 \\
& 121 \\
& 112
\end{aligned}
$$} <br>

\hline \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& \& \& \& \& <br>
\hline \multicolumn{8}{|l|}{South Atlantic:} \& <br>
\hline South Atlantic:

$$
1918-21
$$ \& 70 \& 193 \& 192 \& 158 \& 118 \& 50 \& 6 \& 191 <br>

\hline 1929-31. \& 63 \& 151 \& 143 \& 110 \& 77 \& 32 \& 4 \& 141 <br>
\hline 1939-41.. \& 65 \& 154 \& 131 \& 91 \& 55 \& 20 \& 2 \& 126 <br>

\hline \multirow[t]{3}{*}{$$
\begin{gathered}
\text { East South Central: } \\
\text { 1918-21 } \\
1929-31 \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . ~
\end{gathered}
$$} \& \multirow[b]{3}{*}{81

75

75} \& \multirow[b]{3}{*}{$$
\begin{aligned}
& 209 \\
& 169 \\
& 169
\end{aligned}
$$} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 203 \\
& 156 \\
& 143
\end{aligned}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 167 \\
& 125 \\
& 102
\end{aligned}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{array}{r}
126 \\
88 \\
67
\end{array}
$$

\]} \& \multirow[t]{3}{*}{\[

$$
\begin{aligned}
& 55 \\
& 38 \\
& 26
\end{aligned}
$$
\]} \& \multirow[b]{3}{*}{8

4

3} \& \multirow[b]{3}{*}{$$
\begin{aligned}
& 206 \\
& 159 \\
& 142
\end{aligned}
$$} <br>

\hline \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& \& \& \& \& <br>

\hline \multirow[t]{3}{*}{$$
\begin{aligned}
& \text { West South Central: } \\
& \text { 1918-21 } \\
& 1929-31 \\
& 1939-41 . . . . . . . . . . . . . . . . . . . . . . . . . . . ~
\end{aligned}
$$} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 75 \\
& 68 \\
& 72
\end{aligned}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 193 \\
& 151 \\
& 166
\end{aligned}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 179 \\
& 133 \\
& 130
\end{aligned}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{array}{r}
142 \\
99 \\
87
\end{array}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{array}{r}
108 \\
70 \\
51
\end{array}
$$

\]} \& \multirow[b]{3}{*}{\[

$$
\begin{aligned}
& 45 \\
& 29 \\
& 18
\end{aligned}
$$

\]} \& \multirow[b]{3}{*}{| 5 |
| :--- |
| 3 |
| 2 |} \& \multirow[b]{3}{*}{181

134
127} <br>
\hline \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& \& \& \& \& <br>
\hline \multicolumn{9}{|l|}{Mountain:} <br>
\hline 1918-21. \& \multirow[t]{3}{*}{57
61

64} \& \multirow[t]{3}{*}{$$
\begin{aligned}
& 198 \\
& 172 \\
& 178
\end{aligned}
$$} \& \multirow[t]{3}{*}{\[

$$
\begin{aligned}
& 179 \\
& 152 \\
& 147
\end{aligned}
$$

\]} \& \multirow[t]{3}{*}{\[

$$
\begin{array}{r}
136 \\
108 \\
97
\end{array}
$$
\]} \& \multirow[t]{3}{*}{98

72
56} \& \multirow[t]{3}{*}{42
30
20} \& \multirow[t]{3}{*}{6
3
2
2} \& 173 <br>
\hline 1929-31. \& \& \& \& \& \& \& \& 145 <br>
\hline 1939-41. \& \& \& \& \& \& \& \& 137 <br>
\hline \multirow[t]{4}{*}{Pacific:
$1918-21$
$1929-31$
$1939-41$} \& \multirow[b]{4}{*}{47
41

49} \& \multirow[b]{4}{*}{$$
\begin{aligned}
& 139 \\
& 106 \\
& 138
\end{aligned}
$$} \& \multirow[b]{4}{*}{\[

$$
\begin{array}{r}
122 \\
89 \\
111
\end{array}
$$

\]} \& \multirow[b]{4}{*}{\[

$$
\begin{aligned}
& 85 \\
& 58 \\
& 64
\end{aligned}
$$
\]} \& \multirow[b]{4}{*}{50

31
28} \& \multirow[b]{4}{*}{18
11
7} \& \multirow[b]{4}{*}{2
1
1} \& \multirow[b]{4}{*}{112
82
97} <br>
\hline \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& \& \& \& \& <br>
\hline
\end{tabular}

When the characteristics of the regions are considered it is obvious that relatively high fertility rates have been associated throughout the past with rural or agricultural areas, and relatively low fertility rates with urban or industrial areas. The tendency has been for the more urban and industrialized States to lead in the decline in childbearing, and for the more rural and agricultural States to follow 50 to 80 years later. During most of the period the Nation has been from 30 to 50 years behind the region with lowest fertility. The lag has narrowed during recent decades, however, for the gross reproduction rate of 112 for the Pacific States in 1918-21 was reached by the Nation in 1932, only about 12 years later. If similar relations hold in the future, the national rate will decline to 90 before 1960 (that is, to the 1939-41 rate of the New England and Middle Atlantic States), and 100 native white women living to age 50 will have only 185 children. These figures are well below the gross reproduction rate of about 105 and the 216 births per 100 women living through the reproductive period that will be required to maintain a stationary population with the lower death rates which are expected during 1950-60.

Past fertility trends in other countries
A marked decline of fertility is not peculiar to the United States, but has occurred in most of the countries of Western civilization. In a few of them birth rates began to decrease early in the nineteenth century; in several more the decline began about 1875 ; in nearly all of them rates were much lower during the five years preceding World War II than during those before World War I. Accurate figures are not available for all countries and for all years, but those which are available show the long-time downward trend in unmistakable terms.

Gross reproduction rates for 1871-75 have been computed for Norway, Sweden, Finland, England and Wales, France, Germany, and Italy, and estimated for the United States. At that time the rate for France was relatively low (168), and rates for the other countries were bunched between 215 (Sweden) and 255 (Germany). (See table 19.) Between 1871-75 and the early 1920's substantial declines occurred in the rate for each of these nations, the largest being a drop of over 50 percent in Germany (from 255 to 124) and the smallest slightly over 20 percent in Italy (from 238 to 190). Even in France, where the rate was only 168 at the beginning of this period, the decrease was almost 30 percent. The gross reproduction rates computed for other

TABLE 19.-GROSS REPRODUCTION RATES IN SELECTED COUNTRIES: SPECIFIED PERIODS, 1871 TO 1939
[Births have not been increased to allow for incomplete recording except in the United States. Leaders indicate that data are not available]

| countay | eably years |  | SOON AFTER WORLD WAR 1 |  | Shortiy before world war il |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Period | Rate | Period | Rate | Period | Rate |
| United States ${ }^{1}$ | 1871-76 | 225 | 1918-21 | 148 | 1938-39 | 106 |
| Northernand western Europe: | 1871-76 | 222 | 1920-21 | 168 | 1938-39 |  |
| Sweden. | 1871-75 | 215 239 | 1921-25 | 124 | $1938-39$ $1938-39$ | 90 |
|  | 1878-84 | 222 | 1921-25 | 138 | 1938-39 | 105 |
| England and Wales | 1871-75 | 235 | 1930-31 | 143 | 1938-39 | 128 |
| France... | 1871-75 | 168 | 1921-25 | 118 | 1938-39 | ${ }^{90} 102$ |
|  | 1871-75 | 255 | 1921-25 | 124 | 1038-39 | 110 |
|  | 1895-1900 | 248 | $1921-25$ 1928 | 158 97 |  | 104 |
| Southern and eastern Europe: |  |  |  |  |  |  |
| Portugal........................... |  |  | 1930-31 | 187 | 1938-39 | 166 143 |
| Hungary | 1900-1901 | 260 | 1920-21 | 183 | 1938-39 | 122 |
| $\stackrel{\text { Poland }}{\text { Bulgaria }}$ | $1901-05$ | 318 | 1927-28 | 195 | 1033-36 | 148 |
| Union of South Africa? | 1901-05 |  |  |  | 1988-39 | 149 |
| Oceania: Australia |  |  |  |  |  |  |
| New Zealand Japan... | 1911-15 | 154 | 1921-22 | 144 | 1938-39 | 113 |
| Japan. |  |  | 1925 | 260 | 1937 | 215 |

1White women in 1871-76; native white women in later years. The rate for $1871-76$ is a rough approximation.
${ }^{2}$ White women.
Source: The rates for foreign countries are from: Kuczynski, Robert R., The Measurement of Population Growth, Sidgwick and Jackson, Ltd., London, 1935, pp. 122-124; Statistique Generale de la France, Reproduc-
tion Nette en Europe, Imprimerie Nationale, Paris, 1941: and Population Index, School of Public Affairs, Princeton University, and Population Association of America. Inc., vol 7, No. 2. April, 1941, pp. 154-158, and Association of America. Anc., vp. 11, No. 2, April, 1945, pp. 152. The rates for the United States were computed by the Scripps Foundation.
nations before World War I show similar changes. During 20 to 30 years there was a 30 percent drop in Hungary, one of 21 percent in Bulgaria, and largest of all - a fall of over 60 percent in Austria.

The downward trend of fertility before World War I continued between World Wars I and II and affected nations with low birth rates as well as high. Austria had one of the low gross reproduction rates in the 1920's ( 97 in 1928) ; nevertheless, the 1935-36 rate of 77 was down by 21 percent. In Sweden, Finland, Denmark, England and Wales, France, Germany, Australia, and New Zealand - all of which had relatively low rates (between 115 and 150) in the early 1920 's - there were declines of 10 to 30 percent by the late 1930's.

Most of the countries with medium gross reproduction rates (between 150 and 200) in the early 1920's had larger percentage declines. In Norway, Czechoslovakia, Italy, Hungary, Poland,. and the Union of South Africa, the fall was between 20 and 45 percent. Portugal is an exception when rates for 1930-31 and 1938-39 are compared (the decrease was less than 12 percent), but might not be if the comparison could be based on rates for years around 1925. Countries with high gross reproduction rates (200 or more) after World War I - Bulgaria and Japan - had large declines on an absolute basis (83 and 45 points, respectively) and relative declines of 33 and 17 percent.

In most of the nations under consideration the long-time trend toward small families would have sufficed by itself to cause low birth rates during the early 1930's. As it was, however, the world-wide depression forced fertility to still lower levels in many cases, and the economic recovery of the late 1930's brought some rise. In Sweden the gross reproduction rate reached a low of 82 in 1933-35, then rose to 90 in 1938-39. In Norway, Denmark, and New Zealand similar trends were displayed. In Germany the larger rise from 80 in 1933 to approximately 110 in 1938-39 may be attributable at least in part to the various measures adopted to increase family size.

Accurate information as to fertility trends during World War II is available for relatively few foreign nations. In Portugal, the gross reproduction rate declined from 166 in 1938-39 to 154 in 1940-41 (continuing the past trend), but in Sweden it fluctuated between 88 and 92 . War and military occupation caused a sharp decline from 1939 to 1941 in Belgium (103 to 80), a somewhat smaller decline in France (106 to 90), and only a little change in the Netherlands (129 to 126) and Denmark (104 to 109). From 1941 to 1942, however, the rate rose substantially in France (90 to 98) and in Denmark (109 to 121). In other countries for which a rate has been computed, there were substantial increases from 1939 to 1943, namely, in the United Kingdom (89
to 99), Switzerland (88 to 113), Canada (132 to 155), Australia (108 to 116), and New Zealand (115 to 130). The causes of these increases probably are much the same as those of the increase in the United States from 105 in 1939 to 130 in 1943, which will be discussed later.

To sum up the experience of other countries having Western civilization and reliable data, a longtime downward trend in fertility has been the almost universal rule. Upswings have occurred but rarely, and have been relatively small and of short duration. With few exceptions they have been limited to reactions from the abnormally low birth rates caused by World War I or by the great depression of the early 1930's. Other similar reactions are to be expected in some countries because of World War II.

Causes of the long-time decrease in fertility in the United States
The large drop in birth rates, the great increase in the proportion of small families, and the corresponding decrease in the proportion of large families during past decades have been ascribed by various people to one or more of the following: (1) A less favorable marriage rate, (2) a rise in the proportion of pregnancies ending in a miscarriage or stillbirth, (3) the greater frequency of illegal abortions, (4) an increase in sterility or low fecundity, and (5) an increase in the voluntary limitation of family size. It is not possible to summarize here all of the evidence bearing on the relative importance of each of these factors in various countries, but the conclusions for the United States which are accepted by most students of the problem, and the main supporting arguments, can be mentioned briefly. In general, they apply to most of the other countries as well.

A less favorable marriage rate could come about because of a decrease in the proportion of persons who marry or a postponement of marriage until later years of life. Census data indicate, however, that no such unfavorable developments occurred in the United States from 1890 to $1940 .{ }^{21}$ (See table 20.) During this period there was a substantial increase in the proportion married among native white males in their twenties and among native white females under 30 . Smaller increases occurred at most of the other ages. In short, the trend during these decades was toward a lower average age at first marriage and a higher proportion of persons marrying before middle age. Such changes tended to increase birth

[^24]rates rather than to lower them, and could not have helped to cause the 40 percent drop which occurred from 1890 to 1940. Similar statements can be made for nonwhite women. The change from 1890 to 1920 in the marital status of foreign-born white women tended to raise their birth rates somewhat, and those from 1920 to 1940 to depress them slightly below the 1890 figure. From 1810 to 1890 the proportion of white persons marrying might have decreased and the age at marriage might have increased, but there is no evidence of such changes. Unless they took place on a large scale they could not have caused more than a small part of the 50 percent reduction in the fertility rate for the white population which occurred in those years.

Table 20.-Proportion of Native White and Nonwhite Persons Who Had Ever Married, by Age and Sex, for the United States: 1890 to 1940
[Computed from current census data]

| COLOR, NATIVITX, SEX, AND YEAR | $\begin{gathered} 15 \text { to } 19 \\ \text { years } \end{gathered}$ | $\begin{gathered} 20 \text { to } 24 \\ \text { years } \end{gathered}$ | $\begin{gathered} 25 \text { to } 29 \\ \text { years } \end{gathered}$ | $\begin{gathered} 30 \text { to } 34 \\ \text { years } \end{gathered}$ | $\begin{gathered} 35 \text { to } 44 \\ \text { years } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Native white |  |  |  |  |  |
| Male: |  |  |  |  |  |
| 1890 1900 | 0.5 1.0 | 17.8 20.9 | $\begin{array}{r}54.0 \\ 53.4 \\ \hline\end{array}$ | 74.2 72.2 | 85.6 83.3 |
| 1910 | 1.6 | 24.2 | 57.7 | 74.2 | 83.1 |
| 1920 | 2.1 | 27.8 | 60.7 | 76.7 | 84.1 |
| 1930 | 1.7 | 28.0 | 63.9 | 79.7 | 86.3 |
|  |  |  |  |  | 80.4 |
|  |  |  |  |  |  |
| 1900 | 10.4 | 46.4 | 70.8 | 88.9 | 87.6 |
| 1910 | 10.9 | 48.7 | 73.1 | 82.3 | 87.1 |
| 1920 | 11.7 11 | 51.1 | 74.5 77 | 83.2 | 87.1 |
|  | 10.9 | 51.5 | 76.8 | 88.9 | 88.5 88.9 |
| NONWHITE |  |  |  |  |  |
| Male: |  |  |  |  |  |
| 1890. | 0.9 | 33.5 | 66.8 | 76.8 | 84.3 |
| 1900 | 1.9 | 34.0 | 63.8 | 75.4 | 82.6 |
| 1910. 1920. | 2.3 4.0 | 38.8 44 | 67.7 69.8 | 78.4 78.8 | 86.1 |
| 1920 1930 | 4.0 3.6 | 44.0 | 69.8 68.5 | 78.8 78.8 | 85.8 |
| 1940 | 3.2 | 39.6 | 69.5 | 78.7 | 84.5 |
| Female: |  |  |  |  |  |
| 1890 | 15.1 | 61.9 | 82.5 | 88.4 | 92.6 |
| 1900 | 17.0 | 60.6 | 79.8 | 87.4 | 92.2 |
| 1910 | 18.4 | 65.1 | 83.0 | 89.1 | 93.0 |
| 1920 | 21.2 21.9 | 68.5 66.9 | 84.5 84 | 89.7 | 93.1 |
| 1930 1940 | 21.9 19.0 | 66.9 62.8 | 84.4 80.6 | 90.4 87.4 | ${ }_{92.1}^{93.8}$ |
|  |  |  |  |  |  |

The second factor to be dismissed as unimportant is an increase in the relative frequency of miscarriages and stillbirths. Information for the birth registration area shows that there was little change in the ratio of stillbirths to live births from 1918 to 1930, and a substantial decrease rather than an increase from 1930 to date. ${ }^{22}$ Less accurate information is available regarding miscarriages, but the indica-

[^25]tions are that the advances in prenatal care which reduced the frequency of stillbirths have had a similar effect on miscarriages. ${ }^{23}$ To prove the unimportance of miscarriages and stillbirths in causing the long-time decline in the birth rate, however, it is not necessary to establish past trends but only to look at the present record. Even if there had been no stillbirths in 1810, an increase to the recent ratio of 24 per 1,000 births to white women would have caused only 1 percent of the decline in the fertility rate which has occurred since $1810 .{ }^{24}$ And if the ratio of miscarriages to live births had been zero in 1810 and 96 in 1945 (four times the recent stillbirth ratio and probably too high an estimate), this change could have accounted for only 4 percent of the drop in fertility.

An increase in the frequency of illegal abortions may have contributed to the decline of the birth rate. There is trustworthy evidence of numerous illegal abortions in certain atypical urban groups, ${ }^{25}$ but the rate for more representative groups is relatively low, for example, between 10 and 31 illegal abortions per 1,000 pregnancies. ${ }^{26}$ Much less is known about the abortion rate of any important group of the population during previous decades, but the usual assumption is that it was lower. ${ }^{27}$ In view of the low rate in typical city groups in recent years, however, it is obvious that the frequency of illegal abortions could not have risen sufficiently to account for more than a small part of the large decline in fertility rates from 1810 to 1945.

Biological change, such as an increase in the incidence of complete sterility (the lack of ability to bear even one child), may have caused part of the drop of fertility rates. Census data show that 84.3 percent of the native white ever married women

[^26]aged 45-49 in 1940 were reported as having borne at least one child, and 15.7 percent as not having borne a child. In 1910 the corresponding percentages were 90.0 and 10.0. ${ }^{28}$ Allowing for the underreporting to census enumerators of children ever born reduces the percentage with no live birth to less than 13.0 in 1940 and probably to 8.0 or less in 1910. ${ }^{29}$ Obviously the percentage of ever married women who are completely sterile (i.e., who never can have a child) is smaller than the percentage who do not bear a child, for some of the latter are childless for other reasons than their sterility. It is clear, therefore, that even though complete sterility may have increased in the past it is still too infrequent to have caused more than a minor part ( 5 to 10 percent) of the long-time decline in fertility.

Evidence is less adequate as to how much of the long-time decline in fertility has been due to a rise in the proportion of couples with low fecundity or partial sterility, that is, whose capacity for childbearing is subnormal but who have at least one child. Little is known as to the size of this group at present, but there are indications that it may include 15 to 25 percent of the urban white couples and smaller proportions of other couples. ${ }^{30}$ Some of the couples with impaired fecundity have all the children they want; it is the spacing rather than the size of their families which is affected by their condition. The other couples want more children and probably would have more if their childbearing capacity were normal, but the large majority of those who have been studied would have only one or two additional children if their wishes were fulfilled. In consequence, even if low fecundity or partial sterility could be eliminated the gross reproduction rate of the native white population probably would be increased by less than 10 percent and certainly by less than 20 percent. Information regarding the incidence of low fecundity or partial sterility in earlier years is almost entirely lacking. But even if no couples were so af-

[^27]fected in 1810, this condition could not have caused more than 10 percent of the decline in the native white birth rate which has taken place since that year. Less is known about the effect of partial sterility or low fecundity on the birth rate of nonwhite couples, but there are some indications that its role may have been slightly more important in this group than in the white population.

As stated above, there are reasons for believing that none of the long-time decline of the birth rate in the United States should be attributed to an increasingly unfavorable pattern of marriage or to more frequent accidents of pregnancy, and only a comparatively small part at most to a relative increase in illegal abortions or to a biological change in the fecundity of women. The comparative unimportance of these factors indicates that the longcontinued and general reduction of the birth rate has occurred in large measure because of more widespread and effective attempts to limit family size to the number of children wanted. Such a conclusion is supported directly by two types of evidence. First, there is known to have been a very large increase in the manufacture and sale of contraceptives, and an advance in the efficacy of certain of the materials. The implications of these changes are clear and need no further discussion.

The second type of evidence consists of the results of several studies of human fertility. These show that control is practiced widely, and with considerable effect on family size, among typical as well as atypical groups of the population. ${ }^{31}$ Pearl studied a relatively typical group, namely, 30,949 women bearing a child during 1931-32 in hospitals in or near large eastern cities. ${ }^{32}$ Of the 25,316 white women nearly 43 percent had tried to restrict family size; of the 5,633 Negro women over 16 percent had done so. These efforts had reduced the birth rate by 25 to 50 percent in the white group and by less than 15 percent in the colored group. ${ }^{33}$

The 1,977 couples covered by the study, "Social

[^28]and Psychological Factors Affecting Fertility," included nearly all the couples in Indianapolis in certain color, nativity, age, educational, and religious groups; hence they should be highly typical for such groups in a large city. Approximately 90 percent of all of these couples had tried to plan the number and spacing of their children, and only 10 percent had not tried. Among the latter, of course, are many of the couples who found that they were sterile or of low fecundity. If only the couples whose childbearing capacity appeared to be normal during most of their married life are considered, the proportion that tried to plan fertility rises to over 98 percent. Classifying these couples according to the success of their efforts brings out important differences in family size. Over 40 percent of the couples had "planned" their last child or had "planned" not to have any children; in this group there were 146 births per 100 couples. Over 30 percent of the couples had not "planned" the last child, but said they had no more children than they wanted; in this group there were 199 births per 100 couples. Finally, about 25 percent of the couples said they had more children than they had "planned" or thought they ought to have; in this group there were 296 births per 100 couples. In contrast, there were approximately 700 births per 100 couples among the few couples that had not attempted to control family size. For the group as a whole, therefore, the attempts at the voluntary limitation of family size had reduced the gross reproduction rate to less than one-third of what it otherwise would have been. ${ }^{34}$

No comparable information is available regarding the proportion of couples that tried to plan the number and spacing of their children during the decades prior to 1930 nor regarding the success of their efforts. It is obvious, however, that if attempts at family control had been as widespread and efficacious in the United States during the nineteenth century as during recent years, the birth rate would have been much lower throughout that century and the decline from 1810 to 1945 much smaller.

In summary, the great preponderance of evidence indicates that the large and long-continued decline in fertility, which has halved the proportion of families with several children and increased the proportion with no or few children, has been due primarily to a large increase in the voluntary limitation of family size. Other factors, such as an increase in the abortion rate or in the incidence of partial or complete sterility, probably have helped to lower fertility, but their combined effect has been of minor importance.

[^29]
## Causes of the short-time changes in birth rates

Just as an analysis of the long-time trend of fertility in the past is helpful in forming an opinion regarding the long-time future trend, so is an analysis of year-to-year fluctuations about the long-time trend helpful in estimating the probable fertility during the next few years. Information about year-toyear fluctuations in the birth rate of the United States begins with 1910 but is scanty for the 1910-20 period. The estimated crude birth rate (births per 1,000 persons) increased gradually from 27.5 in 1910 to 28.1 in 1914, decreased gradually to 27.1 in 1918, dropped over 7 percent to 25.1 in 1919, and then jumped over 6 percent to 26.7 in $1920 .{ }^{35}$ Since 1920, birth rates by age of mother and order of birth of child have varied widely from year to year, as was pointed out earlier in this chapter.

There is no question but that great social upheavals, such as World Wars I and II and the depression of the 1930's, cause substantial short-time fluctuations in the birth rate. The 7 percent drop in the crude birth rate from 1918 to 1919 is ascribed usually to the absence of the millions of men who were in the armed forces during World War I. Similarly, the rise of over 6 percent from 1919 to 1920 is ascribed usually to demobilization. As pointed out earlier, birth rates fell substantially with the onset of the depression and rose with recovery. During World War II, like World War I, there were wide fluctuations, but in this case they were upward rather than downward. The United States declared war on Germany on April 6, 1917; the 1919 birth rate was over 8 percent below the 1917 rate. War with Japan began on December 7, 1941; the 1943 crude birth rate was about 13 percent above that for 1941, and the 1944 rate was nearly 6 percent above it. Evidently other conditions influencing short-time changes were different during these two wars. ${ }^{36}$ In spite of the fact that the birth rate was depressed during World War I and raised during World War II, the postwar rise is much greater for the latter than for the former. Part of the explanation may be the longer duration of the recent war and the much larger proportion of men in the armed forces on foreign soil.

Before discussing other causes of short-time fluctuations in birth rates it is important to recall the different behavior of the rates for the younger and the older women of childbearing age, and of the rates

[^30]for the lower order and the higher order births. During the 25 years for which data are available rates for the younger women and for the lower order births have fluctuated erratically, rising rapidly at some times and declining rapidly at others. In contrast, rates for the older women and for the higher order births have declined fairly steadily, departing comparatively little from the long-time trend. ${ }^{37}$ For this reason the discussion of short-time fluctuations will relate especially to rates for younger women and lower order births.

Because an important proportion of couples have their first child a year or so after marriage, fluctuations in the marriage rate should cause fluctuations a year later in the rate for first births. And because the majority of brides are under 25 at their first marriage, birth rates for women under 25 should be affected more than those for older women. The marriage rate has varied widely during recent years, the number of marriages per 1,000 women aged 17-29 rising to 104 in 1920, declining to 69 in 1932, rising to 114 in 1942, and then declining to 94 in $1944 .{ }^{38}$ (See table 21.) As would be expected, the birth rate of native white women aged $20-24$ was correspondingly high or low in the following year ( 166 in 1921, 117 in 1933,160 in 1943, and 133 in 1945), and also the rate for first births to native white women aged 15-49 (32.6 in 1921, 22.2 in 1933, 32.8 in 1943, and 26.9 in 1945). Correlation analysis shows a very close relationship ( $r$ equals .90 ) between the marriage rate each year from 1919 to 1943 and the first birth rate one year later. In fact, an estimate of the first birth rate for native white women in each year made from the marriage rate of the preceding year, based on the relationship for the 25 -year period, differs from the actual rate by 1.5 or more in only 6 of the 25 years. Even for 1945 the normal first birth rate (28.2) differs from the actual rate (26.9) by less than this amount. It is clear, therefore, that year-to-year changes in the marriage rate during recent years have been a very important cause of changes in the first birth rate a year later.

Fluctuations in the marriage rate might be expected to influence strongly the rate for second births two or three years later, the rate for third births three to five years later, and so on, but this does not

[^31]Table 21.-Marriage Ratiss, 1919 to 1944, and Actual and "Normal" First Brter Rates of Native White Women One Year Later, for the United States


The total number of marringes (as estimated by the Bureau of the Census) per 1,000 women 17 to 29 years of age. This age group is uted as a bnse because it contained over 75 percent of all the women marrying in the marringe recistration area in 1939 and 1990 , and a substantially higher percent of the women marrying for the first time.
${ }^{2}$ From table 17
"The "normal" first birth rate is computed on the basis of the correlation between the marriage rate and the first birth rate one year later during the $1919-44$ period. The correlation coefficient is .90 . The regression equation is $\mathrm{Yc}=2821 \mathrm{X}+1.714$.
dot yet available.
appear to be the case. Correlation analysis indicates that the closeness of the relationship between the marriage rate in a given year and birth rates by order of birth in the appropriate subsequent year diminishes rapidly as order of birth increases. ${ }^{39}$ It is substantially lower for second births than for first births, for third births than for second, and is of little, if any, significance for fifth and higher order births.

To say that variations in the marriage rate cause variations in the birth rate a year later raises the question as to what causes variations in the marriage rate. During the last 40 years much evidence has been accumulated showing that the marriage rate is affected in important degree by business cycles, rising with prosperity and declining with hard times. ${ }^{40}$

[^32]The reason for believing that the relationship is one of cause and effect is simple. In prosperous years unemployment is low, wages, salaries, and business earnings are high, and there is a widespread feeling of confidence in the future. The consensus of opinion is that such conditions are highly favorable to marriage. War and other factors cause changes in the marriage rate, of course, but even in the aggregate they appear to be secondary to economic changes in most years.

Since economic conditions affect the marriage rate, which in turn affects the first birth rate, they have an indirect effect on this birth rate. In addition, they should have a direct effect on it by influencing couples who arrange the spacing of their first child. Such couples should tend to plan their first birth when economic conditions are good and to postpone it when conditions are bad, regardless of how long they have been married. Since attempts to arrange the spacing of children have become widespread throughout the population, it follows that the direct effect of economic conditions on the first birth rate should have increased in the past and have become highly important in recent years. ${ }^{41}$

At present, unfortunately, there is little basis for ascertaining to what extent the relationship between economic conditions and the first birth rate a year later is direct (through the planning of births) and to what extent it is indirect (through the marriage rate). That the combined relationship is close, however, is shown conclusively by correlation analysis. ${ }^{42}$ It is true, of course, that a high correlation coefficient does not prove a cause and effect association, but in this case there are the valid reasons just mentioned for believing that the variations of the first birth rate result in important degree from prior variations in economic conditions.

Economic conditions should have a direct effect on second births as well as first, for couples with one child who try to arrange the spacing of their second child should be encouraged to plan to have the second during periods of prosperity and to postpone it during periods of depression. Because the proportion of births which are planned probably is somewhat

[^33]larger for second than for first births, the direct effect of economic conditions on the second birth rate should exceed that on the first birth rate. ${ }^{43}$ The indirect effect of economic conditions should be somewhat less clear for second than for first births, however, because of the longer time interval involved. Indirectly, a period of prosperity should tend to increase the first birth rate a year or so later, and the second birth rate $11 / 2$ to $21 / 2$ years after the first, with a total lag of $21 / 2$ to $31 / 2$ years. When the direct and indirect effects are considered together, an important difference is evident between first births and those of higher order. The first births of a given year are affected both directly and indirectly by the economic conditions of the previous year, but the second births of a given year are affected directly by the economic conditions of the first previous year and indirectly by those of the second or third previous year. Because these years may differ considerably as to prosperity the influence of one may offset that of another. For example, the second birth rate of a given year may be raised directly by favorable business developments of the first preceding year, but depressed indirectly by hard times a year or two earlier. In consequence, the direct and indirect effect combined (which is all that can be measured statistically) is significantly smaller for second than for first births, but is important nonetheless. ${ }^{44}$

As birth order rises, the effect of economic conditions decreases still further. There is a tendency for a prosperous year to cause directly a high third birth rate in the following year and indirectly (through the marriage rate) a high third birth rate from three to five years later, and for a depression year to have the opposite effect. It is probable, however, that neither relationship is as close for third as for second births. ${ }^{45}$ Fluctuations in economic conditions are less important in causing changes in the fourth birth rate than the third, and probably do not cause significant changes in the rates for sixth and higher order births.

In summary, the large year-to-year changes since 1920 in birth rates for younger women and lower order births have been due in important degree to

[^34]previous changes in economic conditions, and in certain years to the effects of World Wars I and II. Rates for higher order births and older women have been affected only in minor degree by these factors and have followed closely the long-time downward trend.

## Fertility rates in future years

In the light of present knowledge one may reasonably conclude that the factors which will primarily determine the long-time future trend of fertility will be (1) the speed with which the pattern of effective family planning is adopted by additional groups of the population and (2) the number of children that couples decide to have. Similarly, the most reasonable conclusion regarding causes of future fluctuations around the long-time trend is that changes in economic conditions will be of primary importance. The implications of these conclusions will be discussed briefly.

## The long-time trend

The extension of the pattern of effective family planning-the first of the factors expected to determine the long-time future trend-probably will continue at a fairly rapid pace. Incident upon the war, great shifts of population took place from one section of the United States to another, for millions of men and thousands of women entered the armed forces and an important proportion of those who remained in the civilian labor force changed their place of work. Moreover, millions of women and girls who might never have sought employment in time of peace took jobs in offices, stores, and factories. These changes have tended to bring people with a regional or family background of high fertility into contact with those having a background of low fertility. Such contacts disseminate more widely the knowledge of effective measures of family planning and the point of view which leads to their use. Experience with similar situations in the past has shown that this is much more likely to reduce the birth rate of the high fertility group than to increase that of the low fertility group. In consequence, the number of couples who have more children than they believe they ought to have will become smaller and smaller.

With fertility coming to depend more and more on the size of planned families, it becomes increasingly important to know what people think is the optimum number of children. The best sources of information for the Nation as a whole are the surveys made by the American Institute of Public Opinion in 1941 and 1945, in which the respondents were asked,
"What do you consider is the ideal size of family a husband, a wife, and how many children?" If family size were to agree with the 1941 ideals, couples with two children would be most numerous, followed by those with three and four children. Very few couples would have an only child, and only a small number would have five or more children (see table 22). Altogether 100 mothers would have 297 children. Between 1941 and 1945 there were significant changes in opinions regarding ideal family size, for the later survey showed a substantially smaller number of persons favoring 2-child families and a correspondingly larger number favoring 4 - or 5 -child families. If people were to live up to these opinions there would be 330 births per 100 mothers in future years. The change in opinions from 1941 to 1945 could mean that there will be a tendency toward larger families in the future. It seems more probable, however, that it reflects the psychology and economic conditions of the war and that a survey a few years later will elicit replies which are more like those of 1941 than i 945.

Table 22.-Percent Distribution of Women 21 to 34 Years of Age by Opinton on Ideal Number of Children in a Family: 1941 and 1945
[From national surveys conducted by the American Institute of Public Opinion]

${ }^{1}$ Computed from the columns to the left. It is assumed that on the average 7 children were reported by women favoring 6 or more.

In interpreting opinions as to ideal family size it is important to note that the ideal number of children for a family is significantly higher than the actual number in recent years and exceeds in larger degree the number that was planned. To provide the children for families of ideal size according to the 1945 opinions, namely, 330 per 100 mothers, would require birth rates as high as those of 1943 or the years before 1928. In fact, the birth rates of most years from 1928 to 1946 would give families with fewer children than the ideal number according to the 1941 opinions. As pointed out previously, the actual number of births per mother averages considerably higher than the number that would be planned.

Whether opinions will favor larger or smaller families in the future and whether the number of children per family that is planned will continue to
be so much smaller than the number thought ideal, will depend very directly on the nature of the postwar world and on the kind of lives that people desire and are able to lead. The success with which solutions are found for the international problems of security and the domestic problems of economic adjustment may be expected to influence the willingness of people to undertake the responsibilities of marriage and childbearing, the age at which they marry, and the number of children they plan to have. Thought and behavior with respect to reproduction will be still further affected if additional services and allowances come to be provided for families with young children.

When all of these matters are taken into account, there seems to be little justification for estimating the future trend of birth rates by the extrapolation of any curve fitted mathematically to the rates of earlier years. Many mathematical formulas for extrapolating past trends in rates for the native white population would give values for the year 2000 that seem absurdly low, representing fewer than one hundred births for each hundred women living through the childbearing period. Such declines would assume a large increase in the proportion of married couples controlling the size of their families and a marked decrease in the number of children that they decide to have. The result would be that the couples with no children or with only one would outnumber those with two or more. Such a situation is quite unlikely. It is more probable that the proportion of married couples wanting two or three children will remain sufficiently high to prevent such large declines in the average number of children per family and to maintain an average of at least 150 births per hundred women living to age 50. This figure is the low fertility assumption for the end of this century in both the present and the preceding reports. It sets the gross reproduction rate for the United States at 73 in the year 2000 , the same as the rate for the District of Columbia in 1940, but below the lowest State rate in that year ( 78 in New Jersey). Since a gross reproduction rate of 103 to 105 will be needed to maintain a stationary population with the death rates expected in 2000 , the low fertility assumption would bring about a decreasing population unless offset by immigration.

At the other extreme, it seems unlikely that the causes underlying the long-continued decline of the birth rate will undergo any radical change. At best, then, the conditions favoring higher birth rates can be expected to do no more than offset the tendency toward further decline. In effect this is to assume
that the anticipated increases in the proportion of couples controlling the size of their families will be counterbalanced by increases in the number of children they plan to have, supplemented perhaps by improvements in the treatment of low fecundity and sterility. The high fertility assumption, made on these grounds, is that the gross reproduction rate of the native white population will fluctuate around the 1935-44 value of approximately 112. Since this exceeds the replacement level of reproduction, the high fertility assumption provides for a continued natural increase of the population.

The high and low assumptions are designed as extreme values; it is more probable that the longtime future trend of fertility will be somewhere between these extremes. The medium assumption is that there will be a moderate increase in the proportion of married couples restricting the size of their families and little change in the number of children that they decide to have. Under these conditions birth rates will continue to decrease during the next 60 years, but the speed of decline will be retarded substantially. According to the medium assumption for the year 2000,100 native white women living through the childbearing period will bear 190 children, and the gross reproduction rate will be approximately 92 . This would bring the fertility of native whites throughout the Nation to the 1939-41 level in the New England States, or to a point well below that required for the maintenance of a stationary population. In consequence, the medium as well as the low fertility assumptions lead eventually to a decreasing population unless offset by sufficient immigration from abroad.

These future trends in the average fertility of native white women are assumed to be accompanied by changes in birth rates by order of birth and by age of mother. The low fertility assumptions anticipate that by the year 2000 there will have been a very large decline (over 75 percent) in the number of fourth and higher order births per 1,000 native white women living to age 50, a small decline (about 10 percent) in the number of first births, and intermediate declines for the other birth orders (see table 23). The relative decrease in birth rates by age is 37 percent for native white women 15-19, declines to 22 percent at ages 25-29, and then rises to 76 percent at ages $40-44$ (see table 24). The high fertility assumptions are predicated on the maintenance of the 1935-44 gross reproduction rate, with decreases of rates for higher order births and for births to women in the latter part of the childbearing period which are offset by increases of rates for lower order births and for births to younger women. They envisage declines of between 40 and 90 percent in the number of sixth and higher order births per 1,000 native white women living to age 50 , and increases of between 10 and 40 percent in the number of second, third, and fourth births. Rates for women 35 to 44 fall between 13 and 33 percent while those for women 20 to 29 rise between 3 and 7 percent. Intermediate changes are assumed to occur if fertility follows the medium trend. All assumptions, therefore, anticipate that in the future as in the past there will be a decline in the rates for fifth and higher order births and a concentration of reproduction in the first half of the childbearing period.

Table 23.-BIRTHS PER 1,000 NATIVE WHITE WOMEN LIVING TO AGE 50, BY ORDER OF BIRTH, FOR THE UNITED STATES: AVERAGE RATES, 1935-44, AND PROJECTED RATES, 1960, 1975, AND 2000
[It is assumed for 1935-44 that the women who live to age 50 have at ages $15-19,20-24$, etc., the birth rates by order of birth of native white women of those ages in 1935-44. Similar assumptions are made for 1960, 1975, and 2000]

| tear and assumption | $\underset{\text { births }}{\text { All }}$ | $\underset{\substack{\text { First } \\ \text { births }}}{ }$ | Second births | Third births | $\underset{\text { Firths }}{\text { Fiourth }}$ | Fifth | Sixth births | Seventh births | Eighth and higher births |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average, 1935-44 | 2,314 | 854 | 580 | 320 | 187 | 118 | 80 | 56 | 119 |
| $\begin{aligned} & \text { High assumptions: } \\ & 1960 \text { 1975 } \\ & 2000 \end{aligned}$ | 2,314 2,314 2,314 | $\begin{aligned} & 826 \\ & 829 \\ & 830 \\ & -3 \end{aligned}$ | 638 656 665 +15 | 407 427 439 +37 | 202 203 205 +10 | $\begin{array}{r} 104 \\ 97 \\ 93 \end{array}$ | 57 48 44 45 | 32 <br> 24 <br> 19 | 49 29 19 |
| Percent change, 1935-44 to 2000 |  |  |  |  |  |  |  |  | -84 |
| Medium assumptions: 1960 1975 _- 2000 | 2,064 11,972 1,905 -18 | $\begin{aligned} & 789 \\ & 795 \\ & 800 \end{aligned}$ | 573 557 545 -6 | 331 323 318 -1 | 169 161 136 -27 | $\begin{aligned} & 87 \\ & 72 \\ & 60 \end{aligned}$ | 46 33 23 -71 | 26 17 11 80 | 42 25 13 |
| ercent change, 1935-14 to 2000 |  |  |  |  |  |  |  |  | -89 |
| Low assumptions: |  |  |  |  |  |  |  |  |  |
| 1975.-1....... | $\begin{array}{r}1,608 \\ 1,500 \\ \hline\end{array}$ | 770 770 | 490 | ${ }_{212}^{242}$ | 70 45 | 24 | 6 | 15 2 | 20 3 |
| Percent change, 1935-44 to 2000 |  | $-10$ | -92 |  | $-76$ | -90 | -98 |  |  |



Figure 2.-BIRTHS PER 1,000 NATIVE WHITE WOMEN LIVING TO AGE 50, BY ORDER OF BIRTH, FOR THE UNITED STATES: AVERAGE RATES, 1920-24 TO 1940-44; PROJECTED RATES, 1945-49 TO 1995-00

BIRTHS PER 1,000 WOMEN




Figure 3.-Birth Rates by Age of Mother, for Native White Women in the United States, 1920 to 1945; Projected Rates, 1950 то 2000

Table 24.-Birth Rates by Age of Mother and Gross Reproduction Rates, for Native White Women in the United States: Average Rates, 1935-44, and Projected Rates, 1960, 1975, AND 2000

| $\underset{\text { ystarandion }}{\text { astion }}$ | birth mate ${ }^{1}$ for women aged- |  |  |  |  |  | $\begin{aligned} & \text { Gross } \\ & \text { repro- } \\ & \text { duction } \\ & \text { rate } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 15 \text { to } \\ & 19 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 20 \text { to } \\ & 24 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 25 \text { to } \\ & 29 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 30 \text { to } \\ & 34 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 35 \text { to } \\ 39 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 40 \text { to } \\ & 44 \\ & \text { years } \end{aligned}$ |  |
| Average, 1935-442 | 47 | 138 | 128 | 85 | 48 | 16 | 112 |
| High assumptions: 1960 | $\begin{aligned} & 47 \\ & 47 \\ & 47 \end{aligned}$ | $\begin{aligned} & 144 \\ & 147 \\ & 148 \end{aligned}$ | $\begin{aligned} & 131 \\ & 132 \\ & 132 \end{aligned}$ | $\begin{aligned} & 85 \\ & 84 \\ & 84 \end{aligned}$ | $\begin{aligned} & 44 \\ & 42 \\ & 42 \end{aligned}$ | 131111 | 113113113 |
| 1975.........- |  |  |  |  |  |  |  |
| 2000 |  |  |  |  |  |  |  |
| Percent change, 1935-44 to 2000 . |  | +7 | +3 |  | -13 | $-33$ | +1 |
| Medium assumptions: | $\begin{aligned} & 42 \\ & 40 \\ & 39 \end{aligned}$ | $\begin{aligned} & 129 \\ & 127 \\ & 125 \end{aligned}$ | $\begin{aligned} & 120 \\ & 118 \\ & 117 \end{aligned}$ | $\begin{aligned} & 72 \\ & 67 \\ & 64 \end{aligned}$ | $\begin{aligned} & 38 \\ & 32 \\ & 29 \end{aligned}$ | $\begin{array}{r}11 \\ 9 \\ 7 \\ \hline\end{array}$ | 1009692 |
| ${ }_{1975}^{196} \ldots \ldots \ldots$ |  |  |  |  |  |  |  |
| 2000 |  |  |  |  |  |  |  |
| Percent change, 1935-44 | -19 | -9 | -8 | -25 | -40 | $-57$ | -18 |
| Low assumptions: | $\begin{aligned} & 36 \\ & 32 \\ & 30 \end{aligned}$ | $\begin{aligned} & 114 \\ & 108 \\ & 104 \end{aligned}$ | $\begin{aligned} & 110 \\ & 103 \\ & 100 \end{aligned}$ | $\begin{aligned} & 59 \\ & 50 \\ & 45 \end{aligned}$ | $\begin{aligned} & 30 \\ & 21 \\ & 16 \end{aligned}$ | 1064 | 877873 |
| 1960 |  |  |  |  |  |  |  |
| $\begin{aligned} & 1975 \\ & 2000 \end{aligned}$ |  |  |  |  |  |  |  |
| Percent change, 1935-44 | -37 | -24 | -22 | -47 | -67 | $-76$ | -35 |
|  |  |  |  |  |  |  |  |

${ }^{1}$ Births to women in a specified age group per 1,000 female population in that age group.
${ }^{2}$ From table 15.
The high, medium, and low rates having been determined for each age level in 2000, rates for the years between 1950 and 2000 were obtained by interpolation along a smoothed curve. In nearly all cases it was assumed that the changes from year to year would gradually become smaller, so that the trend lines would be nearly horizontal after 2000 . The resulting trends of rates for each birth order according to the three assumptions are shown in figure 2 , and those of rates for each age group in figure 3. The long-time trend in the ratio of children to women is shown in figure 4.

The future fertility trends assumed for foreignborn white women and nonwhite women are based on those for native white women. Since 1920 the birth rates of foreign-born white women have been decreasing faster than those of native white women; it is expected that the forces narrowing the differential in the past will continue to operate in the future. Birth rates of nonwhite women declined more rapidly than those of native white women from 190509 to 1915-19 and less rapidly from 1925-29 to 1930-34, then rose less rapidly from 1930-34 to 1940-44. Since the limitation of family size is as yet much less general among nonwhite than among native white women, there is more prospect for its extension in the nonwhite group. The result would be a larger decrease in the birth rates of the nonwhite population than in the rates of the native whites. Under the medium assumption the relative excess of the birth rates of foreign-born white and nonwhite women over those of native white women is reduced by five-eighths between 1940 and 2000. Under the high assumptions the percentage differ-


Figure 4.-Children Under 5 Years of Age per 1,000 White Women 20 to 44 Years of Age, for the United States, 1800 to 1945 ; Projected Ratios for Native White WoMEN, 1950 то 1975
ential is reduced by one-half ; under the low assumptions it is reduced by three-fourths. ${ }^{46}$

## Short-time fluctuations

The foregoing discussion of long-time future trends in fertility is taken with minor changes from the previous report, for the events since its preparation in 1942 give no adequate basis for improving it significantly. In contrast, the short-term outlook for birth rates during 1945-50 is different from what it was at that time. A high degree of economic prosperity plus war psychology resulted in a substantially larger number of births during 1942-45 *than was expected when the previous report was prepared. Similarly, unless this period of prosperity comes to a more sudden end and is followed by a worse depression than most economists and business leaders predict, there will be more births during 1945-50 than were indicated by the long-time trends set up in 1942. According to those trends the number of births during the 5 -year period beginning July 1, 1945 , would be between $12,500,000$ and $13,800,000$, with $13,100,000$ as a medium estimate. On the basis

[^35]of the information available in October, 1945, however, it seems more likely that births during the current 5 -year period will amount to between $13,000,000$ and $14,000,000$, with $13,500,000$ as a medium estimate. ${ }^{47}$

It may be argued that if fertility rates fluctuate above the long-time trend during 1945-50 because of prosperity, they will fluctuate below the trend at a later date during a depression. Although this viewpoint may be correct in theory, it can scarcely be followed in making estimates of future population because of the conflicting opinions and the lack of information as to the probable fluctuations of economic conditions around their long-time trend after 1950.

Because birth rates are much more variable and more subject to individual control than death rates, the actual birth rates of future years can be expected to depart more widely from the medium assumptions than the actual death rates. But because the range between the high and low assumptions of this report is much larger for birth rates than for death rates, the probability that the actual rates will fall between these extremes after 1950 may be about as great for one as the other.

[^36]It is realized that it may be desirable in some instances to ascertain the effect on future population growth of birth rate trends other than the high, medium, or low assumptions used in this report. It is believed that this can be done with sufficient accuracy for most purposes by narrowing or widening the differences between the results based on these three series.

## C. COMPLETENESS OF ENUMERATION AND REGISTRATION

In addition to having fertility and mortality assumptions for the future years in question, it is necessary to have the number of persons by color, nativity, age, and sex in a recent year on which to base the forecasts. The most recent census is obviously an excellent source of such information. As mentioned in section B, however, there is a tendency in the United States as in other countries for the persons seen by the census enumerators to fail to report a substantial number of children under 5 years of age. It is desirable, therefore, to allow for the children not counted in 1940 before making current postcensal estimates and projecting these estimates into the future. With the information now available, the best procedure for doing so is to: (a) Record the number of births registered during the 5 years ending on the census date, (b) record the number of deaths of these children which occurred prior to the census date, (c) correct the data in " $a$ " and " $b$ " for incomplete reporting, (d) deduct the adjusted deaths from the adjusted births, and (e) compare the remainder with the number of children under 5 enumerated in the census.

