## CURRENT POPULATION REPORTS

Wh 9 An 85 POPULATION ESTIMATES

FOR RELEASE
Mobruary $20,1955 \quad$ Washington $25, D, \mathrm{Co} \quad$ Series P-25, No. 110

## TLLUSTRATIVE PROJECRTONS OF THE POPULATION, BY STATES 1960 AND 1965*

(The profections show here supersede the wgures given in ourrent Population Reports, Series P-25, No. 56. They axe consistent with profections of the totel population of the United states shown In Sertes Pa25, No. 78)

This report presents projections of the population of each fegion, geographio diviston. and State, for 1960 and 1965 , taling into aom com the most recent projeotions of the total. population of the tmited stetes and the estimated ohanges in State population that have taken plece stnce 1950 . The projections are designed to represent the ofrilian population plus the Armed Toroes gtationed in each area.

These projections aze being publishea at this time because the earlier series of state projections published by the Bureau of the Consus (Januay 2.952) have become somewhot out-dated by rewtaions of the projections of the total population ot the Untted States unon which they were besce and showed pfom jections only to 1960. $x$ was also felt advigable to dertve several other gexies of State projeotions to 1965 , employing somewhet different methods from thoge ised in the eax Ler report. Thus, this report oontains seven llustrative serdes of projecthons rox 1960 and 1965 and a detelled discussion of the two essentially difeerent techniques used in dem riving the figuros.

It should be emphasized that these figm ures are subject to relatively large errore.

[^0]Itis believed, however, that they may serve as cough guides for many important purposes and that persons working in the fields of public planming and market researoh will find them usertul. In addtion, the techniques used here can readily be adapted for uge in preparing population projeotions of geographio areas below the state level.

## SOMRCES, MEYEODS, AND ASSUMPITONS

Genergl methods. - Two different prooew dures were used in developing the population projections shown here. The fijst method which may be described as a "component" method, involves the preparation of separate projecthons of eack of the oomponents of population ohanges $i_{\text {se }}$, births, deaths, and net migram Whon. The other procedure 1 s the one usually referred to as the pration method, This method Involves extrapolating the ratio of the population of a State to that of the Unjted States and applying thege ratios to projecan tions of the population of the Uajted States.

For the component methodg several diffexm ent assumptions wexe made regarding the future Ievel of migrathon inasmuch as net migration Is an important component of change in the population of btates and probably the leasto predictable ome, Specirioajly, each series of

[^1]projections by the component method is based on the assumption that average annual net civilian miguation of some previous period would prevail throughout the projection period from 1953 to $1965{ }^{2}$ The base periods selected were 1940-53, 1940-50, and 1930-53, ${ }^{3}$ These pariods appear to offer for most States a varijed sem lection of reamonable attarmatives regaraing future net migration. They axe of sufflelent duration to minimize the effects of shortuterm fluctuations in migretiong but encompassg ir each case, maried changes in the conditions affectine interstate migration. They are pew riods representing a variety of economic and military conditions. Even the 1940-50 period Is long exough to represent some variety in these respects. None of the three perlods rem flecte solely the migration patterns pharacm teristic of a period of depression, wer, dece moblifzetions or reconversion One may make his own cholee as to which of these three periode the projection period will most nearly ressmble.

Births and deaths were projected separately by a relatively simple procedure. It was assumed that the ratio between State birth and death rates and the United States birth and death rates would remain constant through out the projection period. The constant ratio was based on the average ratio of the State rates to United states rates rox the $1950-53$ period. These ratios were applied to the projected average annual birth and death rates for each period 1953 m 60 and 1960 m 5 , for the United states as a whole, implied in an earlier Bureau of the Census report, Current Population Reports, Series P-25, No. 78. The products repm resented average annual birth and death rates for each State for each future period. These rates were assumed to apply to the population at the beginning of each projection period and to the migrants projected for each period. The inittal state populations to which the $1953-60$ rates were applied were the total resident population figures (civilian populam thon plus Armed Forces stationed in the area)

[^2]of July 1,1953 , as published in Series Po25, No. 97, The sum of the projected number of births or deaths for each period 1953-60 and 1.960-65 thus obtalned was then adjusted to add to the totel number projected for the United States as a whole as shown or implied in Series Pw25, No. 78.

Because of the considerable uncertalnty regarding future fertility two series of birth rates were projected: one tied in with "Series A and $B^{\prime \prime}$ of the No 78 report and the other with "Sexies C." Briefly. "Sories $A$ and E" imply that fertility will continue at the 1950 m 5 level untils at leagt, 1965 " Serles c implies that eertility will decline to about the 1940 level by 1975 . 5 the projected comm ponents of population ohange for the 195360 period were then added to. ox subtracted from, the July 1 , 1953, estimatos of the total popum lation, by states, to obtain projections of the populetion for July 1,1960 . The prom jections for July 1,1965 , were obtained in a similar fachion.

The basic economic conditions implied by the use of the 1930 m 53 petterns and levels of migration seemed inconsistent with economic levels implied in the projected fertility rates of Series $A$ and $B$. The latter assume a continuation of the recent very high levels (1950m53) of fertillty that reflect the progm perous conditions of those years. The 1930-53 levels and pattems of migration include the depression experience and hence usuelly imply substantial arithmetic reductions from the more recent levels of migration, Thus, although the underiying eoonomic conditions assumed in the use of the Serles $A$ and $B$ fertility

[^3]rates or the 1930-53 migration patterns oannot be specifically stated, it appeared inconsistent to combine migration projections based on the 1930 m 53 migration levels with projections of births based on Series $A$ and $B$ fertility rates. Henoe, the projections by the component method were limited to five; two series using Series A and $B$ fertility with $1940-53$ and $1940-50$ migration levels, respectlvely; and three series using Series 0 ferm tility with 1940-53, 1940-50, and 1930-53 migration, respectively.

