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PROVISIONAL ESTIMATES OF THE POPULATION OF STATES: JULY 1, 1953

(This report presents provisional estimates for July 1, 1953. Estimates for earlier years back to 1940 are contained in Nos. 72 and 84 of this series. The estimates for 1953 are made in the absence of data reflecting the most recent internal migration and will be revised when such data become available.)

The geographic patterns of population change for the first few years of the present decade appear to be a continuation of those for the last decade, according to provisional estimates of State population for July 1, 1953, announced today by Robert W. Burgess, Director, Bureau of the Census, Department of Commerce. The map on page 4 of this report presents change in the population of States from 1950 to 1953; change for the 1940-1950 decade is shown on the map on page 5.

A block of seven States in the West, comprising Nevada, Arizona, California, New Mexico, Colorado, Wyoming, and Utah, had population gains between 1950 and 1953 amounting to 7.5 percent or more of their 1950 population. Seven other States also had population increases in excess of 7.5 percent, namely, Florida, Texas, Connecticut, Delaware, Maryland, Virginia, and Michigan. Washington and Oregon in the West; Kansas, Indiana, and Ohio in the North Central States; New Jersey in the Northeast; and the District of Columbia and Louisiana in the South had increases of from 5.0 to 7.5 percent.

Twelve States lost population between 1950 and 1953. These States are North Dakota, South Dakota, Iowa, West Virginia, Kentucky, Tennessee, Oklahoma, Arkansas, Mississippi, Maine, Vermont, and New Hampshire. Four of these States (North Dakota, Oklahoma, Arkansas, and Mississippi) also lost population in the 1940's.

The estimates for each State except Kansas, the District of Columbia, and California were prepared in the following manner: First, estimates of the civilian population of each State were prepared by two methods; the results were then averaged to obtain the final estimates of civilian population; and, finally, estimates of Armed Forces stationed in each State were added to obtain estimates of total population. The two methods used were the "migration-

and-natural-increase method" and the "vital rates method," as described below.

The migration-and-natural-increase method as applied here consists of (1) adding to the civilian population on April 1, 1950, an estimate of births, (2) adding or subtracting an estimate of net civilian migration, and (3) subtracting estimates of civilian deaths and of the net movement of civilians into the Armed Forces, for the period between the census and the estimate date. The net movement of civilians into the Armed Forces for each State was estimated by (1) taking the difference between (a) the number of persons serving in the Armed Forces on the estimate date who reported the State as their preservice residence and (b) the number serving in the Armed Forces on April 1, 1950, who reported the State as their preservice residence, and (2) adding an allowance for former residents of the State who died during this period while serving in the Armed Forces.

Net civilian migration was estimated in the following manner: First, net migration rates for children 6 to 13 years old were developed on the basis of data from the 1950 Census and statistics on school enrollment in the elementary grades. It was uniformly assumed in preparing the estimate of the total population shown in this report that the rate of net migration for persons of all ages between April 1, 1950, and the estimate date for a given State was 1.2 times the rate for children 6 to 13 years old for the same State. Evidence for this assumption was found in annual interstate migration data by age for the United States as a whole for recent years, obtained in the Current Population Survey. These rates were then applied to the population of all ages in each State in 1950 to obtain tentative estimates of net migration for each State for the period since the 1950 Census. Finally, these estimates of net migration were adjusted by a

ratio method to add algebraically to the national estimate of net immigration for the same period. This general procedure has been described as "Method II" in Population--Special Reports, Series P-47, No. 4, and illustrated in Current Population Reports, Series P-25, No. 20.

School statistics more recent than those for the end of the school year 1951-1952 were not yet available for all States when these estimates were prepared. To obtain the estimates of net civilian migration for 1952-1953, therefore, it was necessary to extend the series on net migration on the basis of past trends. Revised population estimates for July 1, 1953, will be published later this year when school statistics for the school year 1952-1953 become available as a basis for more reliable estimates of net migration during the year.

The procedure used in preparing the second set of estimates was the "vital rates method."¹ The steps in applying this method to obtain estimates for July 1, 1953, are as follows:

1. Compute the crude birth rate for the United States and for each State using birth statistics for the 12-month period centering on April 1, 1950, and the civilian population on April 1, 1950, as estimated from decennial census counts.