According to a study made by the Bureau of the Census, 94 percent of the white births and 82 percent of the nonwhite births which occurred from December 1, 1939, to March 31, 1940, were registered. ${ }^{48}$ These percentages are not uniform throughout the Nation; on the contrary they vary widely. For example, 1 percent or less of the white births were unrecorded in Connecticut, New Jersey, and Minnesota, but over 15 percent in South Carolina, Georgia, Tennessee, and Arkansas. Larger variations are found in the recording of nonwhite births, less than 3 percent having been omitted in Massachusetts, Connecticut, New Jersey,•Minnesota, and Delaware during the test period, but more than 30 percent in Arkansas, Oklahoma, Texas, New Mexico, and Arizona. Although the information on these matters

[^37]for years before 1940 is mostly indirect, it shows fairly conclusively that the longer a State has been in the birth registration area, the more completely its births are recorded. Less is known about the proportion of deaths of children under 5 years of age that are not reported, but there are reasons for believing that registration has been more complete for deaths than births and that it also has improved during recent years.

In the present report it is assumed that 93.6 percent of the white births and 81.6 percent of the nonwhite births occurring from April 1, 1935, to March 31, 1940, were registered, and that 96.8 percent of the white deaths and 90.8 percent of the nonwhite deaths of these children were registered. ${ }^{49}$ The number of native white children under 5 on April 1, 1940, computed from birth and death statistics adjusted as noted above, exceeds the number enumerated in the census by 7.1 percent for boys and 6.5 percent for girls. The corresponding percentages for nonwhite children are 19.0 for boys and 16.9 for girls. In other words, it is assumed that 93.4 percent of the total number of native white boys under 5 on April 1, 1940, were reported in the census, 93.9 percent of the native white girls, 84.0 percent of the nonwhite boys, and 85.5 percent of the nonwhite girls.

There are two important reasons for believing that the completeness of birth registration improved from 1940 to 1944. The first is based on the wartime regulations which forced millions of workers to prove that they were native-born in order to hold the jobs they desired. It is believed that this stimulated these people, and others as well, to make sure that the births of their children were recorded. The second, and probably more important, factor is the rapid increase in the proportion of births occurring in hospitals and other institutions, from 55.8 percent in 1940 to 75.6 percent in 1944. ${ }^{50}$ Since the registration test of 1940 showed that recording was much more complete for babies born in institutions ( 98.5 percent) than for those born elsewhere (86.1 percent), this change in itself would increase the proportion of white births registered from 94.0 to 96.0 percent and that of nonwhite births from 81.3 to 82.7 percent. ${ }^{51}$ These are the percentages used in this report.

The population of the United States on July 1, 1945, has been estimated by the Bureau of the Cen-

[^38]sus from the population enumerated on April 1, 1940, adjusted for the underenumeration of children, and from statistics of births, deaths, and the movement of aliens and citizens across our boundaries between the dates mentioned. This procedure gives a population estimate for July 1, 1945, which is comparable with the 1940 census if the latter is adjusted for underenumeration. For many purposes, however, it is desirable to compare the 1945 population figures with the census figures as enumerated in 1940 and earlier years; hence removal of the adjustment from the 1945 figures is advisable. To accomplish this, the Bureau assumed that, as there was an improvement in the completeness of birth registration between 1940 and 1945, there would also have been a more complete enumeration of children under 5 in 1945 than in 1940 if a census had been taken in the later year. Specifically, figures for July 1, 1945, which are believed to be comparable with the 1940 census, were obtained by assuming that 94.7 percent of the white boys, 95.0 percent of the white girls, 86.6 percent of the nonwhite boys, and 87.8 percent of the nonwhite girls under 5 would have been reported if there had been a census in 1945. ${ }^{52}$

Two estimates of the number of children under 5 years of age are given in each table of future population (tables I to VII, inclusive). The larger numbers, given at the bottom of each table, represent the estimated total numbers of children under 5 "adjusted for census underenumeration of children." The smaller numbers, included in the body of each table, are the estimated numbers of children under 5 that would be counted in a census according to the percentages for 1945 (mentioned above). It is these figures and the accompanying population totals that should be compared with census data for 1940 and earlier years.

There is evidence that the 1940 census, like those of other years and other countries, contains certain other discrepancies. For example, it appears that an appreciable number of young men aged 18 to 25 or thereabouts were omitted from the census because they were "on the move" at the time of the enumeration. Since there is little basis for estimating the size of this group, no adjustment has been made for it in this report. It may also be that the 1940 census figures for the population in the older ages are somewhat in error, a significant proportion of the persons immediately under 65 having been reported to the enumerators as 65 or older. An adequate basis

[^39]for estimating these errors precisely is not available; hence no attempt has been made to correct all the census figures in these age groups. Since such age biases appear to be somewhat marked for nonwhites, however, the nonwhite population 55 years old and over as enumerated was redistributed in such a way as to increase the number $55-64$ by 8 percent, decrease the number $65-74$ by 14 percent, and increase the number 75 and older by 7 percent.

## D. IMMIGRATION AND FUTURE POPULATION GROWTH

Immigration to the United States in past decades made an important contribution to population growth and influenced significantly the color, nativity, age, and sex composition of the population. ${ }^{53}$ It is estimated that over 25 percent of the gain in the white population during each decade from 1840 to 1910 came from the excess of persons entering the United States over those departing. ${ }^{54}$ During the 1880's and 1900's immigration accounted for over 40 percent of the increase in the white population, and as late as the 1920's for over 20 percent.

From 1915 to 1920 the amount of immigration was small in comparison with prior years because of conditions brought about by World War I, but the influx in the postwar years probably would have approached or exceeded that of the prewar period if a system of restrictions had not been adopted in 1921. As it was, however, Congressional action set the maximum number of immigrants admissible from quota countries at approximately 357,000 during the fiscal years ending in 1922-24 and reduced it to 164,667 during the fiscal years ending in 1925-29 and to 153,714 after June, 1929. Since the summer of 1930 immigration has been restricted still further by various regulations affecting the issuance of visas. As a result, the number of immigrant aliens admitted in the fiscal years 1931-45 averaged only 46,000 annually, and in some of these years the number of alien emigrants exceeded the number of immigrants. ${ }^{55}$

Whether domestic opinion in the United States and international conditions will permit a substantial amount of immigration during the next few decades

[^40]remains to be seen. It seems safe to assume that there will be large numbers of persons desirous of taking residence in this country and that certain groups in the United States will favor a relaxation of the restrictions on admissions. In the light of the policy developments of the last 25 years it seems more probable that immigration will either be negligible or continue on a small scale than that it will increase substantially. In consequence, the basic series of population projections for future years are made on the assumption of no net immigration. Public sentiment can change rapidly, however, and a majority may soon favor the resumption of immigration up to the quota limits or even on a larger scale. It is desirable, therefore, to illustrate the effect of such developments on the growth and composition of the population during future years.
The method utilized consists of showing the number of white persons that would be added to the population if those entering the United States during each 5 -year period exceeded those departing by 500,000 , by $1,000,000$, or by $1,500,000 .{ }^{56}$ The first figure ( 500,000 in 5 years) would represent a net movement to the United States somewhat smaller than that of civilians (aliens and citizens) from

[^41]July 1, 1940, to July 1, 1945. It is the number that would be admitted from the quota nations if approximately two-thirds of the quotas were filled and no emigration occurred. The second figure ( $1,000,000$ in 5 years) could occur through the complete use of present quotas and the admission of about 230,000 immigrants from nonquota nations. The third amount ( $1,500,000$ in 5 years) would require a larger number of nonquota immigrants, an increase in the quotas, or both. It would mean a return of immigration almost to the scale of 1924-28.

The net immigrants of each future 5-year period are assumed to have on arrival the sex and age distribution of those of the period 1925-29, the most recent years for which there was any considerable volume of "normal" immigration (see table 25). A net emigration of males is assumed for the age groups 40-44 and 45-49 because an outward movement occurred at these ages in 1925-29, the period on which the sex and age distribution is based.

The birth rates and death rates applied to the new immigrants after the 5 -year period of their arrival are those for the foreign-born white population which came earlier. The American-born children of foreign-born persons are assumed to be subject to the birth rates and death rates of the older native white stock. Any marked changes in immigration policy leading to the entry of large numbers of aliens having birth rates and death rates different in the future from those of the foreign born now in this country would, of course, make necessary a revision of these calculations.
The additions to the population of future years

Table 25.-ASSUMED DISTRIBUTION BY aGE and SEX OF SPECIFIED NET NUMBERS OF WHITE IMMIGRANTS IN A 5 -YEAR PERIOD
[Based on the age and sex distribution of the excess of white immigrant aliens over white emigrant aliens during 1925-29. The distributions are assumed to apply

| Age | 500,000 |  |  | 1,000,000 |  |  | 1,500,000 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| All ages.. | 500,000 | 275,000 | 225,000 | 1,000,000 | 550,000 | 450,000 | 1,500,000 | 825,000 | 675,000 |
| Under 5 years. 5 to 9 years. | $\begin{array}{r} 9,600 \\ 22,800 \\ 35,400 \\ 64,200 \\ 148,700 \\ 119,400 \\ 55,700 \\ 17,200 \\ 5,100 \end{array}$ | 5,60013,90021,40038,10094,10073,40030,9002,600$-4,600$ | $\begin{array}{r}4,000 \\ 8,900 \\ \hline 14,000\end{array}$ <br> 14,000 26,100 <br> 54, 600 <br> 46,000 24,800 <br> 14,600 9,700 | $\begin{array}{r} 19,200 \\ 45,600 \\ 70,800 \\ 122,400 \\ 297,400 \\ 238,800 \\ 111,400 \\ 34,400 \\ 10,200 \end{array}$ | $\begin{array}{r} 11,200 \\ 27,800 \\ 42,800 \\ 76,200 \\ 188,200 \\ 146,800 \\ 61,800 \\ 5,200 \\ -9,200 \end{array}$ | $\begin{array}{r} 8,000 \\ 17,800 \\ 28,000 \\ 52,200 \\ 109,200 \\ 92,000 \\ 49,600 \\ 29,200 \\ 19,400 \end{array}$ | $\begin{array}{r} 28,800 \\ 68,400 \\ 106,200 \\ 192,600 \\ 446,100 \\ 358,200 \\ 167,100 \\ 51,600 \\ 15,300 \end{array}$ | 825,00016,80041,70064,200114,300282,300220,20092,7007,800$-13,800$ | 12,000 26,700 <br> 42,000 <br> 163,800 <br> 138,000 74,400 <br> 43,800 |
| 10 to 14 years.. |  |  |  |  |  |  |  |  |  |
| 15 to 19 years... |  |  |  |  |  |  |  |  |  |
| 20 to 24 years. 25 to 29 years. |  |  |  |  |  |  |  |  |  |
| 30 to 34 years.. |  |  |  |  |  |  |  |  |  |
| 35 to 39 years.. |  |  |  |  |  |  |  |  |  |
| 40 to 44 years. |  |  |  |  |  |  |  |  |  |
| 45 to 49 years. | 5,3005,7004,4002,8001,500900500400400 | $\begin{array}{r} -1,600 \\ 600 \\ 400 \\ 200 \end{array}$ | 6,9005,1004,0002,6001,500900500400400 | 10,60011,4008,8005,6003,0001,8001,000800800 | $\begin{array}{r} -3,200 \\ 1,200 \\ 800 \\ 400 \end{array}$ | 13,80010,2008,0005,2003,0001,8001,000800800 | $\begin{array}{r} 15,900 \\ 17,100 \\ 13,200 \\ 8,400 \\ 4,500 \\ 2,700 \\ 1,500 \\ 1,200 \\ 1,200 \end{array}$ |  |  |
| 50 to 54 years. |  |  |  |  |  |  |  | $\begin{array}{r} -4,800 \\ 1,800 \\ 1,200 \\ 600 \end{array}$ | $\begin{array}{r} 20,700 \\ 15,300 \\ 12,000 \\ 7,800 \\ 4,500 \\ 2,700 \\ 1,500 \\ 1,200 \\ 1,200 \end{array}$ |
| 60 to 64 years. |  |  |  |  |  |  |  |  |  |
| 65 to 69 years. |  |  |  |  |  |  |  |  |  |
| 70 to 74 years. 75 to 79 years. |  |  |  |  |  |  |  |  |  |
| 80 to 84 years. |  |  |  |  |  |  |  |  |  |
| 85 to 89 years.... |  | ............. |  |  | - |  |  | $\ldots$ |  |
|  |  |  |  |  |  |  |  |  |  |

that would result from immigration of the type described are shown in table 26. For example, if mortality and fertility should follow the medium assumptions, the net immigration of 500,000 persons during each 5 -year period would increase the 1950 population (adjusted for underenumeration) by 500,000 , the 1960 population by $1,709,000$, and the 1975 population by $3,745,000$. Similarly, if mortality should follow the low assumptions and fertility the high assumptions, the net arrival of 500,000 persons per 5 years would increase the 1960 population by 1,735 ,000 and the 1975 population by $3,899,000$. Because a high proportion of the immigrants arrive as young adults, the number of children they have is substantially larger than their losses by death for several years after they enter the United States. For this reason the net arrival of 500,000 immigrants during each of the six 5-year periods from 1945-50 to 197075 would give a net total of $3,000,000$ newcomers by 1975 , but with medium fertility and mortality rates would add $3,745,000$ persons to the population in that year. ${ }^{57}$

At the risk of repeating, it should be emphasized again that there is little basis for forecasting the

| Table 26.-Additions to the Population of the United States Which Would Result From Selected Amounts of Net Immigration of White Persons in Each 5-year Period After July 1, 1945, According to Various Assumptions of Fertility and Mortality: 1950 to 1975 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 500,000 |  | 1,000,000 |  | 1,500,000 |  |
| $\begin{aligned} & \text { YEAR AND } \\ & \text { ASSUMPTION } \end{aligned}$ | Number (in thousands) | Percent of population with immigration | $\begin{aligned} & \text { Num- } \\ & \text { ber } \\ & \text { (in } \\ & \text { thou- } \\ & \text { sands) } \end{aligned}$ | Percent of population with immigration | $\begin{aligned} & \text { Num- } \\ & \text { ber } \\ & \text { (in } \\ & \text { thou- } \\ & \text { sands) } \end{aligned}$ | Percent of population with immigration |
| $\begin{aligned} & \text { MEDIUM } \\ & \text { FERTILITY, } \\ & \text { MEDIUM } \\ & \text { MORTALITY } \end{aligned}$ |  |  |  |  |  |  |
| 1950. | 500 | 0.3 | 1,000 | 0.7 | 1,500 | 1.0 |
| 1955 | 1,076 | 0.7 | 2,151 | 1.4 | 3,227 | 2.1 |
| 1960 | 1,709 | 1.1 | 3,417 | 2.2 | 5,126 | 3.2 |
| 1965 | 2,374 | 1.5 | 4,748 | 2.9 | 7,121 | 4.3 |
| 1970 | 3,053 | 1.9 | 6,105 | 3.7 | 9,158 | 5.4 |
| 1975. | ${ }^{1} 3,745$ | 2.2 | 7,489 | 4.4 | 11,234 | 6.4 |
| HIGH FERTILITY, ${ }^{2}$ LOW MORTALITY |  |  |  |  |  |  |
| 1950 | 500 | 0.3 | 1,000 | 0.7 | 1,500 | 1.0 |
| 1955. | 1,084 | 0.7 | 2,167 | 1.4 | 3,251 | 2.1 |
| 1960 | 1,735 | 1.1 | 3,470 | 2.1 | 5,205 | 3.2 |
| 1965 | 2,430 | 1.4 | 4,860 | 2.9 | 7,290 | 4.2 |
| 1970 | 3,150 | 1.8 | 6,300 | 3.5 | 9,449 | 5.2 |
| 1975 | 13,899 | 2.1 | 7,799 | 4.2 | 11,698 | 6.2 |

[^42]Nation's immigration policy accurately and in detail. The function of the material in tables 25 and 26 is to illustrate what would happen with certain amounts of immigration and to provide a means by which those who wish to ascertain the effect of other amounts of immigration may do so conveniently.

## E. ANNUAL FORECASTS, 1946-49

Since there is a wide interest in population projections for each year in the immediate future, annual forecasts by color, age, and sex, for the period 1945-50 were prepared, according to assumptions of medium fertility, medium mortality, and no immigration after July 1, 1945. Similar forecasts were not prepared on the basis of high or low fertility and mortality assumptions because of the slight differences between these estimated trends before 1950.

The easiest method of obtaining annual estimates for $1945-50$ is to make simple mathematical interpolations between the 1945 estimates by 5 -year age groups and the 1950 projections for the corresponding groups. Projecting estimates for each single year of age in 1945 with the aid of single-year-of-age life table survival rates involves much more work, but was believed to be justified because of the more realistic and consistent forecasts which would be obtained. The results for single years of age can then be combined into any desired age groups at annual intervals. This method takes account of the population distribution within 5 -year age groups in 1945 and of the expected fluctuations in the annual number of births during the period 1945-50.

Accordingly, one-year survival rates for single years of age were computed from the 1939-41 United States life table (the most recent life table from which such survival rates could be conveniently obtained) and applied successively to the 1945 population to obtain annual estimates for the cohorts that would be 5 and over in 1950. For the cohorts that would be under 5 in 1950, projections of births from July 1 to June 30 for each year from 1945 to 1950 were used as a starting point, and survivors were estimated as for the older cohorts. These estimates of births in each year from 1945 to 1950 were made at the same time as those for the 5 -year period as a whole. (See chapter II, section B, "Fertility Trends," p. 33) In preparing them consideration was given not only to past and prospective changes in birth rates by age of mother and order of birth, but also to expected postwar developments with respect to the return of servicemen, the level of economic activity, and the marriage rate.

Because of differences in the death rates used it
was not expected that the year-by-year projections would give results for 1950 which would agree exactly with the forecasts made by 5 -year time periods. In the first place, the projected 5 -year death rates allow for improvement in mortality between 1940 and 1950; secondly, they contain an adjustment for underregistration of deaths while the 1939-41 rates do not; and finally, life table values for 5-year age groups do not take account of the differences between the distribution within such age groups of the currently estimated population and the life table population.

In general, the differences in 1950 between the 5 -year sums of forecasts for single years of age and the forecasts for 5 -year age groups projected directly from 1945 were not large. The maximum numerical difference was in the group under 5 (this would be expected because improvements assumed in mortality were largest here), but the relative difference was less than 2 percent. Differences between the two sets of estimates at ages between 5 and 70 were 0.4 percent or less for white males and females and 2.0 percent or less for nonwhite males and females. In some of the age groups over 70 the relative differences were somewhat larger, but the numbers of persons involved were comparatively small.

The next step was to adjust the annual estimates so as to bring them into agreement with the 1950 forecasts. The differences between the two series in 1950 were projected backward by cohorts and reduced by proportions gradually approaching zero in 1945. In those cases where the single-year forecasts gave fewer people in 1950 than the 5 -year forecasts, the proportions of the 1950 differences prorated among the estimates of survivors in the same cohort for the years 1946 to 1949 were as follows: 10 percent in 1946, 25 percent in 1947, 45 percent in 1948, and 70 percent in 1949. For example, the 5 -year
series showed $4,964,000$ white males aged $30-34$ in 1950 and the annual series $4,953,000$, a difference of 11,$000 ; 70$ percent of this amount was prorated among the survivors 29-33 in 1949, 45 percent among the survivors 28-32 in 1948, and so on. In those cases where the single-year forecasts gave more people in 1950 than the 5-year forecasts - which occurred in most of the ages over 65 - the estimates of survivors in a given cohort in prior years were reduced by prorating to these years proportions of the 1950 differences similar to those mentioned above, and subtracting the amounts so obtained from the original estimates of survivors.

The procedure for adjusting the cohorts born between 1945 and 1950, and under 5 in 1950, was similar to that used in adjusting the older age groups, but allowed for the fact that the number of years over which the discrepancy between the two sets of estimates in 1950 had been accumulating from year of birth to 1950 - differed for each cohort. (For example, children who had their fourth birthday between July 1, 1949, and June 30, 1950, had been exposed to the risk of death more than four years, whereas those born in that period had been exposed to the risk of death less than one year.) Hence, proportions of the 1950 difference, varying for each single year of age and each estimate year, were used. As a check on the reasonableness of the results, within the framework of the mortality assumptions, the one-year death rates for each estimate year implicit in the adjusted forecasts were computed. These rates appeared sufficiently consistent from year to year and age to age to warrant confidence in the procedure followed.

As a final step, the adjusted single-year-of-age frequencies for each year, 1946 to 1949, were combined into the desired 5 -year age groups.

## CHAPTER III

## INDICATED POPULATION CHANGES

## A. GROWTH OF TOTAL POPULATION

The population of continental United States has been growing more and more slowly since 1860 . The average annual rate of increase, which was between 2.8 and 3.1 percent for the decades from 1790 to 1860 , fell to approximately 2.0 percent around 1900 , and was slightly below 0.7 percent during the depression years 1930-35 (see table 27 and figure 5). Economic recovery and the wartime baby boom brought a rise in the rate to 1.12 percent during 1940-45. During 1945-46 the increase amounted to 1.17 percent; the jump in the number of births in

Table 27.-Total Population of the United States, 1900 to 1945, Forecasts According to Assumptions of Medium Fertility and Mortality and No Imimgration, 1946 to 2000, and Average Annual Increase, 1900-1905 to 19952000
[Estimates and forecasts are comparable with census figures for 1940 and earlier
years, no adjustment having been made for census underenumeration of years, no adjus
young children]


[^43]the last half of 1946 probably will raise it to nearly two percent during 1946-47. A sharp decrease is expected in the next year or two. (See table I for forecasts by color, age, and sex in each year, 1946 to 1950, according to the assumptions of medium fertility, medium mortality, and no immigration or emigration after July 1, 1945.)

Although the trend of the rate of increase was downward from 1860 to 1930, the average number of persons added annually to the population continued to rise until 1920-25, when the high mark of 1,840 ,000 was reached. By 1930-35, however, immigration restrictions, lower birth rates, and a less favorable age composition had lowered the average annual gain to about 850,000 -less than half the amount of 10 years earlier and close to the amount for the decade preceding 1860. Recovery from the depression, and the war, by raising the birth rate, lifted the average annual population increase to a secondary peak of $1,515,000$ persons during 1940-45. Whether this will be exceeded during 1945-50 remains to be seen. As of March, 1947, however, it appears probable that the average annual gain for the current period will be between $1,293,000$ and $1,673,000$. The first is the forecast according to the high fertility and low mortality assumptions (with $14,000,000$ births during 1945-50) and no immigration; the second includes allowances for $1,000,000$ additional births and for the net immigration of $1,000,000$ persons during the period.
The outlook after 1950 is for a continuation of the long-time decline in population growth, both in absolute numbers and rate. Moreover, there is a strong possibility that within a few decades the population will reach its maximum size and will begin to decrease unless heavy immigration is resumed. If fertility and mortality rates should follow the medium assumptions and no immigration occur, the population would grow from $139,621,000$ in 1945 to about 153 million in 1960 and to 162 million in 1975 , but the average annual rate of increase would decline from 1.12 percent during $1940-45$ to 0.47 percent during 1955-60 and to 0.31 percent during 1970-75. (See table 27 and figure 5. The forecasts of population in each fifth year from 1950 to 1975, by color, nativity, age, and sex, are shown in table II; similar figures for 1980 to 2000 are given in appendix table D.) Before the end of this century the favorable age composition carried over from the earlier period

(Forecasts assume no migration after July 1, 1945)
Figure 5.-TOTAL POPULATION OF THE UNITED STATES, 1900 TO 1945; FORECASTS, 1950 TO 2000
of higher birth rates would have spent its influence, and a decline of numbers would be anticipated.

Divergent trends of total population are given by the alternative assumptions of fertility and mortality. The assumptions of low fertility, high mortality, and no immigration would cause growth to slow up rapidly, would bring the population to a peak of less than 152 million in 1970 or 1971, and subsequently would lead it to shrink in size (see table 28 and figure 5). On this basis the total increase from 1945 to 1975 would be less than 12 million, or below that during any single decade between 1880 and 1930 . At the other extreme, if fertility should follow the
high assumptions, with $15,000,000$ births during 1945-50, and mortality the low assumptions (without immigration), the Nation would have over 177 million inhabitants in 1975. Growth would be well maintained, for the average annual increase of nearly $1,300,000$ during 1970-75 would be approximately two-fifths larger than that during the last prewar period (1935-40), and the average annual rate of growth in 1970-75 ( 0.74 percent) would be slightly above the $1935-40$ rate. On this basis the population would pass the 200 million mark before 1995 and would continue to increase for several decades thereafter. (The results for these assumptions are shown

TAble 28.-FORECASTS OF THE TOTAL POPULATION OF THE UNITED STATES, ACCORDING TO VARIOUS ASSUMPTIONS OF FERTILITY, MORTALITY, AND IMMIGRATION, 1950 TO 1975, AND AVERAGE ANNUAL INCREASE, 1945-50 TO 1970-75
[Forecasts are comparable with census figures for 1940 and earlier years, no adjustment having been made for census underenumeration of young children]

in detail in tables IV and VI; similar no-immigration forecasts assuming high fertility, with $14,000,000$ births during 1945-50, and low mortality are shown in table V.)

It is to be noted that the prospect of an eventual cessation of population growth in the United States is inherent in the present age structure of the population, for the large proportion of persons in the middle range of years is favorable temporarily to an excess of births over deaths. But unless fertility rates are higher in the future than they were during the 1930's, the balance will tip in the opposite direction, for there will be an increase in the proportion of elderly people in the population which will lead to an excess of deaths over births.

The forecasts mentioned above include no allowance for immigration. The effect of a net inflow of certain numbers of foreign-born whites is shown in table 28. Thus, if fertility and mortality follow the medium trends and if the number of persons entering the United States in each future 5-year period exceeds the number departing by 500,000 , the population will amount to 166 million in 1975, nearly 4 million more than if no immigration occurred. (See
table 28. The forecasts of population according to these assumptions for each fifth year from 1950 to 1975, by color, nativity, age, and sex, are shown in table III.) Similarly, the net arrival of $1,000,000$ persons in each 5 -year period would give a population of nearly 170 million in 1975 , more than 7 million above the forecast on the assumption of no immigration. Finally, if the excess of newcomers were allowed to rise to $1,500,000$ every 5 years and if fertility and mortality follow the medium trends, the population in 1975 would exceed 173 million and be more than 11 million above the no-immigration forecast.

The highest forecast shown is based on the assumptions that fertility will follow the high trends and mortality the low, and that net immigration will amount to $1,000,000$ every 5 years. Under these conditions the population would reach 185 million in 1975 and would continue to increase indefinitely. (The results are shown in detail in table VII.) The average annual growth in 1970-75 would amount to almost $1,600,000$, which would exceed that of most past years. The average annual rate of growth, however, would be about 0.88 , which would be less than
that of most past years except the 1930 's. ${ }^{1}$
Allowing for the net immigration of 500,000 to $1,500,000$ persons in each 5 -year period does not alter greatly the shape of the curves of the projected population, though obviously it gives higher totals and postpones the date of the maximum population. With medium fertility and mortality the smaller movement of foreigners would be almost sufficient to prevent a downward turn of total numbers before the end of this century. With low fertility and high mortality this immigration stream would keep the population growing until 1975, but not beyond. Even if the stream were swelled to $2,500,000$ persons every 5 years, the assumptions of low fertility and high mortality would cause a decrease in total numbers, starting before 1990. The results would be different, of course, if the fertility pattern of the new immigrants varied widely from that of the present for-eign-born population.

The present forecasts indicate a slightly larger population in future years than did those in the previous report. Most of the change is due to the wartime baby boom, which resulted in nearly $13,150,000$ children under 5 on July 1, 1945, instead of the $11,930,000$ that were expected when the earlier forecasts were made. The difference between the two sets of projections increases slowly in the future as these extra babies grow up and have babies of their own. In 1975 the revised forecasts (without immigration) exceed the previous series by over $3,600,000$ according to the medium fertility and mortality assumptions, and by slightly larger or smaller amounts according to other fertility and mortality assumptions.

The fact that the growth of population from July, 1945, to March, 1947, has been close to the assumptions of high fertility (with $15,000,000$ births during 1945-50), low mortality, and the net immigration of $1,000,000$ persons per 5 years may lead some readers to conclude that this combination of assumptions is the best guide to the future. They should remember, however, that population growth was extremely large during 1920-23 (shortly after World War I), but that it dropped rapidly from over 2,000 ,000 in 1923 to less than 750,000 in 1932. It is true that demographic developments during 1941-46 have not followed exactly the same course as during 191621, two of the notable exceptions being the higher wartime than prewar fertility during World War II (the opposite of the World War I relationship) and the larger rise in births after the recent war than

[^44]after the earlier one. But both of these differences may well presage a still larger drop in growth from 1947 to 1956 than the fall of nearly 65 percent which occurred from 1923 to 1932.

For reasons indicated in the "Mortality" and "Fertility" sections of chapter II, it is believed that the medium assumptions are better than the high or low assumptions as guides to events for the 1945-75 period as a whole. In view of the national immigration policy developed in past years the best guess as to the future inward movement appears to be that it will average between 500,000 and $1,000,000$ persons per 5 years. Although in March, 1947, it may appear that the eighth (right-hand) column of table 28 contains the best forecasts for $1945-50$, it is believed that those in the third and fourth columns will prove to be more accurate for growth during 1950-55 and subsequent years.

## B. COLOR AND NATIVITY

The proportion of white persons in the population showed a small increase from 1850 to 1940; in the latter year white persons constituted 89.8 percent of the total as compared with 84.3 percent in 1850. Although the proportion of nonwhites changed by the same absolute amount (declining from 15.7 to 10.2 percent), the relative change was large (a drop of over one-third). Between 1940 and 1945, in contrast, the proportion of white persons decreased slightly ( 0.2 percent) and that of nonwhites increased correspondingly. The next thirty years will see a continuation of the downward trend for whites unless the volume of immigration is much larger than anticipated. If there is little or no net movement to the United States, the proportion of white persons in the Nation's population will decrease from 89.6 percent in 1945 to between 88.4 (low fertility and high mortality) and 87.6 (high fertility and low mortality) in 1975 (see table 29). Even if net immigration should amount to $1,500,000$ every five years, white persons would constitute 88.8 percent of the population in 1975 (medium fertility and mortality), as compared with 89.6 percent in 1945.

Much larger relative changes are to be expected in the nativity composition of the white population during coming decades. With no immigration the proportion of persons who are native white would rise from 82.2 percent in 1945 to between 85.9 (high fertility and low mortality) and 86.7 (low fertility and high mortality) in 1975, and the proportion who are foreign-born white would decline from 7.3 to 1.7 . If there is a net immigration of 500,000 persons per 5 years, and the medium fertility and mortality trends
are followed, the proportion of foreign-born whites in the population will decrease to about 3.3 percent in 1975, or less than half as much as in 1945. To maintain the 1945 proportion of this group would require the net movement to the United States of nearly $1,800,000$ persons every 5 years.

The number of nonwhite persons will increase steadily from 1945 to 1975 with any of the fertility and mortality assumptions, for the forecasts indicate a growth during these 30 years of over $2,900,000$ with low fertility and high mortality, over $4,900,000$ with medium fertility and mortality, and over 7,100 ,000 with high fertility and low mortality. Whether the white population continues to increase in numbers up to 1975, however, depends on the assumptions. With low fertility, high mortality, and no immigration a high point of about $134,500,000$ would be reached between 1965 and 1970, and by 1975 a decrease to $133,600,000$ would have occurred. With medium fertility and mortality and no immigration there would be an increase of nearly $17,800,000$ from 1945 to 1975, and with high fertility and low mortality an increase of about 29 or 30 million. In either of these cases there would be additional gains after 1975. Immigration, of course, would add to the white population, the medium forecasts for 1975 rising by nearly $3,750,000$ with the net immigration of 500,000 persons per 5 years, and by nearly $7,500,000$ if the stream of immigrants amounts to $1,000,000$ (see table 26). The gains would be still larger if these movements occurred with high fertility and low mortality.

The ratio of the native white to the nonwhite group in the absence of immigration will depend on whether their respective fertility and mortality trends converge or diverge, and on how rapidly the convergence or divergence occurs. For reasons explained in the sections on mortality and fertility trends in this report, convergence is relatively slow in the high assumptions and relatively rapid in the low assumptions. Because nonwhite fertility and mortality rates exceed those of native whites the convergence of fertility rates tends to slow down the decrease in the ratio of native white to nonwhite persons, and the convergence of mortality rates to accelerate it. In consequence, the ratio would scarcely decline at all by 1975 if the present fertility and mortality differentials between native whites and nonwhites were to continue, and would decline more rapidly with the high fertility, low mortality trends than with the low fertility, high mortality trends.

Foreign-born white persons constituted a relatively high proportion of the population - above 14
percent - most of the time from 1870 to 1915. Since the latter year the relative size of the group has been cut almost in half, for in 19408.7 percent of the population was foreign-born white and in 1945 only 7.3 percent. The number of foreign-born whites continued to rise after 1915, and probably reached a maximum (over $14,000,000$ ) between 1925 and 1930. The decline which began at that time reduced the group to $11,419,000$ in 1940 and to about $10,250,000$ in 1945. If no immigration were to occur in the future, this downward trend would be accelerated; by 1975 the foreign-born white group would be reduced to between $2,580,000$ and $3,000,000$ persons (depending on the mortality assumptions) and would constitute only about 1.7 percent of the total population (see table 29). But since it is almost certain that there will be some net immigration, these numbers and proportions should be thought of as representing minimum values. With medium fertility and mortality trends the net arrival of 500,000 white immigrants in each 5 years would increase the for-eign-born white group in 1975 from approximately $2,680,000$ to $5,560,000$, or from 1.7 to 3.3 percent of the total population. If the newcomers amounted to $1,000,000$ every 5 years the group would number $8,430,000$ in 1975 and would compose 5.0 percent of the population; if they amounted to $1,500,000$ the corresponding figures would be $11,300,000$ and 6.5 percent. Low mortality trends, of course, would increase the numbers of newcomers surviving to 1975 and later years.

## C. THE SEX RATIO

Accompanying the slowing up of population growth will be a continuation of the decline in the sex ratio, that is, in the number of males per hundred females. In the census years from 1880 to 1910 there were between 103.6 and 106.0 males per 100 females, for the excess of males among babies and immigrants had more than offset the effect of the lower mortality rates of females. The highest sex ratio (106.0) is that of 1910 , when the excess of males amounted to nearly $2,700,000$ for the total population and to over $1,700,000$ for foreign-born whites. Primarily because of the decrease in immigration, the sex ratio declined gradually from 106.0 in 1910 to 100.0 in 1944, and to about 99.7 in 1945 - the first time in our history that it was below 100.0 (see table 30). In that year females outnumbered males by over 200,000 in spite of an excess of over 400,000 males among the foreign-born whites.

The outlook for $1945-75$ is that the sex ratio will be slightly below the 1945 figure and that females

Table 29.-POPULATION BY COLOR AND NATIVITY, FOR THE UNITED STATES, 1900 TO 1945, AND FORECASTS, 1950 TO 1975
[Estimates for 1945 and forecasts are comparable with census figures for 1940 and earlier years, no adjustment having been made for census underenumeration of young children]

${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color and nativity.
${ }^{2}$ Revised estimates of the color distribution of the population on July

1945, prepared after these forecasts had been completed, are published in Bureau of the Census, "Estimated Population of the United States, by Age, Color, and Sex: 1940 to 1946," Population-Special Reports, Serles P-47, No. 3. April 3, 1947, and differ only slightly from the figures shown in this table.
will outnumber males to a greater extent than at present. Under the medium assumptions of fertility and mortality, and with little or no immigration,
the sex ratio will be depressed to 98.2 in 1965 and 1970, for two reasons. First, the foreign-born white population will decrease in numbers and will be con-

Table 30.-Sex Ratios by Color and Nativity, for the United States, 1900 to 1945, and Forecasts, 1950 to 1975
[Males per $100 \begin{gathered}\text { females. Ratios computed without adjustment for census } \\ \text { underenumeration of young children] }\end{gathered}$

and youths will constitute a decreasing proportion of the native white and the nonwhite groups, and middle aged and elderly persons an increasing proportion. ${ }^{2}$ As shown in table 31, the sex ratio of native whites is substantially higher at the younger ages than at the older ages, the maximum in the last census (1940) being 103.8 for children under 5 and the minimum 62.0 for persons 95 and older. A different situation is found in the nonwhite population; but, because native whites now outnumber nonwhites by nearly 8 to 1 , the latter have correspondingly little influence on the composition of the total population. The aging of the population, therefore, will in itself lower the sex ratio.

After 1970 a slight rise in the sex ratio will occur under the medium assumptions of fertility and mortality (and with no immigration). By that time the effect of the heavy immigration of past decades will have been exhausted, and the tendency of age changes to lower the ratio will be more than balanced by the larger declines which are anticipated for the death rates of males than for those of females. The importance of the latter influence may be illustrated by comparing the 1940-44 situation with that expected in 1970-75. With death rates of native white males and females as they were in 1940-44, the normal sex ratio of 106.0 at birth would be reduced to 100.0 by about age 50 . In contrast, the projected death rates for 1970-75 would give a surplus of males up to about age 56 .

If fertility follows the high trends and mortality the low, and little or no immigration occurs, the decrease in the sex ratio will be smaller than that mentioned above, the low point ( 98.7 or 98.8 ) will be reached about 1960 , and the trend thereafter will be slightly upward, to 99.3 in 1975. In contrast, with low fertility, high mortality, and no immigration the sex ratio will decline to 97.3 in 1975 and to still lower figures in later years.

Extensive immigration will tend to raise the proportion of males in the total population if the selective factors in international migration continue to operate as in the past. Exceedingly heavy immigration, however, would be required in order to increase the sex ratio significantly. Even if arrivals exceeded departures by $1,500,000$ every 5 years, the sex ratio of the entire population in 1975 would be 99.6 under the medium fertility and mortality assumptions, slightly less than the ratio of 99.7 in 1945. Higher sex ratios would be maintained with high fertility and low mortality trends, and $1,000,000$ net arrivals

[^45]1These figures differ slightly from the revised estimates published in Bureau of the Census, "Estimated Population of the United States, by Age, Color, and Sex: 1940 to 1946," Population-Special Reports, Series P-47, No 3, April 3, 1947.
centrated in the older ages; hence the present excess of over 400,000 males in this group will be changed to a deficit of over 180,000 by 1970 . Second, children

Table 31.-SEX Ratios by age, FOR the total, Native white, and nonwhite population of the united STATES, 1910, 1930, AND 1945, AND FORECASTS ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY and mortality and no immigration, 1960 AND 1975

| Age | all chasses |  |  |  |  | native white |  |  |  |  | NONWHITE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1910 | 1930 | $1945{ }^{1}$ | 1960 | 1975 | 1910 | 1930 | 1945 | 1960 | 1975 | 1910 | 1930 | $1945{ }^{1}$ | 1960 | 1975 |
| All ages ${ }^{2}$ | 106.0 | 102.5 | 99.7 | 98.3 | 98.3 | 102.7 | 101.1 | 99.3 | 98.6 | 98.7 | 101.3 | 99.1 | 96.5 | 96.0 | 96.7 |
| Under 5 years ${ }^{2}$ | 102.5 | 103.0 | 104. 0 | 104.2 | 104.4 | 102.9 | 103.5 | 104.5 | 104.9 |  |  |  |  |  |  |
| 5 to 9 years | 101.8 | 102.5 | 103.7 | 104.5 | 104.7 | 102.3 | 103.0 | 104.2 | 105.1 | 105.3 | 98.8 | 98.9 | $100.7$ | $\begin{aligned} & 100.2 \\ & 101.3 \end{aligned}$ | $\begin{aligned} & 100.5 \\ & 101,7 \end{aligned}$ |
| 10 to 14 years. . 15 to 19 years | 102.1 | 102.2 | 102.8 | 104.3 | 104.6 | 102.4 | 102.6 | 103.4 | 104.8 | 105.2 | 100.4 | 99.5 | 99.1 | 100.9 | 101.5 |
| 20 to 24 years.. | 99.8 102.3 | 99.4 96.4 | 102.4 98.6 | 104.1 | 104.4 | 100.0 | 100.5 | 102.8 | 104.5. | 105.0 | 93.1 | 92.2 | 99.3 | 101.2 | 101.4 |
| 25 to 29 years. | 107.8 | 97.7 <br> 9 | 98.6 95.1 | 103.3 102.2 | 104.2 | 98.1 100.3 | 97.6 | 99.0 96.1 | 103.7 | 104.7 | 00.8 | 88.4 | 94.5 | 100.6 | 101.2 |
| 30 to 34 years.. | 110.3 | 100.1 | 95.8 | 101.7 | 103.9 103.6 | 102.4 | 97.7 98.7 | 96.1 97.3 | 102.7 102.1 | 104.4 104.0 | 96.0 104.1 | 91.0 95.8 | 86.9 88.1 | 98.8 98.5 | 100.7 100.6 |
| 35 to 39 years. | 111.2 |  | 97.6 | 97.7 | 102.6 | 104.7 |  |  |  |  |  |  |  |  |  |
| 40 to 44 years. | 112.6 | 107.3 | 98.3 | 93.9 | 101.3 | 105.6 | 100.2 101.5 | 98.6 98.9 | 98.1 94.9 | 103.0 101.7 |  |  | 92.2 91.2 | 93.2 |  |
| 45 to 49 years..... | 113.8 | 108.9 | 100.0 | 94.1 | 100.3 | 106.8 | 102.9 | 98.0 99.0 | 94.9 95.4 | 100.6 | 107.3 113.6 | 101.2 109.1 | 91.2 97.8 | 85.4 86.2 | $\begin{aligned} & 97.7 \\ & 97.1 \end{aligned}$ |
| 50 to 54 years. | 117.8 | 110.1 | 101.8 |  | 95.4 | 112.0 | 104.8 | 98.8 | 95.6 | -95.7 | 128.3 | 126.3 | +100.8 | 86.2 | $\begin{aligned} & 97,1 \\ & 91,1 \end{aligned}$ |
| 55 to 59 years | 114.6 | 109.3 | 103.6 | 93.4 |  | 110.9 | 104.9 | 97.7 | 93.8 | 91.0 | 1270 | 133.1 | 106,8 | 87.1 | 82.8 |
| 60 to 64 years. 65 to 69 years... | 109.7 105.9 | 107.3 104.8 | 101.8 97.2 | 91.9 90.2 | 87.9 85 | 106.9 102.3 | 103.6 | 95.4 | 90.7 | 88.7 | 123.2 | 125.8 | 112.5 | 92.7 | 82.9 |
| 70 to 74 years. | 105.9 101.7 | 104.8 103.5 | 97.2 92.5 | 88.0 | 85.3 80.4 | 102.3 99.5 | 100.8 100.4 | 92.5 | 87.0 | $\begin{array}{r}85.5 \\ 79 \\ \hline 8\end{array}$ | 123.9 | 117.4 | 108.2 | 94.4 | 81.6 |
| 75 years and over.. | 91.0 | 91.8 | 85.9 | 88.0 | 80.4 71.7 | 99.5 91.5 | 100.4 90.1 | 88.8 82.6 | 82.2 73.1 | $79.8$ | 106.7 91.9 | 108.1 | 105. 8 | 97.0 | 80.6 |
|  |  |  |  |  | 7. | 91.5 | -90,1 |  |  |  | 91.9 | 90.6 | 85.1 | 80.9 | 71.2 |

See footnote to table 30 .
2Ratios computed without adjustment for the census underenumeration of young children,
every 5 years, for under these conditions the current decline would stop at about 99.2 between 1955 and 1960, and by 1975 the ratio would rise to about 100.
Changes in the sex ratio of the various age groups will differ significantly. At ages under 20 the sex ratio has been increasing slowly in recent years (see table 31), chiefly because the decline in the infant death rate has retarded the decrease in the excess of males during the first year of life. This factor is expected to continue to operate in the future, and to be reinforced by the more rapid decline of the death rates of boy babies than of girl babies. As a result, from 1945 to 1975 the projected sex ratio, according to the medium assumptions of fertility and mortality (and with no immigration), rises from 104.0 to 104.4 at ages $0-4$ and from 103.7 to 104.7 at ages $5-9$. As time passes, additional age groups will be affected, which fact explains part of the expected increase of the sex ratio at ages 15-19 from 102.4 in 1945 to 104.4 in 1975. Because the differences between the death rates of males and females are reduced the most in the low mortality assumptions and the least in the high mortality assumptions, slightly larger increases than those just cited in the sex ratio at ages under 20 will occur if the low mortality trends are followed, and slightly smaller increases if the high trends are followed.

The larger gains from 1945 to 1975 in the sex ratio at ages $20-44$ than at younger ages, which are shown by the forecasts, are difficult to explain, for only a small part could result from the narrowing of the difference between male and female death
rates. One cause may be the greater difficulty of enumerating men than women in the twenties, for at these ages an important number of men are "on the move" in the United States and are never reported to enumerators. For this reason the sex ratios at these ages which are shown for past years may be slightly too low, but those computed for future years (based on the number of persons surviving from younger ages) would not have such a bias. Another factor may concern the young men who leave the United States for a few months or years because of business and other reasons. Their absence lowers the sex ratio for past years; no allowance for such absentees has been made in the forecasts in future years.

The total population had an excess of males at ages 45-64 in 1945 chiefly because of the heavy immigration before and after World War I. In 1975 these age groups will contain a much smaller number of foreign-born persons and will have a sex ratio which is several points lower. Among persons aged 55-59, for example, the 3.6 percent excess of males in 1945 will change by 1975 to a deficit of 8.4 with low mortality, 9.8 with medium mortality, and 11.3 with high mortality (assuming no immigration). If immigration occurs and if the age and sex distribution of the newcomers is like that of those who arrived during 1925-29 (shown in table 25), these deficits will be slightly larger, for women tend to come at an older age than men.

After age 50 death rates are high, increase greatly with rising age, and reduce the male population

Table 32.-Median Age by Color and Nativity, for the United States, 1900 to 1945, and Forecasts, 1950 to 1975
[Computed on the basis of age distributions without adjustment for census underenumeration of young children]

| YEAR AND ASSUMPTION | $\begin{gathered} \text { All } \\ \text { classes } \end{gathered}$ | white |  |  | Nonwhite |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Native | Foreign- <br> - born |  |
| CENSUS OR CURRENT ESTIMATE |  |  |  |  |  |
|  | $\begin{aligned} & 22.9 \\ & 24.1 \\ & 25.3 \\ & 26.5 \\ & 29.0 \\ & 29.7 \end{aligned}$ | $\begin{aligned} & 23.4 \\ & 24.5 \\ & 25.6 \\ & 26.9 \\ & 29.5 \\ & 30.3 \end{aligned}$ | $\begin{aligned} & 20.2 \\ & 21.4 \\ & 22.4 \\ & 23.7 \\ & 26.9 \\ & 28.0 \end{aligned}$ | $\begin{aligned} & 38.5 \\ & 37.2 \\ & 40.0 \\ & 43.9 \\ & 51.0 \\ & 54.1 \end{aligned}$ | $\begin{aligned} & 19.7 \\ & 21.1 \\ & 22.4 \\ & 23.5 \\ & 25.2 \\ & 25.3 \end{aligned}$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| FORECAST |  |  |  |  |  |
| MEDIUM FERTILITY, MEDIUM MOHTALITY |  |  |  |  |  |
| No Immigration |  |  |  |  |  |
| 1950 | $\begin{aligned} & 30.5 \\ & 31.6 \\ & 32.7 \\ & 33.3 \\ & 33.5 \\ & 34.1 \end{aligned}$ | 31.232.333.434.234.434.8 | $\begin{aligned} & 29.2 \\ & 30.6 \\ & 31.9 \\ & 32.9 \\ & 33.5 \\ & 34.3 \end{aligned}$ | $\begin{aligned} & 57.2 \\ & 60.3 \\ & 63.0 \\ & 65.6 \\ & 68.0 \\ & 70.3 \end{aligned}$ | $\begin{aligned} & 25.6 \\ & 26.2 \\ & 26.5 \\ & 27.9 \\ & 27.9 \\ & 29.1 \end{aligned}$ |
| 1955 1960. |  |  |  |  |  |
| 1965 |  |  |  |  |  |
| 1970. |  |  |  |  |  |
| 1975. |  |  |  |  |  |
| 500,000 Net Immigraton Per 5 Years |  |  |  |  |  |
|  | $\begin{aligned} & 30.5 \\ & 31.5 \\ & 32.5 \\ & 33.1 \\ & 33.4 \\ & 34.0 \end{aligned}$ | 31.132.233.234.034.234.7 | $\begin{aligned} & 29.2 \\ & 30.6 \\ & 31.9 \\ & 32.8 \\ & 33.3 \\ & 34.1 \end{aligned}$ | $\begin{aligned} & 56.3 \\ & 58.1 \\ & 59.3 \\ & 59.7 \\ & 57.6 \\ & 52.0 \end{aligned}$ | $\begin{aligned} & 25.6 \\ & 26.2 \\ & 26.5 \\ & 27.0 \\ & 27.9 \\ & 29.1 \end{aligned}$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | $\begin{aligned} & 30.6 \\ & 31.9 \\ & 33.2 \\ & 34.2 \\ & 34.8 \\ & 35.6 \end{aligned}$ | 31.232.634.035.135.736.5 | $\begin{aligned} & 29.2 \\ & 30.9 \\ & 32.5 \\ & 33.8 \\ & 34.7 \\ & 35.8 \end{aligned}$ | $\begin{aligned} & 57.2 \\ & 60.3 \\ & 63.0 \\ & 65.6 \\ & 68.0 \\ & 70.4 \end{aligned}$ | $\begin{aligned} & 25.7 \\ & 26.5 \\ & 27.1 \\ & 27.9 \\ & 29.0 \\ & 30.6 \end{aligned}$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Hor pertility <br> ( $14,000,000$ BIRTES, $1945-50$ ), how mortality, NO IMMIGRATION |  |  |  |  |  |
| 1950. | $\begin{aligned} & 30.5 \\ & 31.4 \\ & 32.2 \\ & 32.5 \\ & 32.5 \\ & 32.9 \end{aligned}$ | 31.132.133.033.533.533.7 | 29.130.431.532.132.433.1 | $\begin{aligned} & 57.3 \\ & 60.4 \\ & 63.3 \\ & 66.0 \\ & 68.5 \\ & 70.8 \end{aligned}$ | $\begin{aligned} & 25.6 \\ & 25.9 \\ & 26.0 \\ & 26.3 \\ & 27.0 \\ & 27.6 \end{aligned}$ |
| 1955 |  |  |  |  |  |
| 1960 |  |  |  |  |  |
| 1965 |  |  |  |  |  |
| 1970. |  |  |  |  |  |
| 1975 |  |  |  |  |  |
| high fertility <br> ( $15,000,000$ biRTHS, $1945-50$ ), LOW MORTALITY <br> No Immigration |  |  |  |  |  |
|  |  |  |  |  |  |
|  | 30.331.232.032.332.232.6 | 30.931.932.833.333.233.4 | 28.930.231.331.932.232.8 | 57.360.463.366.068.570.8 | $\begin{aligned} & 25.3 \\ & 25.7 \\ & 25.8 \\ & 26.0 \\ & 26.7 \\ & 27.5 \end{aligned}$ |
| 1955 |  |  |  |  |  |
| 1960 |  |  |  |  |  |
| 1965. |  |  |  |  |  |
| 1970 |  |  |  |  |  |
| 1975. |  |  |  |  |  |
| $1.000,000$ Net Immigration Per 5 Years |  |  |  |  |  |
| 1950 | 30.131.031.732.032.132.5 | 30.831.632.532.932.933.2 | 28.930.131.131.631.832.4 | 55.556.155.952.946.844.7 | $\begin{aligned} & 25.3 \\ & 25.7 \\ & 25.8 \\ & 26.0 \\ & 26.7 \\ & 27.5 \end{aligned}$ |
| 1955 |  |  |  |  |  |
| 1960 |  |  |  |  |  |
| 1965 |  |  |  |  |  |
| 1970. |  |  |  |  |  |
| 1975. |  |  |  |  |  |

much more rapidly than the female population. As a result the sex ratio tends to decrease accordingly. For example, in the cohort aged 35-39 in 1945 there were 97.6 males per 100 females. Fifteen years later (at ages 50-54 in 1960) the expected ratio with me-
dium mortality (if no immigration occurs) is 94.6 , or only 3.0 lower. In contrast, the sex ratio of the cohort aged 50-54 in 1945 was 101.8 , but when this group reaches ages 65-69 in 1960 the sex ratio is expected to be 90.2 , a drop of 11.6 .

