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POPULATION.

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# POPULATION.

The population of the United States and its insular possessions, June 1, 1900, was 84,233,069, and the gross area 3,746,192 square miles, as shown in Table 1.

Table 1.—United States.

	Aggregate population.	Gross area (square miles).
United States.....	84,233,069	3,746,192
Area of enumeration <sup>1</sup> .....	76,303,387	3,622,933
Guam.....	29,000	201
Philippine Islands.....	26,961,339	119,542
Porto Rico.....	953,243	3,435
Samoa.....	26,100	81

<sup>1</sup> Twelfth Census, Vol. II, table I, page xvii.

<sup>2</sup> Estimated.

The increase in population over the returns of the census of 1790 was 80,303,855, or more than twenty times the population returned at the First Census. The area was extended from 843,799 square miles to 3,746,192 square miles, an increase of 2,902,393 square miles, which is nearly three and one-half times the area of the original thirteen states, as shown in Table 2, in which is given the gross area, aggregate population, increase, and percentage of increase at each census, from 1790 to 1900.

Table 2.—United States.

CENSUS.	Gross area (square miles).	Aggregate population.	Increase.	Percent- age of increase.
1790.....	843,799	3,929,214		
1800.....	843,799	5,308,483	1,379,269	35.1
1810.....	1,734,720	7,239,881	1,931,398	36.4
1820.....	1,793,400	9,638,453	2,398,572	33.1
1830.....	1,793,400	12,866,020	3,227,567	33.5
1840.....	1,793,400	17,069,453	4,203,433	32.7
1850.....	2,994,583	23,191,876	6,122,423	35.9
1860.....	3,025,600	31,443,321	8,251,445	35.6
1870.....	3,616,484	38,558,371	7,115,050	22.6
1880.....	3,616,484	50,189,209	11,630,838	30.2
1890.....	3,616,484	62,979,766	12,790,557	25.5
1900.....	3,746,192	84,233,069	21,253,303	33.7

Table 3 gives the gross area and date of annexation of each accession of territory from 1790 to 1900. The boundaries of the original thirteen states and the accessions of territory prior to 1867 are shown on Plate 1.

Table 3.—Accessions of territory.

ACCESSION.	Date ac- quired.	GROSS AREA (SQUARE MILES).	
		Area of accession.	Total area.
Original thirteen states.....			843,799
Louisiana purchase <sup>1</sup> .....	1803	890,921	1,734,720
Florida.....	1819	58,680	1,793,400
Texas.....	1845	389,616	2,183,016
Oregon territory <sup>2</sup> .....	1846	285,123	2,468,139
Mexican cession.....	1848	526,444	2,994,583
Gadsden purchase.....	1853	31,017	3,025,600
Alaska.....	1867	590,884	3,616,484
Hawaii.....	1898	6,449	3,622,933
Guam.....		201	
Philippine Islands.....	1899	119,542	3,746,111
Porto Rico.....		3,435	
Samoa.....	1900	81	3,746,192

<sup>1</sup> Includes territory between the Perdido and Mississippi rivers; area, 10,920 square miles.

<sup>2</sup> Claimed by discovery, 1792; exploration, 1805; Astoria settlement, 1811; Spanish cession, 1819; British claims extinguished, 1846, and area included at that date.

Table 4 shows at each census the land area, population, increase, percentage of increase, and number of persons to a square mile for continental United States, that is, the population of the United States, exclusive of Alaska, the insular possessions, and persons in the military and naval service of the United States stationed abroad.

Table 4.—Continental United States.

CENSUS.	Land area (square miles).	Population. <sup>1</sup>	Increase.	Percent- age of increase.	Number of persons to a square mile.
1790.....	<sup>2</sup> 819,466	3,929,214			4.8
1800.....	819,466	5,308,483	1,379,269	35.1	6.5
1810.....	<sup>3</sup> 1,698,107	7,239,881	1,931,398	36.4	4.3
1820.....	<sup>4</sup> 1,752,347	9,638,453	2,398,572	33.1	5.5
1830.....	1,752,347	12,866,020	3,227,567	33.5	7.3
1840.....	1,752,347	17,069,453	4,203,433	32.7	9.7
1850.....	<sup>5</sup> 2,939,021	23,191,876	6,122,423	35.9	7.9
1860.....	<sup>6</sup> 2,970,038	31,443,321	8,251,445	35.6	10.6
1870.....	2,970,038	38,558,371	7,115,050	22.6	13.0
1880.....	2,970,038	50,155,783	11,597,412	30.1	16.9
1890.....	2,970,038	62,622,250	12,466,467	24.9	21.1
1900.....	2,970,230	75,568,686	12,946,436	20.7	25.4

<sup>1</sup> Exclusive of Indians in Indian Territory and on Indian reservations. (See Twelfth Census, Vol. I, table III, page xix.)

<sup>2</sup> Original thirteen states.

<sup>3</sup> Louisiana purchase added; area, 878,641 square miles.

<sup>4</sup> Florida added; area, 54,240 square miles.

<sup>5</sup> Area added—Texas, 385,926 square miles; Oregon territory, 280,680 square miles; Mexican cession, 520,068 square miles.

<sup>6</sup> Gadsden purchase added; area, 31,017 square miles.

<sup>7</sup> Area gained by drainage of Lake Tulare, California, 192 square miles.

The density of population of the United States, contained in Table 4, differs from that given in table XII, Twelfth Census, Volume I, page xxxiii, owing to the addition to the Louisiana purchase of the territory between the Perdido and Mississippi rivers, in dispute with Spain; the inclusion of Oregon territory in 1846, instead of 1803; as well as to slight changes in the areas of the different accessions.

Although the land area of continental United States had increased nearly fourfold, the population per square mile had increased over fivefold, showing that in spite of the tremendous increase in area of comparatively unsettled tracts the increase in population had been so great as to more than balance the additions of territory.

The absolute increase at each census was larger than at the preceding census, except between 1860 and 1870, when it fell below that of the preceding decade. This was due partly to the Civil War and partly to a deficient enumeration in 1870. The greatest percentage of increase was from 1800 to 1810, after which date it diminished until the period between 1840 and 1850, when the tide of immigration set in and raised the percentage until it almost reached the maximum.

The increase and decrease in density of population, as represented by diagram 2, Plate 17, has varied from census to census, owing to the acquisitions of sparsely settled territory and the increase in population.

#### GROWTH OF POPULATION.

In the discussion of the growth of the population, graphically represented on Plates 2 to 13, the area and population of continental United States alone were considered, and for 1880 and 1890 the population of Indian reservations and Indian Territory was not included. In computing the density of population for this series of maps the county has, in general, been taken as the unit and its population, less the number of persons residing in cities of 8,000 or more inhabitants, divided by the land area in square miles. The counties have then been grouped as follows:

- Less than 2 persons to a square mile (regarded as unsettled area).
- 2 to 6 persons to a square mile.
- 6 to 18 persons to a square mile.
- 18 to 45 persons to a square mile.
- 45 to 90 persons to a square mile.
- 90 or more persons to a square mile.