2. Compute the crude birth rate for the United States using birth statistics for the 12-month period centering on July 1, 1953,² and the estimated civilian population on July 1, 1953, derived from the 1950 Census counts and statistics on births, deaths, Armed Forces strength and distribution, and civilian migration since April 1, 1950.

3. Prepare an estimate of the crude birth rate for each State for the 12-month period centering on July 1, 1953, on the assumption that the change in the rate for each State from the 1949-1950 period was the same as for the United States as a whole.

4. Compute the estimated civilian population for each State on July 1, 1953, from the crude birth rates for the 12-month period centering on July 1, 1952, as obtained above, and preliminary figures on the number of births for this period.²

5. Adjust these State population figures so that they add exactly to the figure for the United States as a whole.

6. Compute a corresponding set of State estimates based on statistics of civilian deaths and estimated crude civilian death rates.²

7. Compute a composite estimate of the civilian population of each State by averaging the separate figures based on births and deaths.

¹ Donald J. Bogue, "Vital Statistics Technique for Making Post-censal Population Estimates," Journal of the American Statistical Association 45(250): 149-163, June 1950.

² The number of births (or deaths) in the 12-month period September 1952 through August 1953 was used as an approximation for the number of births (or deaths) in the 12-month period centering on July 1, 1953 (January through December 1953). This substitution was necessary because vital statistics for States for the month of August 1953 were the latest available at the time the provisional State estimates for 1953 were prepared. When these estimates are revised later this year, vital statistics for January through December 1953 will be used.

The estimates based on vital rates were averaged in turn with the estimates based on school data to yield the estimates presented in this report for most of the States. The estimate for Washington, D. C., represents a further average with another estimate, involving use of public utility data, 1950 Census data on persons per household, and other local data. The estimate for Kansas represents extrapolation and adjustment of the results of the Kansas State censuses taken each year as of March 31. The estimate for California is based on the average of the results of the migration-and-natural-increase method, the vital rates method, and the age-specific-death-rates method.

The birth and death statistics available for preparing these estimates include final figures classified on a residence basis for 1950 and provisional figures classified on an occurrence basis for 1951 to 1953. For the present purpose, the 1951, 1952, and 1953 figures were adjusted to a residence basis. All figures were corrected for underregistration. The factors used in correcting the births for underregistration represent the preliminary results of the 1950 Birth Registration Test conducted by the National Office of Vital Statistics in conjunction with the 1950 Census of Population. The adjustment of the death statistics for underregistration was confined to infants under 1 year of age. It is expected that the final figures on births and deaths will differ only slightly from those used.

Many of the data used to prepare the population estimates given in this report were obtained from other agencies. The National Office of Vital Statistics, United States Public Health Service, provided the vital statistics. The Immigration and Naturalization Service, Department of Justice, provided statistics on immigration and emigration. The Department of Defense provided the figures relating to the Armed Forces. State Departments of Education and parochial school systems throughout the country provided the data on school enrollment used in developing estimates of net internal migration.

As has been indicated, total population change in a State between the census date and a given estimate date consists of the net contribution of births, deaths, net movement of Armed Forces, and net civilian migration. The estimates of net migration implied in the population estimates shown in this report are subject to considerable greater percentage error than the other components of population change. Since net migration is frequently an important component of change, the estimates of total population change between the census date and each of the estimate dates are also subject to substantial error, and small changes should be interpreted with particular care. Although the estimates of total population change and the population estimates themselves have the same absolute errors, percentagewise the errors in the population estimates are considerably smaller than those in the estimates of total population change.