## D. AGE COMPOSITION

Of more immediate significance than the foregoing population trends are the future changes in the age structure of the population. As compared to many other countries, the United States has long had a relatively youthful population with a high fraction of its inhabitants in the younger employable ages. Here as elsewhere, however, the age composition of the population has been undergoing modification for many decades, the proportion in the younger age groups decreasing and the proportion in the older age groups increasing. The trend toward an older population is shown clearly by the rise in the median age of the population, the central age above and below which there are equal numbers of people. In 1800 half of the entire population of the United States was 16 years of age or younger. A century later the median age had risen to almost 23 years, and by 1945 it had reached a new high of 29.7 (see table 32 and fig. 6).
(Forecasts assume no migration after July 1, 1945)


Figure 6.-Median Age of the Population of the United States, 1800 to 1945; Forecasts, 1950 to 1975

The shift toward the older ages has been brought about primarily in three ways. By far the most important is the decline of nearly 70 percent in the birth rate which occurred almost without interruption from 1810 to 1940 . Had the 1810 birth rate been maintained while death rates and immigration followed their actual courses from 1810 to date, not only would the population have been much larger
than it is, but the average age would have been much lower. Second, the falling off of immigration has contributed significantly to the aging of the population during recent decades. Relatively few young adults have entered the United States since 1930, while the large numbers that arrived earlier have been moving up into the older ages. Third in importance during recent decades (but second in earlier decades) is the lowering of the death rates of children and young adults, which has enabled a larger proportion of the population to live past middle age. Since these three factors presumably will continue to operate for some time to come, the outlook is for a continuation of the trend toward an older population.

The rate at which this process of aging of the population will go on depends on future birth rates, death rates, and immigration. The medium assumptions for fertility and mortality with no allowance for immigration indicate a median age of 34.1 in 1975. The high level of fertility in combination with low mortality would reduce this figure to 32.9 years or less, whereas the low level of fertility with high mortality would raise it to 35.6 . Immigration of the type that occurred in past years would slow up the aging process slightly. For example, the net arrival every 5 years of 500,000 persons having the age distribution shown in table 25 would lower the median age in 1975 by 0.1 year (from 34.1 to 34.0 , assuming medium trends of fertility and mortality). If the net incoming group were three times as large the median age in 1975 would be lower by 0.3 year than with no immigration.

## Children under 5 years of age

As implied above, the increase in the median age of the population has been accompanied by a decline in the proportion of the population in the younger age groups and a rise in the proportion in the older age groups. In 1850 children under 5 years of age constituted 15.1 percent of the enumerated population of the United States. This proportion declined gradually to 12.1 percent in 1900 , to 9.3 percent in 1930, and to 8.0 percent in 1940 (see table 33 and figure 7). In 1945 the number of children under 5 (nearly $13,150,000)^{3}$ was larger than in any prior year, but the group made up only 9.4 percent of the population, slightly more than in 1930.

[^46](Forecasts assume no migration after July 1, 1945)





Table 33.-POPULATION BY BROAD AGE GROUPS, FOR THE UNITED STATES, 1900 TO 1945, AND FORECASTS, 1950 TO 1975
Estimates for 1945 and forecasts are comparable with census figures for 1940 and earlier years, no adjustment having been made for census underenumeration of young children]

| YEAR AND ASSUMPTION | POPULATION (IN THOUSANDS) |  |  |  |  |  | percent distribution |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\text { ages }}{\text { All }}$ | Under 5 years | 5 to 19 years | 20 to 44 years | $\begin{aligned} & 45 \text { to } 64 \\ & \text { years } \end{aligned}$ | 65 years and over | $\begin{aligned} & \text { All } \\ & \text { ages } \end{aligned}$ | Under <br> 5 years | $\begin{aligned} & 5 \text { to } 19 \\ & \text { years } \end{aligned}$ | 20 to 44 years | $\begin{gathered} 45 \text { to } 64 \\ \text { years } \end{gathered}$ | 65 years and over |
| CENSUS OR CURRENT ESTIMATE |  |  |  |  |  |  |  |  |  |  |  |  |
| $1900{ }^{2}$ | 75,995 | 9,171 | 24,510 | 28,632 | 10,400 | 3,080 | 100.0 | 12.1 | 32.3 | 37.8 | 13.7 | 4.1 |
| $1910^{2}$ | 91,972 | 10,631 | 27,931 | 35,867 | 13,424 | 3,950 | 100.0 | 11.6 | 30.4 | 39.1 | 14.6 | 4.3 |
| $1930{ }^{2}$ | 122,775 | 11,444 | 31,470 36,165 | 40,556 47,023 | 17,030 | 6,933 | 100.0 | 11.0 9.3 | 29.8 29.5 | 38.4 38.3 | 16.15 | 4.7 5.4 |
| 1940 | 131,669 | 10,542 | 34,764 | 51,260 | 326,140 | 88,964 | 100.0 | 8.0 | 26.4 | 38.9 | 19.9 | 6.8 |
| 19454 | 139,621 | 13,147 | 33,648 | 54,186 | 28,530 | 10,110 | 100.0 | 9.4 | 24.1 | 38.8 | 20.4 | 7.2 |
| FORECAST MEDIUM FERTILITY, MEDIUM MORTALITY |  |  |  |  |  |  |  |  |  |  |  |  |
| No Immigration |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950 1955 | 145,460 149,840 | 12,141 11,112 | 35,787 37937 | 55,671 | 30,666 | 11,193 12,583 | 100.0 100.0 | 8.3 | 24.6 | 38.3 | 21.1 | 7.7 |
| 1960 | 153,375 | 10,717 | 38, 358 | 55,645 | 34,676 | 13,978 | 100.0 | 7.0 | 25.3 25.0 | 37.1 | 22.6 | 8.4 |
| 1965 | 156,692 | 10,948 | 35,852 | 57, 867 | 36,869 | 15,157 | 100.0 | 7.0 | 22.9 | 36.9 | 23.5 | 9.7 |
| 1970. | 159,847 | 11,235 | 34,640 | 58,521 | 39,080 | 16,370 | 100.0 | 7.0 | 21.7 | 36.6 | 24.4 | 10.2 |
| 1975 | 162,337 | 11,039 | 34,804 | 58,671 | 40,178 | 17,646 | 100.0 | 6.8 | 21.4 | 36.1 | 24.7 | 10.9 |
| 500,000 Net Immigration Per 5 Years |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950 | 145,959 | 12,150 | 35,910 | 56,018 | 30,685 | 11,197 | 100.0 | 8.3 | 24.6 | 38.4 | 21.0 | 7.7 |
| 1955 | 150,911 | 11,199 | 38,127 | 56,390 | 32,603 | 12,592 | 100.0 | 7.4 | 25.3 | 37.4 | 21.6 | 8.3 |
| 1960 | 155,075 | 10,866 | 38,662 | 56,808 | 34,746 | 13,993 | 100.0 | 7.0 | 24.9 | 36.6 | 22.4 | 9.0 |
| 1965 | 159,055 | 11, 137 | 36,311 | 59,411 | 37,015 | 15,181 | 100.0 | 7.0 | 22.8 | 37.4 | 23.3 | 9.5 |
| 1975. | 166,069 | 11,278 | 35,582 | 60,697 | 40,821 | 17,690 | 100.0 | 6.8 | 21.4 | 36.5 | 24.6 | 10.7 |
| LOW FERTILITY, HIGH MORTALITY, no immigration |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950. | 144, 922 | 11,691 | 35,779 | 55,660 | 30,610 | 11,182 | 100.0 | 8.1 | 24.7 | 38.4 | 21.1 | 7.7 |
| 1955 | 147,990 | 10,029 | 37,441 | 55,602 | 32,378 | 12,539 | 100.0 | 6.8 | 25.3 | 37.6 | 21.9 | 8.5 |
| 1960 | 149,827 | 9,414 | 36,699 | 55,562 | 34,280 | 13,871 | 100.0 | 6. 3 | 24.5 | 37.1 | 22.9 | 9.3 |
| 1965 | 151,047 | 9,364 | 32,803 | 57,715 | 36,220 | 14,944 | 100.0 | 6.2 | 21.7 | 38.2 | 24.0 | 9.9 |
| 1970 | 151,627 | 9,255 | 30,384 | 57, 815 | 38,183 | 15,991 | 100.0 | 6.1 | 20.0 | 38.1 | 25.2 | 10.5 |
| 1975. | 151,090 | 8,648 | 29,585 | 56,746 | 39,055 | 17,055 | 100.0 | 5.7 | 19.6 | 37.6 | 25.8 | 11.3 |
| high Fertility ( $14,000,000$ births, 1945-50), Low montality, no immighation |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950 | 146.087 | 12,591 | 35,790 | 55,686 | 30,721 | 11,298 | 100.0 | 8.6 | 24.5 | 38.1 | 21.0 | 7.7 |
| 1955 | 152,017 | 12,246 | 38,420 | 55,687 | 32,753 | 12,911 | 100.0 | 8.1 | 25.3 | 36.6 | 21.5 | 8.5 |
| 1960 | 157,609 | 12,110 | 40,048 | 55,731 | 35,077 | 14,644 | 100.0 | 7.7 | 25.4 | 35.4 | 22.3 | 9.3 |
| 1965. | 163,446 | 12,620 | 39,022 | 58,008 | 37,533 | 16,260 | 100.0 | 7.7 | 23.9 | 35.5 | 23.0 | 9.9 |
| 1970. | 169,612 | 13,287 | 39,119 | 59,189 | 40,023 | 17,994 | 100.0 | 7.8 | 23.1 | 34.9 | 23.6 | 10.6 |
| 1975. | 175, 750 | 13,683 | 40,274 | 60,591 | 41,365 | 19,837 | 100.0 | 7.8 | 22.9 | 34.5 | 23.5 | 11.3 |
| high febtility $(15,000,000$ births, 1945-50), LOW MORTALITY |  |  |  |  |  |  |  |  |  |  |  |  |
| No Immigration |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950 | 146,987 | 13,491 | 35,790 | 55,686 | 30,721 | 11,298 | 100.0 | 9.2 | 24.3 | 37.9 | 20.9 | 7.7 |
| 1955 | 152,970 | 12,246 | 39,373 | 55,687 | 32,753 | 12,911 | 100.0 | 8.0 | 25.7 | 36.4 | 21.4 | 8.4 |
| 1960 | 158,559 | 12,110 | 40,998 | 55,731 | 35,077 | 14,644 | 100.0 | 7.6 | 25.9 | 35.1 | 22.1 | 9.2 |
| 1965. | 164,434 | 12,661 | 39,969 | 58,008 | 37,533 | 16,260 | 100.0 | 7.7 | 24.3 | 35.3 | 22.8 | 19.9 |
| 1970. | 170, 845 | 13,534 | 39,163 | 60,132 | 40,023 | 17,994 | 100.0 | 7.9 | 22.9 | 35.2 | 23.4 | 10.5 |
| 1975 | 177,304 | 13,993 | 40,580 | 61,529 | 41,365 | 19,837 | 100.0 | 7.9 | 22.9 | 34.7 | 23.3 | 11.2 |
| $1,000,000$ Net Immigration <br> Per 5 Years |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950 | 147,986 | 13,509 | 36,034 | 56,378 | 30,757 | 11,306 | 100.0 | 9.1 | 24.3 | 38.1 | 20.8 | 7.6 |
| 1955. | 155, 126 | 12,435 | 39,752 | 57, 183 | 32,829 | 12,928 | 100.0 | 8.0 | 25.6 | 36.9 | 21.2 | 8.3 |
| 1960 | 162,011 | 12,441 | 41,621 | 58,059 | 35,216 | 14,675 | 100.0 | 7.7 | 25.7 | 35.8 | 21.7 | 9.1 |
| 1965. | 169,270 | 13,089 | 40,939 | 61, 101 | 37,831 | 16,310 | 100.0 | 7.7 | 24.2 | 36.1 | 22.3 | 9.6 |
| 1970 | 177,118 | 14,025 | 40,562 | 63,773 | 40,694 | 18,085 | 100.0 | 7.9 | 22.9 | 36.0 | 23.0 | 10.2 |
| 1975. | 185,071 | 14,562 | 42,296 | 65,609 | 42,670 | 19,935 | 100.0 | 7.9 | 22.9 | 35.5 | 23.1 | 10.8 |

1Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the figures shown by age groups.
2Persons whose age was not reported are included in the total for all ages but not in the age distribution; in computing the percent distribution

[^47]Under the medium assumptions of fertility and mortality (and with no immigration) children under 5 would increase in numbers from 1945 to 1947, decrease from 1947 to 1955 , and then be almost stationary from 1955 to 1975 - slightly above or below $11,000,000$. As a proportion of the total population they would decline from 9.4 percent in 1945 to 7.4 percent in 1955, and to 6.8 percent in 1975 (see figure 8). For white children the decreases would be slightly larger; for nonwhite children there would be little change in absolute numbers and slightly smaller decreases in percentages. The net immigration of 500,000 persons each five years would increase the number of children by amounts varying from 9,000 in 1950 to 239,000 in 1975, but would not change appreciably their relative importance in the population.

With high fertility ( $15,000,000$ births during $1945-$ 50 ), low mortality, and the net immigration of $1,000,000$ persons per 5 years, the number of children under 5 would rise to about 1949 , decline until about 1957, but then rise to a new high of nearly $14,560,000$ by 1975 . With low fertility and high mortality, however, this group would fall more than one-third both in absolute numbers and on a relative basis between 1947 and 1975 .

## Children and youths aged 5 to 19

The maximum number of persons in the group aged 5-19 prior to World War II was somewhat over $36,200,000$ in 1932 ; by 1945 the number had decreased to about $33,650,000$ (see table 33 and fig. 7). In proportion to the total population the highest figure on record (approximately 40 percent) was attained in the early 1800 's, after which there was a decline to 24 percent in 1945. The chief explanation, of course, is the drop in fertility rates.

Because of the rise in the annual number of births from 1933 to 1946 the number of children and youths aged 5-19 will increase from 1945 to 1955 or later. With medium fertility and mortality trends (and no immigration) there would be a rise to over 38,350 ,000 in 1960-more than $2,000,000$ above the prewar record. At about that time, however, a decline would begin which would reduce the group to fewer than $35,000,000$ by 1970 , or approximately to its size in 1940. Net immigration of 500,000 per 5 years would make the increase from 1945 to 1960 larger by over 300,000 and the decline to 1970 smaller by about the same amount. With high fertility ( $15,000,000$ births, 1945-50), low mortality, and the net arrival of $1,000,000$ persons, the $5-19$ age group would increase fairly steadily to about $42,300,000$ in 1975 , nearly
$9,000,000$ more than in 1945 , but fewer than would be expected in later years. In contrast, low fertility, high mortality, and no immigration would bring about a decrease in the group soon after 1955, and by 1975 it would contain fewer than $30,000,000$ people.

On a relative basis the age group 5-19 will decline with any of the fertility, mortality, and immigration trends which are expected. By 1975 the group probably will include between 19 and 23 percent of the population as compared with 24 percent in 1945.

## The working ages - 20 to 64

Changes from 1945 to 1975 in the number of persons in the working ages (20-64) will depend primarily on changes in mortality and in immigration, for the great majority of these persons are now living. The group has grown rapidly in the past and will continue to grow in the future, though at a slower pace. It included over $39,000,000$ people in 1900 and nearly $83,000,000$-more than twice as many-in 1945 (see table 33 and fig. 7). If there is no immigration between 1945 and 1975 the group will contain between $96,000,000$ and $103,000,000$ persons (depending on mortality rates), a gain of between $13,000,000$ and $20,000,000$, or of 16 to 24 percent. The net immigration of 500,000 foreigners each 5 years from 1945 to 1975 would add about 2,700,000 to the number of persons aged 20-64 in 1975 (assuming medium trends of fertility and mortality), if the immigrants have the same age distribution as those of 1925-29.

The major share of the increase during the next 30 years in the number of persons aged 20-64 will occur among those over 45 rather than under. In the absence of immigration the $45-64$ portion probably will outgain its younger rivals by almost 2 to 1 or better, the increases with the low mortality, high fertility trend ( $15,000,000$ births, 1945-50) being nearly $7,500,000$ and $13,000,000$, respectively, and those with the high mortality, low fertility trend being approximately $2,500,000$ and $10,500,000$. The net arrival of 500,000 foreigners each 5 years would narrow the differential somewhat; with medium fertility and mortality a movement about 5 times as large would be necessary to keep the gains equal.

On a proportional basis the 20-44 age group probably will become somewhat smaller in the future, containing between 34 and 38 percent of the population in 1975 as compared with 38.8 percent in 1945. The 45-64 age group, in contrast, is almost certain to include a larger proportion of the future population —probably 23 to 26 percent in 1975 as compared
with 20.4 percent in 1945. Low fertility, high mortality, and much immigration would help to maintain the relative status quo of the younger adults during the next 30 years; the opposite conditions would help maintain that of the older adults.

The elders - aged 65 and over
The number of persons 65 and older has risen steadily in the past, being approximately $1,150,000$ in 1870, slightly over 3 million in 1900, and over 10 million in 1945 (see table 33 and fig. 7). The trend from 1945 to 1975 will depend entirely on the course of mortality and immigration during these years. On the assumptions of medium mortality and no immigration the number of elders may be expected to exceed $17,600,000$ in 1975 . The low mortality assumptions raise the forecast for 1975 to almost 20 million, and the high mortality assumptions lower it to a scant 17 million.

The proportion of the population aged 65 and over has not risen as rapidly as the number of persons in the group; nevertheless its rate of increase has been high. The 1945 proportion ( 7.2 percent) is more than twice that of 1880 and $11 / 3$ times that of as recent a year as 1930. A substantial rise in future years is indicated by the forecasts, the 1975 percentage being 10.9 for the medium fertility, medium mortality assumptions and about 11.3 both for the low fertility, high mortality assumptions, and for the high fertility, low mortality assumptions (in each case without immigration). (See fig. 8.) The arrival during the next 30 years of many immigrants of the usual ages would add relatively few persons to the age group 65 and over in 1975, but by increasing the numbers in younger groups would tend to lower the proportion of elders in the population.


Figure 8.-ESTIMATED POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, FOR THE UNITED STATES, 1945; FORECASTS, 1960 AND 1975


Figure 8.-ESTIMATED POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, FOR THE UNITED STATES, 1945; FORECASTS, 1960 AND 1975 -Continued

## CHAPTER IV

## IMPLICATIONS OF THE EXPECTED TRENDS IN POPULATION GROWTH AND COMPOSITION

The changes in the growth and composition of the population which are to be anticipated in the United States before 1975 have been described in some detail in the preceding chapter. The three most important may be summarized briefly as (a) a decrease in the amount and rate of population growth, and perhaps eventually a stationary or diminishing population, (b) a large increase in the number of persons in the older age groups, and (c) either a small increase or a decrease in the number of children and youths, but with erratic fluctuations at certain ages. These changes will have numerous and varied effects on our economic, social, and political life. Whether they will tend to raise or lower the operating efficiency of our Nation is likely to depend in important degree on how well they are understood by leaders in private and public undertakings, and on how carefully they are taken into account in making plans for the future. In the past a continuation of rapid growth was unthinkingly taken for granted. During recent years there has developed an interest in knowing more about the conditions influencing and influenced by population growth and composition-an interest which augurs well for the future.

It is not possible here to list all the important ways in which the expected demographic developments will influence events in the United States, to say nothing of describing their consequences accurately. If several nations had already undergone population changes like those expected here, if at the same time other conditions had resembled those expected here, and if the effects of the population changes in these other countries had been similar in each case, it would be reasonable to suppose that the effects in the United States would follow much the same pattern. Unfortunately for the present discussion, there is no such experience to draw on, since no nation with other characteristics like ours has undergone similar demographic developments in the past. Instead, reliance must be placed on inductive reasoning based on the facts and relationships which are known. Most informed people who attempt such an analysis will come to similar conclusions as to several important effects that certain past population events will have during the next
few years. These can be discussed with assurance and will be considered first. Attention will be given afterward to some of the less tangible effects of demographic changes, about which opinions will differ more widely. Because of their broad implications they need careful consideration well in advance of their occurrence by persons responsible for policy-making in industry, government, and other walks of life.

## A. THE EFFECT OF PAST CHANGES IN THE NUMBER OF BIRTHS

On school enrollment ${ }^{1}$
One of the most obvious illustrations of the influence of population trends on other matters is the effect on the educational system of the changes which have taken place in the annual number of births during the last 20 years. The number of children between the ages of $52 / 3$ and $62 / 3$ years (the year of age during which a large majority of children enter the first grade) was only about $2,100,000$ in September, 1939, and was smaller than in any other recent September because the number of births in 1933 was smaller than in any year since 1905 or thereabouts. By September, 1946, the prospective number of new first graders had increased to about $2,400,000$ (nearly 15 percent over the 1939 figure) because of the rise in the number of births from 1933 to 1940. Each autumn from 1947 to 1949 will see additional increases in the number of children ready to enter grammar school. In 1949 the group will be 560,000 larger in absolute numbers than it was in 1946 and nearly 25 percent larger on a relative basis. In September, 1950 and 1951, there probably will be somewhat fewer prospective entrants for the first grade than in 1949, but in 1952 the group will reach the record-breaking number of nearly $3,300,000$. This number is more than 500,000

[^48]above that for 1951 and nearly 900,000 above that for 1946, and represents a relative increase of over 36 percent in only 6 years (see table 34 ).

Table 34.-Estimated Number of Native-Born Persons of Specified Ages in the United States, September 1, 1940 to 1946, AND Forecasts, 1947 to 1964
[Estimated from births in the United States]

| year | $\begin{aligned} & 53 / 5 \text { to } 63 / 3 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 113 / 3 \text { to } 123 / 3 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 142 / 3 \text { to } 153 / 3 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 172 \text { to to } 183 / 5 \\ & \text { years } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1940 |  |  |  |  |
| 1941 |  |  |  |  |
| 1942 |  |  |  |  |
| 1944 |  |  |  |  |
| 1945 |  |  |  |  |
| 1946 |  |  |  |  |
| 1947 |  |  |  |  |
|  |  |  |  |  |
| 1949 |  |  |  |  |
| 1950 | $\begin{aligned} & 2,817,000 \\ & 2,755,000 \\ & 3,291,000 \end{aligned}$ | $\begin{aligned} & 2,323,000 \\ & 2,30,000 \\ & 2,39,000 \\ & 2,35,000 \\ & 2,538,000 \\ & 2,829,000 \end{aligned}$ | $\begin{aligned} & 2,163,000 \\ & 2,15,000 \\ & 2,21,000 \\ & 2,21,000 \\ & 2,317,000 \\ & 2,294,000 \end{aligned}$ |  |
| 1951 |  |  |  |  |
| 1952 |  |  |  |  |
| 1953 |  |  |  |  |
| 1954 |  |  |  |  |
| 1955. | $\cdots$ | $\begin{aligned} & 2,949,000 \\ & 2,80,000 \\ & 2,84,000 \\ & 3,276,000 \end{aligned}$ |  |  |
| 1956 |  |  |  |  |
| 1957. |  |  |  |  |
| 1958 |  |  |  |  |
| 1959 | $\cdots$ |  |  |  |
| 1960 |  |  | $\begin{aligned} & 2,736.000 \\ & 3,268,000 \end{aligned}$ | $\begin{aligned} & 2,813,000 \\ & 2,932,000 \\ & 2,788,000 \\ & 2,728.000 \\ & 3,259,000 \end{aligned}$ |
| 1961. |  |  |  |  |
| 1962 |  |  |  |  |
| 1963 |  |  |  |  |
| 1964. |  |  |  |  |
|  |  |  |  |  |

Since a large majority of youngsters spend only one year in a grade and most of those who fail to be promoted do so only once, the above-mentioned changes in the number of children of first-grade age will cause changes in those of the age for higher grades an appropriate number of years later. Thus, the prospective number of new fourth graders will be higher than that of the preceding year in each September from 1949 to 1952 , will decline slightly in 1953 and 1954, and will jump to a new high in 1955. There will be about $3,280,000$ in this group in 1955 compared with about $2,225,000$ in 1946 . Youngsters who are eleven and two-thirds to twelve and two-thirds years old (the common age for entering the seventh grade, or the first year of junior high school) will be increasingly numerous in each autumn from 1948 until 1955, and will exceed the previous record in 1958 or thereabouts. For this age group the gain from 1946 to 1958 will be nearly $1,100,000$, or over 50 percent!

Variations in school enrollment at higher grades have been affected by changes in the proportion of youths attending school as well as by changes in their numbers; both should have an influence in the future. Because of past fluctuations in births, the number of boys and girls of the common age for
entering the tenth grade, or the first year of senior high school ( $142 / 3$ to $152 / 3$ ), decreased from about $2,530,000$ in September, 1940, to about 2,240,000 in 1946, and will continue downward to about 2,090 ,000 in 1948. During the 13 years thereafter, however, the trend will be reversed, so that in September, 1961 , there will be nearly $3,270,000$ in the group if death rates decline somewhat, as is expected. This represents an increase of almost $1,200,000$, or over 55 percent. If in addition to this increase in population there is a continuation of the past upward trend in the proportion of youngsters entering senior high school, faculty and facilities will need to be expanded on a still larger scale.

College enrollment has depended in important degree on changes in the proportion of youths going to college; nevertheless, changes in the number of youths of college age should not be ignored. The present record enrollments of colleges, due to the war and particularly to the veterans' education program, may begin to decrease in 1950 (or thereabouts) as the effect of these factors diminishes. Shortly afterward (in 1951) the number of persons of usual college entrance age ( $172 / 3$ to $182 / 3$ ) will commence an increase which (barring another war or other catastrophe) will last until 1964, amount to nearly $1,200,000$, and enlarge the group by nearly 57 percent.

It is clear that the demographic changes outlined above will create serious problems for school administrators, particularly for those responsible for the lower primary grades. How can they obtain the additional teachers and classroom space which will be needed? Should temporary quarters be rented, present buildings enlarged, or new buildings erected? For the faculty of teacher training institutions the immediate question is whether to encourage a larger than average proportion of the students who will graduate in 1948 to 1955 (the freshmen beginning a 4 -year course up to 1951) to prepare for teaching in the lower elementary grades. Later on, should more than the normal percentage of those graduating be encouraged to prepare for high school teaching? Answers to such questions could be given with more assurance if changes in human fertility after 1946 could be anticipated accurately. If the number of births were to remain at the high level of the 5 years 1942 46, first grade enrollment would remain at the high level of $1948-52$, seventh grade enrollment at the high level of 1954-58, etc. For reasons brought out in the discussion of fertility trends (chapter II, section B), however, it seems much more likely that the number of births will begin a
short-time but substantial decline sometime in 1947 or 1948, and during 1950-55 will average 10 to 30 percent below the 1942-46 plateau. Plans for a 25 percent increase from 1946 to 1949 in the number of children of first-grade age must be made rather soon, before there will be much information as to whether this large gain will be temporary or prolonged. Before 1954, when the high fertility of 1942-46 begins to affect junior high school enrollment, boards of education and school superintendents will know the changes in births from 1946 to 1953, and whether they need to plan for a short or long-time expansion.

The foregoing discussion is from a Nation-wide point of view. Because the increase in births from 1933 to 1941 was not distributed evenly over the Nation, the rise in the number of locally born 6-year olds from 1939 to 1947 has been larger in some school districts than in others. Furthermore, internal migration has caused a net movement of children into some areas with a large increase in births but a net movement of children out of some areas with a small increase in births. Changes in the geographic distribution of population within the United States are outside the scope of this report, but obviously they are of more immediate importance to local school administrators than are trends in over-all national growth.

On the number of persons entering the labor market
A recent study by Durand ${ }^{2}$ shows that 18 was the average age at which men joined the labor force during the latter part of the 1930's and that approximately 70 percent did so between their sixteenth and twentieth birthdays. For many youths entrance before attaining age 18 means part-time participation before schooling is completed; hence the corresponding ages for full participation would be somewhat older. Less is known about the age distribution of the women joining the labor force for the first time in any year, but in peacetime it probably does not differ greatly from that of men. From 1942 to 1945 the war obscured the influence of demographic factors on the number of persons entering the civilian labor force and on the age of those entering, for many women (especially among those 25 to 50 ) took jobs for the first time who would never have done so if no war had occurred, and large numbers of men who would normally have joined the civilian labor force became members of the armed forces.

[^49]From 1945 to 1947 demobilization obscured the influence of demographic factors on the propensity of persons to enter the civilian labor market for the first time and on certain of the characteristics of the entrants, for it increased their number greatly and raised their average age by a few years. The veterans' education program will prolong these influences until 1949 or later; nevertheless, the effect of population changes should not be ignored.

Because of past changes in the number of births, the number of youths of the normal age for entering the civilian labor force began to decrease in about 1940 and will reach a low point in about 1951. If the number of veterans who are re-entering after completing their education or training program also decreases after 1949 or 1950 , as is possible, the total number of youths and young adults becoming available for employment will decline at a relatively rapid rate for a year or two. From 1951 to 1958, however, the demographic factor will work in the opposite direction. During this time there should be a gradual increase (totaling nearly 300,000 , or 14 percent) in the number of youngsters seeking employment for the first time, and between 1958 and 1964 a sharp increase (totaling over 800,000 , or nearly 37 percent). What will happen thereafter depends primarily on the number of births in 1947 and later years, and in minor degree on the amount of immigration.

Changes from year to year in the number of youths entering the labor market are not merely of esoteric interest but are of practical importance. These young men and women are the beginners in the occupational field; in general they start at the low paid jobs from which they are commonly promoted as they are trained and gain experience. Some industries depend on such beginners more than others, especially in certain departments. These will need to plan for substitutes during 1951-54 while the supply is short; later on, when the number is rising, they can rely in increasing degree on such workers and can raise their standards for selection. In-service training and apprentice programs will be affected similarly. It is probable that they should be expanded in the near future to protect against the expected small size of the potential supply of new workers during the early 1950 's.

On the number of marriages
Another important event in the lives of most people - marriage - also will vary in numbers during future years because of past changes in the number
of births. Men commonly marry for the first time at ages $20-25$ and women at ages 18-23. One of the reasons for the record-breaking number of marriages in the United States during 1940-46 is that there were more men aged 20-25 and women aged 18-23 in these years than at any time previously. Unless there is a large amount of immigration during the next 10 years, the number of men and women in these age groups will continue the decline already begun and by 1956 will be about 12 percent below the 1947 figure. The number of first marriages will tend to be depressed in similar degree - a change which will in turn reduce the potential demand for engagement rings, wedding presents, household furniture, and other things related to marriages, After 1956 there should be another increase of population at the ages with high marriage rates, and the group should set a new record in 1966 or thereabouts, more than 30 percent above the expected low of 1956 and more than 14 percent above the 1947 figure. There should be a corresponding increase in the number of marriages during these years, which should tend to expand substantially the volume of business of concerns supplying goods and services used by newly married couples.

Although the number of marriages will vary because of these population changes, it will be influenced by other factors in important degree. It probably will not vary as closely with population changes as will school enrollment, and perhaps not as closely as the number of persons first entering the labor market. Evidence is available to show that variations in business conditions from year to year are an important cause of fluctuations in the marriage rate, prosperity encouraging marriage and depression discouraging it. In addition, an increase in the number of divorces tends to cause an increase in the number of marriages because a high proportion of divorced persons remarry. Nevertheless, changes in the number of persons aged 18 to 25 should continue to be the chief factor determining the trend line around which the number of marriages fluctuates year by year.
The past changes in the number of births may have some effect in the future on the tendency to marry and on the age difference between husband and wife. Because of the decrease in births from 1924 to 1933 and the increase from 1933 to 1946 the ratio of men aged $20-25$ to women aged 18-23 will be relatively high from 1947 to 1952 and relatively low from 1957 to 1968 or later. In consequence, from 1947 until 1952 single men $20-25$ will have a relatively large number of single women 18-23 from
whom to choose a bride. This may tend to raise the proportion of the former who marry, or lower the proportion of the latter who do so. From 1957 to 1968 these tendencies will be reversed. Such changes in the propensity to marry may be offset by changes in the proportion of bachelors selecting a bride 2 to 4 years younger as compared with one of some other age, but probably will not be completely offset because such a social custom tends to be stable. ${ }^{3}$
At ages beyond 40 the opportunities for spinsters and widows to marry probably will become less favorable in the future, and those for bachelors and widowers more favorable. For reasons explained in chapter III, section C, the sex ratio at ages 40-49 is expected to decline from 1945 to 1960 and the ratio at ages 50 and over to decline from 1945 to 1970 or 1975. As women come to outnumber men at these ages instead of being outnumbered by them, the likelihood of finding a spouse will be affected accordingly.

On the number of families and the housing situation
The expected changes in the number of persons joining the labor force and in the number of marriages will have an impact on the demand for housing, for it is at the time of these events in particular that the younger generation leaves the parental roof and establishes families in its turn. ${ }^{4}$ Because buildings are relatively permanent the number of new families is not the demographic factor of primary importance in the housing situation, but rather the net change in the number of families (the new families minus those disbanded). The number of persons of the age to form new families in a given year depends primarily on the annual number of births 18 to 25 years earlier, but the number of persons of the age at which established families come to an end depends primarily on the number of births many years earlier.
Although fertility rates were much lower 18-25 years ago than $58-65$ years ago, the number of

[^50]births was much larger during the more recent period because the number of women of childbearing age had more than doubled from 1882-89 to 1922-29. The difference between the number of persons aged 18-25 and the number aged 58-65 in 1947 is still larger than the difference in births, because of the higher mortality rates of the older people at each age of life and the longer time for death to take its toll. In consequence, even though demographic developments may reduce the potential number of newly established families during the next few years, this group will outnumber those broken by death or other causes for several decades to come. From 1947 to 1955 population changes are expected to cause a downward trend in the number of new families, but an increase from $39,100,000$ to about $42,900,000$ in the total number of families (ahout (10 percent). (See table 35.) From 1955 to 1967 or later, they should cause an upward trend in the number of families formed annually, reversing the situation during the preceding decade. In consequence, the total number of families may rise at a higher rate during that period.

Table 35.-Estimated Number of Families in the United States, July 1, 1940 to 1945, and Forecasts, 1946 to 1960

| YEAR | mediem Estimate |  | High estimate | Low estimate |
| :---: | :---: | :---: | :---: | :---: |
|  | Number of families | Increase since preceding year |  |  |
| 1940 | 35, 125,000 |  | 35, 125,000 |  |
| 1941 | 35,850,000 | 725,000 | $35,875,000$ | $35,825,000$ |
| 1942 | 36,450,000 | 600,000 | 36,600,000 | 36,400,000 |
| 1943 | 36, 875,000 | 425,000 | $37,200,000$ | 36,750,000 |
| 1944. | 37,100,000 | 225,000 | $37,500,000$ |  |
| 1945 | 37,500,000 | 400,000 | 37,975,000 | 37, 150,000 |
| 1946 | 38, 175,000 | 675,000 | 38,775,000 | 37,650,000 |
| 1947 | 39, 100,000 | 925.000 | 39, 825,000 | 38,325,000 |
| 1948 | 40,025,000 | 925,000 | 40,675,000 | 39,050,000 |
| 1949 | 40,525,000 | 500,000 | 41,225,000 | 39,575,000 |
| 1950 | 40,900,000 | 375,000 | 41,750,000 | 39, 825,000 |
| 1955 | 42,925,000 | 1405,000 | 44,625,000 | 41, 475,000 |
| 1960 | 44,775,000 | 1370,000 | 47,425,000 | 42,775,000 |

${ }^{1}$ Annual average for the preceding 5 -year period.
Source: Bureau of the Census, "Estimates of Number of Families in the United States: 1940 to 1960," Population-Special Reports, Series P-46 No. 4, June 1, 1946.

It is obvious, of course, that the actual demand for housing units in various communities is affected by many factors other than Nation-wide trends in the size and age of the population. Economic conditions, for example, have an important influence not only on the marriage rate (which in turn influences the formation of new families), but also on the propensity of families to share housing units. It is equally obvious, however, that Nation-wide population developments should not be overlooked by
public officials responsible for federal or State housing programs, nor by executives of business concerns which are producing or distributing materials or supplies for residential construction over a large area. And even though in many localities the housing situation has been affected much more by the movement of people into or out of the locality than by the national rate of population growth, the latter should not be ignored by persons primarily concerned with local housing, for the frequency of rapid local growth probably will tend to diminish and that of rapid local loss to rise with the decrease in national growth. ${ }^{5}$

## B. IMPLICATIONS OF DIMINISHING POPULATION GROWTH

The foregoing effects of demographic changes on national life are fairly certain and simple; hence they can be discussed with relative assurance. Other effects which may be even more important in the long run are more uncertain and complicated; consequently, there will be wider differences in opinions as to the likelihood of their occurrence and as to the severity of the problems they will create. The more thought and study that are given to them, however, the greater the probability that they will be understood and that steps can be taken to benefit from the favorable changes and minimize those working in the opposite direction.

Prosperity and the level of living
During recent years a beginning has been made in evaluating the probable effect on our national economy of a decreasing rate and amount of population growth, and eventually of a decreasing population. Because large population gains and a relatively high but usually rising level of living have gone hand in hand in the United States during past decades, many people apparently have thought that the former was an important cause of the latter and that if the number of people were to increase slowly, or not at all, the level of living would be quite likely to cease to rise or begin to fall. This opinion, of course, gives too little credit for our present wellbeing to our vast acreage of good farm land, our huge mineral resources, the ability of our people to use this natural wealth intelligently, and the fact that we are not greatly overpopulated as are India and China.

Perhaps because of our relatively recent pioneer background we have greatly esteemed the booster
spirit, one of the aspects of which has been the feeling that the best population is the one which is the largest and has the most rapid rate of growth. For years the attention of the public has been called to the high prices paid for desirable property in booming cities ; in contrast, little has been said until relatively recently about the slump in values in residential areas which formerly were desirable but which have been blighted in part because of the shifts caused by population growth, nor about the social and economic problems developing in these blighted areas. It is true that the many new apartment houses, office buildings, and other structures of rapidly growing cities look better and are more efficient than the older ones of cities with a slowly growing or decreasing population. But there is a price to be paid for such advantages, namely, the shortened life of the structures which occupied the land previously. Demolition and reconstruction certainly are desirable eventually from a cost standpoint, but may be forced too far ahead of time by rapid population growth and be done when modernization would otherwise be more efficient.

The economists who have written in recent years about the problems which will be caused by smaller gains (or by decreases) in population have been concerned especially with what will happen to the opportunities for employment and for the investment of savings, because of the close relation between these opportunities and national well-being. When the number of persons is rising rapidly it is necessary to prepare for the increase. Houses and apartments must be built; streets must be paved; power, light, water, and sewer systems must be extended; existing factories, stores, and other business structures must be enlarged or new ones erected; and much machinery must be manufactured. These activities and the many others which are needed to meet the expansion of demand caused by the additional consumers have a twofold and extremely important series of effects on the national economy. First, by requiring large investments of funds, they help to maintain interest rates, encourage savings, and facilitate the accumulation of wealth. Second, by furnishing jobs for a large number of people, they tend to keep unemployment at a minimum and to maintain average per capita earnings and ability to consume. The result is the maintenance of high levels of employment, production, and prosperity.

If the foregoing relationships exist in fact, as economists and husiness leaders believe, a rapid diminution of population growth would tend to lessen
correspondingly the increase that otherwise would occur in all of the activities normally carried on to provide for additional people. There would be a shrinkage in the demand for additional funds to finance these undertakings, which would curtail the expansion of investment opportunities, reduce interest rates, and pile up idle funds. Fewer additional workers would be needed in the industries making things required because of population growth, especially in residential, commercial, and industrial construction, and in machinery manufacturing. The slackening of employment opportunities in such industries would tend to lower wages in others as well; hence both directly and indirectly it would reduce the aggregate income of consumers. This, in turn, would reduce the demand for consumer goods and throw out of work some of the persons producing them. Once such a cycle of events was started it could throw the national economy into a downward spiral and bring on a depression as bad as (or worse than) that of the 1930's. In fact, it is possible that the decrease in average annual population growth from about $1,870,000$ during 1920-24 to $1,490,000$ during 1925-29 and to 920,000 during 1930-32 was partially responsible for the severity of the last depression, and that the slow rise in average annual growth from 790,000 during 1933 to 920,000 during 1935-39 was partially responsible for the slow recovery from that depression.

To show that a sudden change from recent rates of population growth to a stationary or decreasing population could play an important role in bringing on a serious depression does not imply that the continuation of recent rates of growth would insure the continuation of prosperity. On the contrary, there are at least two important reasons for expecting that business cycles would continue to occur. even under such conditions. The first is that they occurred during the nineteenth century when rates of population growth were much higher than they have been in recent decades. The second and more important is that conclusive knowledge is not available as yet regarding the exact causes of these cycles; hence opinions differ widely as to how they may be controlled, and the regulatory mechanisms which have been established may be inadequate. The attempt here is merely to show why the expected population changes may tend to a greater extent than those in the past to shorten futureperiods of recovery and prosperity, and to lengthen periods of decline and depression.

## Better customers versus more customers

Realizing that demographic trends may have harmful tendencies in the economy should not lead to a pessimistic attitude regarding the future, but instead should stimulate the consideration of means of offsetting them. It is possible, of course, that other conditions could change in sufficient degree to more than balance the influence of the population factor. One proposal to this end is based on the principle that if a smaller part of the Nation's productive plant and labor force is to be required to produce the things needed for additional people, more of it ought to be used to produce the things needed for the people already present. In simpler language, a decrease in the number of new customers can be offset if each old customer increases his purchases sufficiently. This is by no means a revolutionary suggestion. On the contrary, it is believed widely that decreases or insufficient increases in the per capita purchasing power of the bulk of the population have led to depressions in the past and that increases in this power are necessary for continued prosperity. Demographic analysis simply gives additional reasons for efforts to secure such increases.

The problem is highly pertinent in 1947 even though the demand for so many things exceeds the supply, for progress from year to year in raising the ability to buy of the average person has been slow in the past, and the productive capacity of our economy is so great that the present postwar shortages can be reduced rapidly. The information available in the spring of 1947 indicates that the construction industry and other industries which provide things needed for additional people are likely to operate at full capacity until after 1948. During this period, before the backlog of orders is wiped out and these industries must curtail their activities to the point required merely for meeting current demands, is the time for considering how to meet the problems which will arise later.

According to traditional laissez-faire economics, the demographic developments will tend to set in operation certain processes that will help to solve the problems which they raise. The theory involved is that the things which are produced jointly by the three factors of production - natural resources, labor, and capital - tend to he divided among these factors in accordance with their relative scarcity. If labor is relatively plentiful compared with natural resources and capital, its share tends to be small; if it is relatively scarce, its share tends to be large. The slowing up of population growth has already re-
tarded the growth of the labor force and will continue to do so in the future. This fact should tend to increase the share of the joint product going to labor and hence to each member of the labor force. Since the percentage of the population in the labor force is expected to remain almost the same from 1950 to 1960 (or later) as it was in 1940, the decreasing growth of the lahor force should mean a rise in the per capita income of that large proportion of the population dependent primarily on wages and salaries - in other words, of a large majority of consumers and a still larger proportion of those who need to be made better customers.

Entire dependence need not be placed, however, on the automatic operation of so-called economic laws. Most leaders in business and government realize already that the continuance of national prosperity depends on adequate per capita ability to buy among the masses, not merely among the well-to-do, and would be willing to advocate a course of action which would maintain or raise this capacity to consume. The first difficulty is that (as mentioned above) opinions differ as to the best means of achieving the desired goal and conclusive evidence is lacking to show which of the procedures advocated are more nearly correct. Much thought and effort are being devoted to such questions, however, and should bring results in time.

A second difficulty is that an action which would help to raise per capita consuming power may be expensive and even harmful to the person who decides whether it should be taken. For example, the man in charge of a family-controlled corporation may know that an increase in the proportion of the corporation's income going to its employees instead of to its stockholders, or a decrease in the prices of its products which would reduce dividends (but not wages), would benefit the national economy. He may decide not to make such a change, however, in part because he and his stockholders would shoulder most of the costs, but would receive only an infinitesimal part of the advantages which would accrue from the rise in ability to buy among the masses. Moreover, the contemplated change in wages or prices might start a fight within the industry which would be disastrous to the corporation in question. Although in-dustry-wide bargaining between management and labor has some objectionable features, it should increase the extent to which business leaders who appreciate the need for raising purchasing power by appropriate wage increases and price reductions can work toward that goal without weakening the competitive position of their own companies in the in-
dustry. The more industries in which this can be done, the greater the likelihood that the purchasing power of the main body of consumers can be raised sufficiently to offset the decline in the additions to consumer purchasing power which will result from the expected diminution of population increase.

A more fundamental, but less well-known, example of what may be good for the economic position of the individual but bad for that of the Nation relates to that often-praised characteristic, the ability to save. The more a person saves the stronger his financial position becomes; it is difficult to conceive that any other relationship between amount saved and financial security could be possible. Nonetheless, the study of business eycles indicates strongly that the aggregate savings of all of the corporations, partnerships, and individuals in the Nation may become so large as to be responsible in important degree for ending a period of prosperity and bringing on a depression. Perhaps the appropriate analogy is that aggregate oversaving may injure the Nation's economic health, just as oversaving by a miser may weaken his body and distort his mind. Large savings by corporations and individuals have been of great benefit to the Nation during most of the past, especially when population was growing rapidly and spreading into frontier areas and there was need for a large amount of investment funds to develop mines, extend railroads, and build factories, barns, and homes. As with many other things, however, an oversupply may be harmful. Evidence is being accumulated to support the belief that the presence of large amounts of idle funds awaiting investment is detrimental to the economy and that such a situation ought to be prevented. The procedures suggested include reducing savings, increasing the opportunities for private investment by increasing the purchasing power of consumers, and increasing the amount invested by the Government in such things as roads, airports, and slum eradication projects.

Because the reduction of population growth and the control of business cycles may make it desirable for aggregate national savings to be smaller than formerly does not mean that the large majority of people should save less than they have in the past. Hansen has estimated that if high income levels (like those of the 1920's) and the accompanying propensity to save should prevail after World War II, the savings of corporations, unincorporated businesses, and individual entrepreneurs would constitute about 60 percent of the gross amount saved in
the United States, and the savings of other persons the remaining 40 percent. ${ }^{6}$ Much of the latter would come from the relatively small proportion of persons with incomes of $\$ 5,000$ or more; hence the savings of the great mass of the population would constitute a relatively small proportion of the national total. In consequence, if a reduction of aggregate savings in the United States should become desirable to help prevent depressions and counterbalance some of the effects of diminishing population growth, it should involve corporations, partnerships, and individual entrepreneurs primarily, and should be achieved by increasing dividends, raising wages, or reducing prices. Increasing dividends probably would be the least effective of these three procedures because the large proportion of dividend payments are made to that small proportion of the population with incomes above $\$ 5,000$ which is responsible for a major portion of individual savings. Raising wages or lowering prices would have the advantage of increasing the ability to buy of the bulk of the population, and thus would stimulate the demand for goods and the need for industrial expansion. The latter would enlarge the opportunity for the investment of capital, and hence would increase the aggregate amount of savings desirable for national prosperity. In short, if for the benefit of the Nation's economy total savings for investment ought to be reduced, success in beginning this reduction should lessen the curtailment of savings needed.