Certain large counties, especially in the West, where the density of population varies greatly in different portions, were subdivided, the density for each part was computed and each subdivision placed in the proper group. Cities of 8,000 or more inhabitants are represented by circles of solid color approximately proportionate in size to the population.

The density groups are closely related to the industries of the country. The lowest group, less than 2 per-

sons to a square mile, which for census purposes is regarded as unsettled, is inhabited principally by hunters, prospectors, or persons engaged in stock raising. The next group, 2 to 6 persons to a square mile, includes the area of sparse agricultural population, where irrigation is relied upon for raising crops. Agriculture is also the principal occupation in the group 6 to 18 persons to a square mile. In the next group, 18 to 45 persons to a square mile, manufactures and commerce have made considerable progress, but the principal occupation is agriculture; the farms, however, are much smaller than in the preceding group, and cultivation of the soil is more thorough. In the last two grades, where the population exceeds 45 persons to a square mile, manufactures and commerce are of the greatest importance, and the larger proportion of the people is found in towns and cities.

#### DISTRIBUTION OF POPULATION: 1790.

The First Census of the United States, taken as of the first Monday in August, 1790, under the provisions of the second section of the first article of the Constitution, showed the population of the thirteen states then existing and of the unorganized territory to be, in the aggregate, 3,929,214. This population was distributed, as shown on Plate 2, almost entirely along the Atlantic seaboard, extending from the eastern boundary of Maine nearly to Florida, and in the region known as the Atlantic plain. Only a very small proportion of the inhabitants of the United States, not, indeed, more than 5 per cent, was found west of the Appalachian mountains. The average depth of settlement, in a direction at right angles to the coast, was 255 miles. The most populous areas were to be found in eastern Massachusetts, Rhode Island, Connecticut, and about New York city. The population had also extended north up the Hudson, so that the Hudson river valley, as far north as Albany, had become quite thickly settled. The settlements in Pennsylvania, which started from Philadelphia, extended northeast, and formed a solid body of occupation from New York, through Philadelphia, down to the upper part of Delaware.

The Atlantic coast, as far back as the limits of tide water, was well settled at this time from Casco bay south to the northern border of North Carolina, also around Charleston, South Carolina. In the "district of Maine" sparse settlement extended along the entire seaboard. The greater part of New Hampshire and Vermont was covered with settlements. In New York, branching off from the Hudson at the mouth of the Mohawk, the line of population followed a broad gap between the Adirondacks and the Catskills, and even reached beyond the center of the state, occupying the whole of the Mohawk valley and the country about the interior New York lakes. In Pennsylvania population had spread northwest, occupying not only the Atlantic plain, but, with

sparse settlements, the region traversed by the numerous parallel ridges of the eastern portion of the Appalachians. The general limit of settlement was at that time the southeastern edge of the Allegheny plateau, but beyond this, at the junction of the Allegheny and Monongahela rivers, a point early occupied for military purposes, considerable settlements existed which were established prior to the War of the Revolution. In Virginia settlements extended west beyond the Blue Ridge, and on the western slope of the Allegheny mountains, though very sparse. From Virginia, also, a narrow tongue of settlement, which was almost as populous as Vermont or Georgia, penetrated into the "Kentucky country," and down to the head of the Tennessee river in the great Appalachian valley, where the "state of Franklin" had been for four years a political unit. In North Carolina settlements were abruptly limited by the base of the Appalachians. The state was occupied with remarkable uniformity, except in its southern and central portions, where population was comparatively sparse. In South Carolina, on the other hand, there was evidence of much natural selection, apparently with reference to the character of the soil. Charleston was then a city of considerable magnitude, and about it was grouped a comparatively dense population; but all along a belt running southwest across the state, near its central part, settlement was very sparse. This area of scattered settlement joined that of central North Carolina, and ran east to the coast, near the junction of the two states. Farther west, in the "up country" of South Carolina, the density of settlement was noticeable, due to the improvement in soil. At that date settlements were almost entirely agricultural, and the causes for variation in their density were general. The movements of population at that epoch may be traced, in almost every case, to the character of the soil and to the facility of transportation to the seaboard; and, as the inhabitants were dependent mainly upon water transportation, the settlements also conformed very largely to navigable streams.

Outside the area of continuous settlement, which has been approximately sketched, were found a number of smaller settlements of greater or less extent. The principal one was located in the northern part of what was known as the "territory south of the river Ohio," and comprised an area of 10,900 square miles; another, in western Virginia, upon the Ohio and Kanawha rivers, comprised about 750 square miles; a third, in the southern part of the "territory south of the river Ohio," upon the Cumberland river, embraced about 1,200 square miles.

In addition to these, there were a score or more of small posts, or incipient settlements, scattered over what was an almost untrodden wilderness—such as Detroit, Vincennes, Kaskaskia, Prairie du Chien,

Mackinac, and Green Bay, besides the humble beginning of Elmira and Binghamton, in New York—which, even at that time, were outside the body of continuous settlement and embraced about 1,000 square miles.

The line which limited this body of settlement, following all its undulations, was 3,200 miles in length. In this measurement no account was made of slight irregularities, such as those in the ordinary meanderings of a river which forms the boundary line of population; but an account has been made of all the prominent irregularities of this frontier line, which seem to indicate a distinct change in the settlement of the country, either of progression or of retrogression. Thus the area of settlement formed that territory embraced between the frontier line and the coast, diminished by such unsettled areas as lay within it and increased by such settled areas as lay without it. These are not susceptible of very accurate determination, owing to the fact that the best maps are, to a certain extent, incorrect in boundaries and areas. The settled area of 1790, as indicated by the line traced, was 226,085 square miles. The entire body of continuously settled area lay between 31° and 45° north latitude and 67° and 83° west longitude. Beyond this were the smaller areas previously mentioned, which, added to the main body of settled area, gave as a total 239,935 square miles, the aggregate population being 3,929,214, and the average density of settlement 16.4 persons to the square mile.

The "district of Maine" belonged to Massachusetts; Georgia extended to the Mississippi river; Kentucky and Tennessee were known as the "territory south of the river Ohio," and Ohio, Indiana, Illinois, Michigan, Wisconsin, and a part of Minnesota, as the "territory northwest of the river Ohio." Spain claimed possession of Florida, with a strip along the southern border of Georgia, and all of the region west of the Mississippi river.

#### DISTRIBUTION OF POPULATION: 1800.

At the Second Census, that of 1800, the frontier line, as it appears on Plate 3, had advanced, so that while it embraced 282,208 square miles, it described a course, when measured in the same manner as that of 1790, of only 2,800 linear miles. The advancement of this line had taken place in every direction, though in some parts of the country much more prominently than in others.

In Maine and New Hampshire only a slight northern movement of settlement was apparent; in Vermont, on the other hand, while the settled area had not decidedly increased, its density had become greater. Massachusetts showed but little change, but in Connecticut the settlements along the lower course of the Connecticut river had appreciably increased.