The underlying projections of the components of population change are not shown here but may be obtained upon request from the Bureau of the Census. Although the components are subject to substantially greater exrors than the population projections themselves. they may be userul to persons interested in using the present teohnique for locel acoas. of course, the essumptions can be modified to reflect pealiarities in the local situation.

The second procedure used in preparing the projections is the one usualiy referred to as the "retio" method. This method was used by the Bureau of the census in developing the projections of state population to 1960 that were published in Current Population Reports, Series P-25, No. 56. Briefly, the ratio method consists of (1) extrapolating the ratio of (a) the population of the area for which a projection is required to (b) the population of a larger area which includes the first area and for which accepteble population profeotions are already available; and (2) applying the extrapolated ratios to the population projeo. thons for the larger area to cbtain projections for the smaller area. In preparing the profections for geographio divisions shown in this report, the ratio of the division total to the "Unjted States total was extrapolated. and the extrapolated ratios were applied to projections of the United States totel population; in preparing projections for states, the ratio of the state total to the appropriate division total was applied to the projeotions of the division total. Regional prajections were obtained by sumaing the appropriate dirision totals.

In preparine the projeotions by the "rem tiot method, much rellanae was placed on the earlier regearoh conducted in conneotion with the preparation of the state projeotions to 1960 shown in the No. 56 report. The fundamental techniques and underlying assumptions ised in that report to extrapolate ratios were
also used here. The specific procedures were as follows: First, the ratio of the population of each divistion to the sotal population of the United states and the ratio of the population of each State to the total population of its division were computec for each dew cennial census year from the earliest census to 1950. On the basis of these data, the divisions and states were next divided into the following three groups:

Group 1. Those areas for which the ratios show a consistent direction of change from 1920 to 1950.

Group 2. Those areas for which the direction of change in the ratios from 1940 to 1950 was the seme as from 1930 to 1940 but not the same as the change from 1920 to 1930.

Group 3. Those areas for whith the direction of change in the ratios from 1.940 to 1950 was different from that for 1930 to 1840.

The following assumptions were then made for each group with respect to the indtial annual rate of change in the ratio:

Group 1. The rate of change in the ratio was the same as the ayerage annual rate of change in the ratio for 1920-50, 1930-50, or 1940-50, whichever was the least in absolute value (olosest to zero).

Group 2. The rate was the some as the average annual rate for 1930-50 or 1940-50, whichever was the lesser.

> Group 3. The rate was one-half of the average annual rate for $1940-50$.

The ratio method, like'other methods of population projection, assumes that past trends in population provide the most convenient key to estimatine future trowth or decllne on the averages it would appear that trends in the ratio during the period irmediately prior to the benchmark date would be of greater value for the purpose of projection than trends in the more remote past. Therefore, all of the base periods from which rates of ohange in the ratio were developed inoorporete the decade 1940-50. At the same time, a past history of consistant change would seem to justify a greater confidence in the stabluity and persistence of given trends than a past nistory of irregular and contradictory change. Thus, subject to certain ilmitations, the length of the base period was varied from State to State in accordance with the degree to which the trend in ratios to the total united States population has been consistent. In recognition, however, of the fact that the
record of the past is only a partial guide to the future, steps were taken to soale down the rates of change in the ratio observed in the base period. These procedures involved the selection of the minimum rates from the avail.able base period data and the assumption that change in the ratios would cease at a point 50 years beyond the benchmark date. The ratio method then tends to be conservative in the sense thet, although it permits further changes in the ratios, it assumes a slowing down of the processes or population redistribution among the States.

The periods chosen fox the earlier report were also used here but were extended through 1953. For example, where the period for the earlier report was $1930=50$, the period used here was 1930-53 and 1940-50 became 1940-53.6 Table 3 shows the periods used as a base for determining the rate of change in the ratio for each state.

The initial rates of change in the ratios were assumed to apply to the period. July 1 , 1953, to July 1, 1954. Furthermore, as indicated above, it was assumed that annual rates of change in the ratios would decrease linearly to zero in 50 years. Accordingly, values for the annual rates of change, assumed to apply to each year 1954 to 1965 , could be obtained by linear interpolation between the initial and terminal values. Preliminary values or the ratios for 1960 and 1965 were then comm puted by multiplying the ratios for July $l_{s}$ 1953, serially by one plus the projected annual rate of change for the appropriate years." These, preliminary ratios for 1960 and 1965 were then adjusted to sum to 100 percent. Table 3 shows the adjusted ratio as well as the initial rates of change in the ratio. These projections of the population includinct Armed Forces abroad were then adjusted to represent the "resident" population of the area (i.e., the civilian population plus the Armed Forces stationed in the area), which is

[^4]comparable to the population enumerated duping a census. The adjustment was made by using the 1953 estimates of the size and distribution of the Armed Forces. By using "Series $A$ and ${ }^{\prime}{ }^{\prime}$ " and "Series $C$ of projections of the total United States population, two sexies of projections for States were devel. oped for 1960 and 1965 by this ratio procedure.

Thus, all told, seven series of prom jections are shown for 1960 and 1965 (tables 1 and 2)memfive series based on the component method (two series with the national prom jections "A and B" and three series with "O") and two by the ratio method.