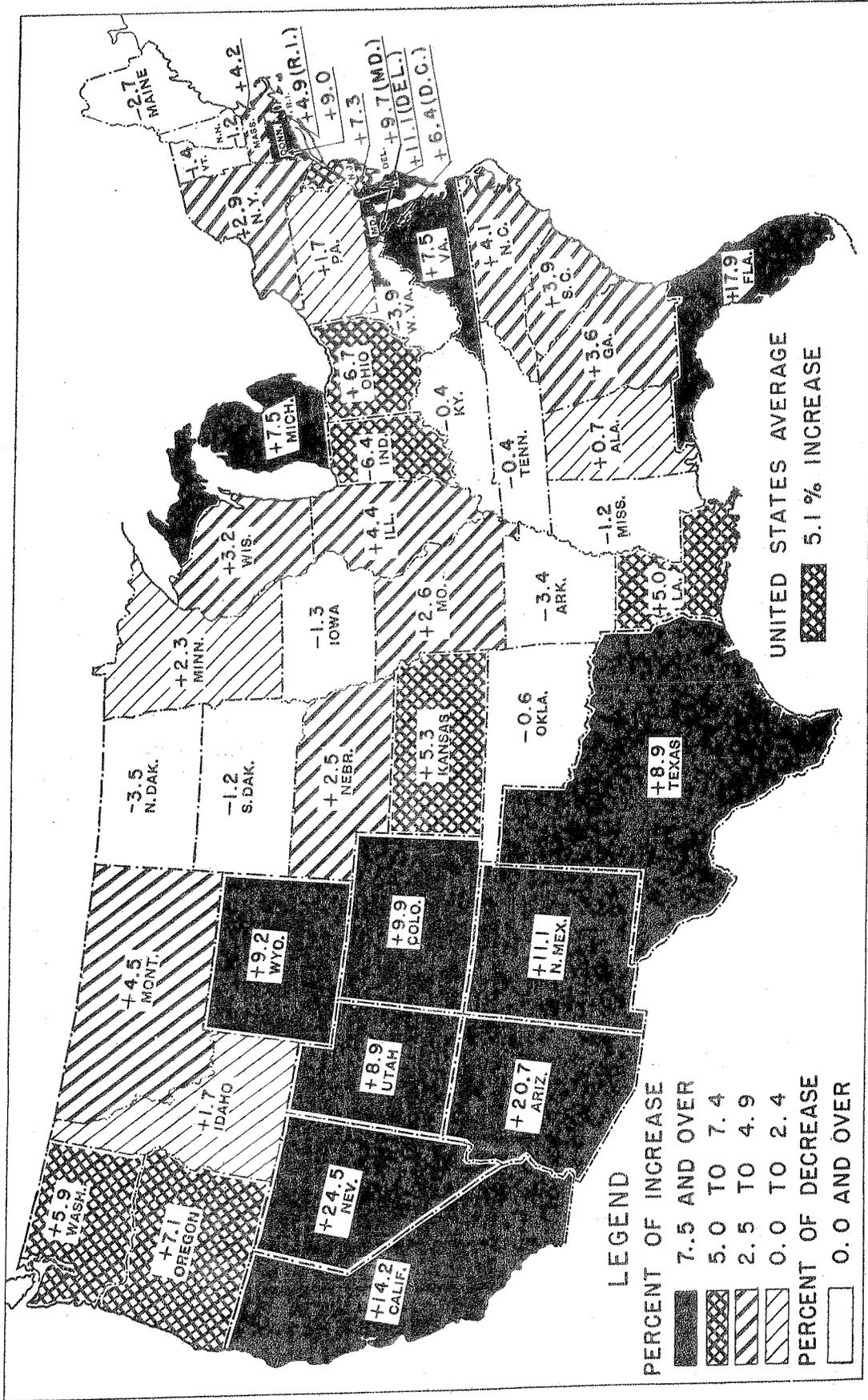
PROVISIONAL ESTIMATES OF THE TOTAL AND CIVILIAN POPULATION OF REGIONS, DIVISIONS, AND STATES: JULY 1, 1953

(Total population figures include persons in the Armed Forces stationed in each State and exclude members of the Armed Forces overseas. Each estimate has been independently rounded to the nearest thousand from figures computed to the last digit; hence, the sums of parts shown may differ slightly from the totals shown. Percentages are based on unrounded numbers)