In New York settlement had poured up the Hudson

to the mouth of the Mohawk, and thence, through the great natural roadway, westward. The narrow tongue, which before extended beyond the middle of the state, had now widened until it spread from the southern border of the state to Lake Ontario. A narrow belt of settlement stretched down the St. Lawrence and along all the northern border of the state to Lake Champlain, completely surrounding what may be characteristically defined as the Adirondack region.

In Pennsylvania settlements had extended up the Susquehanna and joined the New York groups, leaving an unsettled space in the northeast corner of the state, which comprised a section of rugged mountain country. With the exception of a little strip along the western border of Pennsylvania, the northern part of the state west of the Susquehanna was as yet entirely uninhabited. Population had streamed across the southern half of the state and settled in a dense body about the forks of the Ohio river, where the beginning of Pittsburgh may be noted, and thence extended slightly into the "territory northwest of the river Ohio."

In Virginia there was but little change, although there was a general extension of settlement, with an increase in density, especially along the coast. North Carolina was at that time almost entirely populated; the mountain region had, generally speaking, been nearly all reclaimed to the service of man. In South Carolina there was a general increase in density, while the southwestern border of the settled area had been extended to the Altamaha river. The settlements in northern Kentucky had spread southward across the state into Tennessee, forming a junction with the little settlement on the Cumberland river, noted at the date of the First Census. The group thus formed had extended down the Ohio, nearly to its junction with the Tennessee and the Cumberland, and across the Ohio river, where the beginning of Cincinnati can be noted. Other small settlements appeared at this time on that side of the river. On the east side of the Mississippi river was a strip of settlement along the bluffs below the Yazoo bottom. Above this, on the west side, was the beginning of St. Louis, not at that time within the United States, and directly across the river a settlement in what was known as "Indiana territory," while all the pioneer settlements previously noted had grown to a greater or less extent.

From the region embraced between the frontier line and the Atlantic must be deducted the Adirondack tract in northern New York, and the unsettled region in northern Pennsylvania already referred to, so that the actual area of settlement, bounded by a continuous line, was 271,908 square miles. All this lay between  $30^{\circ} 45'$  and  $45^{\circ} 15'$  north latitude, and  $67^{\circ}$  and  $88^{\circ}$  west longitude. To this should be added the aggregate extent of all settlements lying outside of the frontier line, which collectively amounted to 33,800 square miles,

making a total area of settlement of 305,708 square miles. As the aggregate population was 5,308,483, the average density of settlement was 17.4 persons to the square mile.

The early settlements of this period had been much retarded at many points by the opposition of Indian tribes, but in the neighborhood of the more densely settled portions of the northern part of the country these obstacles had been of less magnitude than farther south. In Georgia, especially, the large and powerful tribes of Creeks and Cherokees had stubbornly opposed the progress of population.

During the decade, Vermont, formed from the New Hampshire grants, territory claimed by both New York and New Hampshire, had been admitted to the Union; also Kentucky and Tennessee, formed from the "territory south of the river Ohio"; Mississippi territory had been organized, having, however, very different boundaries from what was known later as the state of that name; while the "territory northwest of the river Ohio" had been divided and Indiana territory organized from the western portion. The District of Columbia, comprising 100 square miles, was formed in 1791 from portions of Maryland and Virginia.

#### DISTRIBUTION OF POPULATION: 1810.

During the decade from 1800 to 1810 (Plate 4) great changes will be noted, especially the extension of sparse settlements in the interior. The hills of western New York had become almost entirely populated, settlements had spread along the south shore of Lake Erie well over into Ohio, and effected a junction with the previously existing body of population about the forks of the Ohio river, leaving unsettled an included heart-shaped area in northern Pennsylvania, which comprised the rugged country of the Appalachian plateau. The occupation of the Ohio river valley had now become complete, from its head to its mouth, with the exception of small gaps below the mouth of the Tennessee. Spreading in every direction from the "dark and bloody ground" of Kentucky, settlement covered almost the entire state, while its southern border line had been extended to the Tennessee river, into what was known as "Mississippi territory." In Georgia settlements were still held back by the Creek and Cherokee Indians, although in 1802 a treaty with the former tribe relieved the southwestern portion of the state of their presence, and left the ground open for occupancy by the whites. In Ohio, starting from the Ohio river and from southwestern Pennsylvania, settlements had worked north and west until they covered two-thirds of the area of the state. Michigan and Indiana were still virgin territory, with the exception of a small strip about Detroit, in the former, and two small areas in the latter, one in the southeastern part of the territory extending along the Ohio river, and one in the southwestern part extending

up the Wabash from its mouth to and including the settlement at Vincennes. St. Louis, from a fur-trading post, had become an important center of settlement, population having spread north above the mouth of the Missouri and south along the Mississippi to the mouth of the Ohio. On the Arkansas, near its mouth, was a similar body of settlement. The transfer of the territory of Louisiana to our jurisdiction, which was effected in 1803, had brought into the country a large body of population, which stretched along the Mississippi river from its mouth nearly to the northern limit of what was known as the "territory of Orleans" and up the Red and Ouachita (Washita) rivers, in general occupying the alluvial regions. The incipient settlements noted on Plate 3, in Mississippi territory effected a junction with those of Louisiana territory, while in the lower part of Mississippi territory a similar patch appeared upon the Mobile river.

During this decade large additions were made to the territory of the United States, and many changes effected in the lines of the interior division. The purchase of Louisiana, an empire in itself, had added 890,921 square miles to the United States, and had given to the people absolute control of the Mississippi and its navigable branches. Georgia, during the same period, had ceded to the United States about two-thirds of its territory. The state of Ohio had been formed from a portion of what had been known as the "territory northwest of the river Ohio." Michigan territory had been erected, comprising at that time the peninsula north of Ohio and the lower part of Indiana territory and south of the straits. Indiana territory had become restricted in its limits to the following boundaries: Lake Michigan and Michigan on the north, Ohio on the east, the Ohio river on the south, and Illinois territory on the west, with a detached area between Lake Superior and Lake Michigan. Illinois territory comprised all territory west of Lake Michigan and Indiana territory, north of the Ohio, and east of the Mississippi. The "territory of Orleans," which was located west of the Mississippi, had been carved out of the Louisiana purchase. The remainder of the territory acquired from France was known by the name of "Louisiana territory."

At this date the frontier line was 2,900 miles long, and the settled territory included between this imaginary line and the Atlantic comprised 408,895 square miles. From this must be deducted several large areas of unsettled land: First, the area in northern New York, somewhat smaller than ten years before, but by no means inconsiderable in extent; second, the heart-shaped area in northwestern Pennsylvania, embracing part of the Allegheny plateau, in size about equal to the unsettled area in New York; third, a strip along the western part of Virginia, extending south from the Potomac, taking in a part of eastern Kentucky and southwestern Virginia, and extending nearly to the

border line of Tennessee; fourth, a comparatively small area in northern Tennessee upon the Cumberland plateau. These tracts together comprised about 26,050 square miles, making the approximate area of settlement included within the frontier line 382,845 square miles. All this lay between latitude  $29^{\circ} 30'$  and  $45^{\circ} 15'$  north, and longitude  $67^{\circ}$  and  $88^{\circ} 30'$  west.