It is possible, of course, that an attempt to reduce business savings by increasing the purchasing power of consumers would lead to increased personal savings by too many individuals. It is also possible that such a tendency would be more than offset by influences working in the opposite direction. For example, one of the most important reasons for saving among the bulk of the population is protection against accidents, sickness, and old age. As medical and hospital insurance plans and the social security program are extended and strengthened, these motives may be less compelling. Moreover, according to economic theory the conditions which would make desirable a reduction of aggregate national savings would also. lower interest rates and perhaps reduce the propensity to save. The net effect may be that the ratio of spending to earnings will rise and that thereby each customer will tend to become a better customer.

[^51]Whether corporations and businessmen will be able to bring about without governmental assistance the adjustments that will be called for by the diminution of population growth remains to be seen. Meanwhile, the opinion seems to be general that until they prove their ability to do so the various branches of federal, State, and local government should be prepared to take supplementary action. Specific proposals center on public works which would bolster the construction industry, for such undertakings are particularly appropriate to government and this industry is one of the first to need help as a depression approaches or as population growth dwindles. It may be of great value to prepare plans for public buildings, express highways, airports, slum eradication, flood prevention, and similar projects during coming months and have them ready for action when the postwar building boom and high birth rate come to an end, as they very probably will within a few years. ${ }^{7}$

Slow improvement adequate
The problem of raising the purchasing power of the masses in sufficient degree to compensate for the deceleration of population growth appears less formidable when it is realized that only a small relative change will be needed. Few people, if any, believe that from 1900 to 1915 the population was growing so slowly as to handicap national economy and exert a depressing influence on the level of living. During those years the rate of growth averaged less than 1.9 percent per year; from 1950 to 1975 it is expected to average approximately 0.5 percent (with medium fertility and mortality trends, and the net immigration of 500,000 persons per 5 years). On this basis an average annual gain of only 1.4 percent in per capita ahility to buy should compensate for the effect on the Nation's prosperity of the diminishing rate of population growth. Moreover, during the first part of the 1950-75 period a smaller improvement will suffice. Later, when a more rapid gain may be needed, it may be achieved

[^52]with no greater effort because additional experience will be available as to how to do so. There is also the possibility that as time passes and more is learned about economic relationships other ways than making most people better customers will be found for maintaining prosperity without large additions to the number of customers.

## Less violent business cycles

Although a reduction in population increase may make certain problems more critical, it may mitigate others. As pointed out above, the construction industries are more important in a population growing rapidly than in one growing slowly; hence they can exert a greater influence on national economy in the former situation. Because these industries are noted for their wide cyclical swings a decrease in their importance should tend to reduce the violence of business cycles. It may be thought that if persons were made better customers in order to offset the relative contraction of the construction industries there would be an expansion of the luxury or semiluxury industries, and that the disadvantages of this expansion would outweigh the advantages gained by reducing the importance of the construction industries. It is true, of course, that the demand for semiluxury and luxury goods fluctuates more than the demand for necessities and that a rise in the relative importance of the former in our economy could tend to unsettle it. What is likely to prevent such a development is the fact that so many of the necessities of today are the semiluxuries of yesterday and the luxuries of an earlier time, and that such a relationship may be expected to continue.

## Maintaining population growth through immigration

In the foregoing discussion it was assumed that population growth would slacken as indicated in chapter III; hence attention was focused on how to meet the problems which would arise in consequence. Another approach is to consider how growth could be maintained at the rate of recent decades and what the results would be. It is almost certain that if the present restrictions on immigration were modified in sufficient degree the slowing up of population growth could be postponed for several decades at least. The chief question is whether the difficulties which would be created or intensified by such action would be less serious than those which would be removed or reduced by delaying the approach of a stationary or decreasing population. The problems of social and economic assimilation associated with
large amounts of immigration led to the development of the present immigration program. They have been discussed at length in many articles and books, and need not be considered here. In contrast, little thought has been given to the questions of how the Nation's present population compares in numbers with its optimum population and whether additional growth will take the Nation toward or away from this optimum.

## The economic optimum population

The number of people that is most desirable for the Nation can be considered from several standpoints. A religious fanatic might base his judgment entirely on the number of potential worshippers and say that the largest population is the best. A military man might have thought a few centuries ago that a population had the best size if it could furnish a sufficient number of soldiers to overawe its enemies in peacetime and assure victory if war occurred. Now, however, he would undoubtedly consider not only the number of soldiers but also the number of atom hombs and other war matériel that could be produced. In strict biological terms, the optimum population is the largest that can be supported with the existing environment. If a population exceeds the biological optimum, it will be weakened by starvation and other ills until it falls to (or below) that number; if it is below the biological optimum, it will breed up to it (in the absence of reproductive controls). The economic optimum population of a nation in a given year is usually thought of as the number of people which permits the maximum production of economic goods and services per capita with natural resources and human ahility to use them as they are in that year. If the actual population were larger or smaller than the optimum population, its level of living would tend in consequence to be depressed in economic terms.

Attention will be focused here on the economic optimum because of its great significance. With our civilization a population that is well off in economic terms is likely to rate high as to health, physical fitness, and longevity. Because of its high per capita productivity a population at the economic optimum is likely to be able to support the arts and to have the leisure to enjoy them. Moreover, a population that rates high from an economic standpoint also rates high from a military standpoint. While no reputable economist or demographer has said exactly how many million persons constitute the economic optimum population of the United States, the con-
sensus of those who have studied the problem is that the number is at least several million less than the present population; it may be as low as 100,000 ,$000 .{ }^{8}$ The reasons for such a belief can only be summarized here.

As far as agriculture, forestry, and mining are concerned, the acres of land and number of deposits which are needed for our present population exceed those that would be needed if our population were smaller. Some of the acres and deposits now needed are of much lower grade than others, and not only yield a much smaller return per unit of capital and labor under present technology but would do so under the technology foreseeable during the next few decades. In consequence, the return per unit of labor and capital in agriculture, forestry, and mining tends to be substantially lower with a population of the present size than it would be with one of much smaller size.

The optimum size of population for each of the manufacturing industries is one that provides a market for the goods which can be made in a factory of the most efficient size. For scarcely any of the important products manufactured in the United States is the present population too small to utilize the goods of one such factory. On the contrary, during recent decades the number of people has been sufficiently large to consume all of the vast majority of products that could be made in scores or hundreds of factories, each of them large enough for maximum efficiency. In other words, if the population were substantially larger than it is at present, the manufacturing industries would not for that reason be appreciably more efficient; if it were substantially smaller, the manufacturing industries would not for that reason be appreciably less efficient. Within wide limits above and below the present numbers the distribution of the population is more important to manufacturing than its size.

A third type of situation is represented by transportation and communication. The population in some areas is so large that the efficiency of portions of these industries is reduced thereby, for example, that of the trucking industry in New York City, but for the Nation as a whole the opposite is true. Thus, although double-tracked railroads can haul much more traffic per unit of investment than those with a single track, the majority of lines are singletracked because that is adequate for their present

[^53]business. If the population were sufficiently larger, many more could be double-tracked and be much more efficient. Similar statements can be made about highways, telephone and telegraph systems, and most of the other transportation and communication industries. Airlines may be one of those least affected because a relatively high proportion of their costs vary directly with the number of planes.

The efficiency of most of the other industriesconstruction, trade, finance, insurance, real estate, and services-depends less on the size of the Na tion's population than on how it is distributed, for an important proportion of the activities of these industries are on a local scale. A high proportion of doctors and contractors, banks and stores, are situated in areas with a population sufficiently large for them to function efficiently, but some, of course, are in places which are too small. In trying to draw a line between the two groups, however, it must be remembered that wide differences in size of community may be accompanied by small differences in net unit costs. Thus, although the city's large department store may pay the salesclerks and supervisors less per dollar of goods sold than the town's comparatively small shop, the total cost of doing business may be as high for the former as for the latter because of differences in the opposite direction for other factors, particularly rent. There is little doubt that at present a large majority of our people live in communities with a sufficient population to permit the trade and service industries to operate at, or very close to, maximum efficiency. A larger national population presumably would have a somewhat higher proportion in such communities, and a smaller population a somewhat lower proportion. The resulting differences in the efficiency of the industries in question probably would be between those for manufacturing and those for transportation and communication, but much closer to the former than the latter.

The crucial question, therefore, is whether the substantially lower efficiency of agriculture, forestry, and mining in a population several million larger than the present population would be offset by the slightly higher efficiency of a few of the manufacturing, trade, and service industries, plus the substantially higher efficiency of the transportation and communication industries and some of the trade and service industries. The answer appears to be in the negative. In 1940 nearly $9,500,000$ persons were engaged in agriculture, forestry, and mining (where output per worker would tend to be lower with a larger population), and barely 3,100 ,-

000 were engaged in transportation and communication (where output per worker would tend to be higher with a larger population). The latter group would be increased somewhat by an appropriate allowance for the workers in the branches of the trade and service industries which would be made more efficient by a larger population, but would still be smaller than the former. To use the economists' terms, a substantially larger population would be less advantageous to the industries which are now in the stage of increasing returns with reference to population than it would be disadvantageous to the industries which are now in the stage of decreasing returns. Conversely, a population substantially smaller than the present would be less disadvantageous to the former industries than advantageous to the latter. In short, it is becoming realized that the population of the United States, like that of most western European nations, has exceeded the economic optimum for many years, though opinions still differ widely as to the size of the excess. Further population increase, of course, will make the excess still larger.

To say that a smaller population would have certain economic advantages compared with the present population does not mean that it would be desirable to have a rapid decline to that level. As pointed out earlier, a rapid reduction of growth would bring serious problems; a decrease in population would make them critical. The ideal situation would seem to be for growth to diminish gradually so that the economy could become adjusted to the process, and for the population to reach its maximum size at a level which would not be so far above the economic optimum as to depress per capita output and standards of living too severely.

Granting that the present population exceeds the economic optimum does not mean admitting that the larger population expected in 1975 will not have a level of living superior to that of today. This improvement is expected by almost everyone. If it occurs, however, it will be in spite of the population growth in the interim and because of such things as scientific discoveries, technological advances, and greater knowledge of ways to make our economy work effectively. Nevertheless, the fact that the United States now has a population well in excess of the economic optimum does raise questions that should be considered carefully in connection with any program, such as a large increase in immigration, which may be advocated because it would maintain a relatively high rate of population growth.

## Conservation of natural resources

A gradual slackening of population growth should be welcomed by conservationists because it will help to lessen the reduction of soil fertility and the rate of exhaustion of nonreplaceable natural resources. Although the United States is more abundantly supplied with fertile soils and rich mineral deposits than most nations, it probably has been more prodigal in their use. Sheet erosion has lowered the productive capacity of millions of acres of cropland; failure to prevent gullying has had more serious immediate effects on a smaller area. Poor soil management has been the main cause, of course, but the demand of a growing population for more food and fiber has probably been harmful rather than beneficial. It is estimated that a continuation of recent consumption rates would exhaust the known highgrade deposits of iron ore in 25-30 years, of zinc in 20-25 years, of copper in 14-16 years, and of lead in 12-14 years. Medium-grade deposits will last longer, but not indefinitely, and will be more expensive to use. As time passes it is almost certain that additional reserves will be discovered and that science will provide substitutes, but there is no assurance that they will be equally cheap. A slowing up of population growth, therefore, should be helpful to the next generation by allowing it to inherit more natural resources-an inheritance which should partially compensate for the huge national debt that will also be passed on.

## Slower growth of cities

The majority of persons, of course, have a much more immediate interest in the future growth of population in one or two communities than in the Nation as a whole. City officials want to know how many more people must be provided with water and sewer facilities, and how soon. Utility executives have the same questions with regard to electricity, gas, telephones, and local transportation. In most other businesses catering to the home area the local population factor is less important and the competitive position of the individual company more important; nevertheless, the former usually deserves some attention. Because this report deals with the demography of the Nation as a whole, only the general effects on localities can be discussed here.
It is ohvious that as population growth decreases in the entire Nation it should decrease also in most parts of the Nation. The decline in the rate of natural increase probably will be largest in rural areas, which have had a high rate in the past and which
have sent large numbers of migrants to rapidly growing towns and cities. Changes in the location of industry and hence in regional and local employment opportunities will continue to cause shifts in population, but whether they will still be predominantly from areas of relatively high natural increase to those of relatively low natural increase remains to be seen. With a smaller surplus of rural people, the population growth of other communities will depend in increasing degree on their own excess of births or on their attracting migrants from one another. The former will mean a general reduction in rates of growth; the latter will permit some high rates, but will mean that actual decreases are occurring in some of the places furnishing the migrants.

Plans for community expansion will need to be scrutinized more carefully in the future than in the past, for there will no longer be the same assurance of a continued growth. There will be less justification for public officials to construct permanent or semipermanent facilities, such as schools, water supplies, and sewer systems, in excess of the needs of the next few years. The slowing up of national population growth may make additional expansion unnecessary, or may postpone the need so long that the carrying charges during the interim will be excessively heavy. Taxpayers should realize that the per capita burden of long-term indebtedness will not be lightened as rapidly as in the past by an increase in their numbers. Public utility executives, too, will have the prospect of a more nearly constant number of customers, but in the case of electricity, at least, are more likely to see a substantial rise in per capita consumption. Other industries catering to the local market also will become more dependent for expansion on better customers than on additional customers.

Urban and suburban land in most areas will be likely to have a less rapid upward trend in real value in the future than the past because in important degree this value will come to depend more on the number of people currently in the area and less on the expected increase in population. In fact, since a tendency to over-capitalize anticipated future growth has been widespread, declines in land values may occur in many communities when it is realized that local growth will not live up to previous expectations. The next 30 years should see a smaller rise in farm land values with a slowly increasing population than with one rapidly growing, because the ratio of people to acres plays an important role in
setting those values and the rise in this ratio will be retarded.

## Improving population quality

The slowing up of population growth may have a tendency to improve the quality of the population in certain respects, or at least to retard further retrogression. Much concern has been aroused in recent years over the relatively small families of persons with high school or college education, or with medium or higher incomes, as compared with the relatively large families of persons with only grade school education, or with low incomes. Although the supporting evidence is rather scanty and not completely convincing, the general opinion is that the children of the former are more intelligent and able than those of the latter, and hence that the differences in fertility tend to cause the stock to deteriorate biologically. That the fertility differentials are undesirable from an environmental standpoint is seldom questioned. Plenty of evidence is available to show that as a rule the children of parents with little education and low incomes grow up in surroundings which are not favorable to health, education, moral training, and other desirable characteristics, and in consequence that they grow up to be less useful citizens than the children of parents with medium or higher education and income.

As pointed out in section B, "Fertility Trends," of chapter II, the long-time downward trend in family size during past decades occurred primarily because of attempts to space children and avoid having more than were wanted. In general, these began and were most successful in the relatively prosperous and well-educated groups, and spread slowly from them to others. Recent studies show that a large majority of the present couples try to plan their families, and that it is in the under-educated and low-income groups that such efforts are least frequent and successful. Fortunately for society, the infiltration process does not appear to have stopped. There are reasons for believing that attempts to space children will become more common and effective in the underprivileged groups, and that in consequence the future will see a lessening of fertility differentials between socio-economic groups and of their unfavorable results. The situation will be still further improved if families that live in superior surroundings, and that are of superior biological stock, decide to have more children than other families.

In summary, except to persons who overvalue size and would like the population of the United States
to be as large as that of India or China, a gradual slowing up of our rate of growth should appear desirable. It should postpone the time when natural resources will be exhausted, contribute to economic stability, and lessen the likelihood of deterioration of the quality of the population. Unless our economy has lost its power of adaptability, this demographic change should help to raise our level of living, for in the long run the less that must be produced each year to provide for the expected increase in population, the more it should be possible to produce each year for current consumption by the people already present.

## C. IMPLICATIONS OF THE AGING OF THE POPULATION

The future changes in the age distribution of our people, like the diminution of population growth, will have highly significant repercussions, some of which are simple and others extremely difficult to evaluate. The 45 to 55 percent increase expected between 1945 and 1975 in the proportion of persons 65 or older in the population, and the 15 to 40 percent decrease expected in the proportion of children under five, should bring important changes in the demand for certain kinds of consumer goods and services. Having $7,000,000$ to $10,000,000$ more elders may not affect greatly the consumption of many basic types of articles, for relatively few are used primarily by these people. The change in quantity demand should be large, however, for the things which are bought chiefly for oldsters-canes, toupees, hearing aids, etc. The list of things used primarily by children is much longer, including nursing equipment, diapers, toys, skates, and bicycles; hence the expected decrease or small increase in the number of children will be felt much more widely.

Although the 50 percent rise in the proportion of elders may not have much effect on the over-all demand for most types of goods consumed by adults, it may affect the styling of these items. The tastes of most people are believed to become more conservative with age; hence clothing manufacturers may find a relative decrease in the demand for their more extreme styles. The proportion of "stouts" and "large sizes" among suits and other garments should rise slowly since waist lines and hips tend to thicken with age. Other physiological changes which accompany age may tend to support a movement for lower hem lines and to expand the demand for the rejuvenating aids of the cosmetic industry.

## Housing

The effect of age changes on housing and institutional facilities may be more important than their effect on the potential demand for consumer goods. The decrease in the proportion of children in the population and the larger drop in the proportion of families having several children have reduced the demand for detached houses, especially for large houses, and increased the demand for apartments. ${ }^{9}$ The increase in the proportion of persons past 50 also has tended to stimulate the demand for apartments. Both of these influences undoubtedly will continue to operate in the future. Couples who are middle-aged are less likely than younger couples to have small children living with them, and hence are less likely to need the yard that usually goes with a detached house but not with an apartment. As they grow older they are less able to do the additional work usually entailed by the extra rooms and the independent heating system of a house. For couples no longer tied down by children, anxious to avoid part of the cold weather and with the money to take a winter vacation, the ease with which an apartment can be left at that season may be of great significance. A small apartment in a building with restaurant and cleaning services may have special appeal to such people.

Estimates are not available as yet of probable future changes in the number of families composed entirely of persons middle-aged or older, but the trends may be judged roughly from the population by age. Between 1945 and 1975 the number of persons aged $20-44$ is expected to increase between 5 and 20 percent, the number of persons aged 45-64 between 35 and 50 percent, and the number 65 and over between 70 and 100 percent. It seems reasonable, therefore, to expect that during this period the rate of increase of families composed solely of persons 45 or older will be at least twice as large as that for families with younger persons. At present a large majority of the families with no child under 18 and either (1) a male head 55 or older with wife present, (2) a male head 45 or older of other marital status, or (3) a female head 45 or older, include no person under 45 years of age. In 1940 there was only about one such family for every two others; by 1975 there are likely to be more than two such families for every three others.

[^54]Hospitals and homes for the aged
Attention was called earlier to some of the probable effects on the school system of the changes to be expected in the number of children. The rapid increase in the number and proportion of elderly people will bring corresponding problems for the institutions and organizations dealing with this portion of the population. In the past elderly people have customarily been cared for by their relatives -usually their grown-up children. With the decrease in size of family there have been fewer children to do the work involved in such care and share the financial burden. Furthermore, the reduction in the number of children has restricted the range of choice as to which ones the elders should live with. Because doubling involves problems of adjustment this has lessened the probability of establishing satisfactory relationships and increased the likelihood of personality disturbances among parents and offspring. The demographic factor has reenforced other trends (such as the improvement in health and in economic conditions) which have tended to prolong the independent life of persons past middle age. A continuation of this latter trend should be helpful to both generations.

The increase in the proportion of elderly people has already been sufficiently large to make persons engaged in medical and public health activities realize that the diseases and infirmities of later life present some of our most serious health problems. As time passes they will merit a greater share of the effort of practicing physicians and medical research institutions; the need for geriatricians will increase much more rapidly than that for pediatricians. At younger ages acute illnesses predominate but recovery is usually speedy, whereas at older ages chronic and organic diseases are much more common and recovery is slow. In consequence, the aging of the population means that hospitals will need to plan for changes in the demand for their services-not much increase or decrease in maternity and children's wards, but a large rise in the potential number of elderly patients.

Rates charged by group insurance plans which provide medical and hospital services may need to be raised slowly as the average age of the covered population goes up, for older people are sick more often than young adults and need a longer period for convalescence, both of which will increase costs. Fortunately, however, further improvements in medicine and public health may counterbalance the effect of rising age in this connection.

Since many elderly patients come to a point in their recovery where they need a long period of rest and care with a minimum of medical treatment, institutions providing such services should probably be expanded substantially. Unlike the large hospitals, which usually are located relatively close to city centers, these rest homes might well be developed in suburbs or in resort areas.

The restrictions on immigration plus the less favorable mortality of men are expected to bring a substantial decrease in the ratio of men to women in the older ages during coming decades. In 1945 there were about 86 men 75 or older per 100 women of that age; by 1975 there are likely to be less than 72 per 100. This tendency for the sex ratio to decrease needs to be taken into account in planning institutions for the aged.

## Social security

Even though advances in medicine and public health improve the physical condition of elderly people, the great increase in their numbers seems sure to mean a substantial increase in those physically unable to care for themselves throughout the latter part of their lifetime. Whether this means a corresponding increase in publicly supported "homes for the aged" depends in important degree on the development of the social security program. Since the trend seems to be in the direction of greater coverage and larger benefits, a decreasing proportion of the permanently incapacitated older people may need to be cared for in public institutions. If so, there will need to be a large expansion in private facilities for those who can afford to pay for them.

The increase in the number of persons 65 or older from about $10,100,000$ in 1945 to between 17,000,000 and $20,000,000$ in 1975 will increase correspondingly the load on the social security program. From 1940 to 1945 approximately 440,000 men were reaching "retirement" age (65) each year; from 1970 to 1975 there will be between 660,000 and 760,000 , an increase of 50 to 75 percent. The change in the ratio of prospective pensioners to producers may be even more significant. In 1945 there were 12.2 men of "retirement" age ( 65 or older) per 100 men of "working" age (20 to 64) ; by 1975 the ratio will rise to between 15 and 18. Since the coverage of the "old age and survivors insurance" program probably will be broadened in the future, the responsibilities of this part of the social security system will expand even more rapidly.

Changes during the next few decades in the ratio
of women 65 or older to women 20-64 will be larger than those for men, for reasons mentioned above. They probably will have a different impact on the social security program, however, because a smaller proportion of women than of men are covered directly by the retirement program. Instead, a large number of women begin to receive benefits because of the death of the husband. Progress in lowering death rates at middle and older ages will postpone widowhood, lengthen the period during which retired men receive benefits, and shorten the period during which widows receive them.

Although the above-mentioned developments will pose serious problems, they should he viewed in their proper perspective rather than exaggerated. The increase in the ratio of "elders" ( 65 or older) to producers (20-64) will be almost or more than counterbalanced by a decrease in the ratio of children and youths (under 20) to producers, for persons aged 20-64 should constitute hetween 58 and 63 percent of the population in 1975 as compared with 58.8 percent in 1940 and 59.2 percent in 1945. In other words, the ratio of all dependents to producers is more likely to decline slightly than to rise. Since consumer goods on the whole are produced a relatively short time before they are utilized, the task of providing for other persons should not be more onerous for persons of working age in 1975 than before World War II, as far as these age changes in the population are concerned.

With regard to the fiscal problems of social security, it should be realized more generally that if the "old age and survivors insurance" program is to continue to be supported by pay-roll deductions and employers' contributions, the rising ratio of elders to producers will necessitate the accumulation of large reserves, or an increase in the withholding rate. The former means forced savings by "covered" workers and employers, deposited in the United States Treasury. As hrought out earlier, the slowing up of population growth should reduce the need for investment funds, and so should make such savings less desirahle than formerly and make the "pay as you go" plan more advantageous.

## The productivity of the labor force

Although the proportion of persons in the working ages (20-64) is more likely to increase slightly than to decrease, the resulting tendency to raise the productive power of the Nation may be offset by changes in age distribution within this group. In 1945 there were about 53 persons aged 45-64 per

100 aged $20-44$; by 1975 the ratio probably will be between 65 and 69 per 100. How much this rise in the proportion of older workers will lower the average efficiency of the labor force remains to be seen. There is no doubt that older workers in general lack the endurance, dexterity, and adaptability of younger workers, and that the latter lack the reliability and experience of the former. Although the net advantage at present may lie with youth in the majority of occupations, an increase in labor-saving devices and in automatic controls may reduce or eliminate it in the future. Whether this happens may depend in important degree on whether the problem is recognized and adequate steps are taken to meet it in connection with personnel policies, adult training programs, and other activities.

In the future as in the past, discovery and invention should lead to the establishment of new industries and to the need for new skills in others. Although exact figures are not available there are indications that an important proportion of the workers required under such conditions have been obtained from the young people currently joining the labor force. As the latter group becomes relatively smaller in the future, more persons will have to be taken from other industries. On the whole they will be older persons who may have acquired certain skills, but who may have to break established habits as well as form new ones, and hence may require a longer and more carefully planned training period.

As the slowing up of population growth diminishes the growth of the labor force and raises the ratio of workers past 45 to those younger, it will become increasingly difficult to keep promotion channels open. In the past large increases in the number of new workers year after year were accompanied by correspondingly large relative increases in supervisory and management jobs all the way to the top. With a low ratio of older to younger workers, seniority could be given much weight in filling these better jobs; nevertheless, an important proportion of them could still be filled by younger workers. In the future the labor force will be expanding less rapidly (which should reduce the rate of increase in the number of better jobs), and the ratio of older to younger workers will rise. Giving the same weight as formerly to seniority in filling these jobs will then leave few of them for younger workers. Unless more consideration is given to ability and less to seniority in connection with promotions, the capable younger men may feel thwarted and may develop a defeatist attitude which will have serious repercussions on the rank and file. An im-
portant part of the support for the American way of life stems from the belief that an able man can rise to the top. Serious consequences could arise if youth should come to feel that the channel was severely clogged by age.

The decline in size of family which has occurred and is expected to continue in the future should tend to increase the proportion of women in the labor force at most ages, for it lessens the years during which they are needed at home to care for their children. For some it will mean that they can continue to work longer, as the starting of the family is postponed. For a larger number, however, it means that childbearing and rearing will be completed at a younger age than formerly. The women in this group who worked previously can return to the labor force earlier, and those without previous work experience need not wait as long as formerly to join the labor force for the first time. These trends probably will have a tendency to raise the efficiency of the feminine portion of the labor force, but the change probably will not be large. They are certain to tend to raise the proportion of the population in the labor force, but this influence may be offset in varying degree by changes in the desire for employment and in other nondemographic factors.

## "Progress"

The increasing proportion of middle-aged and older persons in the population as a whole is likely to be accompanied by corresponding changes in the age composition of various occupational and functional groups. In the future as in the past it is probable that the rise in the average age of voters will mean a rise in the average age of public officials. Less is known about changes in the age of stockholders, directors, and officials of corporations, but presumably the same principle holds here also. Whether this will mean a slowing up of progress remains to be seen. A majority of younger people probably think that those who are older are too conservative and too slow to learn and change, and hence that they tend to delay progress. According to this line of reasoning the rapidity of technological advance in the past is due in important degree to the relative youth of our business leaders, which made them willing to scrap expensive machines and plant layouts if new developments offered a chance to cut production costs. Had our leaders been older, as in France, they say, our progress would have been slower, as it has been there. Older people, in
contrast, probably think that younger ones are too unstable and inexperienced, change too rapidly, and make progress cost more than it should. Few if any international comparisons can be cited to support their point of view, but there are many illustrations within the United States.

Conclusive evidence concerning the relation between the age distribution of the population and its leaders on the one hand, and political, social, and economic progress on the other, is not available now, and may never be. However, psychological research has proved fairly definitely that learning ability in general reaches its peak at about age 20, declines extremely slowly to about age 50, and then begins an accelerating downward trend. After age 70 the ability of the average person to learn things not related to his past experience is very low. From this standpoint, therefore, the changes in age distribution will be detrimental. But while general learning ability varies as mentioned, "ability to learn certain tasks of a highly complex nature resting upon [previously acquired] basic skills or knowledge grows until a point well beyond the age of 20 years. Ability to exercise sound business judgment continues to grow into middle age and is, in fact, one of the last abilities to be lost in old age." ${ }^{10}$ These latter relationships will help to reduce the unfavorable effect of the expected age changes on the general ability to learn.

Another mitigating factor is that the amount learned does not depend entirely on ability to learn; habits and the desire to learn are important too. Although exact information is lacking as to how these qualities vary with age, there is little doubt that the habits and desires of most people are more favorable to learning when they are young adults than when they are middle-aged or older. The hopeful element in the situation is that these qualities are subject to human control in much greater degree than ability to learn. During the next 30 years it should be possible to change the attitudes of many people toward continuing to learn, and to expand and broaden adult educational programs in sufficient degree to more than offset the adverse effect of the rising average age of the population on its general learning ability.

Unless something is accomplished along the foregoing lines, an increase in the average age of political and business leaders, and especially in the proportion of them past 65 , probably will mean a less efficient world. Scientific discoveries and other

[^55]developments which constantly occur call currently for new learning on the part of public and private policy-makers if their decisions are not to deteriorate in quality. This learning becomes progressively harder after 50 ; hence older persons tend increasingly to react to current problems on the basis of knowledge and experience acquired in the more distant past rather than on what should have been acquired more recently. In order to prevent such unfavorable results even though the period of learning is prolonged through some sort of adult educational program, it may be advisable for middle-aged and older people, as they become more numerous in the population, to refrain from increasing the representation of their group in positions of power.

The increase in the proportion of persons middleaged or older may mean greater support for the cultural aspects of life. Young adults tend to be busy establishing themselves in a business or profession, raising a family, and having a good time. As they grow older they tend to place more value on leisure and become more reflective, perhaps because the inner driving force is weaker or their ideas as to the goal of life have changed. Some of those who have made a secure place for themselves become generous patrons and supporters of the arts and sciences.

The foregoing list of probable effects of slower growth and increasing age is obviously far from complete. It will have served its major purpose, however, if it calls attention to the types of changes to be expected and their influences, and stimulates thinking about them and also about what can be done to meet them. If our business, political, and cultural leaders perform their function in this field and the general public is adequately advised as to the trend of events, the demographic future may be faced with confidence.

## D. A PRONATAL PROGRAM?

In Canada and most of the Western European nations, the long-time decline of the birth rate and the slowing up of population growth have led to the adoption of governmental programs designed to reverse, or at least to check, these trends. In one of these nations (France) the population had decreased in various years before the program was adopted. In several of them (e.g., Sweden) there had been no such decrease, but birth rates by age of mother were so low that their continuation would mean the beginning of a decrease within a few years and an increasingly rapid decline thereafter.

In others (e.g., Italy) it was a continuation of the downward trend of fertility that was feared. The programs adopted have been of two general types: (1) The provision of services paid by public funds (e.g., school lunches, dental and medical care for mothers and children, lower rents for large families) and (2) the payment of money to families in accordance with the number of their children.

From 1941 to 1946 birth rates by age of mother in the United States were well above the limits necessary to maintain a stationary population. In fact, if the birth and death rates at each age were to continue indefinitely as they were during these six years, the rate of population increase would stabilize at about 6.7 percent per decade, somewhat less than the actual rate of 7.2 during the 1930 's. Partly for this reason there has been little talk during recent years of the need for a pronatal program in the United States. But when the birth rate slumps from the postwar peak, as it is expected to do after 1947, there is quite likely to be a great increase in popular interest in the plans developed by Canada, Sweden,
and other nations, and a demand by more and more people that something be done in the United States.

In such a situation it will be especially desirable to have an informed public opinion with regard to probable demographic trends and their implications. Careful thought should be given to the advantages and disadvantages of various rates of growth. If fertility rates become so low and families so small that population growth will dwindle rapidly and a decrease begin in a relatively few years, the consequences will be serious to the Nation and its people. Under such conditions support should be rallied to a program designed to raise fertility rates and enlarge families. On the other hand, if fertility rates and children per family continue to be adequate to prevent population growth from slowing up too rapidly, the strongest pronatal program needed from an economic standpoint would be one designed to check further declines in fertility and family size in the immediate future, and later to bring them up to the replacement level if they are below it.

TAble I.-FORECASTS OF THE POPULATION, BY COLOR, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: JULY 1 OF EACH YEAR, 1946 TO 1950


[^56]"Estimated Population of the United States, by Age, Color, and Sex: 1940 to
1946," Population-Special Renorts. Series P-47. No. 3, April 3, 1947. The 1946," Population-Special Reports, Series P
revised fizures for 1945 differ only slightly
revised figures for 1945 differ only slightly from those shown above. The estimates of total population for 1945 and
respectively, 139, 586,000 and $141.229,000$.
${ }^{4}$ An estimate made in March, 1947, indicates a population of about

[^57]Table I.-FORECASTS OF THE POPULATION, BY COLOR, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: JOLY 1 OF EACH YEAR, 1946 TO 1950-Continued


Table I.-FORECASTS OF THE POPULATION, BY COLOR, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER. JULY 1, 1945, FOR THE UNITED STATES: JULY 1 OF EACH YEAR, 1946 TO 1950-Continued


[^58]had been completed, have been published by the Bureau of the Census in "Estimated Population of the United States, by Age, Color, and Sex: 1940 to 1946," Population-Special Reports, Series P-47, No. 3, April 3, 1947. The revised figures for 1945 differ only slightly from those shown above. The estimates of total population for 1945 and 1946 published in the release are, estimates of total population $141,229,000$.

Table II.-FORECASTS OF The population, By COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975

| COLOR, NATIVITY, AGE, AND SEX | POPULATION (IN THOUSANDS) ${ }^{1}$ |  |  |  |  |  |  |  | PERCENT DIStRIBUTION |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\left\lvert\, \begin{gathered} 1940^{2} \\ \text { (Census) } \end{gathered}\right.$ | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 | 1940 | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 |
| ALL CLASSES <br> Total, all ages. | 131,669 | 139,621 | $145,460_{i}$ | 149,840 | 153,375 | 156,692 | 159,847 | 162,337 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 yea | 10,542 | 13, 147 | 12,141 | 11,112 | 10,717 | 10.948 | 11,235 | 11,039 | 8.0 | 9.4 | 8.3 | 7.4 | 7.0 | 7.0 | 7.0 | . 8 |
| 5 to 9 years. | 10,685 | 11,347 | 13,894 | 12,844 | 11,766 | 11,361 | 11,614 | 11,919 | 8.1 | 8.1 | 9.6 | 8.6 | 7.7 | 7.3 | 7.3 | . 3 |
| 10 to 14 years | 11,746 | 10,649 | 11,301 | 13,846 | 12,804 | 11,735 | 11,333 | 11,589 | 8.9 | 7.6 | 7.8 | 9.2 | 8.3 | 7.5 | 7.1 | 7.1 |
| 15 to 19 years. | 12,334 | 11,652 | 10,592 | 11,247 | 13,788 | 12,756 | 11,693 | 11,296 | 9.4 | 8.3 | 7.3 | 7.5 | 9.0 | 8.1 | 7.3 | 7.0 |
| 20 to 24 years | 11,588 | 12, 158 | 11,555 | 10,514 | 11,173 | 13,705 | 12,686 | 11,632 | 8.8 | 8.7 | 7.9 | 7.0 | 7.3 | 8.7 | 7.9 | 7.2 |
| 25 to 29 years. | 11,097 | 11,470 | 12,030 | 11,448 | 10,426 | 11,087 | 13,607 | 12,602 | 8.4 | 8.2 | 8.3 | 7.6 | 6.8 | 7.1 | 8.5 | 7.8 |
| 30 to 34 years | 10,242 | 11,007 | 11,329 | 11,898 | 11,334 | 10,330 | 10,992 | 13,500 | 7.8 | 7.9 | 7.8 | 7.9 | 7.4 | 6.6 | 6.9 | 8.3 |
| 35 to 39 years. | 9,545 | 10,151 | 10.829 | 11,167 | 11,744 | 11,197 | 10,214 | 10.875 | 7.2 | 7.3 | 7.4 | 7.5 | 7.7 | 7.1 | 6.4 | 6.7 |
| 40 to 44 years. | 8,788 | 9,401 | 9,928 | 10,615 | 10,968 | 11,548 | 11,022 | 10,062 | 6.7 | 6 | 6.8 | 7.1 | 7.2 | 7.4 | 6.9 | 6.2 |
| 45 to 49 years. | 8,255 | 8,551 | 9,103 | 9,658 | 10,359 | 10,728 | 11,309 | 10,802 | 6.3 | 6.1 | 6.3 | 6.4 | 6.8 | 6.8 | 7.1 | 6.7 |
| 50 to 54 years. | 7,257 | 7,884 | 8,145 | 8,708 | 9,282 | 9,988 | 10,366 | 10,941 | 5.5 | 5.6 | 5.6 | 5.8 | 6.1 | 6.4 | 6.5 | 6.7 |
| 55 to 59 years. | 5,868 | 6,789 | 7,329 | 7,605 | 8,168 | 8,750 | 9,440 | 9,817 | 4.5 | 4. 9 | 5.0 | 5.1 | 5.3 | 5.6 | 5.9 | 6.0 |
| 60 to 64 years. | 4,760 | 5,306 | 6,089 | 6,594 | 6,867 | 7,403 | 7,965 | 8,618 | 3.6 | 3.8 | 4.2 | 4.4 | 4.5 | 4.7 | 5.0 | 5.3 |
| 65 to 69 years | 3,748 | 4,071 | 4,511 | 5,194 | 5,645 | 5,897 | 6,371 | 6,871 | 2.8 | 2. 9 | 3.1 | 3.5 | 3.7 | 3.8 | 4.0 | 4.2 |
| 70 to 74 years. | 2,561 | 2,962 | 3,184 | 3,532 | 4,072 4,261 | 4,435 4,825 | 4,640 5,359 | 5,019 5,756 | 1.9 2.0 | 2.1 | 2.2 2.4 | 2.4 2.6 | 2.7 2.8 | 2.8 3.1 | 2.9 | 3.1 |
| 75 years and over | 2,655 | 3,077 | 3,498 | 3,857 | 4,261 | 4,825 | 5,359 | 5,756 | 2.0 | 2.2 | 2.4 | 2.6 | 2.8 | 3.1 | 3.4 | 3.5 |
| 14 years and over.. Median age (years) | 101,103 29.0 | 106,698 29.7 | 110,308 30.5 | 114,650 31.6 | 120,776 32.7 | $\begin{array}{r} 125,065 \\ 33.3 \end{array}$ | 127,939 33.5 | $\begin{array}{r} 130,075 \\ 34.1 \end{array}$ | 76.8 | 76.4 | 75.8 | 76.5 | 78.7 | 79.8 | 80.0 | 80.1 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages. | 132,53211,404 | $\begin{array}{r} 140,484 \\ 14,009 \end{array}$ | $\begin{array}{r} 146,259 \\ 12,941 \end{array}$ | $\begin{array}{r} 150,576 \\ 11,848 \end{array}$ | $\begin{array}{r} 154,093 \\ 11,435 \end{array}$ | $\begin{array}{r} 157,430 \\ 11,687 \end{array}$ | $\begin{array}{r} 160,604 \\ 11,992 \end{array}$ | $\begin{array}{r} 163,082 \\ 11,783 \end{array}$ |  |  |  |  |  |  |  |  |
| Under 5 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male, all a | 66,062 | 69,695 | 72,396 | 74,409 | 76,047 | 77,631 | 79,189 | 80,464 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 year | 5,355 | 6,702 | 6,190 | 5,668 | 5,469 6,013 | 5,588 | 5,736 | 5,637 6,098 | 8.1 | 9.6 8.3 | 8.6 9.8 | 7.6 8.8 | 7.2 7 8 | 7.2 7.5 7.7 | 7. 2 | 7.0 |
| 5 to 9 years. 10 to 14 years. | 5,952 | 5,777 | 5,751 | 7,067 | 6,537 | 5,996 | 5,793 | 5,926 | 9.0 | 7.7 | 7.9 | 9.5 | 8.6 | 7.7 | 7.3 | 7.4 |
| 15 to 19 years | 6,180 | 5,895 | 5,365 | 5,718 | 7.032 | 6,507 | 5,971 | 5,770 | 9.4 | 8.5 | 7.4 | 7.7 | 9.2 | 8.4 | 7.5 | 7.2 |
| 20 to 24 years. | 5,692 | 6,035 | 5,842 | 5,322 | 5,677 | 6,985 | 6,468 | 5,936 | 8.6 | 8.7 | 8.1 | 7.2 | 7.5 | 9.0 | 8.2 | 7.4 |
| 25 to 29 years. | 5,451 | 5,590 | 5,963 | 5,780 | 5,270 | 5,627 | 6,929 | 6,421 | 8.3 | 8.0 | 8.2 | 7.8 | 6.9 | 7.2 | 8.8 | 8.0 |
| 30 to 34 years. | 5,070 | 5,385 | 5,512 | 5,889 | 5.715 | 5, 216 | 5,573 | 6,868 | 7.7 | 7.7 | 7.6 | 7.9 | 7.5 | 6.7 | 7.0 | 8.5 |
| 35 to 39 years. | 4,746 | 5,014 | 5,287 | 5,422 | 5,802 | 5,637 | 5,150 | 5,506 | 7.2 | 7.2 | 7.3 | 7.3 | 7.6 | 7.3 | 6.5 | 6.8 |
| 40 to 44 years. | 4,419 | 4,661 | 4,888 | 5,167 | 5,312 | 5,692 | 5,537 | 5,062 | 6.7 | 6. 7 | 6.8 | 6.9 | 7.0 | 7.3 | 7.0 | 6.3 |
| 45 to 49 years. | 4,209 | 4,275 | 4,488 | 4,732 | 5,021 | 5, 175 | 5,554 | 5,408 | 6. 5 | 6. 11 | 6. ${ }_{5}$ | 6. 4 | 6. 6 | 6.7 | 7.0 | 6.7 |
| 50 to 54 yeav | 3,753 | 3,977 | 4, 034 | 4, 258 | 4,513 | 4,808 | 4,969 | 5,341 | 5.7 | 5.7 | 5. 6 | 5.7 | 5.9 | 6. 2 | 6.3 | 6.6 |
| 55 to 59 years | 3,025 | 3,455 | 3,644 | 3,211 | 3,288 | 4, 507 | 4,457 | 4,030 | 4.7 | 3.8 | 4.2 | 4.3 | 4.3 | 5.4 | 5.7 | 5.8 |
| 60 to 64 years. | 1,869 | 2,006 | 2,214 | 2,519 | 2,677 | 2,752 | 2,944 | 3,162 | 2.8 | 2.9 | 3.1 | 3.4 | 3.5 | 3.5 | 4.7 | 3.9 |
| 70 to 74 years. | 1,265 | 1,423 | 1,514 | 1. 672 | 1,906 | 2,030 | 2,089 | 2,237 | 1.9 | 2.0 | 2.1 | 2.2 | 2.5 | 2.6 | 2.6 | 2.8 |
| 75 years and over | 1,244 | 1,422 | 1,577 | 1,708 | 1,868 | 2,095 | 2,284 | 2,404 | 1.9 | 2.0 | 2.2 | 2.3 | 2.5 | 2.7 | 2.9 | 3.0 |
| 14 years and over Median age (years). | 50,554 29.1 | 52,943 29.5 | 54,474 30.0 | 56,445 30.9 | 59,399 31.8 | 61,473 32.2 | $\begin{array}{r} 62,882 \\ 32.5 \end{array}$ | $\begin{array}{r} 63,971 \\ 33.2 \end{array}$ | 76.5 | 76.0 | 75.2 | 75.9 | 78.1 | 79.2 | 79.4 | 79.5 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages.. | $\begin{array}{r} 66,518 \\ 5,811 \end{array}$ | $\begin{array}{r} 70,152 \\ 7,158 \end{array}$ | $\begin{array}{r} 72,819 \\ 6,613 \end{array}$ | $\begin{array}{r} 74,799 \\ 6,058 \end{array}$ | $\begin{array}{r} 76,427 \\ 5,850 \end{array}$ | $\begin{array}{r} 78,022 \\ 5,980 \end{array}$ | $\begin{array}{r} 79,591 \\ 6,138 \end{array}$ | $\begin{array}{r} 80,859 \\ 6,032 \end{array}$ |  |  |  |  |  |  |  |  |
| Under 5 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Female, all ages | 65,608 | 69,926 | 73,064 | 75,431 | 77,328 | 79,061 | 80,657 | 81,873 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years | 5,187 | 6,445 | 5,951 | 5,443 | 5,248 | 5,360 | 5,499 | 5,402 | 7.9 | 9.2 | 8.1 | 7. 2 | 6.8 | 6.8 | 6.8 | 6.6 |
| 5 to 9 years... | 5,266 | 5,570 | 6,799 | 6,284 | 5,752 | 5,552 | 5, 674 | 5, 821 | 8.0 | 8.0 | 9.3 | 8.3 | 7.4 | 7.0 | 7. 0 | 7.1 |
| 10 to 14 years. | 5,794 | 5,250 | 5,551 | 6.779 | 6,267 | 5,739 | 5,540 | 5,663 | 8.8 | 7.5 | 7.6 | ${ }^{9.0}$ | 8.1 | 7.3 | 6.9 | 6.9 |
| 15 to 19 years. | 6,153 | 5,756 | 5,228 | 5,529 | 6,756 | 6,248 | 5,723 | 5,526 | 9.4 | 8.2 | 7.2 | 7.3 | 8.7 | 7.9 | 7.1 | 6.7 |
| 20 to 24 years. | 5,895 | 6,122 | 5,713 | 5,193 | 5,496 | 6,719 | 6,217 6.678 | 5,695 6.182 | 9.0 8.6 | 8.8 8.4 | 7.8 8.8 | 6.9 7 | 7.17 | 8. 5 | 7.7 | 7.0 |
| 25 to 29 years. | 5,646 | 5, 8880 | 6,067 | 5,668 | 5,155 | 5,460 5,114 | 6,678 5,419 | 6,182 6,632 | 8.6 7.9 | 8.4 8.0 | 8.8 8.0 | 8.5 | 6.7 7 7 | 6.9 6.5 | 8.3 | 7.6 |
| 30 to 34 years. 35 to 39 | 5,172 4,800 | 5,621 | 5,817 | 6,009 5,745 | 5,619 5,942 | 5,114 | 5,419 5,064 | 6,632 5,369 | 7.3 | 7.3 | 7.6 | 7.6 | 7.7 | 7.0 | 6.7 6.3 | 8. 6.6 |
| 40 to 44 years | 4,369 | 4,739 | 5,040 | 5,448 | 5,656 | 5,857 | 5,485 | 4,999 | 6.7 | 6.8 | 6.9 | 7.2 | 7.3 | 7.4 | 6.8 | 6.1 |
| 45 to 49 years. | 4,046 | 4,277 | 4,615 | 4,927 | 5,338 | 5,552 | 5,755 | 5,394 | 6.2 | 6.1 | 6.3 | 6.5 | 6.9 | 7.0 | 7.1 | 6.6 |
| 50 to 54 years. | 3,504 | 3,907 | 4,111 | 4,450 | 4,769 | 5,180 | 5,397 | 5,601 | 5.3 | 5.6 | 5.6 | 5.9 | 6.2 | 6. 6 | 6.7 | 6.8 |
| 55 to 59 years. | 2,843 | 3,334 | 3,685 | 3,889 | 4,223 | 4,544 | 4,945 | 5, 160 | 4.3 | 4.8 <br> 3.8 | 5.0 | 5.2 | 5.5 | 5.7 | 6.1 | 6.3 |
| 60 to 64 years. | 2,347 | 2,629 | 3,056 | 3,383 | 3,579 | 3,896 | 4,207 | 4,588 | 3.6 | 3.8 | 4.2 | 4.5 | 4.6 | 4.9 | 5. 2 | 5.6 |
| 65 to 69 years | 1,879 | 2,065 | 2,298 | 2,676 | 2,968 | 3,145 | 3,427 |  | 2.9 2.0 | 3.0 |  | 3.5 | 3.8 2 | 4.0 | 4.2 | 4.5 |
| 70 to 74 years | 1,296 | 1,539 | 1,670 | 1,860 | 2,167 2,393 | 2,405 2,730 | 2,551 3,075 | 2,782 | 2.0 2.2 | 2.2 2.4 | 2.3 2.6 | 2.5 2.8 | 2.8 | 3.0 | 3.2 | 3.4 |
| 75 years and over. | 1,411 | 1,655 | 1,921 | 2,150 | 2,393 | 2,730 | 3,075 | 3,352 | 2.2 | 2.4 | 2.6 | 2.8 | 3.1 | 3.5 | 3.8 | 4.1 |
| 14 years and over Median age (years) | $\begin{array}{r} 50,549 \\ 29.0 \end{array}$ | $\begin{array}{r} 53,755 \\ 29.9 \end{array}$ | $\begin{array}{r} 55,835 \\ 31.1 \end{array}$ | $\begin{array}{r} 58,205 \\ 32.3 \end{array}$ | $\begin{array}{r} 61,376 \\ 33.5 \end{array}$ | $\begin{array}{r} 63,592 \\ 34.4 \end{array}$ | $\begin{array}{r} 65,056 \\ 34.6 \end{array}$ | $\begin{array}{r} 66,103 \\ 35.0 \end{array}$ | 77.0 | 76.9 | 76.4 | 77.2 | 79.4 | 80.4 | 80.7 | 80.7 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages. | $\begin{array}{r} 66,014 \\ 5,593 \end{array}$ | $\begin{array}{r} 70,332 \\ 6,851 \end{array}$ | $\begin{array}{r} 73,440 \\ 6,327 \end{array}$ | $\begin{array}{r} 75,777 \\ 5,789 \end{array}$ | $\begin{array}{r} 77,665 \\ 5,586 \end{array}$ | $\begin{array}{r} 79,408 \\ 5,707 \end{array}$ | $\begin{array}{r} 81,013 \\ 5,854 \end{array}$ | $\begin{array}{r} 82,222 \\ 5,751 \end{array}$ |  |  |  |  |  |  |  |  |
| Under 5 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[^59]Table II.-FORECASTS of THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued
(Percent not shown where less than 0.1)