Definition of population. -wthe population projections shown here were designed to be consistent with the type of population that would be enumerated in census. Thia population, which may be referred to as the "resident" population or an area, comprises the civilian population and the Amed Forces stationed in the area. Such projections are comparable with the postcensal estimates of State population published annually by the Bureau of the Census. In projecting this type of population, assumptions must be made as to the future level and alstribution of the Armed Forces, not only as to the total number serving overseas during the projection period, but also as to their distribution within the continental United States, by States. The prosent profections assume that the total military strength of the United States will remain roughly at the current level of about 3 milLion and that the number serving overseas will not change appreciably from the 1953 average of about 1 million. Although the risks of these assumptions are obvious, it should be noted that it would take changes of conslderable magnitude in the Armed Forces to have any great effect on the final projections.

Although the use of a "resident" population may involve somewhat arbitraxy assumptions as to the future size and distribution of the Armed Forces, the use of a sort of de jure populationmothat is, the civilian population of states plus persons serving in the Armed Forces allocated to State of preservice residenco-implies that variations in the size and distribution of the Armed Forces have no differential effect on the gize of the civilian population of the various states. On balances it would seem that the use of the "resident" population is preferable for present purposes because it is the population used in decennial censuses and the assumptions it

Involves with respect to the Armed Forces are at least as realistic as those involved in the use of a de jure population.

In preparing the projeotions by the ratio methoa the procedure in the initial stages of computations does involve using ratios besed on the "de fure" population rather than the restent population. It is essential to work Wth suoh ratios in order to eliminate the affeot of the relatively large milltary base of reoent yearg, as compared with 1940 end earliex years. If the resident population had been used es a base for the ratios, then the ostimated rates of change in the ratio bem tween 1840 and 1953, for example, would have Ferleoted to a considerable degree the changes in the size and distribution of the Armed Forces between these two detesmea kind of change that is unilkely to be repeated in the future. Thus, the innal population ratios shown in table 3 relate to the "de jure" popm ulation rether then the resident population. However, noted arriler in the section on oeneral Methods, the population projections based on the retio method were converted to rosident population flguras by assuming that the distribution of the Armed Forces would rem main oongtent throughout the projection period. thus, 411 projections shown in tables 1 end 2 ralate to the resident population.

Limitetions of the projectiong. - A detim nite statement as to the reliability of the population projeations presented in this rem 3ort oannot be given. However, it should be rocogntzed firet of all that these projections ropresent the remulta of the use of certain prosedures and ascumptions; they must be $1 n$ forpreted in the light of these methods and arsumptions. Other methods and other reasonsble asgumptions could have been used which would have produoed somewhet aifferent results.

Blame the profectiong are tied in with the projoctions of the total population of the Whited states published in current Eopulation Reports, series $\mathrm{P}-25$, No. 78 , they axe af feoted by the accuracy of those projections as 7r11. Of course, the projections for states, atrisions, and regions are, on the average, nubject to greater error than the national projections.

Within the framework of the essumptions poncerning eaoh series, it is felt that all of the projections shown are reasonably possible,
and no series is selected as most likely.

The projections are not intended to define the range of reasonable possibility. Furthermore, it may be noted that there is no "highest" or "lowest" series. A series that is high for one State will be low for some other state.

Recently the Bureau of the Census conducted a series of tests on the accuracy of various methods of projecting the popuiation of States. In general, the tests consisted of projecting the population of each state from 1930 to 1940 , and 1950 by various methods and comparing the results with the 1940 and 1950 Censuses results. Comparisons were made among projections prepared by such methods as the following: The cohort-survival method (which represents a more detailed variety of the component method); ${ }^{8}$ geometric extrapolation; axithmetio extrapolation; apportionment; and several variations of the ratio method, including the variation employed in this report. A complete description of the design of the tests and of the results is given by Helen R. White in "Bpirical study of the Accuracy of Selected Methods of Projecting State Populations," Journal of the American Statistical Assoclation, Vol. 49, pp. 480-498, September 1954. The tests showed, in general, that the cohort-survival method (with migration), the ratio method (as used here), and the apportionment method make the best showings on the basis of average percent of error and proportion of errors of less than 10 percent. The errors of projections tended to be larger for 1950 than for 1940. The present projections for 1960 shown here are, on the average, 11kely to be consjderably more accurate then the projeetions for 1965. The results of tests for a particular period of time cannot be generalized to future periods of time of the same length. Only very qualified conclusions may be drawn as to the absolute and comparative levels of accuracy of the identical methods when applied to subsequent dates.

The simplified component method used here was not included in these series of tests. The much more time-consuming cohort-survival. method, although one of the better methods by these tests, did not clearly surpass some of the simpler methods.