Beyond the frontier there were, in addition to the steadily increasing number of outposts and minor settlements, several considerable bodies of population, which have been already noted. The aggregate extent of these, and of the numerous small patches of population scattered over the West and South, may be estimated at 25,100 square miles, making the total area of settlement in 1810, 407,945 square miles. The aggregate population was 7,239,881, and the average density of settlement 17.7 persons to the square mile.

#### DISTRIBUTION OF POPULATION: 1820.

The decade from 1810 to 1820 (Plate 5) witnessed several territorial changes. Florida at this date (1820) had not actually become a part of the United States; the treaty with Spain to transfer this territory to the United States had been signed, but had not gone into effect. Alabama and Mississippi, made from Mississippi territory, had been organized and admitted as states, Alabama having been made a territory in 1817. Indiana and Illinois appeared as states, with restricted limits. The "territory of Orleans," with somewhat enlarged boundaries, had been admitted as a state and was known as Louisiana. The "district of Maine" had also been erected into a state. Arkansas territory had been cut from the southern portion of the territory of Louisiana. The Indian territory had been constituted to serve as a reservation for the Indian tribes. Michigan territory included all area east of the Mississippi river and north of Illinois, Indiana, and Ohio. That part of the old Louisiana territory remaining, after cutting out Arkansas and the Indian territory, had received the name of "Missouri territory."

Again, in 1820, there was a great change in regard to the frontier line. It had become vastly more involved, extending from southeastern Michigan, on Lake St. Clair, southwest into Missouri territory; thence, making a great semicircle to the east, it swept west again around a body of population in Louisiana, and ended along the Gulf coast in that state. The area east of this line had increased immensely, but much of this increase was balanced by the great extent of unsettled land included within it.

Taking up the changes in detail, the great increase in the population of central New York will be noted, a belt of increased settlement having swept up the Mohawk valley to Lake Ontario, and along its shore nearly to the Niagara river. A similar increase was experienced about the forks of the Ohio river, and in

northern Pennsylvania the unsettled region on the Appalachian plateau had sensibly decreased in size. The unsettled area in western Virginia and eastern Kentucky had very greatly diminished, population having extended almost entirely over the Allegheny region in these states. The little settlements about Detroit had extended along the shore of Lake Erie, until they had joined those in Ohio. The frontier line in Ohio had crept north and west, leaving only the northwestern corner of the state unoccupied. Population had spread north from Kentucky and west from Ohio into southern Indiana, covering sparsely the lower third of that state. The groups of population around St. Louis, which at the time of the previous census were enjoying a rapid growth, had extended widely, making a junction with the settlements of Kentucky and Tennessee, along a broad belt in southern Illinois; following the main water courses, population had gone many scores of miles up the Mississippi and the Missouri rivers. The settlements in Alabama, which previously had been very much retarded by the Creeks, had been rapidly reinforced and extended, in consequence of the victory of General Jackson over this tribe and the subsequent cession of portions of this territory. Immigration to Alabama had already become considerable, indicating that in a short time the whole central portion of the state, embracing a large part of the region drained by the Mobile river and its branches, would be covered with settlements, to extend north and effect a junction with the Tennessee and Kentucky settlements, and west across the lower part of Mississippi, until they met the Louisiana settlements. In Georgia the Cherokees and the Creeks still held back settlement along the line of the Altamaha river. There were, however, scattered bodies of population in various parts of the state, though of small extent. In Louisiana is noted a gradual increase of the extent of redeemed territory, which appeared to have been limited almost exactly by the borders of the alluvial region. In Arkansas the settlements, which in 1810 were near the mouth of the Arkansas river, had extended up the bottom lands of that river, forming a body of population of considerable size. Besides these, a settlement was found in the south central part of the territory, at the southeastern base of the hill region, and another in the prairie region in the northern part.

The frontier line had a length of 4,100 miles, embracing an area (after excluding all unsettled regions included between it, the Atlantic, and the Gulf) of 504,517 square miles, all lying between 29° 30' and 45° 30' north latitude, and between 67° and 93° 45' west longitude. Outside the frontier line were a few settlements on the Arkansas, White, and Ouachita (Washita) rivers, in Arkansas, as before noted, as well as those in the Northwest. Computing these at 4,200 square miles in the aggregate, there was a total settled area of 508,717 square miles, the aggregate population

being 9,638,453, and the average density of settlement 18.9 persons to the square mile.

#### DISTRIBUTION OF POPULATION: 1830.

In the early part of the decade from 1820 to 1830 (Plate 6) the final transfer of Florida from Spanish jurisdiction was effected, and it became a territory of the United States. Missouri, carved from the southeastern part of the old Missouri territory, had been admitted as a state; otherwise the states and territories had remained nearly as before. Settlement during the decade had spread greatly. The westerly extension of the frontier did not appear to be so great as in some former periods, the energies of the people having been mainly given to settling the included areas. In other words, the decade from 1810 to 1820 seems to have been one of blocking out work which the succeeding decade was largely occupied in completing.

During this period the Indians, especially in the South, had still delayed settlement to a great extent. The Creeks and Cherokees in Georgia and Alabama, and the Choctaws and Chickasaws in Mississippi, occupied large areas of the best portions of those states and successfully resisted encroachment upon their territory. Georgia, however, had witnessed a large increase in settlement during the decade. The settlements which heretofore had extended along the Altamaha had spread westward across the central portion of the state to its western boundary, where they reached the barrier of the Creek territory. Stopped at this point, they had moved south into the southwest corner, and over into Florida, extending even to the Gulf coast. They stretched toward the west across the southern part of Alabama, and joined that body of settlement which had previously formed in the drainage basin of the Mobile river. The Louisiana settlements had but slightly increased, and no great change appeared to take place in Mississippi, owing largely to the cause previously noted, viz, the occupancy of this area by Indians. In Arkansas the spread of settlement had been in a strange and fragmentary way. A line reached from Louisiana to the Arkansas river and along its course to the boundary of the Indian territory. It extended up the Mississippi, and joined the body of population in Tennessee. A branch extended northeast from near Little Rock to the northern portion of the territory. All the settlements within Arkansas territory were as yet very sparse. In Missouri the principal extension of settlement had been in a broad belt along the Missouri river, reaching to the state line, at the mouth of the Kansas river, where quite a dense body of population appeared. Settlement had progressed in Illinois, from the Mississippi river east and north, covering more than half of the state. In Indiana it followed the Wabash river, and thence spread toward the northern state line. But a small portion of Ohio remained unsettled. The sparse settlements about

Detroit, in Michigan territory, had broadened out, extending toward the interior of the lower peninsula, while isolated patches appeared in various other localities.

Turning to the more densely settled parts of the country, it will be noted that settlement was slowly making its way northward in Maine, although discouraged by the poverty of the soil and the severity of the climate. The unsettled tract in northern New York was decreasing, but very slowly, as was also the case with the unsettled area in northwestern Pennsylvania. In western Virginia the unsettled tracts were reduced to almost nothing, while the unsettled region in eastern Tennessee on the Cumberland plateau was rapidly diminishing.