Region, division, and State	Total population				Civilian population			
	July 1, 1953	April 1, 1950 (census)	Increase (+) or decrease (-), April 1, 1950, to July 1, 1953		July 1, 1953	April 1, 1950	Increase (+) or decrease (-), April 1, 1950, to July 1, 1953	
			Amount	Percent			Amount	Percent
United States.....	158,375,000	150,697,361	+7,678,000	+5.1	156,106,000	149,634,000	+6,472,000	+4.3
REGIONS:								
Northeast.....	40,818,000	39,477,986	+1,340,000	+3.4	40,519,000	39,344,000	+1,175,000	+3.0
North Central.....	46,459,000	44,460,762	+1,998,000	+4.5	46,242,000	44,369,000	+1,873,000	+4.2
South.....	49,262,000	47,197,088	+2,065,000	+4.4	48,121,000	46,653,000	+1,468,000	+3.1
West.....	21,836,000	19,561,525	+2,275,000	+11.6	21,225,000	19,269,000	+1,956,000	+10.2
NORTHEAST:								
New England.....	9,695,000	9,314,453	+381,000	+4.1	9,577,000	9,261,000	+315,000	+3.4
Middle Atlantic.....	31,123,000	30,163,533	+960,000	+3.2	30,942,000	30,083,000	+859,000	+2.9
NORTH CENTRAL:								
East North Central.....	32,157,000	30,399,368	+1,758,000	+5.8	32,042,000	30,337,000	+1,705,000	+5.6
West North Central.....	14,302,000	14,061,394	+240,000	+1.7	14,199,000	14,032,000	+168,000	+1.2
SOUTH:								
South Atlantic.....	22,534,000	21,182,335	+1,352,000	+6.4	21,874,000	20,860,000	+1,014,000	+4.9
East South Central.....	11,449,000	11,477,181	-28,000	-0.2	11,285,000	11,412,000	-127,000	-1.1
West South Central.....	15,279,000	14,537,572	+741,000	+5.1	14,962,000	14,380,000	+582,000	+4.0
WEST:								
Mountain.....	5,600,000	5,074,998	+525,000	+10.3	5,490,000	5,021,000	+469,000	+9.4
Pacific.....	16,236,000	14,486,527	+1,750,000	+12.1	15,734,000	14,248,000	+1,486,000	+10.4
NEW ENGLAND:								
Maine.....	889,000	913,774	-25,000	-2.7	878,000	912,000	-34,000	-3.7
New Hampshire.....	527,000	533,242	-6,000	-1.2	524,000	531,000	-8,000	-1.5
Vermont.....	373,000	377,747	-5,000	-1.4	371,000	378,000	-6,000	-1.6
Massachusetts.....	4,888,000	4,690,514	+198,000	+4.2	4,832,000	4,665,000	+167,000	+3.6
Rhode Island.....	831,000	791,896	+39,000	+4.9	794,000	774,000	+20,000	+2.6
Connecticut.....	2,188,000	2,007,280	+180,000	+9.0	2,178,000	2,001,000	+177,000	+8.8
MIDDLE ATLANTIC:								
New York.....	15,257,000	14,830,192	+427,000	+2.9	15,190,000	14,801,000	+389,000	+2.6
New Jersey.....	5,191,000	4,835,329	+355,000	+7.3	5,116,000	4,802,000	+314,000	+6.5
Pennsylvania.....	10,675,000	10,498,012	+177,000	+1.7	10,637,000	10,480,000	+157,000	+1.5
EAST NORTH CENTRAL:								
Ohio.....	8,482,000	7,946,627	+535,000	+6.7	8,461,000	7,938,000	+523,000	+6.6
Indiana.....	4,186,000	3,934,224	+252,000	+6.4	4,160,000	3,932,000	+228,000	+5.8
Illinois.....	9,093,000	8,712,176	+381,000	+4.4	9,044,000	8,672,000	+372,000	+4.3
Michigan.....	6,851,000	6,371,766	+479,000	+7.5	6,835,000	6,361,000	+475,000	+7.5
Wisconsin.....	3,545,000	3,434,575	+110,000	+3.2	3,542,000	3,433,000	+108,000	+3.2
WEST NORTH CENTRAL:								