[^5]Factors unique to speoific areas - .-. The projections presented here are based on the assumptions that past trends in the chosen time pexiods will. State by state, oontinue unohanged throughout the projection period. In some instances, howevex, there is looal knowledge of imperding developments that will have a major impact on population trends. In these instanoes: It would have been desirable bo adjust the basio assumptions to take acoount of these changing of roumstanoss In the prep. aretion of the pregent population projections it was not feasible to meke adjustments fos spectal circumstanoes in andividual Statese It was known, of course, that some of the impor tant factors operating during past periods no longer exist and ideally should not be lnoluded in a base period used for projeotion purposes. An example would be the migrethon ceused by the severe drought in the 1930 s. The Rlain steteg had their characteristio out-migration meinforced by distress migrabion beoause of the drought. Most of the other agricultural States had relatively light net outamgration beoause of considexable return migration from industrial States during this period

An exoeption to the uniform applioation of the methods used here is represented by the projections for the Distriot of Columbia. The District of Columbia is a mall area and exm clusively urban It is possible that the present population is not very far below the praotical maximum. The National Capital Park and Planning Commission, for example, sugsesta that the maximum population that the Distriot of Columbia can house undex present standards
is roughly between 1 mililion and 1.2 million 9 In order to keep the present projections for the Distriot of Columbia consistent with this upper Iimit, the projeoted amount of inmieration based on the $1930-53$ period was reduced by one-halis The remeindex was distributed between Maryland and Virginies in Iine with recent pattems of population growth in the Washington Standard Metropolttan Area. The adjugtmeat was restricted to the migration projection based on the $1980-58$ period inas.. much as this seried is the ondy one whien projected a substantial amount on inwigaration for the District of Columbia (reflooting the neayy inmmigration of the 1980 ma acoadel.

Mhis adjustment fore the Distriet of Columbia iluustrates a procecture which might be greatly extended inestimates prepared looally The local atatistioian, with an iatimate knowledge of the faotors whioh may afrect populition growth in a state or smeller areas is in a peoullarly strategio position to bring this knowledge to bear on his projections. He may thus want to examine such things as urban rem development programs: actual and potential land use; prospective developments in irriGation, power facilitiess port facilities; trangportation artexies, plant siting and exw pansion, military establisments; and ohanges in the jmportance and geographio ooncentration of specific industries; and on the basis of this examination, to modify his projections.

[^6]
(Figures relate to July l and represent the civilian population pius members of the Arned Forces stationed in the area. The estimates for 1953


[^7](Ftgures relate to July 1 and represent the aivilian population plus members of the Arred forces stritsomed in the area)