In 1830 the frontier line had a length of 5,300 miles, and the aggregate area embraced between the Atlantic Ocean, the Gulf of Mexico, and the frontier line was 725,406 square miles. Of this, however, not less than 97,389 square miles were within the included unsettled tracts, leaving only 628,017 square miles as the settled area east of the frontier line, all of which lay between latitude  $29^{\circ} 15'$  and  $46^{\circ} 15'$  north, and longitude  $67^{\circ}$  and  $95^{\circ}$  west.

Outside the body of continuous settlement large groups were no longer found, but several small patches of population appeared in the states of Ohio, Indiana, and Illinois, and Michigan territory, aggregating about 4,700 square miles, making a total settled area in 1830 of 632,717 square miles. As the aggregate population was 12,866,020, the average density of settlement was 20.3 persons to the square mile.

#### DISTRIBUTION OF POPULATION: 1840.

During the decade ending in 1840 (Plate 7) the territory of Michigan had been divided; that part east of Lake Michigan and north of Ohio and Indiana, together with the greater part of the peninsula between lakes Superior and Michigan, had been created into the state of Michigan, the remainder being known as Wisconsin territory. Iowa territory had been created out of that part of Missouri territory lying north of the Missouri state line and east of the Missouri river, and Arkansas had been admitted to the Union.

In 1840 we find, by examining Plate 7, that the settlements had been growing steadily and the frontier line of 1810 and 1820 advanced still farther. From Georgia, Alabama, and Mississippi the Cherokee, Creek, Choctaw, and Chickasaw Indians, who, at the time of the previous census, occupied large areas in these states, and formed a very serious obstacle to settlement, had been removed to Indian Territory, constituted under the act of June 30, 1834, and their country opened up to settlement. Within the two or three years which had elapsed since the removal of these Indians the lands relinquished by them had been entirely taken up and the country covered with comparatively

dense settlement. The Sac and Fox and the Potawatomi tribes having been removed to Indian Territory, their country in northern Illinois had been promptly taken up and settlements had spread over nearly the whole extent of Indiana and Illinois, also across Michigan and Wisconsin as far north as the forty-third parallel. Population had crossed the Mississippi river into Iowa territory and occupied a broad belt up and down that river. In Missouri settlements spread north from the Missouri river nearly to the boundary of the state, and south until they covered most of the southern portion, connecting (on the right and on the left) with the settlements of Arkansas. The unsettled area found in southern Missouri, together with that in northwestern Arkansas, was due to the hilly and rugged nature of the country and to the poverty of the soil, as compared with the rich prairie lands surrounding. In Arkansas the settlements remained sparse, but had spread widely away from the streams, covering much of the prairie regions of the state. There was, beside the area in northwestern Arkansas just mentioned, a large area in the northeastern part of the state, almost entirely within the alluvial regions of the Black river, and also one in the southern portion, extending over into northern Louisiana, which was entirely in the fertile prairie section. The fourth unsettled region lay in the southwestern part of the state.

In the older states we note a gradual decrease in the unsettled areas, as in Maine and New York. In northern Pennsylvania the unsettled section had nearly disappeared. A small portion of the unsettled patch on the Cumberland plateau still remained. In southern Georgia the Okefenokee swamp and the pine barrens adjacent had thus far repelled settlement, although population had increased in Florida, passing entirely around this area to the south. The greater part of Florida, however, including nearly all the peninsula and several large areas along the Gulf coast, still remained unsettled. This was due in part to the nature of the country, being alternately swamp and hummock, and in part to the hostility of the Seminole Indians, who still occupied nearly all of the peninsula.

The frontier line in 1840 had a length of 3,300 miles. This shrinking in its length was due to its rectification on the northwest and southwest, owing to the settlement of the entire interior. It inclosed an area of 900,658 square miles, lying between latitude  $29^{\circ}$  and  $46^{\circ} 30'$  north and longitude  $67^{\circ}$  and  $95^{\circ} 30'$  west. The unsettled portions had, as noted above, decreased to 95,516 square miles, although they were still quite noticeable in Missouri and Arkansas. The settled area outside the frontier line was notably small, and amounted in the aggregate to only 2,150 square miles, making the approximate settled area 807,292 square miles in 1840. The aggregate population being 17,069,453, the average density was 21.1 persons to the square mile.

## DISTRIBUTION OF POPULATION: 1850.

Between 1840 and 1850 (Plate 8) the limits of our country were further extended by the annexation of Texas and of territory acquired from Mexico by the treaty of Guadalupe Hidalgo. The states of Florida, Iowa, and Wisconsin had been admitted to the Union, and the territories of Oregon and Minnesota created. That portion of the District of Columbia south of the Potomac originally ceded by Virginia was receded to that state July 9, 1846. An examination of the map shows that the frontier line had changed very little during the decade. At the western border of Arkansas the extension of settlement was peremptorily limited by the boundary of Indian Territory; and, curiously enough, the western boundary of Missouri also put almost a complete stop to all settlement, notwithstanding the fact that some of the most densely populated portions of the state lay directly on that boundary.

In Iowa settlements had made some advance, moving up the Missouri, the Des Moines, and other rivers. The settlements in Minnesota at and about St. Paul, which existed in 1840, had greatly extended up and down the Mississippi river, while scattered bodies of population appeared in northern Wisconsin. In the southern part of the state settlement had made considerable advance, especially in a northeasterly direction toward Green bay. In Michigan the change had been very slight.

Texas, for the first time on the map of the United States, appeared with a considerable extent of settlement; in general, however, it was very sparse, most of it lying in the eastern part of the state, and being largely dependent upon the grazing industry.

The included unsettled areas now were very small and few in number. There still remained one in southern Missouri, in the hilly country; a small one in northeastern Arkansas, in the swampy and alluvial region; and one in the similar country in the Yazoo bottom lands in western Mississippi. Along the coast of Florida were found two patches of considerable size, which were confined to the swampy coast regions. The same was the case along the coast of Louisiana. The sparse settlements of Texas were also interspersed with several patches devoid of settlement. In southern Georgia the large unsettled area heretofore noted, extending also into northern Florida, had disappeared, and the Florida settlements had already reached southward to a considerable distance in the peninsula, being now free to extend without fear of hostile Seminoles, the greater part of whom had been removed to Indian Territory.

The frontier line, which now extended around a considerable part of Texas and issued on the Gulf coast at the mouth of the Nueces river, was 4,500 miles in length. The aggregate area included by it was about 1,005,213 square miles, from which deduction must be made for unsettled area, in all 64,339 square miles.

The isolated settlements lying outside this body in the western part of the country amounted to 4,775 square miles.

It was no longer true that a frontier line drawn around from the St. Croix river to the Gulf of Mexico embraced all the population of the United States, except a few outlying posts and small settlements. From the Pacific a line could be made to encircle 80,000 miners and adventurers, the pioneers of more than one state of the Union soon to arise on that coast. This body of settlement had been formed, in the main, since the acquisition of the territory by the United States, and, it might even be said, within the last year (1849-50), dating from the discovery of gold in California. These settlements may be computed rudely at 33,600 square miles, making a total area of settlement of 979,249 square miles, the aggregate population being 23,191,876, and the average density of settlement 23.7 persons to the square mile.