| COLOR, NATIVITY, AGE, AND SEX | POPULATION (in thousands) ${ }^{1}$ |  |  |  |  |  |  |  | Percent distribution |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\left\lvert\, \begin{gathered} 1940^{2} \\ \text { (Census) } \end{gathered}\right.$ | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 | 1940 | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 |
| TOTAL WHITE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 5 years | 9,230 | 11,533 | 10,620 | 9,674 | 9,245 | 9,392 | 9,644 | 9,468 | 7.8 7 | 9.2 7 | 8.2 9.3 | 7.2 8.3 | 6.8 7.4 | 6.8 7.0 | 6.8 7.0 | 6.6 7.1 |
| 5 to 9 years.... 10 to 14 years. | 9,239 10,353 10,964 | 9,815 9,295 | 12,069 9,778 | 11,121 12,030 | 10,136 11,089 | 9,690 10,111 | 9,847 9,668 | 10,111 9,827 | 7.9 8.8 | 7.8 7.4 | 9.3 7.5 | 8.3 9.0 | 7.4 8.1 | 7.8 7 7.3 | 7.8 6.8 | 7. 6 |
| 10 to 14 years. 15 to 19 years. | 10,353 10,964 | 9,295 10,275 | 9,778 9,252 | 12,030 9,738 | 11,089 11,987 | 10,111 11,052 | 9,868 10,080 | 9,827 9,641 | 8.8 9.3 | 8.2 | 7.1 | 7.3 | 8.8 | 8.0 | 7.1 | 6.7 |
| 20 to 24 years | 10,340 | 10,814 | 10,206 | 9,198 | 11,987 9,687 | 11,928 | 11,003 | 10,036 | 8.7 | 8.6 | 7. 9 | 6. 9 | 7. 1 | 8. 6 | 7.8 | 7.0 |
| 25 to 29 years. | 9,904 | 10,248 | 10,722 | 10,130 | 9,135 | 9,627 | 11,859 | 10,944 | 8.4 | 8.2 | 8.2 | 7.6 | 6.7 | 6.9 | 8.4 | 7.7 8.2 |
| 30 to 34 years. | 9,206 | 9,846 | 10,147 | 10,627 | 10,048 | 9,068 | 9,561 | 11,782 | 7.8 | 7.9 | 7.8 | 8.0 | 7.4 | 6.5 7 | 6.8 6.4 | 8.2 |
| 35 to 39 years | 8,517 | 9,154 | 9,715 | 10,027 | 10,512 | 9,947 | 8,983 | 9,476 | 7.2 | 7.3 | 7.5 | 7.5 | 7.7 | 7.2 | 6.4 | 6.6 |
| 40 to 44 years | 7,936 | 8,426 | 8,983 | 9,553 | 9,874 | 10,363 | 9,814 10,174 | 8,869 9,643 | 6.7 6.4 | 6.7 6.2 | 6.9 6.3 | 7. 6.6 | 7.2 6.9 | 7.5 7.0 | 7.0 7.2 | 6.2 6.8 |
| 45 to 49 years | 7,533 | 7,757 7,234 | 8,197 | 8,771 7,884 | 9,353 | 9,685 9,054 8,020 | 10,174 9,393 | 9,643 9,878 | 6. 5.7 | 6.2 5.8 | 6.3 5.7 | 6.6 5.9 | 6.9 6.2 | 6.5 | 6.7 | 6.9 |
| 50 to 54 years. 55 to 59 years. | 6,680 5,427 | 7,234 6,288 | 7,432 | 7,884 6,981 | 8,467 7,440 | 9,054 8,020 | 9,393 8,599 | 9,878 8,935 | 5. 6 | 5.8 5.0 | 5. 5 4, | 5.2 | 5.5 | 5.8 | 6.1 | 6.3 |
| 80 to 64 years. | 4,417 | 4,935 | 5,672 | 6,123 | 6, 340 | 6,781 | 7,337 | 7,889 | 3.7 | 3.9 | 4.4 | 4.6 | 4.6 | 4.9 | 5.2 | 5.5 |
| 65 to 69 years. | 3,499 | 3,797 | 4,219 | 4,864 | - 5 6,269 | 5,473 | 5,868 | 6,361 | 3.0 | 3.0 | 3.2 | 3.6 | 3.9 | 3. | 4. | 4.5 |
| 70 to 74 years | 2,401 | 2,778 | 2,985 | 3,319 | 3,831 | 4,159 | 4,329 | 4,648 | 2.0 | 2.2 | 2.3 | 2.5 | 2.8 | 3.2 | 3.5 | 3.3 3.7 |
| 75 years and ove | 2,480 | 2,859 | 3,250 | 3,583 | 3,963 | 4,496 | 4,987 | 5,334 | 2.1 | 2.3 | 2.5 | 2.7 | 2.9 | 3.2 | 3.5 |  |
| 14 years and over. Median age (years) | 91,428 29.5 | 96,350 30.3 | 99,443 31.2 | 103,065 32.3 | 108.238 33.4 | 111,742 34.2 | $\begin{array}{r} 113,935 \\ 34.4 \end{array}$ | $\begin{array}{r} 115,376 \\ 34.8 \end{array}$ | 77.3 | 77.1 | 76.5 | 77.1 | 79.4 | 80.5 | 80.7 | 80.8 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages | 118,841 | 125,680 | 130,594 | 134,149 | 136,878 | 139,357 | 141,669 | 143,356 |  |  |  |  |  |  |  |  |
| Under 5 years | 9,856 | 12,160 | 11,197 | 10,200 | 9,747 | 9,903 | 10,168 | 9,983 |  |  |  |  |  |  |  |  |
| Male, all | 59,449 | 62,540 | 64,826 | 66,467 | 67,722 | 68,884 | 70,010 | 70,878 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 ye | 4,701 | 5,895 | 5,430 | 4,950 | 4,732 | 4,809 | 4,939 5,049 | 4,850 5,186 | 7.9 8.0 |  |  | 7.4 8.6 | 7.0 7.7 | 7.0 7.2 | 7.1 7.2 | 6.8 7.3 |
| 5 to 9 years. | 4,745 5,259 5 | 5,008 4,725 | 6,177 4,987 | 5,694 6,154 | 5,193 | 4,967 5,179 | 5,049 4,954 | 5,186 | 8.0 | 8.0 7.6 | 9.5 7.7 | 8.6 9.3 | 8.4 | 7.5 | 7.1 | 7.1 |
| 10 to 14 years. 15 to 19 years. | 5,259 5,516 | 4,725 5,210 | 4,987 4,698 | 6,154 4,961 | 5,675 6, 126 | 5,179 5,652 | 4,954 5,159 | 5,038 4,937 | 8.8 9.3 | 7.6 8.3 | 7.2 | 7.5 | 9.0 | 8.2 | 7.4 | 7.0 |
| 15 to 19 years | 5, 516 | 5,210 5,382 | 4,698 5,170 | 4,961 4,666 | 6, 126 | 5,652 6,092 | 5,159 | 5,134 | 8.6 | 8.3 8.6 | 8.0 | 7.0 | 7.3 | 8.8 | 8.0 | 7.2 |
| 20 to 24 years. 25 to 29 years. | 5,114 4,892 | 5,382 5,022 | 5,170 5,329 | 4,666 5,125 | 4,931 | 6,092 4,896 | 5,623 | 5,588 | 8.6 8.2 | 8.6 8.0 | 8.2 | 7.7 | 6.8 | 7.1 | 8.6 | 7.9 |
| 25 to 29 years. | 4,892 4,573 | 5,022 4,842 | 5,329 4,964 | 5,125 5,274 | 4.629 5 5 | 4,896 4,590 | 6,051 4,857 | 6,006 | 7.7 | 7.7 | 7.7 | 7.9 | 7.5 | 6.7 | 6.9 | 8.5 |
| 30 to 34 years. | 4,573 4,254 | 4,842 4,536 | 4,964 4,767 | 5,274 4,895 | 5,077 5,208 | 5,590 | 4,857 4,540 | 4,808 | 7.2 | 7.3 | 7.4 | 7.4 | 7.7 | 7.3 | 6.5 | 6.8 |
| 35 to 39 year |  | 4,536 | 4,767 | 4,895 |  |  |  |  |  |  |  |  |  |  |  |  |
| 40 to 44 years. | 3,995 | 4, 196 | 4,436 | 4,673 | 4,808 | 5,121 4,697 | 4,940 5,010 | 4,473 4,837 | 6.7 6.5 |  |  | 7.0 6.5 | 7.1 6.7 | 6. 8 | 7.2 | 6.8 |
| 45 to 49 years. | 3,843 | 3,882 3,651 | 4,059 | 4,310 3,871 | 4,555 | 4,697 4,379 | 5,010 4,525 | 4,837 4,833 | 6.5 5.8 | 6.2 5.8 | 6.8 5.7 | 6.5 5.8 | 6.7 6.1 | 6.4 | 6.5 | 6.8 6.8 |
| 50 to 54 years. | 3,452 2,790 | 3,651 3,196 | 3,684 3,365 | 3,871 3,413 | 4,129 | 4,379 3,864 | 4,525 4,111 | 4,833 4,257 | 5.8 4.7 | 5.8 5.1 | 5.7 5.2 | 5.8 5.1 | 6.1 5.3 | 5. 6 | 5.9 | 6.0 |
| 55 to 59 years. | 2,790 2,232 | 3,196 2,481 | 3,365 2,820 | 3,413 2,979 | 3,606 3,034 | 3,864 3,220 | 4,111 3,466 | 4, 3,700 | 4.7 3.8 | 5.1 4.0 | 5.2 4.4 | 4.5 | 4.5 | 4.7 | 5. 0 | 5.2 |
| 60 to 64 years. 65 to 69 years. | 2,232 1,737 | 2,481 1,864 | 2,820 2,061 | 2,979 2,352 | 3,034 2,495 | 3,220 2,551 | 3,466 2,715 | 3,928 | 2.9 | 3.0 | 3.2 | 3.5 | 3.7 | 3.7 | 3.9 | 4.1 |
| 65 70 to 69 74 years. | 1,737 1,183 | 1,864 1,329 | 2,061 1,413 | 2,352 | 2,495 1,787 | 1,899 | 1,945 | 2,072 | 2.0 | 2.1 | 2.2 | 2.4 | 2.6 | 2.8 | 2.8 | 2.9 |
| 75 years and over | 1,162 | 1,322 | 1,464 | 1,585 | 1,735 | 1,950 | 2,125 | 2,229 | 2.0 | 2.1 | 2.3 | 2.4 | 2.6 | 2.8 | 3.0 | 3.1 |
| 14 years and over. | 45,823 | 47,903 | 49,198 | 50,827 | 53.314 | 54,998 | 56,065 | 56,798 | 77.1 | 76.6 | 75.9 | 76.5 | 78.7 | 79.8 | 80.1 | 80.1 |
| Median age (years) | 29.5 | 30.0 | 30.6 | 31.6 | 32.5 | 33.1 | 33.3 | 33.9 |  |  |  |  |  |  |  |  |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages. | 59,781 | 62,872 | 65,132 | 66, 746 | 67,989 | 69,156 | 70,289 | 71,151 |  |  |  |  |  |  |  |  |
| Under 5 years. | 5,034 | 6,227 | 5,737 | 5,229 | 4,999 | 5,080 | 5,218 |  |  |  |  |  |  |  |  |  |
| le, a | 58,766 | 62,513 | 65,191 | 67,157 | 68,654 | 69,962 | 71,135 | 71,964 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years | 4,528 | 5,639 | 5,189 | 4,725 | 4,513 | 4,583 | 4,704 | 4,618 | 7.7 | 9.0 | 8.0 | 7.0 8.1 | 6.6 | 6.6 6.8 | 6.6 | 6. 4 |
| 5 to 9 years. | 4,584 | 4,806 | 5,892 | 5,426 | 4,942 | 4,723 | 4,797 4,714 | 4,925 4,789 | 7.8 | 7.7 7.3 | 9.0 7.3 | 8.1 | 7.2 | 7.1 | 6.6 | 6.7 |
| 10 to 14 years. | 5,094 | 4,570 | 4,792 | 5, 877 | 5,413 | 4,932 | 4,714 4,921 | 4,789 4,704 | 8.7 9.3 | 7.3 8.1 | 7.3 7.0 | 7.1 | 8.5 | 7.7 | 6.9 | 6.5 |
| 15 to 19 years. | 5,448 | 5,065 | 4,555 | 4,777 4,531 | 5,861 | 5,400 | 4,921 5,379 | 4,902 | 9.3 8.9 | 8.7 | 7.7 | 6.7 | 6.9 | 8.3 | 7.6 | 6.8 |
| 20 to 24 years. | 5,227 | 5,431 | 5,036 5,393 | 4,531 | 4,755 4,506 | 5,836 4,731 | 5,379 5,808 | 5,355 | 8.5 | 8.7 | 8.3 | 7.5 | 6.6 | 6.8 | 8.2 | 7,4 |
| 25 to 29 years. | 5,012 | 5,226 | 5,393 5,183 | 5,005 5,353 | 4,506 4,971 | 4,731 4,478 | 5,808 4,703 | 5,776 | 7.9 | 8.0 | 8.0 | 8.0 | 7.2 | 6.4 | 6.6 | 8.0 |
| 30 to 34 years. 35 to 39 years. | 4,633 4,262 | 5,004 4,618 | 5,183 4,948 | 5,353 5,131 | 4,971 5,304 | 4,478 4,929 | 4,703 4,443 | 5,776 4,668 | 7.9 7.3 | 8.0 7.4 | 8.0 | 7.6 | 7.7 | 7.0 | 6.2 | 6.5 |
| 35 to 39 years. | 4,262 | 4,618 | 4,948 | 5,131 | 5,304 | 4,929 | 4,443 | 4,668 | 7.3 | 7.4 | 7.6 |  |  |  |  |  |
| 40 to 44 years. | 3,941 | 4,229 | 4,547 | 4,880 | 5,066 | 5,241 | 4,874 | 4,396 | 6.7 | 6.8 | 7.0 | 7.3 | 7.4 | 7.5 | 6.9 | 6. 1 |
| 45 to 49 years. | 3,690 | 3,875 | 4,138 | 4,461 | 4,798 | 4,988 | 5,165 | 4, 805 | 6.3 | 6.2 | 6.3 | 6.6 | 7.0 | 7. 7 | 7.3 6.8 | 6.7 7.0 |
| 50 to 54 years. | 3,229 | 3,583 | 3,747 | 4,013 | 4,338 | 4,675 | 4,868 | 5,044 | 5.5 | 5.7 | 5.7 | 6.0 | 6.3 | 6.7 5.9 | 6.8 6.3 | 7.0 |
| 55 to 59 years. | 2,637 | 3,092 | 3,402 | 3,568 | 3,834 | 4, 156 | 4,487 | 4,678 | 4. 5 | 4.9 | 5.2 | 5.3 4.7 | 5.6 4.8 | 5.1 | 5. 4 | 6.5 5.8 |
| 60 to 64 years. | 2,184 | 2,454 | 2,852 | 3, 144 | 3,305 | 3,561 | 3,871 | 4, 189 | 3.7 3.0 | 3.9 3.1 | 4.4 3.3 | 4.7 3.7 | 4.8 4.0 | 5.1 | 5.4 4.4 | 5.8 4.8 |
| 65 to 69 years. | 1,762 | 1,933 | 2,158 | 2,512 | 2,774 | 2,922 2,260 | 3,153 2,384 | 3,433 2,576 | 3.0 2.1 | 3.1 2.3 | 3.3 2.4 | 3.7 2.6 | 4.0 3.0 | 3.2 | 4.4 | 4.8 3.6 |
| 70 to 74 years. | 1.217 1.318 | 1,449 | 1,571 1,786 | 1,755 1.999 | 2,044 2,228 | 2,260 2,545 | 2,384 2,862 | 2,576 3,105 | 2.1 2.2 | 2.3 2.5 | 2.4 2.7 | 2.6 3.0 | 3.0 3.2 | 3.6 | 4.0 | 4.3 |
| 75 years and over. | 1,318 | 1,537 | 1,786 | 1,999 | 2,228 | 2,545 | 2,862 | 3,105 | 2.2 | 2.5 | 2.7 |  |  |  |  |  |
| 14 years and over | 45,605 | 48,457 | 50,245 | 52,238 | 54,924 | 56,743 | 57.870 | 58,578 | 77.6 | 77.5 | 77.1 | 77.8 | 80.0 | 81.1 | 81.4 | 81.4 |
| Median age (years). | 29.5 | 30.5 | 31.7 | 33.0 | 34.4 | 35.3 | 35.6 | 36.0 |  |  |  |  |  |  |  |  |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages. | 59,060 | 62,808 | 65,462 | 67,403 | 68,889 | 70,201 | 71,380 4 | $72,205$ |  |  |  |  |  |  |  |  |
| Under 5 years.... | 4,822 | 5,933 | 5,460 | 4,971 | 4,748 | 4,822 | 4,950 | 4,859 |  |  |  |  |  |  |  |  |

[^60]${ }^{2}$ The figures for the population 55 years old and over have been adjusted for age biases in the nonwhite population as enumerated.

Table II.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued


[^61]${ }^{2}$ The figures for the population 55 years old and over have been adjusted
for age biases in the nonwhite population as enumerated.

Table II.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued


[^62]2 The figures for the population 55 years old and over have been adjusted for age biases in the nonwhite population as enumerated.

Table II.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975 Continued

| color, nativity, AGE, AND SEX | population (in thousands) ${ }^{1}$ |  |  |  |  |  |  |  | percent distaibution |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \hline 1940^{2} \\ \text { (Census) } \end{array}$ | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 | 1940 | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 |
| NONWHITE <br> Total, all ages | 13,454 | 14,568 |  | 16,216 | 17,000 | 17,845 | 18,702 | 19,496 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years | 1,312 | 1,613 | 1,521 | 1.437 | 1,472 | 1,556 | 1,591 | 1,571 | 9.8 | 11,1 | 9.9 | 8.9 | 8.7 | 8.7 | 8.5 | 8.1 |
| 5 to 9 years | 1,356 | 1,533 | 1,825 | 1,723 1,816 | 1,630 | 1,671 | 1,767 | 1,808 | 10.1 | 10.5 | 11.8 | 10.6 | 9.6 | 9.4 | 9.5 | 9.3 |
| 10 to 14 years. | 1,393 1,369 | 1,354 1,377 | 1,523 | 1,816 1,509 | 1,715 | ${ }_{1}^{1,624}$ | 1,665 | 1,762 | 10.4 10.2 | 9.3 9.4 | 9.9 8.7 | ${ }_{1}^{11.2}$ | 10.1 10.6 | 9.15 | 8.9 8.6 | 9.0 8.5 |
| ${ }_{20} 15$ to 24 y years. | 1,248 | 1,344 | 1,349 | 1,317 | 1,487 | 1,777 | 1,683 | 1,596 | 9.3 | 9.2 | 8.7 | 8.1 | 8.7 | 10.0 | 9.0 | 8.2 |
| 25 to 29 years. | 1,192 | 1,221 | 1,308 | 1,318 | 1,290 | 1,460 | 1,748 | 1,659 | 8.9 | 8.4 | 8.5 | 8.1 | 7.6 | 8.2 | 9.3 | 8.5 |
| ${ }_{35}^{30}$ to 34 y years. | 1,036 1,029 | 1,161 998 | 1,182 | 1,271 1,140 | 1,286 | 1,262 1,250 | 1,432 1,230 | 1,718 1,399 | 7.7 | 8.0 6.8 | 7.7 | 7.8 | 7.6 | 7.1 | 7.7 | 8.8 |
| 40 to 44 years | 852 | 975 | 944 | 1.062 | 1,094 | 1,186 | 1,208 | 1,192 | 6.3 | 6.7 | 6.1 | 6.6 | 6.4 | 6.6 | 6.5 |  |
| 45 to 49 years | 722 | 794 | 906 | 887 | 1,006 | 1,043 | 1,135 | 1,159 | 5.4 |  | 5.9 | 5.5 | 5.9 | 5.8 | 6. | . 9 |
| 50 to 54 years. | 577 | 650 | 713 | 824 | 815 | 933 | 973 | 1,064 | 4.3 | 4.5 | 4.6 | 5. | 4.8 | , | 5. | 5.5 |
| 55 to 59 years. | 441 | 501 <br> 371 | 562 <br> 417 | ${ }_{471}^{624}$ | 729 527 | 729 622 | 841 627 | ${ }_{729}^{882}$ | 3.3 2.5 | 3.4 ${ }_{2}$ | 3.6 2.7 | 3.8 2.9 | 4.3 | ${ }_{3}^{4.1}$ | 4.5 3.4 3 | 4.5 |
| 80 to 64 years, | 343 249 | 274 | 292 | 330 | 376 | 424 | 503 | 510 | 1.8 | 1.9 | 1.9 | 2.0 | 2.2 | 2.4 | 2.7 | 2.6 |
| 70 to 74 years. | 160 | 184 | 199 | ${ }_{2} 213$ | 241 | 276 | 312 | 371 | 1.2 | 1.3 | 1.3 |  | 1.4 | 1.5 | 1.7 | 1.9 |
| 75 years and over. | 175 | 218 | 248 | 274 | 298 | 330 | 372 | 422 | 1.3 | 1.5 | 1.6 | 1.7 | 1.8 | 1.8 | 2.0 | 2.2 |
| years and | 9,675 | 10,338 | 10,866 | 11,585 | 12,537 | 13,323 | 14,004 | 14,699 | 71.9 | 71.0 | 70.4 | 71.4 | 73.7 | 74.7 | 74.9 | 75.4 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages. | 13,6911,548 | $\begin{array}{r} 14,804 \\ 1,850 \end{array}$ | $\begin{array}{r} 15,665 \\ 1,744 \end{array}$ | $\begin{array}{r} 16,426 \\ 1,648 \end{array}$ | $\begin{array}{r} 17,215 \\ 1,688 \end{array}$ | $\begin{array}{r} 18,073 \\ 1,784 \end{array}$ | $\begin{array}{r} 18,935 \\ 1,824 \end{array}$ | $\begin{array}{r} 19,726 \\ 1,801 \end{array}$ |  |  |  |  |  |  |  |  |
| Under 5 years |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male, all a | 6,613 | 7,155 | 7,570 | 7,942 | 8,325 | 8,746 | 9,179 | 9,587 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years | $\begin{aligned} & 653 \\ & 674 \\ & 693 \\ & 664 \\ & 579 \\ & 559 \\ & 497 \\ & 497 \end{aligned}$ | $\begin{aligned} & 807 \\ & 769 \\ & 674 \\ & 686 \\ & 653 \\ & 568 \\ & 544 \\ & 479 \end{aligned}$ | $\begin{aligned} & 760 \\ & 918 \\ & 764 \\ & 667 \\ & 672 \\ & 634 \\ & 548 \\ & 520 \end{aligned}$ | $\begin{aligned} & 719 \\ & 866 \\ & 913 \\ & 757 \\ & 655 \\ & 655 \\ & 615 \\ & 527 \end{aligned}$ | 737880861906746641638594 | $\begin{aligned} & 779 \\ & 841 \\ & 817 \\ & 855 \\ & 894 \\ & 731 \\ & 626 \\ & 619 \end{aligned}$ | $\begin{aligned} & 797 \\ & 891 \\ & 838 \\ & 812 \\ & 845 \\ & 878 \\ & 716 \\ & 609 \end{aligned}$ | $\begin{aligned} & 787 \\ & 912 \\ & 888 \\ & 833 \\ & 802 \\ & 832 \\ & 862 \\ & 698 \end{aligned}$ | $\begin{array}{r} 9.9 \\ 10.2 \\ 10.5 \\ 10.5 \\ 8.0 \\ 8.4 \\ 7.4 \\ 7.5 \end{array}$ | $\begin{array}{r} 11.3 \\ 10.7 \\ 9.4 \\ 9.6 \\ 9.1 \\ 7.9 \\ 7.6 \\ 6.7 \end{array}$ | $\begin{array}{r} 10.0 \\ 12.1 \\ 10.1 \\ 8.8 \\ 8.9 \\ 8.4 \\ 7.4 \\ 7.2 \end{array}$ | $\begin{array}{r} 9.0 \\ 10.9 \\ 11.5 \\ 9.5 \\ 8.3 \\ 8.3 \\ 7.7 \\ 6.6 \end{array}$ | $\begin{array}{r} 8.9 \\ 9.9 \\ 10.3 \\ 10.9 \\ 9.0 \\ 7.7 \\ 7.7 \\ 7.1 \end{array}$ | $\begin{array}{r} 8.9 \\ 9.6 \\ 9.3 \\ 9.8 \\ 10.2 \\ 8.4 \\ 7.2 \\ 7.1 \end{array}$ | $\begin{aligned} & 8.7 \\ & 9.7 \\ & 9.1 \\ & 8.8 \\ & 9.2 \\ & 9.6 \\ & 7.8 \\ & 6.6 \end{aligned}$ | 8.29.59.38.78.78.79.07.0 |
| 10 to 14 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 to 19 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 to 24 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25 to 29 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35 to 39 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40 to 44 years | $\begin{array}{r} 424 \\ 367 \\ 301 \\ 235 \\ 180 \\ 132 \\ 81 \\ 82 \end{array}$ | $\begin{array}{r} 465 \\ 393 \\ 326 \\ 259 \\ 197 \\ 142 \\ 95 \\ 100 \end{array}$ | $\begin{aligned} & 451 \\ & 429 \\ & 349 \\ & 279 \\ & 213 \\ & 152 \\ & 100 \\ & 113 \end{aligned}$ | 494422387303232167108123 | 504466385339254183119133 | $\begin{aligned} & 571 \\ & 478 \\ & 429 \\ & 429 \\ & 287 \\ & 201 \\ & 201 \\ & 131 \\ & 145 \end{aligned}$ | $\begin{aligned} & 597 \\ & 544 \\ & 444 \\ & 384 \\ & 291 \\ & 229 \\ & 145 \\ & 159 \end{aligned}$ | $\begin{aligned} & 589 \\ & 571 \\ & 507 \\ & 399 \\ & 330 \\ & 234 \\ & 165 \\ & 175 \end{aligned}$ | $\begin{aligned} & 6.4 \\ & 5.5 \\ & 5.5 \\ & 4.6 \\ & 3.6 \\ & 2.7 \\ & 2.0 \\ & 1.2 \\ & 1.2 \end{aligned}$ | $\begin{aligned} & 6.5 \\ & 5.5 \\ & 4.6 \\ & 3.6 \\ & 2.7 \\ & 2.0 \\ & 1.3 \\ & 1.4 \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 5.7 \\ & 4.6 \\ & 3.7 \\ & 2.8 \\ & 2.0 \\ & 1.3 \\ & 1.5 \end{aligned}$ | $\begin{aligned} & 6.2 \\ & 5.3 \\ & 4.9 \\ & 3.8 \\ & 2.9 \\ & 2.1 \\ & 1.4 \\ & 1.5 \end{aligned}$ | $\begin{aligned} & 6.1 \\ & 5.6 \\ & 4.6 \\ & 4.1 \\ & 3.0 \\ & 2.2 \\ & 1.4 \\ & 1.6 \end{aligned}$ | $\begin{aligned} & 6.5 \\ & 5.5 \\ & 4.9 \\ & 3.9 \\ & 3.3 \\ & 2.3 \\ & 1.5 \\ & 1.7 \end{aligned}$ | 6.55.94.84.23.22.51.61.7 | 6.16.03.34.23.42.41.71.8 |
| 45 to 49 years |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55 to 59 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60 to 64 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65 to 69 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70 to 74 years |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 years and | 4.73125.4 | $\begin{array}{r} 5,040 \\ 24.9 \end{array}$ | 5,27625.0 | 5,61825.5 | $\begin{aligned} & 6,085 \\ & 25,7 \end{aligned}$ | 6,47426.3 | 6,81727.3 | $\begin{array}{r} 7.174 \\ 28.4 \end{array}$ | 71.5 | 70.4 | 69.7 | 70.7 | 73.1 | 74.0 | 74.3 | 74.8 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages. | 6,737 | 7,280931 | 7,687877 | $\begin{array}{r} 8,053 \\ 830 \end{array}$ | $\begin{array}{r} 8,439 \\ 850 \end{array}$ | $\begin{array}{r} 8,867 \\ 899 \end{array}$ | $\begin{aligned} & 9,302 \\ & 920 \end{aligned}$ | $\begin{array}{r} 9,708 \\ 909 \end{array}$ |  |  |  |  |  |  |  |  |
| Under 5 years |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Female, all ages | 6,841 | 7,413 | 7,873 | 8,274 | 8,674 | 9.099 | 9,522 | 9,909 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years | 659681700705669634539537 | $\begin{aligned} & 807 \\ & 763 \\ & 680 \\ & 689 \\ & 6911 \\ & 654 \\ & 664 \\ & 519 \end{aligned}$ | 762907959673677674634594 | 719858903752661663656613 | $\begin{aligned} & 736 \\ & 810 \\ & 854 \\ & 895 \\ & 741 \\ & 649 \\ & 648 \\ & 637 \end{aligned}$ | $\begin{aligned} & 777 \\ & 880 \\ & 807 \\ & 884 \\ & 883 \\ & 729 \\ & 636 \\ & 631 \end{aligned}$ | $\begin{aligned} & 794 \\ & 877 \\ & 827 \\ & 802 \\ & 838 \\ & 870 \\ & 716 \\ & 621 \end{aligned}$ | $\begin{aligned} & 784 \\ & 897 \\ & 874 \\ & 822 \\ & 793 \\ & 827 \\ & 856 \\ & 700 \end{aligned}$ | $\begin{array}{r} 9.6 \\ 10.0 \\ 10.2 \\ 10.3 \\ 9.8 \\ 9.3 \\ 7.9 \\ 7.9 \end{array}$ | $\begin{array}{r} 10.9 \\ 10.3 \\ 9.2 \\ 9.3 \\ 9.3 \\ 8.8 \\ 8.3 \\ 7.0 \end{array}$ | $\begin{array}{r} 9.7 \\ 11.5 \\ 9.6 \\ 8.5 \\ 8.6 \\ 8.6 \\ 8.1 \\ 7.5 \end{array}$ | $\begin{array}{r} 8.7 \\ 10.4 \\ 10.9 \\ 9.1 \\ 9.1 \\ 8.0 \\ 7.0 \\ 7.9 \\ 7.4 \end{array}$ | $\begin{array}{r} 8.5 \\ 9.3 \\ 9.8 \\ 10.3 \\ 8.5 \\ 7.5 \\ 7.5 \\ 7.3 \end{array}$ | $\begin{aligned} & 8.5 \\ & 9.1 \\ & 8.9 \\ & 9.3 \\ & 9.7 \\ & 8.0 \\ & 7.0 \\ & 6.9 \end{aligned}$ | 8.39.28.78.48.89.17.57.56.5 | 7.99.08.88.38.08.38.67.1 |
| 10 to 14 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 to 19 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 to 24 yeara. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25 to 29 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 to 34 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35 to 39 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40 to 44 years. | $\begin{array}{r} 428 \\ 356 \\ 276 \\ 276 \\ 162 \\ 117 \\ 117 \\ 79 \\ 93 \end{array}$ | $\begin{aligned} & 510 \\ & 401 \\ & 324 \\ & 242 \\ & 135 \\ & 131 \\ & 89 \\ & 118 \end{aligned}$ | $\begin{aligned} & 493 \\ & 477 \\ & 364 \\ & 282 \\ & 203 \\ & 140 \\ & 98 \\ & 135 \end{aligned}$ | $\begin{aligned} & 568 \\ & 465 \\ & 437 \\ & 321 \\ & 239 \\ & 164 \\ & 105 \\ & 151 \end{aligned}$ | $\begin{aligned} & 590 \\ & 540 \\ & 431 \\ & 390 \\ & 274 \\ & 193 \\ & 123 \\ & 164 \end{aligned}$ | $\begin{aligned} & 615 \\ & 564 \\ & 504 \\ & 388 \\ & 385 \\ & 223 \\ & 145 \\ & 185 \end{aligned}$ | $\begin{aligned} & 611 \\ & 591 \\ & 529 \\ & 457 \\ & 336 \\ & 274 \\ & 167 \\ & 213 \end{aligned}$ | $\begin{aligned} & 603 \\ & 588 \\ & 556 \\ & 586 \\ & 492 \\ & 379 \\ & 276 \\ & 205 \\ & 246 \end{aligned}$ | $\begin{aligned} & 6.3 \\ & 5.2 \\ & 4.0 \\ & 4.0 \\ & 3.0 \\ & 2.4 \\ & 1.7 \\ & 1.2 \\ & 1.4 \end{aligned}$ | $\begin{aligned} & 6.9 \\ & 5.4 \\ & 4.4 \\ & 4.4 \\ & 3.3 \\ & 2.4 \\ & 1.8 \\ & 1.2 \\ & 1.6 \end{aligned}$ | 6.36.14.63.62.61.81.81.31.7 | 6.9 <br> 5.6 <br> 5.3 <br> 3.9 <br> 3.9 <br> 2.0 <br> 1.3 <br> 1.8 <br> 1.8 | $\begin{aligned} & 6.8 \\ & 6.2 \\ & 5.2 \\ & 4.0 \\ & 4.5 \\ & 2.2 \\ & 2.2 \\ & 1.4 \\ & 1.9 \end{aligned}$ | 6.86.25.54.33.72.41.41.62.0 | 6.46.26.65.64.83.52.92.91.82.2 | 6.1 <br> 8.1 <br> 5.9 <br> 5.6 <br> 4.9 <br> 4.9 <br> 2.8 <br> 2.8 <br> 2.8 <br> 2.5 |
| 545 to 49 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55 to 59 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60 to 64 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65 to 69 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70 to 74 years and over |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 14 \text { years and over... } \\ & \text { Median age (years). } \end{aligned}$ | 4,94425.1 | $\begin{array}{r} 5,299 \\ 25,6 \end{array}$ | 5,58926.2 | $\begin{array}{r} 5.967 \\ 26.8 \end{array}$ | $\begin{array}{r} 6,452 \\ 27.3 \end{array}$ | 6,84927.8 | $\begin{array}{r} 7.187 \\ 28.6 \end{array}$ | 7,52629.7 | 72.3 | 71.5 | 71.0 | 72.1 | 7.44 | 75.3 | 75.5 | 75.9 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6,953 | 7,525 | 7,978 | 8,374 | 8,776 | 9,207 | 9,632 | 10,018 |  |  |  |  |  |  |  |  |
| Under 5 yeara | 770 | 918 | 867 | 818 | 837 | 885 |  |  |  |  |  |  |  |  |  |  |

${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color, nativity, age, and sex.

Table III.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NET IMMIGRATION OF 500,000 PERSONS DURING EACH 5-YEAR PERIOD AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975


[^63]${ }^{2}$ The figures for the population 55 years old and over have been adjusted for age biases in the nonwhite population as enumerated.

Table III.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NET IMMIGRATION OF 500,000 PERSONS DURING EACH 5-YEAR PERIOD AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975 -Continued


Table III.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NET IMMIGRATION OF 500,000 PERSONS DURING EACH 5-YEAR PERIOD AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975 -Continued


[^64] nativity, age, and sex.

Table III.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NET IMMIGRATION OF 500,000 PERSONS DURING EACH 5-YEAR PERIOD AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued

| coloh, nativity. <br> GGE, AND SEX | population (in thousands) ${ }^{1}$ |  |  |  |  |  |  |  | percent distribution |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} 1940: \\ \text { (Census) } \end{array}$ | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 | 1940 | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 |
| FOREIGN-BORN <br> white |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 5 years. <br> 5 to 9 years... <br> 10 to 14 years. <br> 15 to 19 years. <br> 20 to 24 years. <br> 25 to 29 years <br> 30 to 34 years. <br> 35 to 39 years. | $\begin{array}{r} 8 \\ 22 \\ 54 \\ 165 \\ 210 \\ 424 \\ 709 \\ 1,048 \end{array}$ | $\begin{array}{r} 4 \\ 16 \\ 30 \\ 70 \\ 191 \\ 240 \\ 441 \\ 709 \end{array}$ | $\begin{array}{r} 9 \\ 27 \\ 51 \\ 94 \\ 218 \\ 308 \\ 293 \\ 453 \end{array}$ | $\begin{array}{r} 9 \\ 32 \\ 63 \\ 63 \\ \hline 15 \\ \hline 242 \\ 336 \\ 361 \\ 307 \end{array}$ | $\begin{array}{r} 9 \\ 32 \\ 68 \\ 127 \\ 1263 \\ 359 \\ 388 \\ 374 \end{array}$ | $\begin{array}{r} 9 \\ 32 \\ 68 \\ 132 \\ 1324 \\ 380 \\ \hline 812 \\ 402 \end{array}$ | $\begin{array}{r} 9 \\ 32 \\ 68 \\ 132 \\ 280 \\ 392 \\ 433 \\ 425 \end{array}$ | $\begin{array}{r} 9 \\ 32 \\ 68 \\ 682 \\ 230 \\ 397 \\ 445 \\ 446 \end{array}$ | $\begin{aligned} & 0.1 \\ & 0.2 \\ & 0.5 \\ & 1.4 \\ & 1.8 \\ & 3.7 \\ & 6.2 \\ & 9.2 \end{aligned}$ | 0.2 0.3 0.7 1.9 2.3 4.3 6.9 | $\begin{aligned} & \hline 0.1 \\ & 0.3 \\ & 0.5 \\ & 1.0 \\ & 2.3 \\ & 3.3 \\ & 3.1 \\ & 4.8 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.4 \\ & 0.7 \\ & 1.4 \\ & 2.8 \\ & 4.0 \\ & 4.3 \\ & 3.6 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.4 \\ & 0.9 \\ & 1.7 \\ & 3.4 \\ & 4.7 \\ & 5.1 \\ & 4.9 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.5 \\ & 1.0 \\ & 1.9 \\ & 4.0 \\ & 5.6 \\ & 6.0 \\ & 5.9 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.5 \\ & 1.1 \\ & 2.1 \\ & 4.6 \\ & 6.4 \\ & 7.1 \\ & 6.9 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.6 \\ & 1.2 \\ & 2.4 \\ & 5.0 \\ & 7.2 \\ & 8.0 \\ & 8.0 \end{aligned}$ |
|  | 1,263 1,263 1,504 1,566 1,319 1,069 813 602 645 | 1,034 1,225 1,425 1,452 1,183 901 624 703 | 701 1008 1,171 1,324 1,292 990 687 742 | 450 687 969 1,094 1,183 1,085 755 800 | $\begin{aligned} & 307 \\ & 445 \\ & 666 \\ & 911 \\ & 983 \\ & 999 \\ & 829 \\ & 874 \end{aligned}$ | $\begin{aligned} & 373 \\ & 306 \\ & 335 \\ & 4351 \\ & 833 \\ & 834 \\ & 874 \\ & 764 \\ & 958 \end{aligned}$ | $\begin{aligned} & 401 \\ & 371 \\ & 301 \\ & 415 \\ & 573 \\ & 700 \\ & 640 \\ & 955 \end{aligned}$ | $\begin{aligned} & 425 \\ & 398 \\ & 365 \\ & 329 \\ & 379 \\ & 490 \\ & 538 \\ & 882 \end{aligned}$ | 11.1 13.1 13.2 13.7 11.5 9.4 7.1 5.3 5.3 5.6 | 10.1 12.0 13.9 14.2 11.5 8.5 6.8 6.9 | 7.8 70.5 10.8 12.5 14.1 13.8 10.6 7.3 7.9 | 5.3 8.1 81.4 11.4 12.9 13.9 12.8 8.9 9.4 | 4.0 5.8 8.7 11.9 12.9 13.9 10.1 10.9 11.4 | 5.5 4.5 4.4 9.4 12.2 12.0 12.2 11.2 14.0 | $\begin{array}{r}6.5 \\ 6.1 \\ 4.9 \\ 6.8 \\ 9.4 \\ 11.4 \\ 10.4 \\ 15.6 \\ \hline 1.6\end{array}$ | 7.6 7.6 7.6 5.6 5.2 8.8 8.8 9.7 15.5 |
| 14 years and over........ Median age (years)... | $\begin{array}{r} 11,351 \\ 51.0 \end{array}$ | $\begin{array}{r} 10,206 \\ 54.1 \end{array}$ | $\begin{array}{r} 9,293 \\ 56.3 \end{array}$ | $\begin{array}{r} 8,400 \\ 58.1 \end{array}$ | $\begin{array}{r} 7,541 \\ 59.3 \end{array}$ | $\begin{array}{r} 6,741 \\ 59.7 \end{array}$ | $\begin{array}{r} 6,035 \\ 57.6 \end{array}$ | $\begin{array}{r} 5,464 \\ 52.0 \end{array}$ | 99.4 | 99.6 | 99.2 | 99.0 | 98.8 | 98.7 | 98.5 | 98.3 |
| Idjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages $\qquad$ <br> Under 5 years. $\qquad$ | 11,420 9 | 10,248 | 9,369 10 | $\begin{array}{r} 8,490 \\ 10 \end{array}$ | $\begin{array}{r} 7,634 \\ 10 \end{array}$ | $\begin{array}{r} 6,834 \\ 10 \end{array}$ | $\begin{array}{r} 6,128 \\ 10 \end{array}$ | $\begin{array}{r} 5,556 \\ 10 \end{array}$ |  |  |  |  |  |  |  |  |
| Male, all ages... | 6.011 | 5,334 | 4,827 | 4,336 | 3,872 | 3,455 | 3,106 | 2,347 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years <br> 5 to 9 years. <br> 10 to 14 years <br> 15 to 19 years <br> 20 to 24 years <br> 25 to 29 years. <br> 30 to 34 years. <br> 35 to 39 years | $\begin{array}{r} 4 \\ 11 \\ 27 \\ 27 \\ 82 \\ 99 \\ 194 \\ 343 \\ 530 \end{array}$ | 2 8 15 37 98 118 205 343 | 5 16 30 53 131 170 147 204 | 5 20 38 68 147 203 199 148 | 5 20 41 76 161 219 232 199 | 5 20 41 79 169 233 248 232 232 | 5 20 41 79 172 241 262 248 | $\begin{array}{r} 5 \\ 20 \\ 41 \\ 49 \\ 772 \\ 1724 \\ 245 \\ 270 \\ 262 \end{array}$ | 0.1 0.2 0.5 1.4 1.6 3.2 5.7 8.8 8.8 | 0.2 <br> 0.3 <br> 0.7 <br> 1.8 <br> 2.2 <br> 3.8 <br> 6.4 <br>  | 0.1 0.3 0.6 1.6 2.7 3.5 3.5 3.1 4.2 | 0.1 <br> 0.4 <br> 0.9 <br> 1.6 <br> 3.4 <br> 4.7 <br> 4.6 <br> 3.4 <br>  | $\begin{aligned} & 0.1 \\ & 0.5 \\ & 1.1 \\ & 2.0 \\ & 4.2 \\ & 5.7 \\ & 6.0 \\ & 5.1 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.6 \\ & 1.2 \\ & 2.3 \\ & 4.9 \\ & 6.8 \\ & 7.2 \\ & 6.7 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.6 \\ & 1.3 \\ & 2.5 \\ & 5.5 \\ & 7.8 \\ & 8.4 \\ & 8.0 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.7 \\ & 1.4 \\ & 2.8 \\ & 6.1 \\ & 8.6 \\ & 9.5 \\ & 9.2 \end{aligned}$ |
|  | 657 <br> 817 <br> 883 <br> 736 <br> 573 <br> 423 <br> 310 <br> 322 | 521 532 764 807 648 472 316 347 | 330 500 596 699 704 530 350 359 | 196 318 475 548 612 579 394 386 | 141 188 304 439 482 505 431 428 428 | 191 136 181 283 389 400 377 473 | 223 185 131 169 251 323 299 457 | 240 217 178 123 151 209 242 394 | $\begin{array}{r}10.9 \\ 13.9 \\ 14.7 \\ 14.7 \\ 12.2 \\ 9.5 \\ 7.0 \\ 5.2 \\ 5.3 \\ \hline 9.3\end{array}$ | 9.8 9.8 11.8 14.3 15.1 12.2 8.9 5.9 6.5 | 6.8 10.4 10.4 12.3 14.5 14.6 11.0 7.3 7.4 | 4.5 4.5 7.3 11.3 12.0 14.6 13.1 13.3 9.1 8.9 | 3.6 4.9 7.9 11.8 12.5 13.5 13.0 11.1 11.1 | 5.5 3.9 3.9 5.2 8.2 11.2 11.6 10.6 13.7 | 7.2 6.0 4.2 4.2 8.4 8.1 10.4 9.6 14.7 | 8.4 8.6 7.6 4.3 4.3 7.4 7.4 8.5 13.8 |
| 14 years and over........ Median age (years) | $\begin{array}{r} 5.977 \\ 51.4 \end{array}$ | $\begin{array}{r} 5,312 \\ 54.5 \end{array}$ | $\begin{array}{r} 4,783 \\ 56.6 \end{array}$ | $\begin{array}{r} 4.282 \\ +58.2 \end{array}$ | $\begin{array}{r} 3.816 \\ 59.0 \end{array}$ | $\begin{array}{r} 3,399 \\ 58.4 \end{array}$ | $\begin{array}{r} 3.051 \\ 52.9 \end{array}$ | $\begin{array}{r} 2,791 \\ 47.1 \end{array}$ | 99.4 | 99.6 | 99.1 | 98.8 | 98.6 | 98.4 | 98.2 | 98.0 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages $\qquad$ Under 5 years. | 6.011 4 | 5,334 2 | 4,828 6 | 4,336 6 | $\begin{array}{r} 3,872 \\ 6 \end{array}$ | $\begin{array}{r} 3,455 \\ 6 \end{array}$ | $3,107$ |  |  |  |  |  |  |  |  |  |
| Female, all ages | 5,408 | 4.914 | 4,541 | 4,154 | 3,762 | 3,378 | 3,021 | 2,709 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| $\begin{aligned} & \text { Under } 5 \text { years. } \\ & 5 \text { to } 9 \text { years. } \\ & 10 \text { to } 14 \text { years. } \\ & 15 \text { to } 19 \text { years. } \\ & 20 \text { to } 24 \text { years.. } \\ & 25 \text { to } 29 \text { years. } \\ & 30 \text { to } 34 \text { years. } \\ & 35 \text { to } 39 \text { years.. } \end{aligned}$ | $\begin{array}{r} 4 \\ 11 \\ 17 \\ 27 \\ 82 \\ 111 \\ 231 \\ 366 \\ 518 \end{array}$ | $\begin{array}{r} 2 \\ 7 \\ 14 \\ 33 \\ 93 \\ 122 \\ 236 \\ 2666 \end{array}$ | $\begin{array}{r} 4 \\ 11 \\ 21 \\ 21 \\ 47 \\ 87 \\ 138 \\ 146 \\ 248 \end{array}$ | $\begin{array}{r} 4 \\ 13 \\ 13 \\ 25 \\ 47 \\ 95 \\ 133 \\ 162 \\ 159 \end{array}$ | $\begin{array}{r} 4 \\ 13 \\ 27 \\ 27 \\ 102 \\ 102 \\ 157 \\ 175 \end{array}$ | $\begin{array}{r} 4 \\ 13 \\ 27 \\ 53 \\ 105 \\ 147 \\ 164 \\ 170 \end{array}$ | $\begin{array}{r} 4 \\ \hline 13 \\ 27 \\ 53 \\ 107 \\ 151 \\ 171 \\ 177 \end{array}$ | $\begin{array}{r} 4 \\ 13 \\ 27 \\ 53 \\ 107 \\ 1133 \\ 175 \\ 184 \end{array}$ | $\begin{aligned} & 0.1 \\ & 0.2 \\ & 0.5 \\ & 1.5 \\ & 2.0 \\ & 4.3 \\ & 6.8 \\ & 9.6 \end{aligned}$ | $\begin{array}{\|l\|} \hline \\ \hline 0.1 \\ 0.3 \\ 0.7 \\ 1.9 \\ 2.5 \\ 4.8 \\ 7.5 \end{array}$ | $\begin{aligned} & 0.1 \\ & 0.2 \\ & 0.5 \\ & 0.9 \\ & 1.9 \\ & 3.0 \\ & 3.2 \\ & 5.5 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.3 \\ & 0.6 \\ & 1.1 \\ & 2.3 \\ & 3.2 \\ & 3.9 \\ & 3.8 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.3 \\ & 0.7 \\ & 1.4 \\ & 2.7 \\ & 3.7 \\ & 4.2 \\ & 4.6 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.4 \\ & 0.8 \\ & 1.6 \\ & 3.1 \\ & 4.4 \\ & 4.9 \\ & 5.0 \end{aligned}$ | 0.1 0.4 0.9 1.8 3.6 5.0 5.7 5.9 | $\begin{aligned} & \hline 0.1 \\ & 0.5 \\ & 1.0 \\ & 2.0 \\ & 4.0 \\ & 5.6 \\ & 6.5 \\ & 6.8 \end{aligned}$ |
| 40 to 44 years. <br> 45 to 49 years. <br> 50 to 59 years. <br> 60 to 64 years. <br> 65 to 69 years. <br> 70 to 74 years. <br> 75 years and over. | $\begin{aligned} & 606 \\ & 687 \\ & 688 \\ & 583 \\ & 496 \\ & 390 \\ & 292 \\ & 322 \end{aligned}$ | $\begin{aligned} & 513 \\ & 593 \\ & 661 \\ & 645 \\ & 635 \\ & 428 \\ & 308 \\ & 357 \end{aligned}$ | 370 507 575 625 588 460 336 383 | $\begin{aligned} & 254 \\ & 369 \\ & 494 \\ & 546 \\ & 571 \\ & 507 \\ & 561 \\ & 314 \end{aligned}$ | $\begin{aligned} & 166 \\ & 256 \\ & 362 \\ & 372 \\ & 501 \\ & 493 \\ & 498 \\ & 446 \end{aligned}$ | $\begin{aligned} & 182 \\ & 170 \\ & 354 \\ & 348 \\ & 434 \\ & 434 \\ & 387 \\ & 486 \end{aligned}$ | $\begin{aligned} & 178 \\ & 186 \\ & 171 \\ & 246 \\ & 322 \\ & 378 \\ & 341 \\ & 498 \end{aligned}$ | $\begin{aligned} & 185 \\ & 182 \\ & 186 \\ & 167 \\ & 228 \\ & 280 \\ & 296 \\ & 469 \end{aligned}$ | $\begin{array}{r} 11.2 \\ 12.7 \\ 12.6 \\ 10.8 \\ 9.2 \\ 7.2 \\ 5.4 \\ 6.0 \end{array}$ | $\begin{array}{r} 10.4 \\ 12.4 \\ 12.1 \\ 13.4 \\ 13.1 \\ 10.9 \\ 8.7 \\ 6.3 \\ 7.3 \end{array}$ | $\begin{array}{r} 8.2 \\ 11.2 \\ 12.7 \\ 13.8 \\ 12.9 \\ 10.1 \\ 7.4 \\ 8.4 \end{array}$ | $\begin{array}{r} 6.1 \\ 8.9 \\ 11.9 \\ 13.9 \\ 13.2 \\ 12.2 \\ 8.7 \\ 10.0 \end{array}$ | $\begin{array}{r} 4.4 \\ 6.8 \\ 9.6 \\ 12.5 \\ 13.3 \\ 13.1 \\ 10.6 \\ 11.8 \end{array}$ | 5.4 5.4 5.0 7.5 10.3 12.9 12.9 11.5 14.4 | 5.9 6.9 5.6 5.6 10.7 12.5 11.3 11.3 16.5 | 6.8 6.7 6.9 6.2 8.4 10.4 10.9 17.3 |
| 14 years and over. Median age (years).... | $\begin{aligned} & 5,375 \\ & 50.5 \end{aligned}$ | $\begin{array}{r} 4,895 \\ 53.6 \end{array}$ | $\begin{array}{r} 4,510 \\ 56.0 \end{array}$ | $\begin{array}{r} 4,118 \\ 4,7.9 \end{array}$ | $\begin{array}{r} 3.725 \\ 59.5 \end{array}$ | $\begin{gathered} 3,342 \\ 60.6 \end{gathered}$ | $\begin{array}{r} 2,984 \\ 60.4 \end{array}$ | $\begin{gathered} 2,672 \\ 57.6 \end{gathered}$ | 99.4 | 99.6 | 99.3 | 99.1 | 99.0 | 98.9 | 98.8 | 98.6 |
| Idjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages Under 5 years $\qquad$ | 5,4084 | 4,9152 | 4,5414 | 4,154 | 3.7624 | 3,3784 | 3,0214 | 2.7094 |  |  |  |  |  |  |  |  |
| NONWHITE <br> (Same as in table II) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table IV.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF LOW FERTILITY, HIGH MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975
(Percent not shown where less than 0.1 )