| Region, division, and State | Component method |  |  |  |  | Ratio method |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sexies A and B |  | Series: |  |  | series A and | $\begin{gathered} \text { Berigs } \\ 0 \end{gathered}$ |
|  | 1940-53. | 1960-50 ${ }^{1}$ | 1940-531 | $19<0-50^{1}$ | $1930-53^{3}$ |  |  |
| Uniked Statea | 1.88,593,000 | 188,593,000 | 184,823,000 | 1.84, 223,000 | 184,823,000 | 1885,593,000 | 134,823, 000 |
| marams: | $\begin{aligned} & 46,574,000 \\ & 54,230,000 \\ & 57,351,00 \\ & 30,438,000 \end{aligned}$ | $\begin{aligned} & 46,755,000 \\ & 54,243,000 \\ & 57,187,000 \\ & 30,408,000 \end{aligned}$ | $\begin{aligned} & 45,753,000 \\ & 53,144,000 \\ & 56,086,00 \\ & 29,842,000 \end{aligned}$ | $\begin{aligned} & 45,930,000 \\ & 53,155,000 \\ & 55,914,000 \\ & 29,824,000 \end{aligned}$ | $\begin{aligned} & 46,065,000 \\ & 52,960,000 \\ & 56,795,000 \\ & 28,903,000 \end{aligned}$ | $\begin{aligned} & 45 ; 436,000 \\ & 53,554,000 \\ & 58,436,000 \\ & 30,167,000 \end{aligned}$ | $\begin{aligned} & 4,509,000 \\ & 52,476,000 \\ & 57,273,000 \\ & 29,57,000 \end{aligned}$ |
| Northeast. |  |  |  |  |  |  |  |
| North Centra South. |  |  |  |  |  |  |  |
| South. . West. |  |  |  |  |  |  |  |
| NOHTHEAST: | $\begin{aligned} & 12,109,000 \\ & 35,465,000 \end{aligned}$ | $\begin{aligned} & 11,072,000 \\ & 35,684,000 \end{aligned}$ | $\begin{aligned} & 10,909,000 \\ & 34,842,000 \end{aligned}$ | $\begin{aligned} & 10,873,000 \\ & 35,057,000 \end{aligned}$ | $\begin{aligned} & 10,887,000 \\ & 35,178,000 \end{aligned}$ | $11,055,000$$35,381,000$ | $\begin{aligned} & 10,834,000 \\ & 34,669,000 \end{aligned}$ |
| New england. . |  |  |  |  |  |  |  |
| Midae Atiantio |  |  |  |  |  |  |  |
| NORTH CENTRAL: | $\begin{aligned} & 38,528,000 \\ & 15,702,000 \end{aligned}$ | $\begin{aligned} & 38,577,000 \\ & 15,666,000 \end{aligned}$ | $\begin{aligned} & 37,762,000 \\ & 15,382,000 \end{aligned}$ | $\begin{aligned} & 37,812,000 \\ & 15,343,000 \end{aligned}$ | $\begin{aligned} & 3 r 7,4,52,000 \\ & 15,508,000 \end{aligned}$ | $\begin{aligned} & 37,804,000 \\ & 15,750,000 \end{aligned}$ | $37,043,000$$15,433,000$ |
| East North Centrui. West North Central. |  |  |  |  |  |  |  |
| \% H : |  | $\begin{aligned} & 27,188,000 \\ & 12,392,000 \end{aligned}$ | $\begin{aligned} & 26,671,000 \\ & 12,014,000 \\ & 17,401,000 \end{aligned}$ | $\begin{aligned} & 26,607,000 \\ & 12,102,000 \\ & 17,205,000 \end{aligned}$ | $\begin{aligned} & 26,791,000 \\ & 12,522,000 \\ & 17,582,000 \end{aligned}$ | $\begin{array}{r} 27,420,000 \\ 13,105,000 \\ 17,911,000 \end{array}$ | $\begin{aligned} & 2,877,000 \\ & 12,842,000 \\ & 17,554,000 \end{aligned}$ |
| South atlantic..... | $27,250,000$ $12,302,000$ |  |  |  |  |  |  |
| Tast South Centrai. | 12;302,000 |  |  |  |  |  |  |
| T: | $\begin{array}{r} 7,226,000 \\ 23,212,000 \end{array}$ | $\begin{gathered} 9,146,000 \\ 23,262,000 \end{gathered}$ | $\begin{array}{r} 7,058,000 \\ 22,784,000 \end{array}$ | $\begin{array}{r} 6,982,000 \\ 22,342,000 \end{array}$ | $\begin{array}{r} 7,027,000 \\ 21,576,000 \end{array}$ | $\begin{array}{r} 7,035,000 \\ 23,132,000 \end{array}$ | $\begin{array}{r} 6,895,000 \\ 22,676,000 \end{array}$ |
| Mountaln, Pacific, |  |  |  |  |  |  |  |
| NEW LWGundMaine.Mew HamsYermunt.Massachus | $\begin{array}{r} 992,000 \\ 52,000 \\ 403,000 \\ 5,583,000 \\ 996,000 \\ 2,631,000 \end{array}$ |  |  | 998,000 | $\begin{aligned} & 998,000 \\ & 584,000 \end{aligned}$ | 996;000 | 976,000 |
|  |  | $1,018,000$ 596,000 | 570,000 | 584;000 |  | 573,000 | 562,000 |
|  |  | 471.4,000 | 395,000 | 405,000 | 395,000 | 404,000 | 395,000 |
|  |  | 5,532,000 | 5,486,000 | 5,436,000 | 5,436,000 | 5,545,000 | 5,435,000 |
|  |  | 931,000 | 2,584,0000 | 2,535,000 | 2,572,000 | 916,000 $2,621,000$ | 2,568,000 |
|  |  | 2,580,000 |  |  |  | 2,621,000 |  |
| MDutie atumixc: |  |  |  | 27,387,000 | 17,622,000 | 17,456,000 | 17,704,000 |
| New York.e.e. | $17,511,000$ $6,247,000$ | $17,689,000$ $6,223,000$ | $17,212,000$ $6,139,000$ | 6,126,000 | 6,016,000 | 6,075,000 | 5,954,000 |
| New Jersey. | $6,247,000$ $11,707,000$ | 6,223,000 $11,772,000$ | 21,491,000 | 11,554,000 | 11,540,000 | 11,850,000 | 12,611,000 |
| ELST NORIH CENTRAJ: | 10,204,000 |  | 10,002,000 |  | $\begin{aligned} & 9,833,000 \\ & 4,868,000 \end{aligned}$ | 9,92, 000$4,905,000$ | 9,725,000$4,807,000$ |
| Ondos.6.... |  | -10,205,000 | $\begin{array}{r} 4,907,000 \\ 10,256,000 \end{array}$ | $\begin{array}{r} 4,918,000 \\ 10,282,000 \end{array}$ |  |  |  |
| Xnditing. |  |  |  |  | $\begin{array}{r} 10,230,000 \\ 8,499,000 \end{array}$ | $\begin{array}{r} 10,388,000 \\ 8,536,000 \end{array}$ | $\begin{aligned} & 10,178,000 \\ & 8,364,000 \\ & 3,969,000 \end{aligned}$ |