Minnesota.....	3,052,000	2,982,483	+69,000	+2.3	3,047,000	2,981,000	+67,000	+2.2
Iowa.....	2,587,000	2,621,073	-34,000	-1.3	2,585,000	2,621,000	-36,000	-1.4
Missouri.....	4,056,000	3,954,653	+102,000	+2.6	4,017,000	3,952,000	+65,000	+1.6
North Dakota.....	598,000	619,636	-22,000	-3.5	597,000	620,000	-22,000	-3.6
South Dakota.....	645,000	652,740	-8,000	-1.2	639,000	650,000	-11,000	-1.7
Nebraska.....	1,358,000	1,325,510	+33,000	+2.5	1,352,000	1,322,000	+31,000	+2.3
Kansas.....	2,005,000	1,905,299	+100,000	+5.3	1,962,000	1,887,000	+74,000	+3.9
SOUTH ATLANTIC:								
Delaware.....	353,000	318,085	+35,000	+11.1	350,000	318,000	+32,000	+10.1
Maryland.....	2,571,000	2,343,001	+228,000	+9.7	2,494,000	2,306,000	+188,000	+8.2
District of Columbia.....	853,000	802,178	+51,000	+6.4	812,000	769,000	+43,000	+5.6
Virginia.....	3,568,000	3,318,680	+249,000	+7.5	3,367,000	3,220,000	+147,000	+4.6
West Virginia.....	1,927,000	2,005,552	-79,000	-3.9	1,926,000	2,005,000	-79,000	-3.9
North Carolina.....	4,228,000	4,061,929	+166,000	+4.1	4,132,000	4,014,000	+118,000	+2.9
South Carolina.....	2,199,000	2,117,027	+82,000	+3.9	2,137,000	2,096,000	+41,000	+2.0
Georgia.....	3,567,000	3,444,578	+122,000	+3.6	3,488,000	3,402,000	+86,000	+2.5
Florida.....	3,268,000	2,771,305	+497,000	+17.9	3,168,000	2,729,000	+439,000	+16.1
EAST SOUTH CENTRAL:								
Kentucky.....	2,934,000	2,944,806	-10,000	-0.4	2,857,000	2,913,000	-57,000	-1.9
Tennessee.....	3,280,000	3,291,718	-12,000	-0.4	3,258,000	3,281,000	-23,000	-0.7
Alabama.....	3,082,000	3,061,743	+21,000	+0.7	3,042,000	3,053,000	-11,000	-0.4
Mississippi.....	2,153,000	2,178,914	-26,000	-1.2	2,128,000	2,164,000	-36,000	-1.7
WEST SOUTH CENTRAL:								
Arkansas.....	1,845,000	1,909,511	-64,000	-3.4	1,826,000	1,908,000	-82,000	-4.3
Louisiana.....	2,817,000	2,683,516	+133,000	+5.0	2,772,000	2,670,000	+103,000	+3.8
Oklahoma.....	2,220,000	2,233,351	-14,000	-0.6	2,187,000	2,218,000	-31,000	-1.4
Texas.....	8,397,000	7,711,194	+686,000	+8.9	8,177,000	7,584,000	+592,000	+7.8
MOUNTAIN:								
Montana.....	618,000	591,024	+27,000	+4.5	613,000	589,000	+24,000	+4.0
Idaho.....	598,000	588,637	+10,000	+1.7	594,000	588,000	+6,000	+1.0
Wyoming.....	317,000	290,529	+27,000	+9.2	306,000	282,000	+24,000	+8.3
Colorado.....	1,456,000	1,325,089	+131,000	+9.9	1,424,000	1,307,000	+116,000	+8.9
New Mexico.....	756,000	681,187	+75,000	+11.1	729,000	668,000	+61,000	+9.1
Arizona.....	905,000	749,587	+155,000	+20.7	887,000	742,000	+145,000	+19.6
Utah.....	750,000	688,862	+61,000	+8.9	747,800	687,000	+60,000	+8.7
Nevada.....	199,000	160,083	+39,000	+24.5	192,000	157,000	+34,000	+21.9
PACIFIC:								
Washington.....	2,520,000	2,378,963	+141,000	+5.9	2,442,000	2,317,000	+125,000	+5.4
Oregon.....	1,630,000	1,521,341	+109,000	+7.1	1,625,000	1,519,000	+106,000	+7.0
California.....	12,087,000	10,586,223	+1,500,000	+14.2	11,667,000	10,413,000	+1,255,000	+12.0