[^65]Table IV.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF LOW FERTILITY, HIGH MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued

| COLOR, NATIVITY, | population (in thousands) ${ }^{1}$ |  |  |  |  |  |  |  | percent mistribution |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\left\lvert\, \begin{gathered} 1940^{2} \\ (\text { Census }) \end{gathered}\right.$ | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 | 1940 | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 |
| TOTAL WHITE <br> Total, all ages | 118,215 | 125,053 | 129,561 | 132,065 | 133,413 | 134,168 | 134,367 | 133,598 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years. 5 to 9 years 10 to 14 15 to years 20 to 24 years 25 to 25 years. 30 to 34 years 35 to 39 years. | $\begin{array}{r}9,230 \\ 9,329 \\ 10,353 \\ 10,964 \\ 10,340 \\ 9,904 \\ 9,206 \\ 8,517 \\ \hline\end{array}$ | 11,533 9,15 9,295 10,275 10,814 10,248 9,846 9,154 8,4 | $\begin{array}{r}10,227 \\ 12,065 \\ 9,778 \\ 9,251 \\ 10,205 \\ 10,722 \\ 10,146 \\ 9,714 \\ \hline\end{array}$ | 8,742 10,702 12,024 9,737 9,194 10,127 10,624 10,022 | 8, 134 9,150 10,670 11.976 9.681 0,120 10,124 10,502 10,502 |  | $\begin{array}{r}3,968 \\ 7.981 \\ 8.436 \\ 8,493 \\ 9,091 \\ 10,571 \\ 10,881 \\ 9,536 \\ 8,953 \\ \hline, 953\end{array}$ |  | $\begin{aligned} & 7.8 \\ & 7.9 \\ & 8.8 \\ & 9.3 \\ & 8.7 \\ & 8.4 \\ & 7.8 \end{aligned}$ | $\begin{aligned} & 9.2 \\ & 7.8 \\ & 7.4 \\ & 8.2 \\ & 8.6 \\ & 8.2 \\ & 7.9 \end{aligned}$ | $\begin{aligned} & 7.9 \\ & 9.3 \\ & 7.5 \\ & 7.1 \\ & 7.9 \\ & 8.3 \\ & 7.8 \end{aligned}$ | $\begin{aligned} & 6.6 \\ & 8.1 \\ & 9.1 \\ & 7.4 \\ & 7 . \\ & 7 . \\ & 8.0 \\ & 7.6 \end{aligned}$ | $\begin{aligned} & 6.1 \\ & 6.9 \\ & 8.0 \\ & 9.0 \\ & 7.3 \\ & 6.8 \\ & 7.5 \\ & 7.9 \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 6.3 \\ & 6.8 \\ & 7.9 \\ & 8.9 \\ & 7.2 \\ & 6.7 \\ & 7.4 \end{aligned}$ | $\begin{aligned} & 5.9 \\ & 6.3 \\ & 6.3 \\ & 6.8 \\ & 7.9 \\ & 8.8 \\ & 7.7 \end{aligned}$ | 5.6 6.3 6.3 6.3 6.8 7.9 8.8 7.1 |
| 40 to 44 years <br> 45 to 49 years <br> 50 to 54 years 55 to 59 vears <br> 60 to 64 years <br> 65 to 69 years <br> 75 years and over | 7,936 7,533 6.680 5,427 4,417 3,499 2,401 2,480 | 8,426 <br> 7 <br> 7.757 <br> 7.234 <br> 6.288 <br> 4.935 <br> 3.797 <br> 2.778 <br> 2,859 <br> 8 | 8,981 <br> 8.185 <br> 7,418 <br> 6.758 <br> 5,666 <br> 4.212 <br> 4,984 <br> $3^{2}, 984$ <br> , 250 | 9,544 8.740 7.840 6.941 6.097 4.839 3.310 3,582 |  |  |  | 8,817 8,540 9,500 9.603 8.671 7.580 6,113 4.508 5,254 | $\begin{aligned} & 6.7 \\ & 6.4 \\ & 6.4 \\ & 5.7 \\ & 4.6 \\ & 3.7 \\ & 3.0 \\ & 2.0 \\ & 2.1 \end{aligned}$ | $\begin{aligned} & 6.7 \\ & 6.2 \\ & 5.8 \\ & 5.0 \\ & 3.9 \\ & 3.0 \\ & 2.2 \\ & 2.3 \end{aligned}$ | $\begin{aligned} & 6.9 \\ & 6.9 \\ & 6.7 \\ & 5.7 \\ & 5.2 \\ & 4.4 \\ & 3.3 \\ & 2.3 \\ & 2.5 \end{aligned}$ | $\begin{aligned} & 7.2 \\ & 6.6 \\ & 5.9 \\ & 5.3 \\ & 4.6 \\ & 3.7 \\ & 2.5 \\ & 2.7 \end{aligned}$ | $\begin{aligned} & 7.4 \\ & 7.0 \\ & 6.3 \\ & 5.5 \\ & 4.7 \\ & 3.9 \\ & 2.9 \\ & 3.0 \end{aligned}$ | $\begin{aligned} & 7.7 \\ & 7.2 \\ & 6.7 \\ & 5.9 \\ & 4.9 \\ & 4.0 \\ & 3.1 \\ & 3.3 \end{aligned}$ | 7.3 7.5 6.9 6.2 5.3 4.2 3.2 3.2 3.7 | 6.6 7.6 7.1 7.3 6.5 5.7 4.6 3.4 3.9 |
| 14 years and over Median age (years) | 91,428 29.5 | $\begin{array}{r} 96,360 \\ 30.3 \end{array}$ | $\begin{array}{r} 99,343 \\ 31.2 \end{array}$ | $\begin{array}{r} 102,871 \\ 32.6 \end{array}$ | $\begin{array}{r} 107,749 \\ 34.0 \end{array}$ | $\begin{array}{r} 110,402 \\ 35.1 \end{array}$ | $\begin{array}{r} 111,181 \\ 35.7 \end{array}$ | $\begin{array}{r} 111.042 \\ 16.5 \end{array}$ | 77.3 | 77.1 | 76.7 | 77.9 | 80.8 | 82.3 | 82.7 | 83.1 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages <br> Under 5 years | $\begin{array}{r} 118,841 \\ 9,856 \end{array}$ | $\begin{array}{r} 125,680 \\ 12,160 \end{array}$ | $\begin{array}{r} 130,116 \\ 10,782 \end{array}$ | $\begin{array}{r} 132,540 \\ 9,217 \end{array}$ | $\begin{array}{r} 133,855 \\ 8,576 \end{array}$ | $\begin{array}{r} 134,606 \\ 8,495 \end{array}$ | $\begin{array}{r} 134,801 \\ 8,415 \end{array}$ | $\begin{array}{r} 134,003 \\ 7.869 \end{array}$ |  |  |  |  |  |  |  |  |
| Male, all a | 59,419 | 62,540 | 64,582 | 65.637 | 66,140 | 66384 | 66,391 | 65.951 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years 5 to 9 years 10 to 14 years 20 to 24 years 25 to 29 years 35 to 39 years | 4,701 4,745 5,259 5,516 5,116 4,892 4,573 4,254 | 5,895 5,008 4,725 5.210 5.382 5,022 4,022 4,836 | 5,230 6.174 4,987 4,697 5,169 5,328 4,963 4,766 | 4.472 <br> 5.480 <br> 6,150 <br> 4,150 <br> 4,660 <br> 5.66 <br> 5.123 <br> 5.272 <br> 4,892 |  |  | 4.3986 4.394 4.351 4,651 5.401 6.031 4.032 4,812 4,522 | 3.987 <br> 4. 285 <br> 4.312 <br> 4.321 <br> 4.622 <br> 5.350 <br> 5.050 <br> 4.781 | $\begin{aligned} & 7.9 \\ & 8.0 \\ & 8.8 \\ & 9.3 \\ & 8.6 \\ & 8.2 \\ & 7.7 \\ & 7.2 \end{aligned}$ | $\begin{aligned} & 9.4 \\ & 8.0 \\ & 7.6 \\ & 8.3 \\ & 8.6 \\ & 8.0 \\ & 7.7 \\ & 7.3 \end{aligned}$ | $\begin{aligned} & 8.1 \\ & 96 \\ & 7.7 \\ & 7.3 \\ & 8.0 \\ & 8.3 \\ & 7.7 \\ & 7.4 \end{aligned}$ | $\begin{aligned} & 6.8 \\ & 8.3 \\ & 9.4 \\ & 7.6 \\ & 7.1 \\ & 7.8 \\ & 8.0 \\ & 7.5 \end{aligned}$ | $\begin{array}{r} 6.3 \\ 7.1 \\ 8.3 \\ 9.3 \\ 7.4 \\ 7.0 \\ 7.9 \end{array}$ | $\begin{aligned} & 6.2 \\ & 6.6 \\ & 6.0 \\ & 8.2 \\ & 9.2 \\ & 7.4 \\ & 6.9 \\ & 7.9 \end{aligned}$ | 6.2 6.5 6.6 7.0 8.1 9.1 7.3 7.8 6.8 | 5.8 6.5 6.5 6.6 7.0 8.1 9.1 7.3 |
| 40 to 44 vears <br> 45 to 49 years <br> 50 to 54 years <br> 60 to 64 years <br> 65 to 69 years <br> 70 to 74 years <br> 75 years and over | 3,995 3,843 3,452 2,790 2,232 1,737 1,183 1,162 | 4, 196 3,882 3,651 3,196 , 1981 1,8864 1,329 1,322 | 4,434 <br> $+\quad .052$ <br> 3,676 <br> 3,358 <br> 2,815 <br> 2,056 <br> 1,412 <br> 1,464 |  | 4, 797 4,592 4,077 4, 575 2.988 2,457 1, 768 1,729 | 5.104 4.653 4.302 3.765 3.131 2. 482 1,884 1.934 |  | 4, 441 4.773 4.718 4.003 3,513 2,760 1,780 1,080 2,174 | 6.7 6.5 5.8 4.8 3.8 2.8 2.9 2.0 2.0 | 6.7 6.2 5.8 5.8 5.1 4.0 3.0 2.1 2.1 2.1 | $\begin{aligned} & 6.9 \\ & 6.3 \\ & 5.7 \\ & 5.2 \\ & 4.4 \\ & 3.2 \\ & 2.2 \\ & 2.3 \end{aligned}$ | $\begin{aligned} & 7.1 \\ & 6.5 \\ & 5.9 \\ & 5.2 \\ & 4.5 \\ & 3.6 \\ & 2.4 \\ & 2.4 \end{aligned}$ | 7.3 7.8 6.8 6.2 5.4 4.5 3.7 2.7 2.6 | $\begin{aligned} & 7.7 \\ & 7.0 \\ & 6.5 \\ & 5.7 \\ & 5.7 \\ & 3.7 \\ & 2.8 \\ & 2.9 \end{aligned}$ | $\begin{aligned} & 7.4 \\ & 7.5 \\ & 6.7 \\ & 6.0 \\ & 5.0 \\ & 3.9 \\ & 2.8 \\ & 3.2 \end{aligned}$ | 6.7 7.7 7.2 6.2 5. 4.3 4.2 3.0 3.3 |
| 14 years and over- Median age (years) | $\begin{array}{r} 45,823 \\ 29.5 \end{array}$ | $\begin{array}{r} 47,903 \\ 30.0 \end{array}$ | $\begin{array}{r} 49,135 \\ 30.7 \end{array}$ | $\begin{array}{r} 50.696 \\ 31.9 \end{array}$ | $\begin{array}{r} 53.000 \\ 33.0 \end{array}$ | $\begin{array}{r} 54.211 \\ 34.0 \end{array}$ | $\begin{array}{r} 54.513 \\ 34.5 \end{array}$ | $\begin{array}{r} 54.393 \\ 35.3 \end{array}$ | 77.1 | 76.6 | 76.1 | 77.2 | 80.1 | 81.7 | 82.1 | 82.5 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages. <br> Under 5 years | $\begin{array}{r} 59,781 \\ 5,034 \end{array}$ | $\begin{array}{r} 62,872 \\ 6,227 \end{array}$ | $\begin{array}{r} 64,877 \\ 5,525 \end{array}$ | $65,889$ | $\begin{array}{r} 66,375 \\ 4.398 \end{array}$ | $66,617$ | $\begin{array}{r} 66,622 \\ 4,317 \end{array}$ | $\begin{array}{r} 66,167 \\ 4,037 \end{array}$ |  |  |  |  |  |  |  |  |
| Female, allages. | 58,766 | 62,513 | 64,978 | 66,428 | 67.273 | 67,784 | 67,976 | 67,616 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years. 5 to 9 years. 10 to 14 years 20 to 24 years <br> 25 to 29 years <br> 35 to 39 years |  | 5,639 4.806 4.570 5.065 5.431 5.226 5.024 4.004 4.618 | 4,997 $\mathbf{S}^{5}, 891$ 4,792 4,754 4,564 5,036 5,393 5,183 4,948 | 4,270 5.270 5.824 5,874 4,777 4,530 5.004 $5 ., 352$ 5,130 | 3,971 4,463 5,209 5,287 4,753 4,503 4,008 5,308 5,301 | $\begin{aligned} & 3,932 \\ & 4,152 \\ & 4,452 \\ & 5,194 \\ & 5,830 \\ & 4,726 \\ & 4,472 \\ & 4,922 \end{aligned}$ | 3,895 4.111 4.142 4.441 5.170 5.798 $4 ., 694$ 4,431 | $\begin{aligned} & 3,642 \\ & 4,073 \\ & 4,103 \\ & 4,132 \\ & 4,420 \\ & 5,420 \\ & 5,759 \\ & 4,652 \end{aligned}$ | $\begin{aligned} & 7.7 \\ & 7.8 \\ & 8.7 \\ & 9.3 \\ & 8.9 \\ & 8.5 \\ & 7.9 \\ & 7.3 \end{aligned}$ | $\begin{aligned} & 9.0 \\ & 7.7 \\ & 7.3 \\ & 8.7 \\ & 8.4 \\ & 8.4 \\ & 8.4 \end{aligned}$ | $\begin{aligned} & 7.7 \\ & 9.1 \\ & 7.4 \\ & 7.0 \\ & 7.8 \\ & 8.3 \\ & 8.0 \\ & 7.6 \end{aligned}$ | $\begin{aligned} & 6.4 \\ & 7.9 \\ & 8.8 \\ & 7.2 \\ & 6.8 \\ & 7.5 \\ & 8.1 \\ & 7.7 \end{aligned}$ | $\begin{aligned} & 5.9 \\ & 6.6 \\ & 8.6 \\ & 8.7 \\ & 7.1 \\ & 6.7 \\ & 7.4 \end{aligned}$ | 5.8 6.1 6.6 7.7 8.6 7.0 6.6 7.3 | 5.7 6.0 6.1 6.1 7.6 7.6 8.5 6.9 6.5 | 5.4 6.0 6.1 6.1 6.5 7.6 8.5 6.9 |
| 40 to 44 years. <br> 45 to 49 years. <br> 50 to 54 years <br> 60 to 64 years. <br> 65 to 69 years <br> 70 to 74 years | 3,941 3,690 3,229 , 2,637 1,184 1,762 1,217 1,318 | 4,229 3,875 3.583 3.002 2,454 1,933 1,449 1,537 | 4,546 4.133 3,742 3.400 2,850 2,156 1,571 1,786 | 4,877 4,449 3,996 3,954 3,136 2,505 1,753 1,999 | 5,060 <br> 4.777 <br> 4.306 <br> 3.790 <br> 3,281 <br> 2,758 <br> 2,038 <br> 2,227 | 5,232 <br> 4,961 <br> 4,627 <br> 4.6097 <br> 3,510 <br> 2,889 <br> 2,847 <br> 2,247 <br> , 541 | $\begin{aligned} & 4,860 \\ & 5,132 \\ & 4,807 \\ & 4.405 \\ & 3,789 \\ & 3,094 \\ & 2,035 \\ & 2,850 \end{aligned}$ | $\begin{aligned} & 4,376 \\ & 4,767 \\ & 4,975 \\ & 4.578 \\ & 4,076 \\ & 3,344 \\ & 2,508 \\ & 3,080 \end{aligned}$ | 6.7 6.7 6.3 5.5 4.5 3.7 3.0 2.1 2.2 | $\begin{aligned} & 6.8 \\ & 6.2 \\ & 5.7 \\ & 4.9 \\ & 3.9 \\ & 3.1 \\ & 2.3 \\ & 2.5 \end{aligned}$ | $\begin{aligned} & 7.0 \\ & 6.4 \\ & 5.8 \\ & 5.2 \\ & 4.4 \\ & 3.3 \\ & 2.4 \\ & 2.7 \end{aligned}$ | $\begin{aligned} & 7.3 \\ & 6.7 \\ & 6.0 \\ & 5.4 \\ & 4.7 \\ & 3.8 \\ & 2.6 \\ & 3.0 \end{aligned}$ | $\begin{aligned} & 7.5 \\ & 7.1 \\ & 6.4 \\ & 5.6 \\ & 4.9 \\ & 4.1 \\ & 3.0 \\ & 3.3 \end{aligned}$ | $\begin{aligned} & 7.7 \\ & 7.3 \\ & 6.8 \\ & 6.0 \\ & 5.2 \\ & 4.3 \\ & 3.3 \\ & 3.7 \end{aligned}$ | 7.1 7.1 7.5 7.1 6.5 5.6 4.6 4.6 4.5 4.2 | 6.5 7.0 7.4 6.8 6.0 4.9 3. 4.6 4.6 |
| 14 years and over Median age (years) | 45,605 29.5 | $\begin{array}{r} 48,457 \\ 30.5 \end{array}$ | $\begin{array}{r} 50,209 \\ 31.8 \end{array}$ | $\begin{array}{r} 52,175 \\ 33,3 \end{array}$ | $\begin{array}{r} 54,749 \\ 34.9 \end{array}$ | $\begin{array}{r} 56.191 \\ 36.2 \end{array}$ | $\begin{array}{r} 56,668 \\ 37.0 \end{array}$ | $\begin{array}{r} 56,648 \\ 37.7 \end{array}$ | 77.6 | 77.5 | 77.3 | 78.5 | 81.4 | 82.9 | 83.4 | 83.7 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages. Under 5 years | 59,060 4,822 | 62,808 5,933 | 65,239 5,258 | 66,651 4,492 | 67.480 4,178 | 67,990 4,137 | 68,179 4,098 | 67,837 3,832 |  |  |  |  |  |  |  |  |

Table IV.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF LOW FERTILITY, HIGH MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued
(Percent not shown where less than 0.1 )


[^66]Table IV.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF LOW FERTILITY, HIGH MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued


[^67]${ }^{2}$ The figures for the population 55 years old and over have been adjusted
or age biases in the nonwhite population as enumerated for age biases in the nonwhite population as enumerated.

Table IV.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF LOW FERTILITY, HIGH MORTALITY, AND NO IMMIGRATION AFTER JUIY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued
(Percent not shown where less than 0.1 )

| COLOR, NATIVITY, AGE, AND SEX | POPULATION (IN THOUSANDS) ${ }^{1}$ |  |  |  |  |  |  |  | PERCENT Distribution |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1940^{2}$ <br> (Census) | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 | 1940 | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 |
| NONWHITE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 5 years | 1,312 | 1,613 | 1,464 | 1,288 | 1,280 | 1,308 | 1,273 | 1,185 | 9.8 | 11.1 | 9.5 | 8.1 | 7.8 | 7.7 | 7.4 | 6.8 |
| 5 to 9 years............. | 1,356 | 1.5331,3541,377 | 1, 824 | 1,656 | 1,457 | 1,4491,451 | 1,481 | 1, 443 | 10.1 | 10.5 9 | 11.9 | 10.4 | 8.9 10.0 | 8.6 8.6 | 8.6 8.4 | 8.4 |
| 10 to 14 years | 1,393 |  | 1,5231,339 | 1,8141,508 | 1,648 |  | 1,443 | 1,475 | 10.4 | 9.3 | 9.9 8.7 | 11.4 | 10.9 | 9.7 | 8.3 |  |
| 15 to 19 years |  | 1, 1,377 |  |  |  | 1,634 | 1,439 | 1,432 | 10.2 9.3 | 9.2 | 8.8 | $\begin{aligned} & 9.5 \\ & 8.3 \end{aligned}$ | 9. |  | 9.3 | $\begin{aligned} & 8.2 \\ & 8.1 \end{aligned}$ |
| 20 to 24 years | 1,248 | 1,344 | 1,348 | 1,508 | 1, 1,487 | 1,768 1,451 | 1,608 | 1,417 1,576 | 9.3 8.9 | 9.2 8.4 | 8.8 8.5 | 8.3 8.3 | 7.8 | 10.5 8.6 | 10.0 | $\begin{aligned} & 8.1 \\ & 9.0 \\ & 9.7 \\ & 7.8 \end{aligned}$ |
| 25 20 30 to 29 34 years. | 1,192 |  | 1,307 1,181 | 1,315 1,268 | 1,285 | 1,451 | 1,732 | 1,576 1,690 | 8.9 | 8.0 | 7.7 | 8.0 | 7.8 | 7.4 | 8.2 |  |
| 35 to 39 years............. | 1,029 | $\begin{array}{r}1,161 \\ \hline 998\end{array}$ | 1,181 1.113 | 1, 137 | 1,224 | 1,237 | 1,211 | 1,371 | 7.6 | 6.8 | 7.2 | 7.1 | 7.5 | 7.3 | 7.0 |  |
| 40 to 44 years ............ | 852722577441343249160175 | 975794650501371274184218 | $\begin{aligned} & 943 \\ & 901 \\ & 709 \\ & 559 \\ & 415 \\ & 290 \\ & 198 \\ & 248 \end{aligned}$ | $\begin{array}{r} 1,057 \\ 876 \\ 808 \\ 611 \\ 464 \\ 324 \\ 210 \\ 274 \end{array}$ | $\begin{array}{r} 1,084 \\ 986 \\ 789 \\ 700 \\ 510 \\ 363 \\ 236 \\ 295 \end{array}$ | 1,1701,014891685585399264324 | 1,184 <br> 1,098 <br> 919 775 <br> 573 458 290 360 | $\begin{array}{r} 1,162 \\ 1,113 \\ 996 \\ 802 \\ 650 \\ 449 \\ 333 \\ 399 \end{array}$ | 6.3 | 6.7 | 6.1 | 6.6 | 6. 6 | 6.9 | 6.9 | 6.6 |
| 45 to 49 years. |  |  |  |  |  |  |  |  | 5.4 | 5.5 | 5.9 | 5.5 | 6.0 | 6.0 | 6. 4 | 6. ${ }^{4}$ |
| 50 to 54 years. |  |  |  |  |  |  |  |  | 4.3 | 4. 5 | 4.6 3.6 | 5.1 3.8 3. | 4.8 4.3 | 5,3 4.1 | 5.3 4.5 | 5.7 4.6 |
| 55 to 59 years. |  |  |  |  |  |  |  |  | 3.3 2.5 | 3.4 2.5 | 3.6 2.7 | 3.8 2.9 | 4.3 3.1 | 4.15 | 4.5 3.3 | 4. 6 |
| 60 to 64 years. |  |  |  |  |  |  |  |  | 2.5 1.8 | 2.5 1.9 | 1.9 | 2.0 | 2. 2 | 2.4 | 2.7 | 2.6 |
| 65 to 69 years. |  |  |  |  |  |  |  |  | 1.2 | 1.3 | 1.3 | 1.3 | 1.4 | 1.6 | 1.7 | 1.9 |
| 75 years and ov |  |  |  |  |  |  |  |  | 1.3 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 | 2.1 | 2.3 |
| 14 years and over. | 9,67525.2 | 10,33825.3 | 10.83525.7 | 11.51426.5 | $\begin{array}{r} 12,377 \\ 27,1 \end{array}$ | $\begin{array}{r} 12,973 \\ 27.9 \end{array}$ | $\begin{array}{r} 13,347 \\ 29.0 \end{array}$ | $\begin{array}{r} 13,682 \\ 30.6 \end{array}$ | 71.9 | 71.0 | 70.5 | 72.3 | 75.4 | 76.9 | 77.3 | 78.2 |
| Median age (years) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages | $\begin{array}{r} 13,691 \\ 1,548 \end{array}$ | $\begin{array}{r} 14,804 \\ 1,850 \end{array}$ | $\begin{array}{r} 15,576 \\ 1,678 \end{array}$ | $\begin{array}{r} 16,114 \\ 1,476 \end{array}$ | $\begin{array}{r} 16,602 \\ 1,467 \end{array}$ | $\begin{array}{r} 17,070 \\ 1,499 \end{array}$ | $\begin{array}{r} 17,446 \\ 1,460 \end{array}$ | $\begin{array}{r} 17,666 \\ 1,359 \end{array}$ | $100.0$ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male, all | 6,613 | 7,155 | 7,529 | 7,793 | 8,027 | 8,254 | 8,445 | 8,567 |  |  |  |  |  |  |  |  |
| Under 5 years | $\begin{aligned} & 653 \\ & 674 \\ & 693 \\ & 664 \\ & 579 \\ & 559 \\ & 497 \\ & 491 \end{aligned}$ | $\begin{aligned} & 807 \\ & 769 \\ & 674 \\ & 686 \\ & 653 \\ & 568 \\ & 544 \\ & 479 \end{aligned}$ | $\begin{aligned} & 732 \\ & 917 \\ & 764 \\ & 666 \\ & 672 \\ & 633 \\ & 547 \\ & 519 \end{aligned}$ | $\begin{aligned} & 644 \\ & 833 \\ & 912 \\ & 757 \\ & 654 \\ & 654 \\ & 613 \\ & 525 \end{aligned}$ | $\begin{aligned} & 640 \\ & 733 \\ & 828 \\ & 904 \\ & 744 \\ & 638 \\ & 634 \\ & 590 \end{aligned}$ | $\begin{aligned} & 654 \\ & 729 \\ & 729 \\ & 821 \\ & 889 \\ & 726 \\ & 620 \\ & 612 \end{aligned}$ | $\begin{aligned} & 637 \\ & 746 \\ & 726 \\ & 723 \\ & 808 \\ & 870 \\ & 707 \\ & 599 \end{aligned}$ | $\begin{aligned} & 593 \\ & 727 \\ & 743 \\ & 720 \\ & 712 \\ & 791 \\ & 847 \\ & 683 \end{aligned}$ | $\begin{array}{r} 9.9 \\ 10.2 \\ 10.5 \\ 10.0 \\ 8.8 \\ 8.4 \\ 7.5 \\ 7.4 \end{array}$ | $\begin{array}{r} 11.3 \\ 10.7 \\ 9.4 \\ 9.6 \\ 9.1 \\ 7.9 \\ 7.6 \\ 6.7 \end{array}$ | $\begin{array}{r} 9.7 \\ 12.2 \\ 10.1 \\ 8.9 \\ 8.9 \\ 8.4 \\ 7.3 \\ 6.9 \end{array}$ | $\begin{array}{r} 8.3 \\ 10.7 \\ 11.7 \\ 9.7 \\ 8.4 \\ 8.4 \\ 7.9 \\ 6.7 \end{array}$ | $\begin{array}{r} 9.1 \\ 9.1 \\ 10.3 \\ 11.3 \\ 9.3 \\ 8.0 \\ 7.9 \\ 7.4 \end{array}$ | $\begin{array}{r} 7.9 \\ 8.8 \\ 8.8 \\ 9.9 \\ 10.8 \\ 8.8 \\ 7.5 \\ 7.4 \end{array}$ | 7.58.88.68.69.610.38.47.1 | $\begin{aligned} & 6.9 \\ & 8.5 \\ & 8.7 \\ & 8.4 \\ & 8.3 \\ & 9.2 \\ & 9.9 \\ & 8.0 \end{aligned}$ |
| 5 to 9 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 to 14 years. 15 to 19 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 to 24 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25 to 29 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 to 34 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35 to 39 years. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 to 44 | 4243673012351801328182 | $\begin{array}{r} 465 \\ 393 \\ 326 \\ 259 \\ 197 \\ 142 \\ 95 \\ 100 \end{array}$ | $\begin{aligned} & 450 \\ & 427 \\ & 347 \\ & 278 \\ & 213 \\ & 151 \\ & 100 \\ & 113 \end{aligned}$ | $\begin{aligned} & 491 \\ & 416 \\ & 379 \\ & 296 \\ & 229 \\ & 163 \\ & 106 \\ & 123 \end{aligned}$ | $\begin{aligned} & 499 \\ & 455 \\ & 371 \\ & 324 \\ & 244 \\ & 176 \\ & 115 \\ & 131 \end{aligned}$ | $\begin{aligned} & 562 \\ & 464 \\ & 407 \\ & 318 \\ & 268 \\ & 188 \\ & 124 \\ & 141 \end{aligned}$ | $\begin{aligned} & 584 \\ & 524 \\ & 416 \\ & 351 \\ & 264 \\ & 206 \\ & 132 \\ & 152 \end{aligned}$ | $\begin{aligned} & 573 \\ & 546 \\ & 472 \\ & 360 \\ & 291 \\ & 203 \\ & 145 \\ & 163 \end{aligned}$ | $\begin{aligned} & 6.4 \\ & 5.5 \\ & 4.6 \\ & 3.6 \\ & 2.7 \\ & 2.0 \\ & 1.2 \\ & 1.2 \end{aligned}$ | $\begin{aligned} & 6.5 \\ & 5.5 \\ & 4.6 \\ & 3.6 \\ & 2.7 \\ & 2.0 \\ & 1.3 \\ & 1.4 \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 5.7 \\ & 4.6 \\ & 3.7 \\ & 2.8 \\ & 2.0 \\ & 1.3 \\ & 1.5 \end{aligned}$ | 6.3 | 2 | 6.8 | 6.9 | 6.7 |
| 45 to 49 years. |  |  |  |  |  |  |  |  |  |  |  | 5.3 4.9 | 5.7 4.6 | 5.6 4.9 | 6.2 4.9 | 5.4 |
| 50 to 54 years |  |  |  |  |  |  |  |  |  |  |  | 3.8 | 4.0 | 3.9 | 4.2 | 4.2 |
| 55 to 59 years |  |  |  |  |  |  |  |  |  |  |  | 2.9 | 3.0 | 3.3 | 3.1 | 3.4 |
| 60 to 69 years. |  |  |  |  |  |  |  |  |  |  |  | 2.1 | 2.2 | 2.3 | 2.4 | 2.4 |
| 70 to 74 years. |  |  |  |  |  |  |  |  |  |  |  | 1.4 | 1.4 | 1.5 | 1.6 | 1.7 |
| 75 years and over.. |  |  |  |  |  |  |  |  |  |  |  | 1.6 | 1.6 | 1.7 | . 8 | 1.9 |
|  | 4,731 | 5,040 | 5,258 | 5,579 | 6,000 | 6,293 | 6.479 | 6,652 | 71.5 | 70.4 | 69.8 | 71.6 | 74.8 | 76.2 | 76.7 | 77.6 |
| Median age (years).. | 25.4 | 24.9 | 25.1 | 25.7 | 26.3 | 27.1 | 28.3 | 30.0 |  |  |  |  |  |  |  |  |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages | 6,737 | 7,280 | 7,642 | 7.893 | 8,125 | 8,355 | 8,544 | 8,659 |  |  |  |  |  |  |  |  |
| Under 5 years. | 778 | 931 | 845 | 743 | 739 | 755 | 736 |  |  |  |  |  |  |  |  |  |
|  | 6,841 | 1 7,413 | 3 7,832 | 8,132 | 2 3,388 | 8 8,625 | 58.814 | 8,926 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years | 659 | 807 | 733 | 644 | 640 | 653 | 636 | 592 | 9.6 | 10.9 | 9.4 | 7.9 | 7.6 | 7.6 8.3 | 7.2 8.3 | 6. 6 |
| 5 to 9 years. | 681 | 763 680 | 906 759 | 824 902 | 725 820 | 720 721 | 735 | 716 733 | 10.0 10.2 | 10.3 9.2 | 11.6 9.7 | 10.1 | 8.6 9.8 | 8.3 | 8.1 | 8.0 8.2 |
| 10 to 14 years. | 700 | 680 691 | 759 673 | 952 | 880 | 813 | 715 | 711 | 10.3 | 9.3 | 8.6 | 9.2 | 10.6 | 9.4 | 8.1 | 8.0 |
| 15 to 19 years. | 705 669 | 691 | 677 | 660 | 739 | 879 | 800 | 705 | 9.8 | 9.3 | 8.6 | 8.1 | 8.8 | 10.2 | 9.1 | 7.9 |
| 20 to 24 years. | 669 634 | 654 | 673 | 661 | 646 | 724 | 862 | 785 | 9.3 | 8.8 | 8.6 | 8.1 | 7.7 | 8.4 | 9.8 | 8.8 |
| 25 to 29 years. 30 to 34 years. | 639 5 | 617 | 634 | 655 | 645 | 631 | 708 | 843 | 7.9 | 8.3 | 8.1 | 8.1 | 7.7 | 7.3 | 8.0 | 9.4 |
| 35 to 39 years. | 537 | 519 | 593 | 612 | 634 | 625 | 612 | 688 | 7.9 | 7.0 | 7.6 | 7.5 | 7.6 | 7.2 | 6.9 | 7.7 |
| 40 to 44 years | 428 | 510 | 492 | 565 | -585 | 608 | 600 | 589 | 6.3 | 6.9 | 6.3 | 7.0 | 7.0 | 7.0 | 6.8 | 6.6 |
| 45 to 49 years | 356 | 401 | 474 | 460 | - 530 | 550 | 573 | 567 | 5.2 | 5.4 | 6.1 | 5.7 | 6.3 | 6.4 | 6.5 | 6. 4 |
| 50 to 54 years. | 276 | - 324 | 362 | 430 | - 418 | 483 | 503 | 525 | 4.0 | 4.4 | 4.6 | 3. 0 | 5.0 | 5.6 | 5. 8 | 5.0 |
| 55 to 59 years... | 206 | - 242 | 281 | 315 | - 375 | 366 | 425 | 442 | 2. | 3.3 | 3.6 | 8.9 | 3.2 | 3.7 | 3.5 | 4.0 |
| 60 to 64 years.. | 162 | - 175 | - 203 | 236 | - 265 | 316 | 309 | 359 | 2.4 | 1.8 | 1.8 | 2.0 | 2.2 | 2.4 | 2.9 | 2.8 |
| 65 to 69 years. | 117 | - 131 | 139 <br> 98 | 161 104 | 187 <br> 121 | 140 | 158 | 188 | 1.2 | 1.8 1.2 | 1.3 | 1.3 | 1.4 | 1.6 | 1.8 | 2.1 |
| 70 to 74 years | 79 93 | 139  <br>  118 |  | 151 |  | 183 | 209 | 237 | 1.4 | 1.6 | 1.7 | 1.9 | 2.0 | 2.1 | 2.4 | 2.7 |
| 75 years and over... | 93 4 | 118 <br> 5.299 | 130 <br> 5.577 | 5. 935 |  |  |  |  | 72.3 | 71.5 | 71.2 | 73.0 | 76.0 | 77.5 | 77.9 | 78.8 |
| 14 vears and over. <br> Median age (years) | $\begin{array}{r}4.944 \\ \hline . . \\ \hline\end{array}$ | 4 5,299 <br> 1 25.6 | 5,577 | 5,935 27.2 | 5 27.9 | 6.680 28.6 | 6,867 | 31.3 |  |  |  |  |  |  |  |  |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6,953 |  |  |  | 1 8,476 | 8,715 | 8,902 | 9,007 |  |  |  |  |  |  |  |  |
| Under 5 years. | 6,770 | - 918 | 8 8 834 | 733 | 3 728 | 8 744 | -724 | 674 |  |  |  |  |  |  |  |  |

[^68]T able V.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $14,000,000$ BIRTHS DURING 1945-50), LOW MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975


Table V.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $14,000,000$ BIRTHS DURING 1945-50), LOW MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued


[^69]Table V.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $14,000,000$ BIRTHS DURING 1945-50), LOW MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued


[^70][^71]Table V.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $14,000,000$ BIRTHS DURING $1945-50$ ), LOW MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued


[^72]Table V.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $14,000,000$ BIRTHS DURING 1945-50), LOW MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued

${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color. nativity, age, and se
${ }^{2}$ The figures for the population 55 years old and over have been adjusted for age biases in the nonwhite population as enumerated.

Tabée VI.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $15,000,000$ BIRTHS DURING 1945-50), LOW MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975
(Percent not shown where less than 0.1 )


[^73]The figures for the population 55 years old and over have been adjusted not always exactly equal to the sum of the rounded figures shown by color, for age biases in the nonwhite population as enumerated.

Table VI.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $15,000,000$ BIRTHS DURING $1945-50$ ), LOW MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued
(Percent not shown where less than 0.1 )


HIGH FERTILITY, LOW MORTALITY, NO IMMIGRATION
Table VI.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $15,000,000$ BIRTHS DURING 1945-50), LOW MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued (Percent not shown where less than 0.1)


Table Vi.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $15,000,000$ BIRTHS DURING 1945-50), LOW MORTALITY, AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued

| COLOR, NATIVITY:AGE, AND SEX | population (in thousands) ${ }^{1}$ |  |  |  |  |  |  |  | percent distarbution |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 19.40^{2} \\ (\text { Census }) \end{gathered}$ | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 | 1940 | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 |
| NONWHITE <br> Total, all ages | 13,454 | 14,568 | 15,642 | 16,658 | 17.768 | 19,051 | 20,485 | 21,980 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years 5 to 9 years. 10 to 14 years 20 to 24 years 25 to 29 years 30 to 34 years 35 to 39 years | 1.312 1,356 1,393 1,369 1,248 1,192 1,036 1,029 | 1,613 1,533 1,354 1,374 1,344 1,221 1,161 998 | 1,691 1,825 1,524 1,340 1,350 1,309 1,183 1,115 | 1,594 1,916 1,816 1,510 1,319 1,321 1,275 1,145 | 1,679 1,808 1,909 1,803 1,490 1,295 1,292 1,240 | 1,836 1,908 1,802 11,897 1,784 1,468 11.272 1,262 | 1,977 2,087 1,903 1,794 1,880 1,762 1,446 1,247 | 2,056 2,250 2,083 1,895 1,780 1,860 1,739 1,422 | $\begin{array}{r} 9.8 \\ 10.8 \\ 10.4 \\ 10.2 \\ 9.2 \\ 9.9 \\ 7.9 \\ 7.6 \end{array}$ | $\begin{array}{r} 11.1 \\ 10.5 \\ 9.3 \\ 9.4 \\ 9.2 \\ .4 \\ 8.4 \\ 8.8 \end{array}$ | $\begin{array}{r} 10.8 \\ 11.7 \\ 9.7 \\ 8.6 \\ 8.6 \\ 8.4 \\ 7.6 \\ 7.1 \end{array}$ | $\begin{array}{r} 9.6 \\ 11.5 \\ 10.9 \\ 9.1 \\ 7.9 \\ 7.9 \\ 7.9 \end{array}$ | $\begin{array}{r} 9.5 \\ 10.2 \\ 10.7 \\ 10.1 \\ 8.4 \\ 7.3 \\ 7.3 \\ 7.0 \end{array}$ | $\begin{array}{r} 9.6 \\ 10.6 \\ 9.0 \\ 9.0 \\ 9.4 \\ 7.4 \\ 6.7 \\ 6.6 \end{array}$ | $\begin{array}{r} 9.7 \\ 10.2 \\ 9.3 \\ 8.8 \\ 9.2 \\ 8.6 \\ 7.1 \\ 6.1 \end{array}$ | $\begin{array}{r} 9.4 \\ 10.2 \\ 9.5 \\ 9.6 \\ 8.6 \\ 8.1 \\ 8.5 \\ 7.9 \\ 6.5 \end{array}$ |
| 40 to 44 years <br> 45 to 49 years <br> 50 to 54 years <br> 60 to 64 years <br> 65 to 69 years <br> 70 to 74 years <br> 75 years and over | 852 722 777 441 343 249 160 175 | 975 794 650 501 371 274 184 218 | $\begin{aligned} & 946 \\ & 909 \\ & 717 \\ & 565 \\ & 419 \\ & 297 \\ & 203 \\ & 249 \end{aligned}$ | $\begin{array}{r} 1,067 \\ 895 \\ 835 \\ 636 \\ 480 \\ 343 \\ 225 \\ 280 \end{array}$ | $\begin{array}{r} 1,103 \\ 1,021 \\ 1.036 \\ 758 \\ 750 \\ 503 \\ 403 \\ 265 \\ 314 \end{array}$ | $\begin{array}{r} 1,202 \\ 1.064 \\ 966 \\ 772 \\ 669 \\ 471 \\ 316 \\ 362 \end{array}$ | 1.229 1,165 1.015 904 693 581 375 426 | 1,219 1,195 1,118 957 823 609 467 506 506 | $\begin{aligned} & 6.3 \\ & 5.4 \\ & 4.3 \\ & 3.3 \\ & 2.5 \\ & 1.8 \\ & 1.2 \\ & 1.3 \end{aligned}$ | $\begin{aligned} & 6.7 \\ & 5.5 \\ & 4.5 \\ & 3.4 \\ & 2.5 \\ & 1.9 \\ & 1.3 \\ & 1.5 \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 5.8 \\ & 4.6 \\ & 3.6 \\ & 2.7 \\ & 1.9 \\ & 1.3 \\ & 1.6 \end{aligned}$ | $\begin{aligned} & 6.4 \\ & 5.4 \\ & 5.0 \\ & 3.8 \\ & 2.9 \\ & 2.1 \\ & 1.3 \\ & 1.7 \end{aligned}$ | 6.2 5.7 4.7 4.3 3.1 2.3 1.5 1.8 | $\begin{aligned} & 6.3 \\ & 5.6 \\ & 5.1 \\ & 5.1 \\ & 4.5 \\ & 2.5 \\ & 1.5 \\ & 1.7 \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 5.7 \\ & 5.0 \\ & 4.4 \\ & 3.4 \\ & 2.8 \\ & 1.8 \\ & 2.1 \end{aligned}$ | 5.5 5.4 5.1 4.4 3.7 2.8 2.8 2.1 2.3 |
| 14 years and over Median age (years) | $9,675$ | $\begin{array}{r} 10.338 \\ 25.3 \end{array}$ | $\begin{array}{r} 10.887 \\ 25.3 \end{array}$ | $\begin{array}{r} 11,673 \\ 25.7 \end{array}$ | $\begin{array}{r} 12,752 \\ 25,8 \end{array}$ | $\begin{array}{r} 13.872 \\ 26.0 \end{array}$ | $\begin{array}{r} 14,885 \\ 26.7 \end{array}$ | $\begin{array}{r} 15,992 \\ 27.5 \end{array}$ | 71.9 | 71.0 | 69.6 | 70.1 | 71.8 | 72.8 | 72.7 | 72.8 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages <br> Under 5 years | $\begin{array}{r} 13,691 \\ 1,548 \end{array}$ | $\begin{array}{r} 14,804 \\ 1,850 \end{array}$ | $\begin{array}{r} 15,889 \\ 1,938 \end{array}$ | $\begin{array}{r} 16,891 \\ 1,827 \end{array}$ | $\begin{array}{r} 18,013 \\ 1,925 \end{array}$ | $\begin{array}{r} 19,320 \\ 2,105 \end{array}$ | $\begin{array}{r} 20,774 \\ 2,267 \end{array}$ | $\begin{array}{r} 22,281 \\ 2,357 \end{array}$ |  |  |  |  |  |  |  |  |
| Male, allages | 6,613 | 7,155 | 7,671 | 8,167 | 8.715 | 9,357 | 10,079 | 10,838 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years 5 to 9 years. 10 to 14 years 20 to 24 years. 25 to 29 years 35 to 39 years. | 653 674 693 664 579 559 497 491 | 807 769 674 686 653 568 544 479 | 845 918 764 667 672 635 548 521 | 797 963 914 758 656 657 617 617 529 | 841 910 959 907 748 644 641 599 | $\begin{aligned} & 920 \\ & 981 \\ & 907 \\ & 953 \\ & 897 \\ & 736 \\ & 631 \\ & 626 \end{aligned}$ | $\begin{array}{r} 991 \\ 1.052 \\ 959 \\ 903 \\ 944 \\ 885 \\ 724 \\ 618 \end{array}$ | 1,031 1,135 1,050 954 996 934 937 711 | 9.9 10.2 10.5 10.0 8.8 8.4 7.5 7.4 | $\begin{array}{r} 11.3 \\ 10.7 \\ 9.4 \\ 9.6 \\ 9.1 \\ 7.9 \\ 7.6 \\ 6.7 \end{array}$ | $\begin{array}{r} 11.0 \\ 12.0 \\ 10.0 \\ 8.7 \\ 8.8 \\ 8.3 \\ 7.1 \\ 6.8 \end{array}$ | $\begin{array}{r} 9.8 \\ 11.8 \\ 11.2 \\ 9.3 \\ 8.0 \\ 8.0 \\ 8.6 \\ 6.6 \end{array}$ | 9.6 10.4 11.0 10.4 8.6 7.4 7.4 6.9 | $\begin{array}{r} 9.8 \\ 10.3 \\ 9.7 \\ 10.2 \\ 9.6 \\ 7.9 \\ 6.9 \\ 6.7 \end{array}$ | $\begin{array}{r} 9.8 \\ 10.4 \\ 9.5 \\ 9.5 \\ 9.4 \\ 8.8 \\ 7.8 \\ 6.1 \end{array}$ | $\begin{array}{r} 9.5 \\ 10.5 \\ 9.7 \\ 8.8 \\ 8.3 \\ 8.6 \\ 8.1 \\ 6.6 \end{array}$ |
| 40 to 44 years <br> 45 to 49 years <br> 50 to 54 years <br> 50 to 59 years <br> 60 to 64 years <br> 70 to 74 years. <br> 75 years and over | 424 467 307 301 235 180 132 81 82 | 465 393 326 259 197 142 95 100 | 452 431 351 281 215 155 103 114 | 497 426 493 309 237 174 115 127 | 509 474 495 354 266 197 131 142 142 | 579 489 446 363 311 225 151 162 | $\begin{aligned} & 608 \\ & 560 \\ & 465 \\ & 415 \\ & 325 \\ & 268 \\ & 176 \\ & 186 \end{aligned}$ | $\begin{aligned} & 603 \\ & 590 \\ & 536 \\ & 437 \\ & 437 \\ & 283 \\ & 281 \\ & 211 \\ & 216 \end{aligned}$ | 6.4 3.5 4.6 3.6 2.7 2.0 1.2 1.2 | $\begin{aligned} & 6.5 \\ & 5.5 \\ & 4.6 \\ & 3.6 \\ & 2.7 \\ & 2.0 \\ & 1.3 \\ & 1.4 \end{aligned}$ | 5.9 5.9 5.6 4.6 3.7 2.8 2.0 1.3 1.5 | 6.1 5.2 4.8 3.8 2.9 2.9 1.4 1.6 | 5.8 5.8 5.4 4.5 4.1 3.0 2.3 1.5 1.6 | $\begin{aligned} & 6.2 \\ & 5.2 \\ & 4.8 \\ & 3.9 \\ & 3.3 \\ & 2.4 \\ & 1.6 \\ & 1.7 \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 5.6 \\ & 4.6 \\ & 4.1 \\ & 3.2 \\ & 2.7 \\ & 1.7 \\ & 1.8 \end{aligned}$ | 5. 5. 5.4 4.9 4.0 4.0 2.5 1.6 1.9 2.0 |
| 14 years and over... Median age (years) | $\begin{array}{r} 4,731 \\ \quad 25.4 \end{array}$ | $\begin{array}{r} 5.040 \\ 2+9 \end{array}$ | $\begin{array}{r} 5.287 \\ 24.8 \end{array}$ | $\begin{array}{r} 5,665 \\ 25,0 \end{array}$ | $\begin{array}{r} 6,197 \\ 25,0 \end{array}$ | $\begin{array}{r} 6,754 \\ 25.3 \end{array}$ | $\begin{array}{r} 7.262 \\ 26.1 \end{array}$ | $\begin{array}{r} 7,824 \\ 26.9 \end{array}$ | 71.5 | 70.4 | 68.9 | 69.4 | 71.1 | 72.2 | 72.1 | 72.2 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { All ages......... } \\ & \text { Under } 5 \text { years } \end{aligned}$ | $6,737$ | $\begin{array}{r} 7.280 \\ 931 \end{array}$ | $\begin{array}{r} 7,802 \\ 975 \end{array}$ | $\begin{array}{r} 8,289 \\ 920 \end{array}$ | $\begin{array}{r} 8,845 \\ 970 \end{array}$ | $\begin{aligned} & 9,499 \\ & 1,062 \end{aligned}$ | $\begin{array}{r} 10,232 \\ 1,144 \end{array}$ | $\begin{array}{r} 10,997 \\ 1,190 \end{array}$ |  |  |  |  |  |  |  |  |
| Female, all age | 6.841 | 7,413 | 7.971 | 8,491 | 9,052 | 9.694 | 10,405 | 11.142 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years 5 to 9 years 10 to 14 years 15 to 19 years 20 to 24 years 25 to 29 years 30 to 34 years. 35 to 39 years | $\begin{aligned} & 659 \\ & 681 \\ & 700 \\ & 705 \\ & 669 \\ & 634 \\ & 539 \\ & 537 \end{aligned}$ | 807 763 680 691 691 654 617 519 | $\begin{aligned} & 846 \\ & 907 \\ & 759 \\ & 673 \\ & 677 \\ & 674 \\ & 635 \\ & 595 \end{aligned}$ | 797 953 903 753 662 664 664 658 616 | $\begin{aligned} & 839 \\ & 89 \\ & 950 \\ & 996 \\ & 743 \\ & 651 \\ & 651 \\ & 642 \end{aligned}$ | 916 947 995 994 944 783 764 641 637 | $\begin{array}{r} 986 \\ 1,035 \\ 944 \\ 891 \\ 935 \\ 877 \\ 722 \\ 629 \end{array}$ | 11,025 11,115 1,033 910 884 926 866 711 | $\begin{array}{r} 9.6 \\ 10.0 \\ 10.2 \\ 10.3 \\ 9.8 \\ 9.3 \\ 7.9 \\ 7.9 \end{array}$ | $\begin{array}{r} 10.9 \\ 10.3 \\ 9.2 \\ 9.3 \\ 9.3 \\ 8.8 \\ 8.8 \\ 8.3 \\ 7.0 \end{array}$ | $\begin{array}{r} 10.6 \\ 11.4 \\ 9.5 \\ 8.4 \\ 8.5 \\ 8.5 \\ 8.0 \\ 7.5 \end{array}$ | $\begin{array}{r} 9.4 \\ 11.2 \\ 10.6 \\ 8.6 \\ 8.8 \\ 7.8 \\ 7.8 \\ 7.2 \end{array}$ | $\begin{array}{r} 9.3 \\ 9.9 \\ 90.5 \\ 10.5 \\ 9.9 \\ 8.2 \\ 7.2 \\ 7.2 \\ 7.1 \end{array}$ | $\begin{aligned} & 9.4 \\ & 9.8 \\ & 9.2 \\ & 9.7 \\ & 9.1 \\ & 76.6 \\ & 6.6 \end{aligned}$ | $\begin{aligned} & 9.5 \\ & 99 \\ & 9.1 \\ & 98 \\ & 9.6 \\ & 9.4 \\ & 6.9 \\ & 6.0 \end{aligned}$ | 9.2 10.0 9.3 8.4 7.9 8.3 7.8 6.4 |
| 40 to 44 years <br> 45 to 49 year- <br> 50 to 54 years <br> 60 to 64 years <br> 65 to 69 years. 70 to 74 years <br> 75 years and over | 428 456 276 206 162 117 79 93 | $\begin{array}{r} 510 \\ 401 \\ 324 \\ 242 \\ 175 \\ 131 \\ 89 \\ 118 \end{array}$ | $\begin{aligned} & 494 \\ & 478 \\ & 366 \\ & 284 \\ & 204 \\ & 142 \\ & 100 \\ & 135 \end{aligned}$ | $\begin{aligned} & 571 \\ & 469 \\ & 442 \\ & 327 \\ & 243 \\ & 169 \\ & 110 \\ & 154 \end{aligned}$ | $\begin{aligned} & 595 \\ & 548 \\ & 441 \\ & 404 \\ & 285 \\ & 206 \\ & 134 \\ & 172 \end{aligned}$ | $\begin{aligned} & 623 \\ & 575 \\ & 520 \\ & 409 \\ & 458 \\ & 246 \\ & 165 \\ & 160 \end{aligned}$ | $\begin{aligned} & 621 \\ & 605 \\ & 550 \\ & 488 \\ & 369 \\ & 313 \\ & 199 \\ & 240 \end{aligned}$ | $\begin{aligned} & 615 \\ & 605 \\ & 582 \\ & 520 \\ & 446 \\ & 326 \\ & 256 \\ & 290 \end{aligned}$ | $\begin{aligned} & 6.3 \\ & 5.3 \\ & 5.2 \\ & 4.0 \\ & 3.0 \\ & 2.4 \\ & 1.7 \\ & 1.2 \\ & 1.4 \end{aligned}$ | $\begin{aligned} & 6.9 \\ & 5.9 \\ & 4.4 \\ & 3.3 \\ & 2.4 \\ & 1.8 \\ & 1.2 \\ & 1.6 \end{aligned}$ | $\begin{aligned} & 6.2 \\ & 6.0 \\ & 4.6 \\ & 3.6 \\ & 2.6 \\ & 1.8 \\ & 1.7 \end{aligned}$ | $\begin{aligned} & 6.7 \\ & 5.5 \\ & 5.2 \\ & 3.9 \\ & 2.9 \\ & 2.0 \\ & 1.3 \\ & 1.8 \end{aligned}$ | $\begin{aligned} & 6.6 \\ & 6.0 \\ & 4.9 \\ & 4.5 \\ & 3.1 \\ & 2.3 \\ & 1.5 \\ & 1.9 \end{aligned}$ | $\begin{aligned} & 6.4 \\ & 5.9 \\ & 5.4 \\ & 4.2 \\ & 3.7 \\ & 2.5 \\ & 1.7 \\ & 2.1 \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 5.8 \\ & 5.3 \\ & 4.7 \\ & 3.5 \\ & 3.0 \\ & 1.9 \\ & 2.3 \end{aligned}$ | 5.5 5.5 5.4 5.2 4.7 4.0 2.9 2.3 2.6 |
| 14 years and over Median age (years) | $\begin{array}{r} 4.944 \\ \quad 25.1 \end{array}$ | $\begin{array}{r} 5.299 \\ 25.6 \end{array}$ | $\begin{array}{r} 5,600 \\ 25.9 \end{array}$ | $\begin{array}{r} 6.008 \\ 26.3 \end{array}$ | $\begin{array}{r} 6,553 \\ 26,5 \end{array}$ | $\begin{array}{r} 7.118 \\ \hline 26.8 \end{array}$ | $\begin{array}{r} 7.622 \\ 27.3 \end{array}$ | $\begin{array}{r} 8.168 \\ 28.1 \end{array}$ | 72,3 | 71.5 | 70.3 | 70.8 | 72.4 | 73.4 | 73.3 | 73.3 |
| Adjusted for census underenumeration of children <br> All ages. <br> Under $\overline{5}$ years. | $\begin{array}{r} 6,953 \\ \hline 770 \\ \hline \end{array}$ | $\begin{array}{r} 7,525 \\ 918 \\ \hline \end{array}$ | $\begin{array}{r} 8,088 \\ 964 \end{array}$ | $\begin{array}{r} 8,601 \\ 907 \end{array}$ | $\begin{array}{r} 9,168 \\ 955 \end{array}$ | $\begin{aligned} & 9,821 \\ & 1,043 \end{aligned}$ | $\begin{array}{r} 10,542 \\ 1,123 \\ \hline \end{array}$ | $\begin{array}{r} 11,254 \\ 1,167 \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |

[^74] ativity, age, and sex.

[^75]Table VII.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $15,000,000$ BIRTHS DURING $1945-50$ ), LOW MORTALITY, AND NET IMMIGRATION OF $1,000,000$ PERSONS DURING EACH 5-YEAR PERIOD AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975


[^76]Table ViI.-FORECASts of The population, By COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $15,000,000$ BIRTHS DURING 1945-50), LOW MORTALITY, AND NET IMMIGRATION OF $1,000,000$ PERSONS DURING EACH 5-YEAR PERIOD AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975-Continued


Table Vif.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $15,000,000$ BIRTHS DURING 1945-50), LOW MORTALITY, AND NET IMMIGRATION OF $1,000,000$ PERSONS DURING EACH 5-YEAR PERIOD AFTER JULY 1, 1945, FOR THE UNITED STATES: 1950 TO 1975 -Continued


[^77]
## FORECASTS OF THE POPULATION OF THE UNITED STATES

Table Mif.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF HIGH FERTILITY ( $15,000,000$ BIRTHS DURING 1945-50), LOW MORTALITY, AND NET IMMIGRATION OF $1,000,000$ PERSONS DURING EACH 5-YEAR PERIOD AFTER JULY 1,1945 , FOR THE UNITED STATES 1950 TO 1975 -Continued

| COLOR, NATIVITY, | population (in thousands) ${ }^{1}$ |  |  |  |  |  |  |  | percent distmbetion |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 1940^{2} \\ & (\text { Census }) \end{aligned}$ | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 | 1940 | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 |
| FOREIGN-BORN WHITE <br> Total, all ages | 11,419 | 10,248 | 9,904 | 9,590 | 9.310 | 9,069 | 8,881 | 8,778 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years 5 to 9 years.. 10 to 14 years 1.5 to 19 years 20 to 24 years. 25 to 29 years. 30 to 34 years. 35 to 39 years. | $\begin{array}{r} 8 \\ 22 \\ 54 \\ 165 \\ 210 \\ 424 \\ 709 \\ 1,048 \end{array}$ | 4 16 30 70 191 240 441 409 | $\begin{array}{r} 18 \\ 50 \\ 86 \\ 158 \\ 367 \\ 428 \\ 349 \\ 470 \end{array}$ | $\begin{array}{r} 18 \\ 65 \\ 121 \\ 214 \\ 454 \\ 603 \\ 535 \\ 379 \end{array}$ | 18 65 135 249 510 690 709 564 | 18 65 135 263 545 746 796 737 | 18 65 135 263 560 781 853 824 | $\begin{array}{r} 18 \\ 65 \\ 65 \\ 136 \\ 264 \\ 576 \\ 788 \\ 888 \\ 881 \end{array}$ | $\begin{aligned} & 0.1 \\ & 0.2 \\ & 0.5 \\ & 1.4 \\ & 1.8 \\ & 3.7 \\ & 6.2 \\ & 9.2 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.3 \\ & 0.7 \\ & 1.9 \\ & 2.3 \\ & 4.3 \\ & 6.9 \end{aligned}$ | 0.2 0.5 0.9 1.9 3.7 4.3 3.5 4.7 | $\begin{aligned} & 0.2 \\ & 0.7 \\ & 1.3 \\ & 2.2 \\ & 4.7 \\ & 6.3 \\ & 5.6 \\ & 4.0 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.7 \\ & 1.5 \\ & 2.7 \\ & 5.5 \\ & 7.4 \\ & 7.6 \\ & 6.1 \end{aligned}$ | 0. 0.7 1.5 1.9 2.9 8.0 8.8 8.8 8.1 | 0.2 0.7 1.5 3.0 6.3 8.8 9.6 9.3 | $\begin{array}{r} 0.2 \\ 0.7 \\ 1.5 \\ 1.5 \\ 3.0 \\ 6.4 \\ 9.1 \\ 10.1 \\ 10.0 \end{array}$ |
|  | 1,263 1,504 1,566 1,319 1,069 813 802 645 64 | 1,034 1,225 1,425 1,452 1,183 901 624 703 | 706 1,014 1,179 1,332 1,298 1,002 698 749 | $\begin{array}{r}472 \\ 700 \\ 985 \\ 1,113 \\ 1,200 \\ 1,116 \\ 789 \\ 824 \\ \hline\end{array}$ | 384 474 688 941 1,015 1,050 891 928 928 | 567 388 472 666 869 901 848 1,052 | $\begin{array}{r}738 \\ 568 \\ 390 \\ 463 \\ 623 \\ 780 \\ 735 \\ 1,085 \\ \hline\end{array}$ | 825 738 566 385 439 565 641 1,014 | 11.1 13.2 13.2 13.7 11.5 9.4 7.1 5.3 5.3 5.6 | 10.1 12.0 13.9 14.9 14.2 1.5 8.8 6.1 6.9 | 7. 7.1 10.2 11.9 13.4 13.1 10.1 7.0 7.6 | 4.0 4.9 7.9 10.3 11.6 12.6 11.6 8.2 8.6 | 4.1 5. 7.4 10.1 10.1 11.3 9.6 9.6 10.0 | $\begin{aligned} & 6.2 \\ & 4.3 \\ & 4.3 \\ & 7.3 \\ & 7.3 \\ & 9.6 \\ & 9.9 \\ & 9.4 \\ & 11.6 \end{aligned}$ | $\begin{array}{r} 8.3 \\ 6.4 \\ 4.4 \\ 4.4 \\ 5.0 \\ 7.0 \\ 8.8 \\ 8.3 \\ 12.2 \end{array}$ | $\begin{array}{r} 9.4 \\ 8.4 \\ 6.5 \\ 6.5 \\ 4.4 \\ 5.0 \\ 6.4 \\ 7.4 \\ 11.5 \end{array}$ |
| 14 years and over Median age (years) ? | 11,351 51.0 | 10,206 54.1 | 9,770 55.5 | ${ }^{9,415} 5$ | $\begin{array}{r} 9,126 \\ 55.9 \end{array}$ | $\begin{array}{r} 8,885 \\ 52.9 \end{array}$ | $\begin{array}{r} 8.697 \\ 46.8 \end{array}$ | $\begin{array}{r} 8,594 \\ 44.7 \end{array}$ | 99.4 | 99.6 | 98.6 | 98.2 | 98.0 | 98.0 | 97.9 | 97.9 |
| Adjusted for censu* underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { All ages } \\ & \text { Under } 5 \text { years. } \end{aligned}$ | 11,420 9 | 10,248 | 9,905 19 | 9,591 19 | 9,311 19 | 9,070 19 | 8,882 19 | $\begin{array}{r} 8,779 \\ 19 \end{array}$ |  |  |  |  |  |  |  |  |
| Male, all ages | 6,011 | 5,334 | 5,124 | 4.948 | 4,805 | 4,698 | 4,635 | 4,634 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years 5 to 9 years. 10 to 14 years 15 to 19 years <br> 20 to 24 years <br> 25 to 29 years. <br> 35 to 39 years | 4 11 27 82 99 194 343 530 | 2 8 8 15 37 98 118 205 343 | 11 30 51 92 225 244 178 207 | $\begin{array}{r} 11 \\ 39 \\ 73 \\ 127 \\ 279 \\ 370 \\ 303 \\ 181 \end{array}$ | 11 39 82 149 314 423 428 305 | 11 39 82 158 336 459 482 429 | 11 39 82 158 345 481 517 483 | 11 39 82 158 345 490 540 518 | 0.1 0.2 0.5 1.4 1.4 1.6 3.2 5.7 8.8 | 0.2 <br> 0.3 <br> 0.7 <br> 1.8 <br> 2.2 <br> 3.8 <br> 6.4 <br>  | 0.2 0.6 1.0 1.8 4.4 4.8 3.5 4.0 | 0.2 0.8 1.5 2.6 2.6 5.6 7.5 6.1 3.7 | 0.2 0.8 1.7 3.1 6.5 8.8 8.9 6.3 | $\begin{array}{r} 0.2 \\ 0.8 \\ 1.7 \\ 3.4 \\ 7.2 \\ 9.8 \\ 10.3 \\ 9.1 \end{array}$ | $\begin{array}{r} 0.2 \\ 0.8 \\ 1.8 \\ 3.4 \\ 7.4 \\ 10.4 \\ 11.4 \\ 11.2 \end{array}$ | $\begin{array}{r} 0.2 \\ 0.8 \\ 1.8 \\ 3.8 \\ 7.4 \\ 70.4 \\ 10.6 \\ 11.6 \\ 11.2 \end{array}$ |
|  | 657 817 883 736 573 423 310 322 | 521 632 764 807 648 472 316 347 | 326 499 598 702 707 537 356 362 | $\begin{aligned} & 194 \\ & 313 \\ & 477 \\ & 555 \\ & 620 \\ & 596 \\ & 412 \\ & 399 \end{aligned}$ | $\begin{aligned} & 169 \\ & 186 \\ & 302 \\ & 448 \\ & 496 \\ & 532 \\ & 465 \\ & 458 \end{aligned}$ | 291 162 181 287 406 432 421 424 524 | 414 282 159 173 263 358 345 526 | 468 404 276 153 153 234 238 288 470 | 10.9 13.6 14.7 14.7 12.2 9.5 7.0 5.2 5.3 | 9.8 11.8 14.3 1.3 1.1 12.2 8.9 5.9 6.5 | 6.4 9.4 11.7 13.7 13.8 10.5 7.0 7.1 | 3.7 3.9 6.3 99.6 11.2 12.5 12.0 8.3 8.1 | 3.5 3.9 6.3 9.3 10.3 11.3 9.1 9.7 9.5 | 6.1 6.2 3.5 3.8 6.1 8.6 9.2 9.0 1.0 1.2 | 8.9 6.1 3.4 3.7 5.7 7.7 7.5 11.3 | 11.2 10.1 8.7 5.9 3.3 3.5 5.5 6.1 10.2 10.1 |
| 14 years and over Median age (years) | $\begin{array}{r} 5,977 \\ 51.4 \end{array}$ | $\begin{array}{r} 5,312 \\ 54.5 \end{array}$ | $\begin{array}{r} 5,044 \\ 55.7 \end{array}$ | 4.843 56.0 | $\begin{array}{r} 4.694 \\ 54.9 \end{array}$ | $\begin{array}{r} 4,587 \\ 47,0 \end{array}$ | $\begin{array}{r} 4,524 \\ 42.5 \end{array}$ | $\begin{array}{r} 4.523 \\ +11.4 \end{array}$ | 99.4 | 99.6 | 98.4 | 97.9 | 97.7 | 97.6 | 97.6 | 97.6 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { All ages } \\ & \text { Under years. } \end{aligned}$ | 6,011 4 | 5,334 | 5,125 11 | 4,948 11 | 4,806 11 | 4,698 11 | $\begin{array}{r} 4,635 \\ 11 \end{array}$ | $\begin{array}{r} 4,635 \\ 11 \end{array}$ |  |  |  |  |  |  |  |  |
| Female all ages | 5,408 | 4,914 | 4,779 | 4.612 | 4,505 | 4,371 | 4,246 | 4,144 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years. oto 9 years 10 to 14 years 20 to 24 years 25 to 29 years. 35 to 39 years | 4 11 27 82 111 231 366 518 | 2 7 14 33 93 122 236 366 | 8 20 35 66 142 184 170 263 | $\begin{array}{r} 8 \\ 26 \\ 48 \\ 87 \\ 175 \\ 233 \\ 232 \\ 198 \end{array}$ | 8 26 54 54 100 296 266 281 259 | 8 26 54 106 209 287 314 308 | $\begin{array}{r} 8 \\ 26 \\ 54 \\ 106 \\ 215 \\ 300 \\ 335 \\ 341 \end{array}$ | $\begin{array}{r} 8 \\ 26 \\ 54 \\ 106 \\ 215 \\ 306 \\ 348 \\ 362 \end{array}$ | $\begin{aligned} & 0.1 \\ & 0.2 \\ & 0.5 \\ & 1.5 \\ & 2.0 \\ & 4.3 \\ & 6.8 \\ & 9.6 \end{aligned}$ | 0.1 0.3 0.7 1.9 2.5 4.8 7.5 | $\begin{aligned} & 0.2 \\ & 0.4 \\ & 0.7 \\ & 1.4 \\ & 3.0 \\ & 3.9 \\ & 3.6 \\ & 5.5 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.6 \\ & 1.0 \\ & 1.9 \\ & 3.8 \\ & 5.0 \\ & 5.0 \\ & 4.3 \end{aligned}$ | 0.2 0.6 1.2 2.2 4.4 5.9 6.2 5.8 5.8 | $\begin{aligned} & 0.2 \\ & 0.6 \\ & 1.2 \\ & 2.4 \\ & 4.8 \\ & 6.6 \\ & 7.2 \\ & 7.0 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.6 \\ & 1.3 \\ & 1.5 \\ & .5 \\ & .1 \\ & 7.1 \\ & 7.9 \\ & 8.0 \end{aligned}$ | 0.2 0.6 1.3 2.6 5. 6 7.4 8.4 8.4 8.7 |
| 40 to 44 years <br> 45 to 49 years <br> 50 to 54 years 55 to 59 years <br> 60 to 64 years <br> 65 to 69 years. <br> 75 years and o | 606 687 682 683 583 496 390 292 323 | $\begin{aligned} & 513 \\ & 593 \\ & 661 \\ & 645 \\ & 535 \\ & 428 \\ & 308 \\ & 356 \end{aligned}$ | $\begin{aligned} & 380 \\ & 515 \\ & 581 \\ & 530 \\ & 591 \\ & \hline 966 \\ & 432 \\ & 388 \end{aligned}$ | $\begin{aligned} & 279 \\ & 386 \\ & 508 \\ & 559 \\ & 589 \\ & 521 \\ & 576 \\ & 3725 \end{aligned}$ | $\begin{aligned} & 215 \\ & 238 \\ & 386 \\ & 493 \\ & 419 \\ & 518 \\ & 426 \\ & 477 \end{aligned}$ | $\begin{aligned} & 276 \\ & 225 \\ & 291 \\ & 299 \\ & 463 \\ & 469 \\ & 469 \\ & \hline 28 \\ & 528 \end{aligned}$ | $\begin{aligned} & 324 \\ & 286 \\ & 281 \\ & 289 \\ & 289 \\ & 360 \\ & 422 \\ & 390 \\ & 559 \end{aligned}$ | $\begin{aligned} & 358 \\ & 334 \\ & 291 \\ & 232 \\ & 278 \\ & 331 \\ & 353 \\ & 544 \end{aligned}$ | $\begin{array}{r} 11.2 \\ 12.7 \\ 12.6 \\ 10.8 \\ 9.2 \\ 7.2 \\ 5.4 \\ 6.4 \end{array}$ | $\begin{array}{r} 10.4 \\ 12.4 \\ 12.4 \\ 13.4 \\ 13.1 \\ 10.9 \\ 8.7 \\ 6.3 \\ 7.3 \end{array}$ | $\begin{array}{r} 7.9 \\ 10.8 \\ 12.2 \\ 13.2 \\ 12.4 \\ 9.7 \\ 7.2 \\ 8.1 \end{array}$ | $\begin{array}{r} 6.0 \\ 8.3 \\ 10.9 \\ 12.0 \\ 12.5 \\ 11.2 \\ 8.1 \\ 9.2 \end{array}$ | $\begin{array}{r} 4.8 \\ 6.4 \\ 8.6 \\ 10.9 \\ 11.5 \\ 11.5 \\ 9.4 \\ 10.4 \end{array}$ | $\begin{array}{r} 6.3 \\ 5.3 \\ 5.7 \\ 6.7 \\ 10.6 \\ 10.7 \\ 9.8 \\ 12.1 \end{array}$ | $\begin{array}{r} 0.0 \\ 7.6 \\ 6.7 \\ 5.4 \\ 6.8 \\ 8.5 \\ 9.9 \\ 9.2 \\ 13.2 \end{array}$ | 8.7 8.6 8.1 7.0 5.6 6.7 8.0 8.5 13.1 |
| 14 years and over Median age (years) | $\begin{array}{r} 5,375 \\ 50,5 \end{array}$ | $\begin{array}{r} 4,895 \\ 53.6 \end{array}$ | $\begin{array}{r} 4,725 \\ \begin{array}{r} 55.2 \end{array} \end{array}$ | 4,572 56.3 | $\begin{array}{r}4.431 \\ 56.8 \\ \hline\end{array}$ | $\begin{array}{r} 4,298 \\ 56.1 \end{array}$ | 4,173 52.8 | $\begin{array}{r} 4,070 \\ 49.3 \end{array}$ | 99.4 | 99.6 | 98.9 | 98.5 | 98.4 | 98.3 | 98.3 | 98.2 |
| Adjusted for census underenumeration of children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All ages. <br> Under 5 years | 5.408 4 | 4,915 2 | 4,780 8 | 4,642 | 4,505 | 4,372 | 4,247 8 | 4.144 |  |  |  |  |  |  |  |  |
| NONWHITE <br> Sameasin table VI |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

${ }^{2}$ Published totals were obtained by rounding computed totals and hence are nativity, age, and sex

## APPENDIX

TAble A.-PROJECTED 5-YEAR SURVIVAL RATES, BY COLOR, NATIVITY, AGE, AND SEX, USED IN COMPUTATION OF FORECASTS OF POPULATION, FOR THE UNITED STATES: 1945-50 TO 1970-75

| COLOR, NATIV- | high mortality assumptions |  |  |  |  |  | MEdium mortality assumptions |  |  |  |  |  | LOW MORTALITY ASSUMPTIONS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OF PERIOD | $\begin{aligned} & 1945- \\ & 1950 \end{aligned}$ | $\begin{aligned} & 1950- \\ & 1955 \end{aligned}$ | $\begin{gathered} 1955- \\ 1960 \end{gathered}$ | $\begin{gathered} 1960- \\ 1965 \end{gathered}$ | $\begin{aligned} & 1965- \\ & 1970 \end{aligned}$ | $\begin{gathered} 1970- \\ 1975 \end{gathered}$ | $\begin{gathered} 1945- \\ 1950 \end{gathered}$ | $\begin{gathered} 1950- \\ 1955 \end{gathered}$ | $\begin{gathered} 1955- \\ 1969 \end{gathered}$ | $\begin{gathered} 1960- \\ 1965 \end{gathered}$ | $\begin{gathered} 1965- \\ 1970 \end{gathered}$ | $\begin{gathered} 1970- \\ 1975 \end{gathered}$ | $\begin{gathered} 1945- \\ 1950 \end{gathered}$ | $\begin{gathered} 1950- \\ 1955 \end{gathered}$ | $\begin{gathered} 1955- \\ 1960 \end{gathered}$ | $\begin{aligned} & 1960- \\ & 1965 \end{aligned}$ | $\begin{aligned} & 1965- \\ & 1970 \end{aligned}$ | $\begin{array}{r} 1970- \\ 1975 \end{array}$ |
| NATIVE WHITE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Births | 958.5 | 962.9 | 966.6 | 968.7 | 969.7 | 970.5 | 958.5 | 962.9 | 966.6 | 969.3 | 971.4 | 973.0 | 958.5 | 962.9 | 966.6 | 969.6 | 972.2 | 974.4 |
| Under 5 years | 998 | 991.9 996.1 | 992.2 996.5 | 992.4 996.7 | 992.5 996.9 | 992.6 997.1 | 991.9 995.7 | 992.6 996.3 | 993.2 996.7 | 993.6 997.2 | 993.9 | 994.0 | 991.9 995.8 | 992.6 996.5 | 993.2 | 993.8 997 | 994.3 998.1 | 994.7 998.4 |
| 10 to 14 years | 994.0 | 994.7 | 995.0 | 995.2 | 995.4 | 995.5 | 994.2 | 994.9 | 995.5 | 995.9 | 996.2 | 996.5 | 994.3 | 995.1 | 995.8 | 996.4 | 996.9 | 997.2 |
| 15 to 19 years | 992.3 | 993.0 | 993,4 | 993.7 | 993.8 | 993.8 | 992.4 | 993.3 | 994.0 | 994.4 | 994.9 | 995.1 | 992.5 | 993.5 | 994.4 | 995.2 | 995.7 | 996.2 |
| 20 to 24 years | 990.0 | 991.0 | 991.6 | 991.9 | 992.2 | 992.3 | 990.1 | 991.3 | 992.1 | 992.8 | 993.3 | 993.8 | 990.4 | 991.6 | 992.8 | 993.7 | 994.4 | 995.0 |
| 25 to 29 years | 988.4 | 989.4 | 990.0 | 990.3 | 990.6 | 990.8 | 988.5 | 989.7 | 990.7 | 991.5 | 992.1 | 992.6 | 988.7 | 990.2 | 991.4 | 992.4 | 993.3 | 994.0 |
| 30 to 34 years | 984.4 | 985.7 | 986.6 | 987.1 | 987.4 | 987.6 | 984.6 | 986.2 | 987.5 | 988.4 | 989.2 | 989.8 | 984.8 | 986.8 | 988.4 | 989.7 | 990.9 | 991.7 |
| 35 to 39 years | 977.7 | 979.3 | 980.5 | 981.3 | 981.8 | 982.1 | 978.1 | 980.3 | 982.1 | 983.3 | 984.4 | 985.2 | 978.4 | 981.3 | 983.5 | 985.2 | 986.7 | 987.9 984.3 |
| 40 to 44 years | 966.1 | 967.9 | 969.1 | 970.1 | 970,8 | 971.1 | 967.9 | 971.8 | 974.9 | 977.0 | 978.3 | 979.2 | 969.0 | 974.3 | 978.4 | 981.3 | 983.2 | 984.3 |
| 45 to 49 years | 948.3 | 949.7 | 950.8 | 951.5 | 952.0 | 952.4 | 950.4 | 954.5 | 958.4 | 961.5 | 963.6 | 964.9 | 952.0 | 958.4 | 964.6 | 969.7 | 973.1 | 975.2 |
| 50 to 54 years | 922.1 | 922.9 | 923.6 | 924.1 | 924.3 | 924.4 | 923.9 | 927.9 | 932.5 | 936.5 | 939.2 | 940.9 | 926.3 | 934.3 | 943.9 | 952.3 | 958.1 | 961.4 |
| 55 to 59 years | 884.1 | 884.2 | 884.3 | 884.4 | 884.5 | 884.5 | 885.5 | 887.7 | 890.7 | 894.2 | 897.6 | 900.3 | 887.6 | 893.5 857.0 | 902.0 | 912.1 | 8921.9 | 929.8 896.3 |
| 60 to 64 years | 833.7 | 833.7 | 833.7 | 833.7 | 833.7 | 833.7 | 835.7 | 838.2 | 840.7 | 843.1 | 844.7 | 845.8 | 844.4 774.9 | 857.0 | 870.1 | 881.7 805.0 | 890.4 811.3 | 896.3 815 |
| 65 to 69 years | 763 | 763.3 | 663.3 | 663.1 | 663.3 | 663.3 | 663.1 | 663.1 | 764.5 663.1 | 663.1 | 663.1 | 663.1 | 670.9 | 678.3 | 684.2 | 688.6 | 691.7 | 693.6 |
| 75 to 79 years | 522.7 | 522.7 | 522.7 | 522.7 | 522.7 | 522.7 | 522.7 | 522.7 | 522.7 | 522.7 | 522.7 | 522.7 | 526.4 | 529.2 | 531.4 | 533.0 | 534.1 | 535.0 |
| 80 to 84 years | 374.9 | 374.9 | 374.9 | 374.9 | 374.9 | 374,9 | 374.9 | 374.9 | 374.9 | 374.9 | 374.9 | 374.9 | 374.9 | 374.9 | 374.9 | 374.9 | 374.9 | 374.9 |
| 85 to 89 years | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 | 241.6 |
| 90 to 94 years | 115.0 | 115.0 | 115.0 | 115.0 | 115,0 | 115.0 | 115.0 | 115.0 | 115.0 | 115.0 | 115.0 | 115.0 | 115.0 | 115.0 | 115.0 | 115.0 | 115.0 | 115.0 |
| Female |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Births | 967.2 | 970.5 | 973.3 | 975.2 | 976.0 | 976.7 | 967.1 | 970.5 | 973.3 | 975.3 | 977.0 | 978.2 | 967.1 | 970.5 | 973.3 | 975.4 | 977.3 | 979.0 |
| Under 5 years | 992.9 | 993.2 | 993.4 | 993.6 | 993.7 | 993.8 | 993.2 | 993.8 | 994.2 | 994.6 | 994.8 | 994.9 | 993.2 | 993.8 | 994.2 | 994.7 | 995.1 | 995.4 |
| 5 to 9 years. | 996.9 | 997.2 | 997.5 | 997.6 | 997.8 | 997.9 | 996.9 | 997.3 | 997.6 | 998.0 | 998.1 | 998.3 | 997.0 | 997.4 | 997.9 | 998.3 | 998.6 | 998.8 |
| 10 to 14 years | 996.6 | 997.0 | 997.1 | 997.2 | 997.4 | 997.4 | 996.7 | 997.0 | 997.4 | 997.6 | 997.7 | 997.9 | 996.7 | 997.1 | 997.5 | 997.8 | 998.1 | 998.3 |
| 15 to 19 years | 994.2 | 994.7 | 995.0 | 995.3 | 995.3 | 995.3 | 994.3 | 994.9 | 995.4 | 995.7 | 996.1 | 996.2 | 994.3 | 995.0 | 995.7 | 996. | 996 | 997.0 |
| 20 to 24 years | 993.0 | 993.7 | 994.1 | 994.3 | 994.5 | 994.6 | 993.0 | 993.8 | 994.4 | 994.9 | 995.2 | 995.5 | 993.2 | 994.0 | 994.8 | 995.4 | 995.9 | 996.3 |
| 25 to 29 years | 991.7 | 992.4 | 992.8 | 993.0 | 993.2 | 993.4 | 991.7 | 992.5 | 993.2 | 993.8 | 994.2 | 994.5 | 991.8 | 992.8 | 993.6 | 994.3 | 995.0 | 995.5 |
| 30 to 34 years | 988.8 | 989.7 | 990.4 | 990.7 | 990.9 | 991.1 | 988.9 | 990.0 | 990.9 | 991.5 | 992. 1 | 992.5 | 989.0 | 990.3 | 991.4 | 992.3 | 993.2 | 993.7 |
| 35 to 39 years | 984.6 | 985.7 | 986.5 | 987.1 | 987.4 | 987.6 | 984.8 | 986.2 | 987.4 | 988.2 | 988.9 | 989.5 | 984.9 | 986.8 | 988.2 | 989.4 | 990.3 | 991.1 |
| 40 to 44 years | 977.7 | 978.9 | 979.7 | 980.4 | 980.8 | 981.0 | 978.8 | 981.3 | 983.3 | 984.6 | 985.4 | 985.9 | 979.4 | 982.8 | 985.4 | 987.2 | 988.4 | 989.0 |
| 45 to 49 years | 966.8 | 967.7 | 968.4 | 968.9 | 969.2 | 969.5 | 968.0 | 970.5 | 972.9 | 974.7 | 976.0 | 976.7 | 968.9 | 972.7 | 976.5 | 979.7 | 981.7 | 983.0 |
| 50 to 54 years | 951.2 | 951.7 | 952.1 | 952.4 | 952.5 | 952.6 | 951.8 | 953.9 | 956.5 | 958.7 | 960.2 | 961.1 | 953.3 | 957.9 | 963.6 | 968.7 | 972.2 | 974.0 |
| 55 to 59 years | 926.0 | 926.0 | 926.1 | 926.2 | 926.2 | 926.2 | 926.5 | 927.5 | 929.0 | 930.9 | 932.7 | 934.2 | 927.4 | 930.4 | 935.3 | 941.3 | 947.2 | 952.0 |
| 60 to 64 years | 884.8 | 884.8 | 884.8 | 884.8 | 884.8 | 884.8 | 885.4 | 886.1 | 886.8 | 887.5 | 888.1 | 888.3 | 891.2 | 899.1 | 907.4 | 914.9 | 920.4 | 923.9 |
| 65 to 69 years | 821.5 | 821.5 | 821.5 | 821.5 | 821.5 | 821.5 | 821.5 | 821.5 | 821.5 | 821.5 | 821.5 | 821.5 | 829.0 728.0 | 836.5 | 843.1 | 848.4 734.0 | 852.2 734.0 | 854.5 734.0 |
| 70 to 74 years | 723.1 | 723.1 | 723.1 | 723.1 | 723.1 | 723.1 | 723.1 | 723.1 | 723.1 | 723.1 | 723.1 | 723.1 | 728.0 580.7 | 732.7 580.7 | 733.1 580.7 | 734.0 580.7 | 734.0 580.7 | 734.0 580.7 |
| 75 to 79 years | 580.7 | 580.7 | 580.7 | 580.7 | 580.7 | 580.7 | 580.7 | 580.7 | 580.7 | 580.7 | 580.7 426.1 | 580.7 426.1 | 580.7 426.1 | 580.7 426.1 | 580.7 426.1 | 580.7 426.1 | 080.7 426.1 | 580.7 426.1 |
| 80 to 84 years | 426. 1 | 426.1 282.7 | $426 . \frac{1}{7}$ | 426.1 | 428. 7 | 426.1 | 426.1 | 426.1 | ${ }_{282}{ }^{426.7}$ | 426. 28.7 | 426. 28 | 420.7 282.7 | 4282.7 | 4282.7 | 4282.7 | 282.7 | 282.7 | 282.7 |
| 85 to 89 years 90 to 94 years | 282.7 | 282.7 | 282.7 | 282.7 145.1 | 282.7 | 145.1 | 282.7 | 145.1 | 145.1 | 145.1 | 145.1 | 145.1 | 145.1 | 145.1 | 145.1 | 145.1 | 145.1 | 145.1 |
| FOREIGNBORN WHITE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 5 years | 991.5 | 991.9 | 992.2 | 992.4 | 992.5 | 992.6 | 991.9 | 992.6 | 993.2 | 993.6 | 993.9 | 994.0 | 991.9 | 992.6 | 993.2 | 993.8 | 994.3 | 994.7 |
| 5 to 9 years.. | 995.7 | 996.1 | 996.5 | 996.7 | 996.9 | 997.1 | 995.7 | 996.3 | 996.7 | 997.2 | 997.4 | 997.7 | 995.8 | 996.5 | 997.2 | 997.7 | 998.1 | 998.4 |
| 10 to 14 years | 994.0 | 994.7 | 995.0 | 995.2 | 995.4 | 995.5 | 994.2 | 994.9 | 995.5 993.0 | ${ }_{9} 995.9$ | 996.2 | 996.5 | 994.3 991 | 995.1 992.4 | 995.8 993.5 | 996.4 | 996.9 995.2 | 997.2 |
| 15 to 19 years | 990.8 | 991.7 | 992.2 | 992.6 | 992.7 991.0 | 992.8 | 991.0 988.4 | 992.19 | 993.0 990.9 | 993.5 991.8 | 994.1 992.4 | 994.4 993.0 | 998.1 | 992.4 990.3 | 993.5 991.8 | 994.5 992.9 | 995.2 993.8 | 994.5 |
| 20 to 24 years | 988.3 | 989.5 988.6 | 990.2 | 990.6 989.6 | 991.0 989.9 | 9990.1 | 9888.4 | 989.9 988.9 | 99 | 990.9 | 991.6 | 992.2 | 987.8 | 989.5 | 990.8 | 991.9 | 992.9 | 993.7 |
| 25 to 29 years | 987.5 | 988.6 985.9 | 989.2 986.8 | 989.6 987.3 | 987.6 | 987.8 | 984.9 | 986.4 | 987.7 | 988.6 | 989.3 | 989.9 | 985.0 | 987.0 | 988.6 | 989.8 | 991.0 | 991.8 |
| 30 to 34 years | 984.7 976.6 | 988.9 978.3 | 986.8 979.6 | 980.5 | 981.0 | 981.3 | 977.1 | 979.4 | 981.3 | 982.6 | 983.8 | 984.7 | 977.4 | 980.5 | 982.9 | 984,7 | 986.3 | 987.6 |
| 35 to 39 years 40 to 44 years | 976.6 961.3 | 978.3 963.5 | 979.0 965.0 | 966.2 | 967.1 | 967.5 | 963.5 | 968.1 | 971.8 | 974.3 | 975.9 | 977.0 | 964.8 | 971.1 | 975.9 | 979.3 | 981.6 | 983.0 |
| 45 to 49 years | 940.1 | 941.9 | 943.3 | 944.3 | 945.1 | 945.7 | 942.7 | 947.7 | 952.5 | 956.4 | 959.0 | 960.7 | 944.7 | 952.5 | 960.0 | 966.1 | 970.2 | 972.8 |
| 50 to 54 years | 911.5 | 912.7 | 913.7 | 914.5 | 915.2 | 915.8 | 913.8 | 918.8 | 924.4 | 929.3 | 932.7 | 934.9 | 916.7 | 926.4 | 937.7 | 947.5 | 954.3 | 958.2 |
| 55 to 59 years | 871.2 | 871.8 | 872.3 | 872.8 | 873.2 | 873.6 | 872.8 | 875.8 | 879.7 | 884.1 | 888.4 | 891.9 | 875.4 | 882.8 | 892.9 | 904.7 | 915.9 | 925.0 |
| 60 to 64 years | 814.6 | 814.6 | 814.6 | 814.6 | 814.6 | 814.6 | 817.7 | 821.3 | 824.9 | 828.4 | 830.9 | 832.9 | 827.7 | 842.8 | 858.2 | 871.8 | 882.1 | 889.3 |
| 65 to 69 years | 740.5 | 740.5 | 740.5 | 740.5 | 740.5 | 740.5 | 742.2 | 743.8 | 745.3 | 746.8 | 748.1 | 749.2 | 754.7 | 768.6 | 781.0 | 791.3 | 799.3 | 805.2 |
| 70 to 74 years | 651.8 | 651.8 | 651.8 | 651.8 | 651.8 | 651.8 | 652.3 | 652.8 | 653.4 | 653.9 | 654.4 | 654.9 | 660.6 | 669.0 | 675.8 | 681.0 | 684.9 | 687.5 |
| 75 to 79 years | 524.7 | 524.7 | 524.7 | 524.7 | 524.7 | 524.7 | 524.7 | 524.7 | 524.7 | 524.7 | 524. | 524.7 | 528.2 | 530.9 | 532.9 | 534.4 | 535.4 | 536.2 |
| 80 to 84 years | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 | 373.2 |
| 85 to 89 years | 237.0 | 237.0 | 237.0 | 237.0 | 237.0 | 237.0 | 237.0 | 237.9 | 237.0 | 237.0 | 237.0 | 237.0 | 237.0 | 237.0 | 237.0 | 237.0 | 237.0 | 237.0 |
| 90 to 94 years | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 | 111.4 |