| Muthotas. | $1.0,452,000$ $8,825,000$ | $\begin{array}{r} 10,477,000 \\ 8,798,000 \end{array}$ | $\begin{array}{r} 10,256,000 \\ 8,641,000 \end{array}$ | $\begin{array}{r} 10,282,000 \\ 8,616,000 \end{array}$ |  |  |  |
| Wlohitgan。 Wiscongin | 4,041,000 | 4,078,000 | 3,957,000 | 3,995,000 | 4,022,000 |  |  |
| WEST NORTH CENTPAL: |  |  |  | 3,376,000 | 3,479,000 | 3,431,000 | 3,362,000 |
| Minnesota. |  | $3,449,000$ $2,814,000$ |  | 2,757,000 | 2,783,000 | 2,784,000 | 2,727,000 |
| Iowna.e.. | $2,762,000$ $4,487,000$ | $2,814,000$ $4,436,000$ | 2,706,000 | 2,352,000 | 2,439,000 | 4,538,000 | 4,447,000 |
| Missourd. ... | $4,487,000$ 614,000 | $4,436,000$ 614,000 | 4,49,000 | 4,599,000 | -599,000 | 642,000 | 629,000 |
| North Dakota | 614,000 705,000 | -705,000 | 688,000 | 688,000 | 675,000 | 696,000 | 682,000 |
| Southremak. | 1,437,000 | 2, 424,000 | $1,407,000$ $2,216,000$ | $1,393,000$ $2,178,000$ | $1,381,000$ 2,152,000 | $1,437,000$ $2,222,000$ | $3,408,000$ $2,178,000$ |
| Kanstag. | 2,262,000 | 2,224,000 | 2,216,000 | 2,178,000 | 2,152,000 | 2,222,000 | 2,178,00 |
| gogim atiantic: |  |  | 452,000 | 439,000 | 452,000 | 457,000 | 448,000 |
| Delaware... | $\begin{array}{r} 462,000 \\ 3,303,000 \end{array}$ |  | 3,242,000 | 3,253,000 | 3,21.8,000 | 3,167,000 | 3,104,000 |
| Maryland........... | $3,303,000$ $1,020,000$ | 3,315,000 $1,020,000$ | $3,242,000$ $1,001,000$ | 1,001,000 | 1, 021,000 | -999,000 | 979,000 |
| District of Columbia. | 1,020,000 | 4,020,000 | 4,238,000 | 4,291,000 | $4,226,000$ | 4,277,000 | 4,189,000 $2,080,000$ |
| Virginda. ${ }_{\text {West }}^{\text {Virginia... }}$ | 4,327,000 $1,983,000$ | 2,051,000 | 1,938,000 | 2,014,000 | 2,029,000 | 2,123,000 | 2,080,000 |
| West Virginia. North Carolina. | 1,987,000 | 4,809,000 | 4,562,000 | 4,702,000 | 4,781,000 |  | 4,784,000 $2,445,000$ |
| Soutih Carolina | 2,443,000 | 2,459,000 | $2,383,000$ $3,950,000$ | $2,397,000$ $3,937,000$ | 2,450,000 | 2,4,44,000 | 3,964,000 |
| Ceorgia, | 4,046,000 $4,895,000$ | 4,034,000 $4,6661,000$ | 4,805,000 | 4,573,000 | 4,586,000 | 4,983,000 | 4,884, 000 |
| Florida...... | 4,895,000 | 4,661, 000 |  |  |  |  |  |
| EAST SOUTH CENTRAL: |  |  |  | 2,999,000 | 3,129,000 | 3,279,000 | 3,214,000 |
| Kentucky.... | $3,045,000$ $3,745,000$ | 3,070,000 | 2,974,000 $3,666,000$ | 3,729,000 | 3,742,000 | 3,885,000 | 3,806,000 |
| Tenneasee. | $3,745,000$ $3,362,000$ | $3,811,000$ $3,375,000$ | 3,281,000 | 3,295,000 | 3,361,000 | 3,558,000 | 3,487,000 |
| Alabama...... | $3,362,000$ $2,250,000$ | 3,136,000 | 2,093,000 | 2,079,000 | 2,290,000 | 2,383,000 | 2,335,000 |
| WEST SOUTH CENTPAL: | $1,820,000$$3,44,000$$2,340,000$ | 2,795,000 | 1,778,000 | 1, 753,000$3,347,000$ | 1,883,000 | 2,018,000 | 1,978,000 |
| Arkansas. |  |  |  |  | 3,466,000 | 3,439,000 | 3,371,000 |
| Loulsiana |  | $3,431,000$ $2,077,000$ | 3,401,000 $2,096,000$ | 2,032,000 | 2,121,000 | 2,365,000 | 2,318,000 |
| Okidahoma. |  | $\begin{array}{r} 2,077,000 \\ 1,3,304,000 \end{array}$ | 2,096,000 $10,126,000$ | 10,073,000 | 10,112,000 | 10,088,000 | 9,887,000 |
| Texas. | $2,140,000$ $1.0,355,000$ |  |  |  |  |  |  |
| MOUNTATN: |  |  | $\begin{aligned} & 677,000 \\ & 677,000 \end{aligned}$ | 677,000 | 690,00071.6000 | 672,000 | 658,000689,000 |
| Montani. | 693,000693,000 | 707,000 |  | 691,000 |  | 703,000 |  |
| Idaho... |  |  |  | 358,000$1,722,000$ | 369,000 | 357,000$\mathrm{I}, 682,000$ | 350,000$1,646,000$ |
| Wyoninge. | 367,000 | 367,000 $1,760,000$ | 1,722,000 |  | 1,722,000 |  |  |
| Colorado. | 1,016,000 | 1,016,000 |  | 989,000 | 1,001,000 | 262,000 | 943,000$2,396,000$ |
| New Mextco. |  | $1,347,000$975,000 | $\begin{array}{r} 1,869,00 \\ 1,39,000 \end{array}$ | 1,318,000 | 2,304,000 | 1,424,000 |  |
| Arizona... | $1,429,000$ 961,000 |  | $\begin{array}{r}1+37,000 \\ \hline 97,000\end{array}$ | 951,000 | $\begin{aligned} & 937,000 \\ & 288,000 \end{aligned}$ | $\begin{aligned} & 912,000 \\ & 325,000 \end{aligned}$ | $\begin{aligned} & 894,000 \\ & 319,000 \end{aligned}$ |
| Nerada. | 307,000 | 281,000 | 301,000 | 276,000 |  |  |  |
| PACtric:WashingOregon.Callfor | $\begin{array}{r} 3,244,000 \\ 2,187,000 \\ 17,781,000 \end{array}$ | $\begin{array}{r} 3,348,000 \\ 2,264,000 \\ 17,650,000 \end{array}$ | $\begin{array}{r} 3,180,000 \\ 2,143,000 \\ 17,461,000 \end{array}$ | $\begin{array}{r} 3,283,000 \\ 2,222,000 \\ 17,337,000 \end{array}$ | $\begin{array}{r} 3,130,000 \\ 2,080,000 \\ 16,666,000 \end{array}$ | $\begin{array}{r} 3,177,000 \\ 2,145,000 \\ 17,826,000 \\ \hline \end{array}$ | $\begin{array}{r} 3,100,000 \\ 17,46^{7}, 000 \end{array}$ |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