## DISTRIBUTION OF POPULATION: 1860.

In 1860 (Plate 9) the first extension of settlements beyond the line of the Missouri river is noted. The march of settlement up the slope of the Great plains had begun. In Kansas and Nebraska population was found beyond the ninety-seventh meridian. Texas had filled up even more rapidly, its extreme settlements reaching to the one-hundredth meridian, while the gaps noted at the date of the previous census had all been filled by population. The incipient settlements about St. Paul, in Minnesota, had grown like Jonah's gourd, spreading in all directions, and forming a broad band of union with the main body of settlement down the line of the Mississippi river. In Iowa settlements had crept steadily northwest along the course of the drainage until the state was nearly covered. Following the Missouri, population had reached out beyond the northern border of Nebraska territory. In Wisconsin the settlements had moved at least one degree farther north, while in the lower peninsula of Michigan they had spread up the lake shores, nearly encircling it on the side next to Lake Michigan. On the upper peninsula the little settlements which appeared in 1850 in the copper region on Keweenaw point had extended and increased greatly in density, as that mining interest had developed in value. In northern New York there was apparently no change in the unsettled area. In northern Maine was noted for the first time a decided movement toward the settlement of its unoccupied territory in the extension of the settlements on its eastern and northern border along the St. John river. The unsettled regions in southern Missouri, northeastern Arkansas, and northwestern Mississippi had become sparsely covered by population. Along the Gulf coast there was little or no change; in the peninsula of Florida there was a slight extension of settlement south.

Between 1850 and 1860 the territorial changes noted were as follows: The territory of New Mexico had been created, and the territory south of the Gila river, which had been acquired from Mexico by the Gadsden purchase (1853), added to it; Minnesota admitted as a state; Kansas and Nebraska territories formed from parts of Missouri territory; California and Oregon admitted as states; while in the unsettled parts of the Cordilleran region two new territories, Washington and Utah, had been created, the former out of part of Oregon territory, and the latter from part of the Mexican cession.

The frontier line now measured 5,300 miles, and embraced approximately 1,126,518 square miles, lying between latitude  $28^{\circ} 30'$  and  $47^{\circ} 30'$  north and between longitude  $67^{\circ}$  and  $99^{\circ} 30'$  west. From this, deduction should be made on account of unsettled portions, amounting to 39,139 square miles, found mainly in New York and along the Gulf coast. The outlying settlements beyond the one-hundredth meridian were now numerous. They included, among others, a strip extending far up the Rio Grande in Texas, embracing 7,475 square miles (a region given over to the raising of sheep); while the Pacific settlements, comprising two sovereign states, were nearly three times as extensive as in 1850, embracing 99,900 square miles. The total area of settlement in 1860 was 1,194,754 square miles, the aggregate population 31,443,321, and the average density of settlement 26.3 persons to the square mile.

#### DISTRIBUTION OF POPULATION: 1870.

During the decade from 1860 to 1870 a number of territorial changes had been effected in the extreme West. A great tract called Alaska, stretching into Arctic regions and containing few people, was purchased from Russia in 1867. Arizona, Colorado, Dakota, Idaho, Montana, and Wyoming had been organized as territories. Kansas and Nebraska had been admitted as states. Nevada was made a territory in 1861 and admitted as a state in 1864. West Virginia had been cut off from the mother commonwealth and made a separate state.

In 1870 (Plate 10) a gradual and steady extension of the frontier line west over the Great plains will be noted. The unsettled areas in Maine, New York, and Florida had not greatly diminished, but in Michigan the extension of the lumber interests northward and inward from the lake shore had reduced considerably the unsettled portion. On the upper peninsula settlements had increased somewhat, owing to the discovery of rich iron deposits destined to play so important a part in the manufacturing industry of the country.

Settlement had spread west to the boundary of the state in southern Minnesota, and up the Big Sioux river in southeastern Dakota. Iowa was entirely reclaimed, excepting a small area of perhaps 1,000

square miles in its northwestern corner. Through Kansas and Nebraska the frontier line had moved steadily west, following in general the courses of the larger streams and of the newly constructed railroads. The frontier in Texas had changed but little, that little consisting of a general westerly movement. In the Cordilleran region, settlements had extended but slowly. Those upon the Pacific coast showed little change, either in extent or in density. In short, everywhere the effects of the war were seen in the partial arrest of the progress of development.

Settlements in the West, beyond the frontier line, had arranged themselves mainly in three belts. The most eastern of these was located in New Mexico, central Colorado, and Wyoming, along the eastern base of and among the Rocky mountains. To this region settlement was first attracted in 1859 and 1860 by the discovery of mineral deposits, and had been retained by the richness of the soil and by the abundance of water for irrigation, which served to promote the agricultural industry.

The second belt of settlement was that of Utah, settled in 1847 by the Mormons fleeing from Illinois. This community differed radically from that of the Rocky mountains, being essentially agricultural, mining having been discountenanced from the first by the church authorities, as tending to fill the "Promised land" with Gentile adventurers and thereby imperil Mormon institutions. The settlements of this group, as seen on the map for 1870, extended from southern Idaho south through central Utah, and along the eastern base of the Wasatch range to the Arizona line. They consisted mainly of scattered hamlets and small towns, about which were grouped the farms of the communities.

The third strip was that in the Pacific states and territories, extending from Washington territory south to southern California and east into western Nevada. This group of population owed its existence to the mining industry; originated in 1849 by a great immigration movement, it had grown by successive impulses as new fields for rapid wealth had been developed. However, the value of this region to the agriculturist had been recognized and the character of the occupations of the people was undergoing a marked change.

These three great western groups comprised nine-tenths of the population west of the frontier line. The remainder was scattered about in the valleys and the mountains of Montana, Idaho, and Arizona, at military posts, isolated mining camps, and on cattle ranches.

The frontier line in 1870 embraced 1,178,068 square miles, between  $27^{\circ} 15'$  and  $47^{\circ} 30'$  north latitude, and between  $67^{\circ}$  and  $99^{\circ} 45'$  west longitude. From this, however, deduction must be made of 37,739 square miles on account of interior portions uninhabited. What remains should be increased by 11,810 square miles, on account of settled tracts east of the one-hundredth meridian, lying outside of the frontier line, and

120,100 square miles on account of settlements in the Cordilleran region and on the Pacific coast, making the total area of settlement for 1870 not less than 1,272,239 square miles. The aggregate population was 38,558,371, and the average density of settlement 30.3 persons to the square mile.

DISTRIBUTION OF POPULATION: 1880.

During the decade from 1870 to 1880 Colorado had been added to the sisterhood of states. The first noticeable point in examining Plate 11, showing the areas of settlement at this date, as compared with previous ones, is the great extent of territory which was brought under occupation during the decade. Not only had settlement spread west over large areas in Dakota, Nebraska, Kansas, and Texas, thus moving the frontier line of the main body of settlement west many scores of miles, but the isolated settlements of the Cordilleran region and of the Pacific coast showed enormous accessions of occupied territory.