Table A.-PROJECTED 5-YEAR SURVIVAL RATES, BY COLOR, NATIVITY, AGE, AND SEX, USED IN COMPUTATION OF FORECASTS OF POPULATION, FOR THE UNITED STATES: 1945-50 TO 1970-75-Continued

| COLOR, NATIV | high montality assumptions |  |  |  |  |  | MEDICM MORTALITY ASSUMPTIONS |  |  |  |  |  | Low mortality assumetions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| of period | $\begin{gathered} 1945- \\ 1950 \end{gathered}$ | $\begin{gathered} 1950- \\ 1955 \end{gathered}$ | $\begin{gathered} 1955- \\ 1960 \end{gathered}$ | $\begin{array}{r} 1960- \\ 1965 \end{array}$ | $\begin{gathered} 1965 \\ 1970 \end{gathered}$ | $\begin{gathered} 1970- \\ 1975 \end{gathered}$ | $\begin{array}{r} 1945 \\ 1950 \end{array}$ | $\begin{array}{r} 1950 \\ 1955 \end{array}$ | $\begin{gathered} 1955- \\ 1960 \end{gathered}$ | $\begin{gathered} 1960- \\ 1965 \end{gathered}$ | $\begin{gathered} 1965- \\ 1970 \end{gathered}$ | $\begin{gathered} 1970- \\ 1975 \end{gathered}$ | $\begin{aligned} & 1945- \\ & 1950 \end{aligned}$ | $\begin{gathered} 1950- \\ 1955 \end{gathered}$ | $\begin{aligned} & 1955- \\ & 1960 \end{aligned}$ | $\begin{gathered} 1960- \\ 1965 \end{gathered}$ | $\begin{gathered} 1965- \\ 1970 \end{gathered}$ | $\begin{array}{r} 1970 \\ 1975 \end{array}$ |
| FOREIGNBORN WHITE Con. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 5 years | 992.9 | 993.2 | 993.4 | 993.6 | 993.7 | 993.8 | 993.2 | 993.8 | 994.2 | 994.6 | 994.8 | 994.9 | 993.2 | 993.8 | 994.2 | 994.7 | 995. 1 | 995.4 |
| 5 to 9 years... | 996.9 | 997.2 | 997.5 | 997.6 | 997.8 | 997.9 | 996.9 | 997.3 | 997.6 | 998.0 | 998.1 | 998.3 | 997.0 | 997, 4 | 997.9 | 998.3 | 998.6 | 998.8 |
| 10 to 14 years | 996.6 | 997.0 | 997.1 | 997.2 | 997.4 | 997.4 | 996.7 | 997.0 | 997.4 | 997.6 | 997.7 | 997.9 | 996.7 | 997.1 | 997.5 | 997.8 | 998.1 | 998.3 |
| 15 to 19 years | 992.7 | 993.4 | 993.8 | 994.2 | 994.2 | 994.3 | 992.9 | 993.7 | 994.4 | 994.8 | 995.3 | 995.5 | 992.9 | 993.9 | 994.8 | 995.5 | 996.1 | 996.5 |
| 20 to 24 years | 992.1 | 992.9 | 993.3 | 993.6 | 993.9 | 994.0 | 992.1 | 993.1 | 993.7 | 994.3 | 994.7 | 995.1 | 992.3 | 993.3 | 994.3 | 995.0 | 995.6 | 996.0 |
| 25 to 29 years | 991.0 | 991.8 | 992.2 | 992.5 | 992.7 | 992.9 | 991.0 | 991.9 | 992.7 | 993.3 | 993.8 | 994.2 | 991.1 | 992.3 | 993.2 | 994.0 | 994.7 | 995.2 |
| 30 to 34 years | 988.3 | 989.3 | 989.9 | 990.3 | 990.6 | 990.7 | 988.5 | 989.6 | 990.5 | 991.2 | 991.7 | 992.1 | 988.3 | 990.0 | 991.1 | 992.0 | 992.9 | 993.5 |
| 35 to 39 years | 983.4 | 984.6 | 985.5 | 986.1 | 986.5 | 986.7 | 983.7 | 985.2 | 986.5 | 987.4 | 988.2 | 988.8 | 983.8 | 985.9 | 987.5 | 988.7 | 989.8 | 990.7 |
| 40 to 44 years | 974.1 | 975.6 | 976.6 | 977.4 | 978.0 | 978.3 | 975.5 | 978.5 | 980.9 | 982.5 | 983.5 | 984.2 | 976.2 | 980.3 | 983.4 | 985.6 | 987.1 | 987.9 |
| 45 to 49 years | 959.7 | 960.9 | 961.9 | 962.5 | 963.1 | 963.5 | 961.3 | 964.5 | 967.6 | 970.1 | 971.7 | 972.8 | 962.4 | 967.4 | 972.3 | 976.3 | 978.9 | 980.5 |
| 50 to 54 years | 938.1 | 939.0 | 939.7 | 940.2 | 940.7 | 941.1 | 939.5 | 942.7 | 946.4 | 949.6 | 951.8 | 953.2 | 941.2 | 947.6 | 955.2 | 961.9 | 966.5 | 969, 1 |
| 55 to 59 years 60 to 64 years | 906.4 855.6 | 906.8 855.6 | 907.2 <br> 855 <br> 88 | 907.6 855.6 | 907.9 | 908.2 | 907.2 | 909.0 | 811.5 | 914.4 | 917.2 | 919.4 | 908.7 | 913.4 | 920.2 | 928.4 | 936.2 | 942.7 |
| 60 to 64 years 65 to 69 years | 855.6 782.5 | 855.6 782.5 | 855.6 782.5 | 855.6 782.5 | 855.6 782.5 | 855.6 | 857.5 782.5 | 859.9 782.5 | 862.2 | 864.5 | 866.0 | 867.2 | 864.9 | 875.9 | 887.3 | 897.4 | 905.0 | 910.2 |
| 70 to 74 years | 691.8 | 691.8 | 691.8 | 691.8 | 782.5 | 782.5 | 782.5 | 782.5 | 782.5 | 782.5 | 782.5 | 782.5 | 793.4 | 804.1 | 813.7 | 821.6 | 827.5 | 831.8 |
| 75 to 79 years | 565.7 | 565.7 | 565.7 | 565.7 | 565.7 | 565.7 | 565.7 | 565.7 | 565.7 | 565.7 | 565.7 | 595.8 | 698.7 | 765.0 | 710.0 | 765.7 | 716.2 | 716.6 |
| 80 to 84 years | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 | 406.2 |
| 85 to 89 years | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 |
| 90 to 94 years | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 | 124.1 |
| NONWHITE <br> Male |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Births | $926.0$ | 934.5 | 941.7 | 945.9 | 948.2 | 950.1 | 926.8 | 935.9 | 943.5 | 949.2 | 953.7 | 957.3 | 927.5 | 937.2 | 945.3 | 951.9 | 957.5 |  |
| Under 5 years | $985.0$ | 985.9 | 986.6 | 987.0 | 987.3 | 987.6 | 985.9 | 987.4 | 988.6 | 989.5 | 990.2 | 990.6 | 986.0 | 987.6 | 989.0 | 990.3 | 991.4 | 992.3 |
| 5 to 9 years... 10 to 14 years | 998.4 | ${ }^{994.1}$ | 994.7 | 995.1 991.3 | 995.4 | 995.7 992.0 | 993.5 | 994.5 | 995.1 | 995.9 | 996.3 | 996.8 | 993.7 | 994.8 | 996.0 | 996.8 | 997.4 | 997.9 |
| 15 to 19 years | 979.3 | 981.5 | 982.8 | 983.8 | 984.3 | 9984.6 | 989.2 | ${ }^{990} 982.8$ | 992.0 985.0 | 992.9 | 993.6 | 994.2 | 989.5 | 991.3 | 992.8 | 994.1 | 995.1 | 995.7 |
| 20 to 24 years | 970.2 | 973.6 | 975.7 | 977.0 | 978.2 | 978.8 | 971.0 | 975.3 | 978.3 | 986.5 980.9 | 988.1 | 988.9 984.7 | 980.4 | 983.8 | 986.7 | 989.2 | 990.8 | 992.3 |
| 25 to 29 years | 963.9 | 967.6 | 969.9 | 971.3 | 972.6 | 973.6 | 964.8 | 969.5 | 973.4 | 980.9 976.5 | 982.8 978.9 | 981.0 | 972.3 966.0 | 976.9 971.9 | 981.2 | 984 | 986.9 | 989.0 |
| 30 to 34 years | 955.0 | 959.4 | 962.6 | 964.5 | 965.9 | 967.0 | 956.3 | 962.0 | 966.7 | 970.1 | 973.1 | 975.5 | 957.5 |  | 976.6 | 980.5 | 983.8 979.3 | 986.3 |
| 35 to 39 years | 941.3 | 946.3 | 950.1 | 952.9 | 954.8 | 956.3 | 943.1 | 950.4 | 956.3 | 960.5 | 964.2 | 967.2 | 944.7 | 964.8 954.3 | 970.6 961.6 | 975.3 967.2 | 979.3 972.0 | 982.3 975.9 |
| 40 to 44 years | 917.6 | 923.0 | 926.9 | 930.3 | 932.9 | 934.5 | 923.0 | 934.2 | 943.1 | 949.4 | 953.7 | 957.0 | 926.7 | 941.8 | 961.6 953.2 | 967.2 961.4 | 972.0 967.0 | $\begin{aligned} & 975.9 \\ & 970.7 \end{aligned}$ |
|  | 883.2 | 887.8 | 891.7 | 894.7 | 897.2 | 899.4 | 889.4 | 901.2 | 912.1 | 920.9 | 927.3 | 932.0 | 894.4 |  |  |  |  |  |
| 50 to 54 years 55 to 59 years | 850.2 821.8 | 853,4 823.5 | 856.4 | 858.9 | 861.3 | 863.5 | 855.3 | 866.0 | 877.4 | 887.4 | 894.8 | 900.3 | 861.4 | 880.7 | 928.3 901.8 | 941.3 919.5 | 950.2 932.0 | 956.3 939.9 |
| 55 to 59 years 60 to 64 years | 821.8 | 823.5 769.1 | 825.3 769.1 | 827.1 769.1 | 828,6 769 | 830.1 | 824.9 | 831.1 | 838.4 | 846.2 | 853.7 | 860.1 | 829.5 | 842.5 | 858.8 | 876.7 | 893.4 | 906.8 |
| 65 to 69 years | 702.9 | 702.9 | 702.9 | 769.9 | 769.1 | 769.1 | 774.8 706.4 | 781.1 | 787.3 | 793.2 | 798.1 | 802.2 | 788.1 | 809.0 | 830.0 | 848.3 | 862.3 | 872.5 |
| 70 to 74 years | 647.9 | 647.9 | 647.9 | 647.9 | 647.9 | 647.9 | 706.4 648.6 | 709.7 649.3 | 650.0 | 716.3 650.7 | 719.3 6513 | 722.1 652.0 | 721.4 | 739.3 | 755.3 | 768.8 | 779.6 | 787.9 |
| 75 to 79 years | 585.2 | 585.2 | 585.2 | 585.2 | 585.2 | 585.2 | 585.2 | 649.3 | 650.0 585.2 | 5585 | 651.3 585.2 | 652.0 | 657.1 | 665.8 585.2 | 672.9 | 678.4 | 682.5 | 685.4 |
| 80 to 84 years | 493.4 | 493.4 | 493.4 | 493.4 | 493.4 | 493.4 | 493.4 | 493.4 | 493.4 | 493.4 | 493.4 | 585.2 493.4 | 585.2 493 | 585.2 | 585.2 | 585.2 | 585.2 | 585.2 |
| 85 to 89 years | 366.9 | 366.9 | 366.9 | 366.9 | 366.9 | 366.9 | 366.9 | 366.9 | 366.9 | 366.9 | 366.9 | 366.9 | 396.9 | 493.4 366.9 | 493.4 366.9 | 493.4 | 493.4 | 493.4 |
| 90 to 94 years | 201.4 | 201.4 | 201.4 | 201.4 | 201.4 | 201.4 | 201.4 | 201.4 | 201.4 | 201.4 | 201.4 | 366.9 201.4 | 366.9 201.4 | 368.9 201.4 | $\begin{aligned} & 366.9 \\ & 201.4 \end{aligned}$ | $\begin{aligned} & 366.9 \\ & 201.4 \end{aligned}$ | $\begin{aligned} & 366.9 \\ & 201.4 \end{aligned}$ | $\begin{aligned} & 366.9 \\ & 201.4 \end{aligned}$ |
| Female |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Births | 939.1 | 946.1 | 952.0 | 955.5 | 957.3 |  |  | 946.9 |  |  | 961.4 | 964.3 |  |  |  |  |  |  |
| Under 5 years | 986.9 994.3 | 987.7 994 | 988.3 | 988.6 | 988.9 | 989.2 | 987.6 | 988.9 | 990.0 | 990.7 | 999 | 991.7 | ${ }^{984} 9.7$ | 947.7 989.1 | 954.2 990.3 | $\begin{aligned} & 959.5 \\ & 991.4 \end{aligned}$ | $\begin{aligned} & 964,0 \\ & 992.3 \end{aligned}$ |  |
| 5 5to 9 years... | 994.3 988.6 | 994.9 990.1 | 995.4 990.7 | 995.8 991.2 | 996.0 991.6 | 996.3 991.9 | 994.4 | 995.2 990.6 | 995.7 991.9 | 996.4 | 996.8 | 997.2 | 994.5 | 995.5 | 996.5 | 997.2 | 992.3 997.7 | ${ }^{993} 98.1$ |
| 15 to 19 years | 979.6 | 981.7 | 983.0 | 9984.0 | 9984.6 |  | 989.1 | 990.6 983.0 | 991.9 985.2 | 992.8 | 993.6 988.2 | 994.2 989.0 | 989.4 980 | 991.2 | 992.7 | 994.1 | 995. 1 | 995.7 |
| 20 to 24 years | 974.3 | 977.3 | 979.1 | 980.2 | 981.2 | 981.7 | 975.0 | 978.6 | 981.2 | 983.4 | 988.2 985.0 | 989.0 | 980.6 976.1 | 984.0 979 | 986.9 | 989.3 | 990.9 | 992.4 |
| 25 to 29 years | 969.8 | 972.9 | 974.8 | 976.0 | 977.1 | 977.9 | 970.5 | 974.3 | 977.6 | 980.1 | 982.1 | 983.9 | 971 | 979.9 976.2 | 983.6 | 986.3 | 988.5 | 990.3 |
| 30 to 34 years | 961.2 | 965.0 | 967.8 | 969.4 | 970.6 | 971.6 | 962.3 | 967.1 | 971.1 | 974.0 | 976.6 | 978.6 | 971.4 963.2 | 976.2 969.4 | 980.1 | 983.4 978.4 | 986, 1 | 988.2 |
| 35 to 39 years | 948.5 | 952.9 | 956.2 | 958.7 | 960.3 | 961.7 | 950.0 | 956.3 | 961.4 | 965.1 | 968.3 | 970.9 | 951.3 | 969.4 959.6 | 974.4 965.9 | 978.4 970.8 | 981.8 975.0 | $981.4$ |
| 40 to 44 years | 930.0 | 934.6 | 937.9 | 940.8 | 943.0 | 944.4 | 934.4 | 943.8 | 951.3 | 956.6 | 960.2 | 963.0 | 937.4 | 950.1 | 965.9 959.7 | 970.8 966.6 | 975.0 971.3 | $\begin{aligned} & 978.4 \\ & 974.4 \end{aligned}$ |
| 45 to 49 years 50 to 54 50 | 902.0 | 905.8 | 909.1 | 911.6 | 913.7 | 915.6 | 906.9 | 916.7 | 925.7 | 933.0 | 938.2 | 942.1 | 910.9 |  |  |  |  |  |
| 50 to 54 years | 868.3 837.9 | 871.1 | 873.8 | 876.0 | 878.1 | 880.0 | 872.6 | 881.8 | 891.6 | 900.3 | 906.7 | 911.4 | 877.7 | 894.4 | 912.7 | 949.8 | 937.2 | 962.2 946.0 |
| 60 to 64 years | 794.2 | 839.5 794.2 | 841.1 794.2 | 842.7 794.2 | 844. ${ }^{894}$ | 845.5 794.2 | 840.5 799 | 846.0 804 | 852.4 | 859.3 | 866.0 | 871.7 | 844.5 | 856.0 | 870.5 | 886.6 | 901.7 | 946.0 913.8 |
| 65 to 69 years | 749.3 | 749.3 | 749.3 | 749.3 | 749.3 | 749.3 | 749.3 | 749.3 | 809.5 749.3 | 814.5 749.3 | 818.6 749.3 | 821.9 749 | 810.5 763 | 828.6 | 847.0 | 863.0 | 875.2 | 884.1 |
| 70 to 74 years. | 716.1 | 716.1 | 716.1 | 716.1 | 716.1 | 716.1 | 716.1 | 716.1 | 716.1 | 716.1 | 716.1 | 716.1 | 723.8 | 777.9 727.3 | 790.6 7315 | 801.2 | 809.5 | 815.8 |
| 75 to 79 years | 674.4 | 674.4 | 674.4 | 674.4 | 674.4 | 674.4 | 674.4 | 674.4 | 674.4 | 674.4 | 674.4 | 674.4 | 674.4 | 674.4 | 731.5 | 734.5 | 734.7 | 734.7 |
| 80 to 84 years | 604.6 | 604.6 | 604.6 | 604.6 | 604.6 | 604.6 | 604.6 | 604.6 | 604.6 | 604.6 | 604.6 | 604.6 | 604.6 | 604.6 | 674.4 604.6 | 674.4 | 674.4 | 674.4 |
| 85 to 89 years | 515.4 | 515.4 | 515.4 | 515.4 | 515.4 | 515.4 | 515.4 | 515.4 | 515.4 | 515.4 | 515.4 | 515.4 | 515.4 | 604.6 515.4 | 604.6 515.4 | 604. 6 | 604.6 | 604, 6 |
| 90 to 94 years | 341.5 | 341.5 | 341.5 | 341.5 | 341.5 | 341.5 | 341.5 | 341.5 | 341.5 | 341.5 | 341.5 | 341.5 | 341. 5 | 510.4 341.5 | 515.4 341.5 | 515.4 341.5 | 515.4 341.5 | $\begin{aligned} & 515.4 \\ & 341,5 \end{aligned}$ |

TABLE B.-PROJECTED 5-YEAR BIRTH RATES, BY COLOR, NATIVITY AND AGE OF MOTHER, USED IN COMPUTATION OF FORECASTS OF POPULATION, FOR THE UNITED STATES: 1950-55 TO 1970-75
(Births in a 5 -year period per 1,000 women alive at the end of the period. The "total" lines indicate the number of births per 1,000 women living to age 50 on the assumption that the women dying before age 50 have the same birth rate at each age of life as the women living to age 50

| COLOR, NATIVITY, AND <br> AGE OR WOMAN <br> AT END OF PERIOD | LOW FERTILITY ASSUMPTIONS |  |  |  |  | MEDIUM FERTILITY ASSUMPTIONS |  |  |  |  | High eertility assumptions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950-55 | 1955-60 | 1960-65 | 1965-70 | 1970-75 | 1950-55 | 1955-60 | 1960-65 | 1965-70 | 1970-75 | 1950-55 | 1955-60 | 1960-65 | 1965-70 | 1970-75 |
| NATIVE WHITE <br> Total, 15 to 49 years. | 1,918.9 | 1,829.1 | 1.746.4 | 1,669.5 | 1,625.9 | 2,121,7 | 2,073.5 | 2,033.2 | 2,000.6 | 1,970.9 | 2,334.0 | 2,334.0 | 2,334.0 | 2,334.0 | 2,334.0 |
| 15 to 19 years 20 ta 24 years 25 th 29 years 30 to 34 years 35 to 39 years 40 to 44 years 45 to 49 years | 59.6 437.8 615.0 423.5 240.6 114.4 28.0 | 57.4 430.6 607.3 394.5 21.5 99.5 24.4 | 55.3 423.4 599.7 367.4 192.8 86.6 21.2 | 53.2 416.4 592.3 342.2 171.6 75.4 18.4 | 52.6 414.1 589.8 334.2 153.6 65.6 16.0 | 66.1 481.7 661.1 481.6 276.9 124.8 29.5 | $\begin{array}{r} 65.2 \\ 481.0 \\ 659.5 \\ +66.9 \\ 261.5 \\ 113.2 \\ 26.2 \end{array}$ | 64.3 480.4 658.1 457.2 247.6 102.5 23.1 | 63.3 479.9 656.9 448.6 236.5 94.5 20.9 | 63.2 479.5 655.9 441.1 225.0 87.2 19.0 | 73.1 523.8 709.0 544.6 316.3 136.1 31.1 | 73.6 532.5 715.3 544.9 311.6 28.1 | 74.0 <br> 541.4 721.5 <br> 545.2 <br> 307.0 <br> 25, 1 | 74.3 547.3 725.7 545.5 302.3 115.2 23.7 | $\begin{array}{r} 74.7 \\ 553.2 \\ 729.9 \\ 545.7 \\ 297.6 \\ 110.6 \\ 22.3 \end{array}$ |
| FOREIGN-BORN WHITE | 2,035.0 | 1.931.6 | 1,335.6 | 1,746.4 | 1,694.2 | 2,229.9 | 2,171.0 | 2,122.7 | 2,082.6 | 2,045.8 | 2,417.3 | 2,408.3 | 2,399.6 | 2,391.2 | 2,388.5 |
| 15 to 19 years 20 to 24 years. <br> 25 to 29 years. <br> 30 to 34 years <br> 35 to 39 years <br> 40 to 44 years <br> 45 to 49 years | $\begin{array}{r} 54.6 \\ 456.0 \\ 666.4 \\ 474.6 \\ 247.7 \\ 109.9 \\ 25.8 \end{array}$ | 52.9 447.8 653.4 437.8 221.2 95.8 22.7 | 51.4 438.4 640.7 404.2 197.5 83.6 19.8 | $\begin{array}{r} 49.7 \\ 429.6 \\ 628.8 \\ 372.8 \\ 175.2 \\ 73.0 \\ 17.3 \end{array}$ | 49.5 425.7 -622.3 361.3 156.5 63.8 15.1 | 59.3 492.7 708.6 536.9 285.4 119.8 27.2 | $\begin{array}{r} 58.8 \\ 491.0 \\ 702.9 \\ 516.3 \\ 268.8 \\ 108.9 \\ 24.3 \end{array}$ | $\begin{array}{r} 58.4 \\ 489.3 \\ 698.6 \\ 502.2 \\ 253.9 \\ 98.8 \\ 21.5 \end{array}$ | 57.9 488.3 693.9 489.5 242.0 91.4 19.6 | 57.9 487.2 690.1 478.2 230.0 84.5 17.9 | $\begin{array}{r} 65.0 \\ 523.8 \\ 746.8 \\ 600.4 \\ 325.1 \\ 128.3 \\ 27.9 \end{array}$ | $\begin{array}{r} 66.2 \\ 532.6 \\ 749.6 \\ 596.3 \\ 319.1 \\ 119.6 \\ 24.9 \end{array}$ | $\begin{array}{r} 67.5 \\ 541.4 \\ 752.4 \\ 592.2 \\ 313.1 \\ 111.0 \\ 22.0 \end{array}$ | $\begin{array}{r} 68.3 \\ 547.3 \\ 754.3 \\ 588.2 \\ 307.1 \\ 108.0 \\ 21.0 \end{array}$ | $\begin{array}{r} 69.2 \\ 553.1 \\ 756.1 \\ 581.1 \\ 301.0 \\ 105.0 \\ 20.0 \end{array}$ |
| NONWHITE <br> Total, 15 to 49 years $\qquad$ | 2,399.6 | 2,251.1 | 2,114.6 | 1,988.7 | 1,904.6 | 2,669.1 | 2,573,2 | 2,490.6 | 2,416.7 | 2,349.3 | 2,919.3 | 2,918.6 | 2,888.0 | 2,857.1 | 2,826.4 |
| 15 to 19 years | 210.2 | 190.4 | 171.9 | 154.5 | 142.2 | 238.2 | 223.5 | 209.5 | 195.5 | 184.6 | 268.5 | 260.1 | 251.4 | 242.3 | 233.5 |
| 20 to 24 years. | 705.7 | 670.8 | 637.3 | 605.4 | 581.4 | 786.4 | 763.8 | 742.2 | 721.2 | 701.0 | 864.2 | 860.0 | 855.7 | 846.5 | 77. |
| 25 to 29 years. | 663.1 | 648.6 | 634.8 | 621.8 | 614.7 | 716.3 | 708.9 | 703.4 | 697.6 | 692.4 | 770.2 | 772.8 | 775.4 | 776.0 | 776.7 |
| 30 to 34 years. | 408.3 | 380.0 | 353.8 | 329.7 | 322.5 | 464.9 | 450.5 | 441.6 | 433.8 | 426.8 | 526.0 | 526.4 | 526.9 | 527.6 | 528.3 |
| 35 to 39 years. | 235.5 | 210.4 | 188.0 | 167.2 | 149.7 | 270.9 | 255.4 | 241.9 | 231.1 | 219.9 | 310.3 | 305.6 | 301.0 | 296.4 | 291.7 |
| 40 to 44 years. | 138.0 | 117.9 | 100.9 | 86.5 | 74.1 | 151.2 | 135.2 | 121.0 | 110.0 | 100.2 | 166.2 | 154.7 | 143.3 | 136.4 | 129.6 |
| 45 to 49 years. | 38.8 | 33.0 | 27.9 | 23.6 | 20.0 | 41.2 | 35.9 | 31.0 | 27.5 | 24.4 | 43.9 | 39.0 | 34,3 | 31.9 | 29.5 |

Table C.-ADDITIONS By Nativity, AGE, AND SEX, MADE IN FORECASTS OF THE White POPULATION OF THE UNITED STATES TO ALLOW FOR NET IMMIGRATION OF 500,000 WHITE PERSONS DURING EACH 5-YEAR PERIOD AFTER JULY 1, 1945, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY: 1950 TO 1975
(Figures in thousands. Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum
of the rounded figures shown by nativity, age, and sex. It is assumed that there are no births or deaths among immigrants in the
5 -year period in which they enter. A minus sign ( - denotes loss resulting from net emigration)


[^78]Table D.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1980 TO 2000


[^79] nativity, age, and sex.

Table D.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1980 TO 2000-Continued


[^80]nativity, age, and sex.

Table D.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1980 TO 2000-Continued


[^81] nativity, age, and sex.

Table D.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1980 TO 2000-Continued


[^82]TAble D.-FORECASTS OF THE POPULATION, BY COLOR, NATIVITY, AGE, AND SEX, ACCORDING TO ASSUMPTIONS OF MEDIUM FERTILITY AND MORTALITY AND NO IMMIGRATION AFTER JULY 1, 1945, FOR THE UNITED STATES: 1980 TO 2000-Continued


[^83]
[^0]:    Hon. W. Averell Harriman, Secretary of Commerce.

[^1]:    ${ }^{1}$ This report contained the third set of estimates prepared for the Board by Thompson and Whelpton. For the first and second sets, see National Resources Committee, Estimates of Future Population by States, 1934; Population Statistics, 1. National Data, 1937; and The Problems of a Changing Population, 1938, pp. 22-27.
    2The excess of arrivals over departures, excluding military personnel, from April 1, 1940, to April 1, 1945, amounted to 526,376, including 135,061 for immigrant aliens, 145,934 for nonimmigrant aliens, and 245,381 for citizens.

[^2]:    ${ }^{3}$ The forecasts of population according to the assumptions of medium fertility, medium mortality, and no immigration were extended to the year 2000 after the report had almost been completed. To have incorporated these materials in the text and population tables would have delayed the publication of the report; hence the forecasts for 1980 to 2000 are shown only in a single text table and in an appendix table.

[^3]:    'For illustrations of the use of population forecasts in estimating the number of families and the labor force for future years, see Bureau of the Census, "Estimates of Number of Families in the United States: 1940 to 1960." Population-Special Reports, Series P-46. No. 4. June 1, 1946, and "Normal Growth of the Labor Force in the United States: 1940 to 1950," Population-Special Reports, Series P-44, No. 12, June 12, 1944.

[^4]:    ${ }^{1}$ Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Indiana, Michigan, and the District of Columbia.
    ${ }^{2}$ Bureau of the Census, United States Life Tables, Government Printing Office, Washington, 1936.
    ${ }^{3}$ Death rates and values for average future lifetime are estimated from Bureau of the Census, United States Abridged Life Tables, 1919-20, Govern-

[^5]:    ment Printing Office, Washington, 1923
    ${ }^{4}$ Bureau of the Census, "United States Life Tables, 1939-41," Vital Statistics-Special Reports, vol. 19, No. 4, Washington, January, 1944. ${ }^{5}$ Unpublished life tables of the Bureau of the Census.
    ${ }^{6}$ Rates are central death rates at ages 5-9 and older and approximate central death rates at ages under 1 and $1-4$. They are computed from official life tables by dividing the approximate $\mathrm{d}_{\mathrm{x}}$ values by $\mathrm{L}_{\mathrm{x}}$ values

[^6]:    ${ }^{1}$ The 1940-44 data are for nonwhite persons, but since 95 percent are Negroes the data for them would be almost the same.

[^7]:    2Because of the large amount of civilian interstate migration during 1941-44 and the military mobilization of millions of men, it is difficult to estimate accurately the population of each State in years after 1940. Consequently, discussion of recent State differentials in mortality is limited to 1940 .

[^8]:    foreign countres are taken from Poplation Index,

[^9]:    ${ }^{3}$ The foregoing and following statements regarding death rate trends from 1900-1902 to 1939-41 based on table 9 are probably not distorted appreciably by the inclusion of nonwhite persons in the earlier periods but their exclusion in the later periods, since excluding nonwhite persons lowers the death rate for all causes only slightly, from $1,636.2$ to $1,620.4$ in 19001902 and from $1,427.7$ to $1,405.1$ in 1909-11. The changes in the registration area have probably exaggerated the declines somewhat, for the death rates in the registration States of 1900-1902 and in the current death registration States for the periods in question are, respectively, as follows: All classes, 1909-11, 1,517.7 and 1,427.7; white, 1919-21, 1,304.0 and 1,203.8; 1929-31, 1,152.1 and 1,088.9; and 1939-41, 1,097.8 and 1,027.6.

[^10]:    ${ }^{+}$Also referred to as apoplexy.
    5 For example, deaths attributed to senility have dropped from 47.9 to 6.5 per 100,000 persons.

[^11]:    ${ }^{6}$ These years were chosen because 1940 was the latest year for which data were available when the report, Estimates of Future Population of the United States, 1940-2000, was prepared for the National Resources Planning Board, and 2000 was the last year of the period dealt with in that report.

[^12]:    TWhile accepting full responsibility for the mortality assumptions that were used in the report, Estimates of Future Population of the United States, $1940-2000$, Thompson and Whelpton expressed their appreciation for suggestions received from W. R. Williamson of the Social Security Board, Leon E. Truesdell and Halbert L. Dunn of the Bureau of the Census, and Harold F. Dorn of the United States Public Health Service.

[^13]:    8It should be remembered that these are central death rates (the number of deaths under 1 divided by the midyear population under 1) and not infant mortality rates (the number of deaths under 1 divided by the number of births).

[^14]:    ${ }^{9}$ When the previous report was written (in the autumn of 1942) there was no adequate basis for estimating how many deaths would be caused by the war. For this reason war deaths were ignored in making the mortality assumptions, and special tables were prepared to show the amount to be deducted from the future population to allow for the war deaths of

[^15]:    1 Adjusted for underregistration; excludes excess deaths resulting from
    the war.
    2Includes survivors of children born between Apr. 1, 1940, and Apr. 1,

[^16]:    ${ }^{10}$ The comparison is between death rates representing the number of deaths between Apr. 1, 1940, and Apr. 1, 1945, per 1,000 persons grouped by age on Apr. 1, 1940. These rates are comparable to those computed from a life table by the formula $1,000-1,000 \frac{5 \mathrm{LX}+5}{5 \mathrm{~L} x}$

[^17]:    ${ }^{11}$ The larger differences at certain other ages, e.g., ages $80-84$, have a much less important effect on the forecasts because of the much smaller number of persons involved.

[^18]:    ${ }^{12}$ In most instances the relative divergence is reduced one-eleventh in each 5-year period (there being 12 such periods from 1940-45 to 1995-2000, inclusive). Thus, if the currently estimated rate for 1940-45 is 11 percent higher than the projected rate, the revised rates are obtained by increasing the previous forecast for $1945-50$ by 10 percent, for $1950-55$ by 9 percent, etc. In a few cases, however, the convergence is accelerated in order to avoid a rate between $1940-45$ and 2000 below the estimate for 2000 .
    ${ }^{13}$ The 5 -year survival rates actually used in the computation of forecasts to 1975 are given in appendix table A for each 5 -year period, 1945-50 to 1970-75, by color, nativity, age, and sex.

[^19]:    ${ }^{14}$ Adding the age-specific birth rates per 1.000 women by 5 -year age groups and dividing by 2 gives the average number of births per 100 women living through the childbearing period subject to those rates. Multiplying this figure by the percent of babies that are girls gives the conventional gross reproduction rate per 100 women. In computing both types of rates it is assumed that the women who die before the end of the childbearing period have the same age-specific birth rates prior to death as the women who live to the end of the childbearing period.

[^20]:    1The question as to number of children ever born was not asked of single women in the 1940 census.
    ${ }^{2}$ No adjustment has been made for understatement of the number of children born to ever married (i.e., married, widowed, and divorced) women for whom this question was answered. It is assumed that ever married women for whom the question was not answered were distributed by number of children ever born like other ever married women of the
    same age.
    ${ }^{3}$ From Bureau of the Census, Population-Differential Fertility, 1940 and 1910-Women by Number of Children Ever Born, Government Printing Office, Washington, 1945, pp. 7 and 9 .
    ${ }^{4}$ From Bureau of the Census, Population-Differential Fertility, 1940 and 1910-Fertility for States and Large Cities, Government Printing Office, Washington, 1943, pp. 7 and 10.

[^21]:    ${ }^{16}$ The exceptionally large increase in births in the last half of 1946 probably occurred primarily because of demobilization, and affected age-specific birth rates for women under 30 in greater degree than those for women 30 or older. The extent of this differential cannot be determined accurately until early in 1948.
    ${ }^{17}$ Bureau of the Census, Population-Differential Fertility, 1940 and 1910 -Fertility for States and Large Cities, Government Printing Office, Washington, 1943; Population-Differential Fertility, 1940 and 1910-Women by Number of Children Under 5 Years Old, Government Printing Office, Washington, 1945; Population-Differential Fertility, 1940 and 1910-Women by Number of Children Ever Born, Government Printing Office, Washington, 1945.

[^22]:    ${ }^{18}$ Births in States outside the registration area have been estimated as noted in table 15

[^23]:    ${ }^{19}$ The upward surge in the number of births during the last half of 1946 probably raised the rates for each order of birth and may have set new high marks for first, second, and third births. The tabulations of 1946 births by order should be available early in 1948 and will be of unusual
    interest.

[^24]:    211890 is the earliest year for which decennial census figures on the marital status of the population are available.

[^25]:    ${ }^{22}$ There were about 40 stillbirths per 1,000 live births in the birth registration area in 1918 (the first year for which these data are available) and nearly 38 in the same States in 1930. In the United States as a whole the ratio was approximately 39 per 1,000 in 1930 and 27 in 1945.

[^26]:    ${ }^{23}$ The term miscarriage is used here to denote the accidental wastage which occurs too early in pregnancy to be reported as a stillbirth. In most States the product of a pregnancy which terminates before the 20th week of gestation is not registered as a stillbirth.
    ${ }^{2}$ The birth rate per 1,000 white women aged $15-44$ was approximately 274 in 1810 and 84 in 1945, a decline of 190. The elimination of stillbirths would have increased the 1945 birth rate (and reduced the 1810-1945 decline) by 2.
    ${ }^{25}$ Studies of women seeking contraceptive advice from various clinics or physicians show from 52 to 233 illegal abortions per 1,000 pregnancies occurring prior to the clinic visit. For citations of these studies see Stix, Regine K., and Notestein. Frank W., Controlled Fertility, Williams \& Wilkins Co., Baltimore, 1940, p. 78.
    ${ }^{26} \mathrm{~A}$ rate of between 10 and 19 illegal abortions per 1,000 pregnancies was found in Indianapolis. (See Whelpton, P. K., "Frequency of Abortion. Its Effects on the Birth Rates and Future Population of America," in The Abortion Problem, Williams \& Wilkins Co., Baltimore, 1944, p. 19.) A rate of 31 per 1,000 was found in New York. (See Wiehl, Dorothy G., and Berry, Katherine, "Pregnancy Wastage in New York City," The Milbanlo Memorial Fund Quarterly, vol. XV, No. 3, July, 1937, p. 237.)
    ${ }^{27}$ It is possible, however, that the increase in family planning (to be discussed later) has decreased the proportion of women seeking an illegal abortion and hence that the abortion rate was higher formerly than in recent years.

[^27]:    ${ }^{29}$ Bureau of the Census, Population-Differential Fertility, 1950 and 1910 -Fertility for States and Large Cities, Government Printing Office, Washington, 1943; Population-Differential Fertility, 1940 and 1910-Women by Number of Children Ever Born, Government Printing Office, Washington, 1945. No child had been borne by approximately 10.8 percent of the ever married foreign-born white women aged 45-49 in 1940 and by 8.3 percent of those aged 45-49 in 1910. For nonwhite women the percentages are 21.4 and 8.7. These percentages are based on the women for whom the number of children ever born was reported.
    ${ }^{29}$ Unpublished study by the senior author.
    ${ }^{30}$ In a recent study of native white Protestant couples in Indianapolis, married 12 to 15 years, the wife under 30 when married, and both couples having completed the eighth grade, over 20 percent were found to be of low fecundity or partially sterile, i.e., they had one or more children but their capacity to have additional children was either low or completely destroyed. See Whelpton, P. K., and Kiser, Clyde V., "Social and Psychological Factors Affecting Fertility: V. The Sampling Plan, Selection, the Representativeness of Couples in the Inflated Sample" The Mill Memorial Fund Quarterly, vol. XXIV, No. 1. January 1946 D. 71 -

[^28]:    ${ }^{31}$ For evidence regarding the effectiveness of the attempts to control fertility made by atypical group of women, see Stix, Regine K., and Notestein, Frank W., Controlled Fertility, Williams \& Wilkins Co., Baltimore, 1940; and Beebe, Gilbert W., Contraception and Fertility in the Southern Appalachians, National Committee on Maternal Health, Williams \& Wilkins Co., Baltimore, 1942.
    ${ }^{32}$ Pearl, Raymond. The Natural History of Population, Oxford University Press, New York, 1939, pp. 167-248 and 330-340. No Catholic hospital was included.
    ${ }^{33} \mathrm{Ibid}$. The reduction was 50.8 percent for white women who had borne one child and 25.3 percent for those who had borne 2 or more. For Negro women the reductions were 14.3 and 0.4 percent, respectively (p. 334). According to Pearl "the differences between whites and Negroes in the United States in officially recorded birth-rates are to be attributed primarily to differential environmental influences, and particularly to differences in the prevalence and effectiveness of the contraceptive efforts actually made in the two racial groups" (pp. 25 and 26).

[^29]:    ${ }^{\text {s4 }}$ Whelpton, P. K., and Kiser, Clyde V.. "Social and Psychological Factors Affecting Fertility: VI. The Planning of Fertility," The Milbank Memorial Fund Quarterly, vol. XXV, No. 1, January, 1947, pp. 63-111.

[^30]:    ${ }^{35}$ Thompson, Warren S., and Whelpton, P. K., Population Trends in the United States, McGraw-Hill Book Co., Inc., New York, 1933, p. 266.
    ${ }^{36}$ There is evidence indicating that the influenza epidemic of 1918 depressed the 1919 birth rate in important degree. See Hotelling, Harold, and Hotelling, Floy, "Causes of Birth Rate Fluctuations," Journal of the American Statistical Association, vol. 26. No. 174. June. 1931, pp. 145-146.

[^31]:    ${ }^{37}$ The standard deviation of the actual rates from the straight line secular trend for the period 1920-42, expressed as a percentage of the average of the rates, is as follows: First births 11.4, second births 9.4, third births 7.1, fourth births 5.1 , fifth births 3.9 , sixth and seventh births 3.4 , and eighth and higher order births 3.6 .
    ${ }^{38}$ The marriage rate rose to 104 in 1945 and is expected to be still higher for 1946. The age group $17-29$ is used as a base in computing the marriage rate because it contained over 75 percent of all the women marrying in the marriage registration area in 1939 and 1940, and a substantially higher percentase of the women marrying for the first time.

[^32]:    39 Th is and subsequent statements regarding the correlation between birth rates, marriage rates, and economic conditions are based (unless otherwise specified) on a study being made by the Scripps Foundation for Research in Population Problems under the direction of the senior author of this report.
    ${ }^{40}$ Galbraith, Virginia L., and Thomas, Dorothy S., "Birth Rates and the Interwar Business Cycles," Journal of the American Statistical Association, vol. 36, No. 216, December, 1941, pp. 465-476.

[^33]:    ${ }^{41}$ Among the couples interviewed in the study, "Social and Psychological Factors Affecting Fertility," whose ability to bear children appeared to be normal during most of their married life, nearly 70 percent had tried to plan the length of the interval between marriage and the first child, and over 49 percent of these couples (over 34 percent of the entire group) had been successful. See Whelpton, P. K., and Kiser, Clyde V., "Social and Psychological Factors Affecting Fertility: VI. The Planning of Fertility," The Milbank Memorial Fund Quarterly, vol. XXV. No. 1. January, 1947, pp. 70 and 73 .
    ${ }^{42}$ Galbraith, Virginia L., and Thomas, Dorothy S., op. cit. The fluctuations of the first birth rate are related much more closely to those of economic conditions one year earlier than to those two or more years earlier (Scripps Foundation unpublished data)

[^34]:    ${ }^{13}$ Among the Indianapolis couples referred to previously over 89 percent
    of those who had one child tried to control the length of the interval between the first and second children, and over 52 percent of them (about 47 percent of the entire group) were successful. See Whelpton, P. K., and Kiser, Clyde V., loc. cit.
    ${ }^{4}$ Galbraith, Virginia L., and Thomas, Dorothy S., op. cit. Also unpublished data of the Scripps Foundation for Research in Population Problems. ${ }^{45}$ Unpublished data of the Seripps Foundation for Research in Population Problems. The proportion of third births which are planned probably is much lower than that for second births. See Whelpton, P. K., and Kiser, Clyde V., op. cit. It should be noted, however, that Galbraith and Thomas found a closer relationship between economic conditions and the birth rate a year later for third than for second births.

[^35]:    46The birth rates actually used in the computation of forecasts of births to 1975 are shown in appendix table B for each 5-year period, 1950-55 to $1970-75$, by color, nativity, and age of woman.

[^36]:    ${ }^{47}$ The spectacular rise in the number of births and the crude birth rate from June to December, 1946, makes these estimates appear too low in March, 1947. Approximately $2,000,000$ births occurred in the 6 months from July to December, 1946, compared with $2,900,000$ in the preceding 12 months. The record-breaking number of marriage licenses issued in May and June, 1946, and the relatively large number in the preceding and following months, indicate that births in the first half of 1947 may outnumber those in the last half of 1946 and that births during the twelve months ending June 30, 1947, may exceed $4,000,000$. The total for the 2 years ending on the latter date may be close to $7,000,000$, which would surpass the 2 -year record before the war (about $5,800,000$ births in 1920-21) by approximately $1,200,000$, or 20 percent.

    The much larger than normal seasonal decline from June to December, 1946, in marriage licenses issued, and the abrupt deeline from December, 1946, to February, 1947, in the crude birth rate (adjusted for seasonal variation), probably presage a reversal of the 1946 upswing. How severe it will be will depend in important degree on the extent to which the record-breaking jump of the crude birth rate in the last half of 1946 was due to a jump in the rates for first and second births as compared with many of which would have occurred at an earlier or later date except for the war, probably would mean that a very large drop in the crude birth rate should be expected within the next few years. In contrast, a large rise for third or higher order births probably would mean that the downward trend in size of family has been checked and that the decline the rates for higher order births. A large rise for first and second births, of the crude birth rate from the present peak should be moderate. Unfortunately, information regarding the number of first, second, and higher order births in 1946 probably will not be available until some time in 1948.
    As mentioned above, approximately $7,000,000$ births will occur from July, 1945, to June, 1947. If the average annual number of births from July, 1947, to June, 1950, is about the same as during 1933-36 (2,360,000), the total for the 5 -year period will be about $14,000,000$. If the three years resemble 1940-41 (with an average of $2,630,000$ ), the 5 -year total will be about $15,000,000$. Finally, if $1947-50$ are like 1942-46 (about $3,090,000$ births per year), there will be over $16,000,000$ births in the current 5 -year period. On the basis of the information available in March, 1947, these seem to represent reasonable low, medium, and high estimates.
    It was not feasible to revise all of the series of forecasts to take account of the unexpectedly large postwar rise in the number of births without delaying unduly the publication of this report. Instead, an additional series was computed, assuming $15,000,000$ births during $1945-50$, high fertility trends during 1950-75, and low mortality trends during 1945-75.

[^37]:    ${ }^{\text {s }}$ Bureau of the Census, "Studies in Completeness of Birth Registration. Part I. Completeness of Birth Registration, United States, December 1, 1939 to March 31, 1940," Vital Statistics-Special Reports, vol. 17, No. 18, Washington, D. C., April 20, 1943.

[^38]:    ${ }^{49}$ The percent of deaths not registered in these and other years is assumed to be hatf the percent of births not registered.
    50U. S. Public Health Service, National Office of Vital Statistics, "Estimated Completeness of Birth Registration, United States, 1935 to 1944," Vital Statistics-Special Reports, vol. 23, No. 10, Washington, D. C., September 30, 1946.
    51 Ibid.

[^39]:    ${ }^{52 T h e s e}$ percentages give the same number of "unreported" children ruder 5 in 1945 as in 1940.

[^40]:    ${ }^{53}$ The total influence of immigrants on the composition of the population is very difficult to measure, but some idea of the direct or immediate influence may be had from comparison of the total population with the native population in 1940. For example, the total population was 10.2 percent nonwhite, and the native population 11.1 percent nonwhite. The former had 100.7 males per 100 females and the latter 99.7. Finally, the median age of all persons was 29.0 years, and of natives 26.7 .
    ${ }^{54}$ Thompson, Warren S., and Whelpton, P. K., Population Trends in the United States, Recent Social Trends Monographs, McGraw-Hill Book Co., Inc., New York, 1933, p. 303.
    ${ }^{55}$ These years are $1932,1933,1934$, and 1935

[^41]:    ${ }^{56} \mathrm{To}$ simplify the computations without affecting the results appreciably, two assumptions have been made: (1) All immigrants and emigrants will be white persons. The latter constituted 99 percent of net alien arrivals during 1920-29 and probably will constitute an equally large proportion in the future. (2) All immigration will occur on the last day of each 5 -year period. This assumption makes it possible to ignore the small number of births and deaths among immigrants during the 5 -year period in which they arrive. The size of the foreign-born population at the end of a 5 -year period is the same with the net arrival of 500,000 immigrants on the last day as with the net arrival of a slightly larger number (to allow for deaths) distributed evenly throughout the period. The latter would give a slightly larger native population, however.

[^42]:    1The corresponding figures, based on population forecasts comparable with census figures for 1940 and earlier years, are $3,732,000$ and $3,884,000$. 2 Percents based on forecasts assuming $15,000,000$ births during 1945-50.

[^43]:    A minus sign ( - ) denotes decrease.
    2 Average annual increase divided by population at middle of period.
    ${ }^{3}$ A revised estimate of the population on July 1, 1945, prepared after these forecasts had been completed, is $139,586,000$. (See Bureau of the Census, "Estimated Population of the United States, for Selected Dates: April 1, 1940, to July 1, 1946." Population-Special Reports, Series P-47, No. 1, March 3, 1947.)
    ${ }^{4}$ July 1 of calendar year.
    5 A current estimate of the population on July 1, 1946, is 141,229,000, which represents an increase during 1945-46 of $1,643,000$, or 1.17 percent. Ibid.
    6Estimates made in March, 1947, indicate a population of about 143,900,000 on July 1, 1947, and an increase of about $2,700.000$, or nearly two percent, over July 1, 1946.

[^44]:    ${ }^{1}$ The effect of other amounts of immigration on the population of future years can be obtained easily by increasing the number of persons according to the fertility and mortality trends without immigration (shown in table 28), by multiples of the amounts shown in table 26.

[^45]:    2See section D of chapter III for a discussion of changes in age com

[^46]:    ${ }^{3}$ Allowing for census underenumeration would increase this amount by about 860,000 .

    Figure 7.-Population by Broad Age Groups, for the United States, 1870 to 1945 ; Forecasts, 1950 to 1975

[^47]:    by age they were excluded from the total.
    ${ }^{3}$ Adjusted for age biases in the nonwhite population as enumerated.
    4 See footnote to table 30

[^48]:    ${ }^{1}$ The numbers of persons referred to in this discussion are estimated from births in the United States, hence they exclude the foreign born. In 1940 foreign-born persons amounted to only 0.5 percent of all persons under 20 years of age and to only 0.6 percent of the persons of these ages who were attending school.

[^49]:    ${ }^{2}$ Durand, John D., The Labor Force in the United States, 1890 to 1960 (to be published in 1948 under the auspices of the Scripps Foundation for Research in Population Problems).

[^50]:    3In the married population of the United States the difference between the median age of husbands and wives was 5.1 years in 1890 and declined gradually to 4.1 years in 1940. See Adams, Stuart N., "Trends in Age nt Marriage," The Ohio Valley Sociologist, vol. XVII, No. 3, February, 1947, p. 3 .
    "The term "family" as used here is defined in the same manner as in the 1940 census. A (private) family comprises a family hend and all other persons in the home who are related to the head by blood, marriage, or adoption, and who live together and share common housekeeping arrangements. A person living alone or without other related family members is counted as a one-person family. Institutions, hotels, large rooming houses, and other "quasi-households" are not considered to be families. See Bureau of the Census, "Estimates of Number of Families in the United States: 1940 to 1960," Population-Special Reports, Series P-46, No. 4, June 1, 1946.

[^51]:    ${ }^{6}$ Hansen, Alvin H., "Postwar Employment Outlook,"
    (Ed.). Economic Reconstruction. McGuw-I Butlook,' in Harris, Seymour 1945, p. 19.

[^52]:    ${ }^{7}$ For a more detailed analysis of the relation of employment, consumption, and investment to business cycles, and of the effect of diminishing population growth on these matters, see: Clark, Colin. The Conditions of Economic Progress, MacMillan and Company, London, 1940. Habeler, Gottfried, Prosperity and Depression, United Nations, Lake Success, New York, 1946. Hansen, Alvin H., Fiscal Policy and Business Cucles, W. W. Norton, New York, 1941. Hansen, Alvin H., Economic Policy and Full Employment, McGraw-Hill, New York, 1947. Hayes, H. Gordon. Spending, Saving, and Employment. Alfred A. Knopf, New York, 1945. Schumpeter, Joseph A., Business Cycles, McGraw-Hill, New York, 1939. Spengler, Joseph J., "Population and Per Capita Income," The Annals of The American Aoademy of Political and Social Science, January, 1945, pp. 182-192. Spengler, Joseph J., "Population Movements and Economic Equilibrium in the United States," The Journal of Political Economy, vol. XLVIII, No. 2, April, 1940. pp. 153-182.

[^53]:    8Spengler, Joseph J., "Population and Per Capita Income," The Annals p. 187. Whelpton Acale Science, January, 1945 nal of Heredity, Vol. XXX Nopulation Policy for the United States," Jour nal of Heredity, vol. XXX, No. 9, September, 1939, p. 403.

[^54]:    - The cause and effect relationship in this connection probably is not entirely one way, for the low proportion of dwelling units with three or more betrooms among those constructed in recent years probably has had a tendency to restrict family size.

[^55]:    10Ruch. Floyd L.. Psychology and Life, Scott, Foresman \& Company, 1941, p. 329 .

[^56]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color
    age. and sex.
    2The figures for the population 55 years old and over have been adjusted for age biases in the nonwhite population as enumerated.
    ${ }^{3}$ Revised estimates of the population by color, age, and sex, for July 1
    1945, and current estimates for July 1, 1946. prepared after these forecasts
    had been completed, have been published by the Bureau of the Census in

[^57]:    143,900,000 on July 1. 1947.

[^58]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color, age, and sex.
    ${ }^{2}$ The figures for the population 55 years old an 3 ver have been adjusted for age biases in the nonwhite population as enumerated.
    ${ }^{3}$ Revised estimates of the population by color, age, and sex, for July 1.

[^59]:    Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color, nativity, age, and sex.

[^60]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color,
    nativity, age, and sex

[^61]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color, nativity, age, and sex.

[^62]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color,
    nativity, age, and sex.

[^63]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color, nativity, age, and sex.

[^64]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color,

[^65]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color, nativity, age, and sex.

[^66]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color. for age biases in the nonwhite population as enumerated.
    nativity, age, and sex.

[^67]:    Pablished totals and hence are
    not always exactly equal to the sum of the rounded figures shown by color,

[^68]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color, nativity, age, and sex.

[^69]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are nativity, age, and ser.

[^70]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color, nativity, age, and sex.

[^71]:    ${ }^{2}$ The figures for the population 55 years old and over have been adjusted for age biases in the nonwhite population as enumerated.

[^72]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color, nativity, age, and sex.

[^73]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are nativity. age, and sex.

[^74]:    ublished totals were obtained by rounding computed totals and hence are

[^75]:    age biases in the nonwhite population as and over have been adjusted

[^76]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equ

[^77]:    Under 5 years
    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color, nativity, age, and sex.

[^78]:    ${ }^{1}$ Based on population forecasts adjusted for census underenumerat

[^79]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color

[^80]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum

[^81]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are not always exactly equal to the sum of the rounded figures shown by color,

[^82]:    ${ }^{1}$ Published totals were obtained by rounding computed totals and hence are mot adways exaotly; equal to the sum of the rounded figures shown by color, nativity, age, and sex.

[^83]:     nativity, age, and sex.