[^8]Table 3.--COMPUTATION OF THE RATE OF CHANGE IN THE PROPORTION OF THE POPULATION IN DIVISIONS AND STATES ASSUMED FOR THE INITIAL YEAR OF THE PROTECTION PERIOD AND THE PROJECTED RATIOS: 1960 AND 1965
(The aun of percentages in the distributions shown may not equal 100.00 because of rounding. percentages relate to the civilian population plus members of the Armed Forces residing in the area at the time of entry into the Armed Forces. See text for cetailed explanation)

| Division and State |  | Percentage distribution Of population, 1953 <br> (1) | Rate of changa in ratio in initial prom jection year (percent)$\qquad$ (2) | Period on which rate of change is based <br> (3) | Projected percentage distribution of population |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{r} 1960 \\ (4) \\ \hline \end{array}$ |  |  | $\begin{array}{r} 1965 \\ (5) \\ \hline \end{array}$ |
| United Btates............. |  |  | 100.00 | $\cdots$ | $\cdots$ | 1.00 .00 | 200.00 |
| DIVSTONS: |  |  |  | 1930.53 | 5.99 | 5.88 |
|  | New Hngland. . . . . . . . . . . . . | 6.15 19.75 | -0.34 | 1930 53 | 19.23 | 18.89 |
|  | Middie Atlantre... | 20.31 | +0.02 | 1940.53 | 20.25 | 20.19 |
|  | West North Central. | 9.17 | -0.72 | 2930.53 | 8.71 | 8.42 |
|  | South Atiantic... | 14.06 | +0.29 | 1940-53 | 14.26 7.11 | 14.38 |
|  | Hast South Central. | 7.33 | - 0.42 | $1940 \times 53$ | 9.53 | 9.46 |
|  | West South Central. | 9.64 | -0.11 | 1930m53 | 3.63 | 3.71 |
|  | Moundatn.a...... | 3.50 10.10 | +0.63 +1.78 | 1930-53 | 11.30 | 12.10 |
|  | Paclilic. |  |  |  | 100.00 | 100.00 |
| HEW | FWGLATM. ..... . . . . . . . | 100.00 | \%0.44 | 1940.53 | 9.21 | 9.05 |
|  | Now Hampshire.. | 5.49 | -0.44 | 2940 m 53 | 5.34 | 5,25 |
|  | Vermont......... | 3.92 | -0.58 | 1920. 53 | $\begin{array}{r}3.78 \\ 50.35 \\ \hline 8\end{array}$ | 3.69 50.19 |
|  | Massamhusetts.. | 50.58 | -0.09 | 1920.53 | 8.09 | 8.05 |
|  | Rhode Island...... | 8.15 | -0.1.26 | 1940.53 1.930 .53 | 23.23 | 23.77 |
|  | Comecticut . ...e.e......... . ${ }^{\text {. }}$ | 22.38 | +0.35 |  | 100.00 | 100.00 |
| NuDD | Lut AfiANHC............ | 100.00 49.07 | +0.08 | 1940-53 | 49.22 | 49.32 |
|  | Penneylvanta..........e.... | 34.51 | -0.26 | 1930 \% 53 | 33.98 | 33.65 |
| HAET | NORTIT CENTEAL*.an........ | 100,00 |  | - | 100.00 | 100.00 |
|  | Ohto.o.............. | 26.26 | +0.05 | 1940 . 53 | 26.26 12.96 | 26.26 1.290 |
|  | Indiana.............. | 12.96 | +0.05 | 1920-53 | 27.74 | 27.45 |
|  | İİinois..................... | 21.50 | +0.50 | 1930.53 | 22.16 | 22.57 |
|  | Misconsin. | 11.08 | -0.23 | 1940.53 | 10.88 | 10.75 |
| WEST | NORTH UENTRAL.... | 100.00 | $\cdots$ |  | 100.00 | 100.00 |
|  | Minnesota..............e.... | 21.31 | +0.24 | 1940\% 53 | 21.65 | 21.86 |
|  | Town................ex | 18.21 | +0.23 | 1940-53 | 28.61 | 28.74 |
|  | Missouri...... | 28.40 | +0.11 | 1920. 53 | 4.20 | 4.12 |
|  |  | 4.57 | -0.31 | 1940-53 | 4.47 | 4.42 |
|  | South Dalcota. ... .n............ | 9.42 | -0.25 | 1940m53 | 9.27 | 9.17 |
|  | Kansas........... | 13.74 | +0.12 | 1940 m 53 | 13.85 | 13.92 |
| SOUT | H ATLCANTIC........ | 100.00 | $\bigcirc$ | $\because$ | 100.00 | 100.00 |
|  | Deleware........ | 1.61 | +0.55 | 1940.53 | 1.66 | 1.69 |
|  | Maryland.............. | 11.22 | +0.35 -0.08 | 2940.53 1940.53 | 11.41 .4 3.61 | 1.1.51 |
|  | District of Columbia. | 3.65 15.29 | -0.08 +0.07 | 1940 - 53 | 15.26 | 15.22 |
|  | Virginia,........... | 15.29 8.92 | +0.89 | 1930 m 53 | 8.35 | 8,00 |
|  | West Virginia....es. | 8.92 18.70 | -0.30. | $1930 \times 53$ | 18.22 | 17.89 |
|  | North Carolina.. | 18.74 | -0.53 | 1930-53 | 9.35 | 9.10 |
|  | Geoxgit........... | 16.02 | $\cdots$ | 1930.53 | 15.30 | 1.4 .84 |
|  | Florldg. ............. | 14.86 | +2.02 | 1930-53 | 16.86 | 18.18 |
| LAST | SOUTH CENTRAL. | 100.00 | -199 |  | 100.00 24.96 | 100.00 24.76 |
|  | Kentucky........ | 25.28 28.91 | 0.19 +0.29 | 1930-53 | 22.46 | 29.80 |
| $\cdots$ | Termessee. . . . . . . | 26.96 | +0,30 | 1940.53 | 27.13 | 27.23 |
|  | Misstisclypt. | 18.85 | -0. 33 | 1930.. 53 | 18.45 | 18.20 |
| WEST | SOUTY CENTRAT. .... | 1.00 .00 | . |  | 100.00 | 100,00 |
|  | Arikansas.. | 12.59 | 0.82 +0.31 | $1930-53$ 1940.53 | 11.85 | 19.24 |
|  | Loulsiana. . .e.e... | 18.84 14.82 | +0.31 +0.87 | 2920. 53 | 13.89 | 13.34 |
|  | Texahona............. | 53.75 | $+0.50$ | 1920.53 | 55.17 | 56.03 |
| MOUN1 | TATN. | 100.00 |  |  | 100.00 | 100.00 |
|  | Montana............... | 11.19 | $-1.12$ | 1930.53 | 10.25 | 9.67 10.13 |
|  | Idaho........... | 11.00 | -0.53 | 1940. 53 | 10.45 | 4.99 |
|  | Wyoming. ......0....... | 5.41 05.30 | -0.51 | 1920. 53 | 24.42 | 23.83 |
|  | Coloredo.............. | 25.30 13.36 | 10.32 +0.31 | 1940 m 5 | 13.45 | 13.46 |
|  | New Mexico........ | 16.67 | +2.06 | 1.940.50 | 18.80 | 20.21 |
|  | Utah.... | 13.43 | +0.05 | 1940. 53 | 13.28 | 13.16 |
|  | Nevada................. | 3.64 | +2.37 | 1940-53 | 4.18 | 4.55 |
| PACIFIC. |  | 100.00 | $\cdots$ | $\cdots$ | 100.00 | 100.00 |
|  | Washington. | 15.28 | -0.95 | 1930-53 | 14.311 9.73 | 13.74 9.47 |
| $\therefore \quad \mathrm{O}$ | Oregon..... | 10.14 | -0.59 | 1930-53 | 75.96 | 76.79 |
| \%. | California.................. | 74.58 | +0.32 | 1930-5 |  |  |