The migration of farming population to the north-eastern part of Maine had widened the settled area to a marked extent, probably more than had been done during any previous decade. The unsettled portion of the Adirondack region of northern New York had decreased in size and its limits had been reduced practically to the actual mountain tract. The most notable change, however, in the North Atlantic states, also in Ohio and Indiana, had been the increase in density of population and the migration to cities, with the consequent increase of urban population, as indicated by the number and size of the spots representing these cities upon the map. Throughout the Southern states there is to be noted not only a general increase in the density of population and a decrease of unsettled areas, but a greater approach to uniformity of settlement throughout the whole region. The unsettled area of the peninsula of Florida had decreased decidedly, while that previously seen along the upper coast of Florida and Louisiana had entirely disappeared. Although the Appalachian mountain system was still distinctly outlined by its general lighter shade of color on the map, its density of population more nearly approached that of the country on the east and on the west. In Michigan there was a very decided increase of the settled region. Settlements had surrounded the head of the lower peninsula, and left only a very small body of unsettled country in the interior. In the upper peninsula copper and iron interests and the railroads which subserve them had peopled quite a large extent of territory. In Wisconsin the unsettled area was rapidly decreasing as railroads stretched out over the vacant tracts. In Minnesota and in eastern Dakota the building of railroads and the development of the latent capabilities of this region in the cultivation of wheat caused a rapid flow of settle-

ment, and the frontier line of population, instead of returning to Lake Michigan, as it did ten years before, met the boundary line of the British possessions west of the ninety-seventh meridian. The settlements in Kansas and Nebraska had made great strides over the plains, reaching at several points the boundary of the humid region, so that their westward extension beyond this point must be governed hereafter by the supply of water in the streams. As a natural result, settlements followed these streams in long ribbons of population. In Nebraska these narrow belts reached the western boundary of the state at two points, one upon the South Platte and the other upon the Republican river. In Kansas, too, settlements followed the Kansas river, its branches, and the Arkansas nearly to the western boundary of the state. Texas also had made great strides, both in the extension of the frontier line of settlement and in the increase in the density of population, due to the building of railroads and to the development of the cattle and sheep raising industry, and other agricultural interests. The heavy population in the prairie portions of the state is explained by the railroads which traversed them. In Dakota, besides the agricultural region in the eastern part of the territory, may be noted the formation of a body of settlement in the Black hills, in the southwest corner, which in 1870 was a part of the reservation of the Sioux Indians. This settlement was the result of the discovery of valuable gold deposits. In Montana the settled area had been greatly extended, and as it was mainly due to agricultural interests, was found chiefly along the courses of the streams. Mining, however, played not a small part in this increase in settlement. Idaho, too, showed a decided growth from the same causes. The small settlements which in 1870 were located about Boise city and near the mouth of the Clearwater river had extended their areas to many hundreds of square miles. The settlement in the south-eastern corner of the territory was almost entirely of Mormons, and had not made a marked increase.

Of all the states and territories of the Cordilleran region, Colorado had made the greatest stride during the decade. From the narrow strip of settlement extending along the immediate base of the Rocky mountains, the belt increased so that it comprised the whole mountain region, besides a great extension outward upon the plains. This increase was the result of the discovery of extensive and very rich mineral deposits about Leadville, producing a "stampede" second only to that of 1849 and 1850 to California. Miners spread over the whole mountain region, until every range and ridge swarmed with them. New Mexico showed but little change, although the extension of railroads in the territory and the opening up of mineral resources promised in the near future to add largely to its population. Arizona, too, although its extent of settlement had increased somewhat, was but just commencing to enjoy a

period of rapid development, owing to the extension of railroads and to the suppression of hostile Indians. Utah presented a case dissimilar to any other of the territories—a case of steady growth, due almost entirely to its agricultural capabilities and to the policy of the Mormon church, which had steadily discountenanced mining and speculation in all forms, and encouraged in every way agricultural pursuits. Nevada showed a slight extension of settlement due mainly to the gradual increase in agricultural interests. The mining industry was probably not more flourishing in this state than it was ten years before, and the population dependent upon it was, if anything, less in number. In California the attention of the people had become devoted more and more to farming, at the expense of mining and cattle raising. The population in some of the mining regions had decreased, while over the area of the great valley and in the fertile valleys of the coast ranges it had increased. In Oregon the increase had been mainly in the section east of the Cascade range, a region drained by the Deschutes and the John Day rivers, and by the smaller tributaries of the Snake, a region which, with the corresponding section in Washington territory, was coming to the front as a wheat-producing district. In most of the settled portions here spoken of, irrigation was not necessary for the cultivation of crops, consequently the possibilities of the region in the direction of agricultural development were very great. In Washington territory, which in 1870 had been scarcely touched by immigration, the valley west of the Cascade mountains was fairly well settled throughout, while the stream of settlement had poured up the Columbia into the valleys of the Wallawalla and Snake rivers and the great plain of the Columbia, induced thither by the facilities for cattle raising and by the great profits of wheat cultivation.

The length of the frontier line in 1880 was 3,337 miles. The area included between this line, the Atlantic ocean, the Gulf coast, and the northern boundary was 1,398,940 square miles, lying between 26° and 49° north latitude and 67° and 102° west longitude. From this must be deducted, for unsettled areas, a total of 89,400 square miles distributed as follows:

STATE.	Square miles.
Maine.....	12,000
New York.....	2,200
Michigan.....	10,200
Wisconsin.....	10,200
Minnesota.....	34,000
Florida.....	20,800

To the remaining 1,309,540 square miles, must be added the isolated areas of settlement in the Cordilleran region and the extent of settlement on the Pacific coast, which amounted, in the aggregate, to 260,025 square miles, making a total settled area of 1,569,565 square

miles. The population was 50,155,783, and the density of settlement 32.0 persons to the square mile.

#### DISTRIBUTION OF POPULATION: 1890.

During the decade from 1880 to 1890 a trifling change was made in the boundary between Nebraska and Dakota which slightly increased the area of Nebraska. Dakota territory was divided and the states of North Dakota and South Dakota admitted. Montana and Washington were added to the sisterhood of states. The territory of Oklahoma was created out of the western half of Indian Territory, to which was added the strip of public land lying north of the panhandle of Texas.

The most striking fact connected with the extension of settlement during this decade was the numerous additions which were made to the settled area within the Cordilleran region, as defined on Plate 12. Settlements spread westward up the slope of the plains until they joined the bodies formerly isolated in Colorado, forming a continuous body of settlement from the East to the Rocky mountains. Practically the whole of Kansas became a settled region, and the unsettled area of Nebraska was reduced in dimensions to one-third of what it was ten years before. What had been a sparsely settled region in Texas in 1880, became the most populous part of the state, while settlements had spread westward to the escarpment of the Staked plains. The unsettled regions of North Dakota and South Dakota were reduced to about one-half their former dimensions. Settlements in Montana spread until they occupied practically one-third of the state. In New Mexico, Idaho, and Wyoming considerable extensions of area were made. In Colorado, in spite of the decline of the mining industry and the depopulation of its mining regions, settlement spread over two-thirds of the state. Oregon and Washington showed equally rapid progress, and California, although its mining regions had suffered, made great inroads upon its unsettled regions, especially in the southern part. Of all the Western states and territories Nevada alone was at a standstill in this respect, its settled area remaining practically the same as in 1880. When it is remembered that the state had lost over one-third of its population during the decade, the fact that it held its own in settled area is surprising, until it is understood that the state had undergone a material change in occupations, and that the inhabitants, instead of being closely grouped and engaged in mining pursuits, had scattered along its streams and engaged in agriculture.