¹ Estimated total population of the United States including Armed Forces overseas, for July 1, 1953, is 159,696,000.

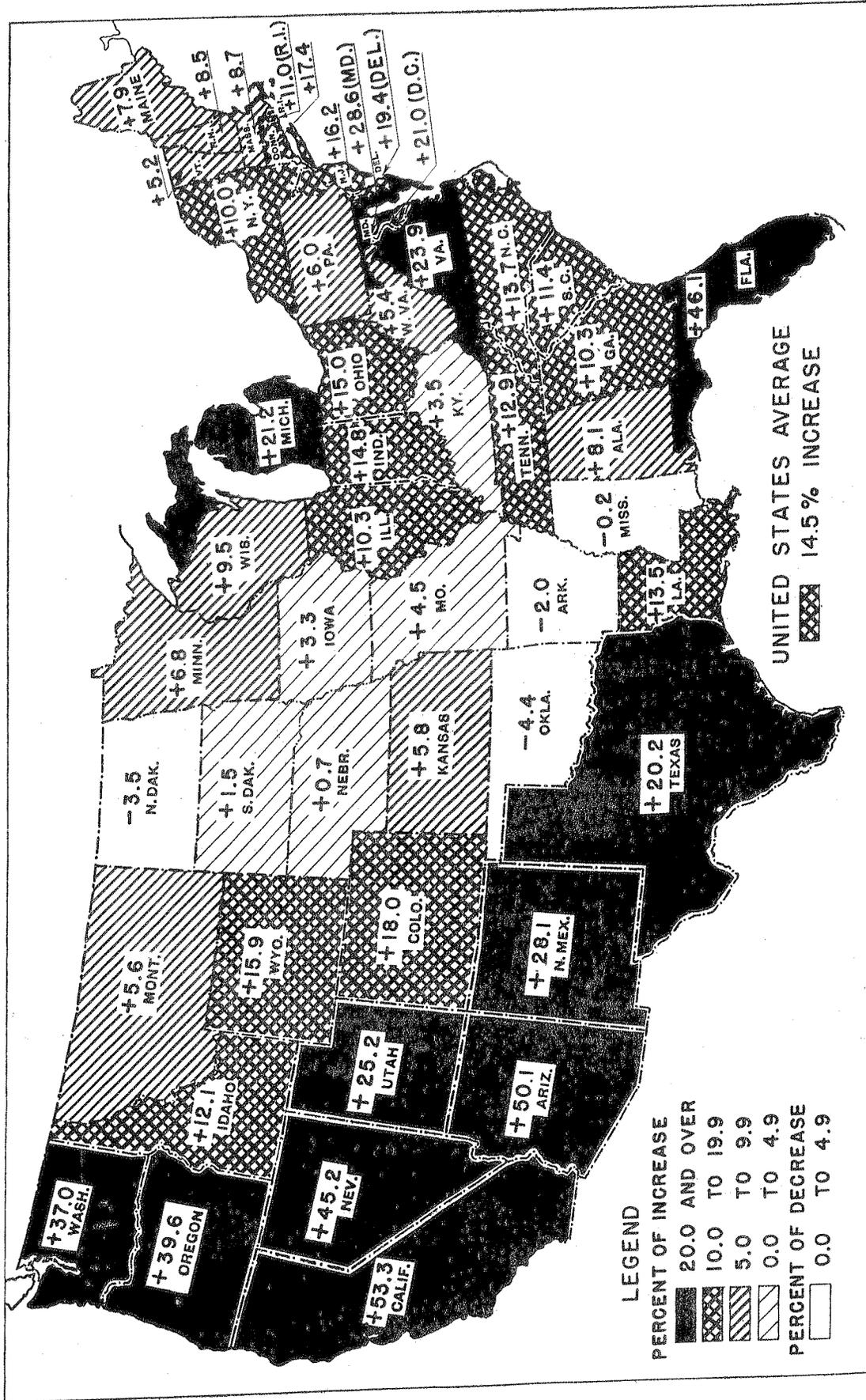
PERCENT OF CHANGE IN TOTAL POPULATION OF STATES: 1950 TO 1953



DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

PERCENT OF CHANGE IN TOTAL POPULATION OF STATES: 1940 TO 1950



BUREAU OF THE CENSUS

DEPARTMENT OF COMMERCE