[^0]:    ${ }^{1}$ See Current Population Reports, Sertes Pm25, Nos. 56 and 78 , respectively.

[^1]:    * Prepared by Neyer Zitter of the Estimates and Forecasts Tmit, Derographio statiotios Section. Popthation and Housing Division.

[^2]:    ${ }^{2}$ In the actual computations, net ciyilian fiternal migration and immigration from abroad were prom fected separately. Net immigration from abroad as assumed in the earlier national profections was distributed in accordance with the $1950-53$ dietribution of immigrant gliens admitted to the United States by State of intended future residence as reported by the Immagration and Naturalization Services Depariment of Justice.
    ${ }^{3}$ A special adjustment was made for the District of Columbia for the migration profections baged on the 1930-53 period. A discussion of this point is given in a latex gection, Tactore Unique fom Specific Areas."

[^3]:    This short period was used because the required vital rates were readily avallable It is believed that the results woula have been substantially the same if the average ratios were based on a somewhat longer period. As Bogue has pointed out "... aaide from year to year fluctuations ... the crude birth and death rates of a submarea tend to stand in a fairly constant rejationship to the parent area, or tend to change relatively slowly" (Donald $J$. Bogue, "A Technique for Making Extensive Popuiation Estimates," Journal of the Amertcan Statistlcal Assolcation, Volwine 45 , Number 250, p. 151, June 1950).

    Series P-25, No. 78 thows frour serles of prom jections to li97, viz., Series $A, B, C$, and $D$, but only three different series to 1965, since the projections of births based on assumptions $A$ and $B$ are the same through 1965. "Serjes D" was not incorporated for use here inasmuch as current fertility levels indicate a substantial divergence from the levels frmpled in that series. The national bixth rates implied here are as follows:

    Series A and B:
    1953-60.....22.7
    $196065 . \ldots \ldots .21 .9$
    Serfes C:
    1953.-60......21.6

    1960-65......19.4

[^4]:    ${ }^{5}$ Two exceptions to the rule are Nevada and Arizona where the implied projections for 1953 were substan tially lower (more than 10 percent) than the latest current estimates for that date. For these states, the pertods were selected so as to yield somewhat higher rates of increase in the rates of change in the ratios than those used in the earlier report.
    ${ }^{7}$ Actually, a "short-cut" method was used which does not require obtaining the ratios for the intermediate years. This short-cut procedure is described by Helen R. White, Jacob S. Siegel, and Beatrice M. Rosen in "Short Cuts in Computing Ratio Projections of Population," Agricultural Economics Research, Vol. V, No. 1, pp. 5-11, January, 1953.

[^5]:    8 The cohortmurvival method involves projecting the population at the last census, or as estimated for a current date, by age and sex, by use of projected egemspecific birth rates, death rates, and migration. This method is described in detail in Current Populam tion Reports, Series P-25, No. 43.

[^6]:    ${ }^{9}$ See, for example, National Capttal Park and Plan. ning Comission, People and Land, Monograph No. 2, Washington, $D_{0} C_{c}$, June 1950.

[^7]:    Refers to period used as base for migration projections. See text for detalied explanation.

[^8]:    F Refers to perfod used as base for migration projections. See text for detalled explanation.