Settlement was spreading with some rapidity in Maine, its unsettled area having dwindled from 12,000 to about 6,000 square miles. The unsettled portion of the Adirondack region in New York had also diminished, there remaining but 1,000 square miles. The frontier had been pushed still farther south in Florida,

and the unsettled area reduced from 20,800 to about 15,000 square miles.

Lumbering and mining interests had practically obliterated the wilderness of Michigan, and reduced that of Wisconsin to less than one-half of its former area. In Minnesota the area of the wild northern forests had been reduced from 34,000 to 23,000 square miles.

Up to and including 1880, the country had a frontier of settlement, but in 1890 the unsettled area had been so broken into by isolated bodies of settlement that there could hardly be said to be a frontier line. Its extent and westerly movement can not, therefore, be further discussed.

In 1890 the total population returned by the general enumeration was 62,622,250, and the settled area amounted to 1,947,280, making a density of 32.2 persons to a square mile.

#### DISTRIBUTION OF POPULATION: 1900.

The Twelfth Census (Plate 13) marked one hundred and ten years' growth of the United States, during which period the population has increased more than twenty-one times; the country has grown from groups of settlements of less than 4,000,000 people to one of the leading nations of the world, with a population of nearly 85,000,000. In the decade from 1890 to 1900, Idaho, Wyoming, and Utah were admitted as states, and numerous additions of territory were made, comprising Hawaii, Porto Rico, Philippine Islands, Guam, and Samoa, covering an area of nearly 130,000 square miles with over 8,000,000 inhabitants.

It is a peculiar fact that, in spite of the great increase in population of continental United States from 1890 to 1900, the unsettled area has also increased, principally in the Western states. In these states, however, the population of the settled area has increased sufficiently to balance the loss in the sparsely settled districts, and the density of population for the state or territory, as a whole, has not decreased, except in Nevada. The unsettled area has materially increased in Arizona, California, Colorado, Idaho, Kansas, Nevada, New Mexico, and Oregon, while in Nebraska, Montana, Texas, and Wyoming slight increases are also noted. The western portions of Kansas and Nebraska show an increase in unsettled area, although the density of population of the state, as a whole, has not decreased, owing to the increase of population in the eastern portions of these states; this increase, however, is slight, being but 1 person to 10 square miles in Nebraska, and 1 person to 2 square miles in Kansas.

In May, 1890, the territory of Oklahoma was created, and a month later the enumeration showed an area of settlement of 2,890 square miles, which, in 1900, had increased to 32,432 square miles, an actual increase in the settled area of 29,542 square miles, a greater increase

than that of any other state or territory, due to the increase in population during the decade from 78,475 to 398,331, or 407.6 per cent.

Indian Territory also made a remarkable increase in population, but, as it was not divided into counties, no detailed computation of the density of settlement or comparison of the increase in settled area could be made. The area of settlement, computed by taking each Indian reservation as a unit, showed that every portion of the territory had a density of more than 2 persons to a square mile.

The unsettled area of Maine remained practically unchanged, although the second group, from 6 to 18 persons to a square mile, greatly increased. In northern New York the unsettled area of the Adirondack region has been entirely obliterated by advancing settlement. In Florida this area was practically unchanged. Mining and lumbering enterprises and the extension of railroads have effaced the unsettled area in Wisconsin. In Minnesota the opening of Indian reservations, the growth of mining and lumbering enterprises, and the extension of railroads have caused a great influx of settlement to the northern portion and the unsettled area has been reduced 7,000 square miles. North Dakota has decreased its unsettled area by 18,000 square miles and extended its area of 2 to 6 persons to a square mile north and west to the Canadian line and nearly to the border of Montana. The eastern part of the state, especially in the valley of the Red River of the North, shows quite an increase in the area of 6 to 18 persons to a square mile. In South Dakota very little change is noted in the unsettled area, but the group from 2 to 6 has increased, and in the southeastern portion of the state the group of 18 to 45 has enlarged its area. The unsettled area in Texas has shown a slight growth, the increase in population being principally in the eastern half. The unsettled area in the state of Washington has decreased since 1890, while in Montana, Oregon, and California an increase is noted. Nevada shows a great decrease in its settled area, the entire state having a population of 1 person to each  $2\frac{1}{2}$  square miles of area; there were, however, patches of settlement, as shown on Plate 13, with a population of from 2 to 6 persons to a square mile.

The total land area of continental United States, in 1900, was 2,970,230 square miles, and the aggregate population, including Indians, 75,994,575, giving a density of 25.6. Excluding the unsettled area of 1,044,640 square miles, the density of population of the settled area in 1900 was 39.5 persons to the square mile.

After studying the increase in population of the United States from 1790 to 1900, it will be of interest to compare its growth in population during the past century with that of the principal nations of Europe; Plate 14 represents graphically the growth in popula-

tion of the United States and nine of the most populous countries of Europe from 1800 to 1900. As it was impossible to obtain the population of European countries for many of the decades shown, this diagram has been based upon a chart prepared by Prof. Fr. von Juraschek for the "Geographisch-Statistische Tabellen, 1901." Of the ten countries represented on the diagram, the United States was ninth in 1800, but during the century its population increased so rapidly that it passed Turkey, Spain, the United Kingdom, Italy, Austria-Hungary, the German Empire, and France, and in 1900 was second, standing just below Russia.

#### CENTER OF POPULATION AND ITS MEDIAN POINT.

The location of the center of population and the description of its movements from census to census, during the past century, is a matter of special interest, as such movements summarize the net result of all the movements of population during each decennial period.

The center of population is the center of gravity of the population of the country, each individual being assumed to have the same weight. In order that the result might be comparable with those obtained in 1880 and 1890, the population of Alaska and Hawaii has not been included. The method used was in brief as follows:

The population of the country was first distributed by "square degrees," as the area included between consecutive parallels of latitude and meridians of longitude has been designated. A point was then assumed, tentatively, as the center, and corrections in latitude and longitude to this tentative position were computed. In this case the center was assumed to be at the intersection of the parallel of 39° north with the meridian of 86° west of Greenwich. The population of each square degree was assumed to be located at the center of that square degree, except in cases where it was manifest that this assumption would be untrue; as, for instance, where a part of the square degree was occupied by the sea or other large body of water, or where it contained a city of considerable magnitude which was situated "off center." In these cases the position of the center of population of the square degree was estimated as nearly as possible. The shortest distances between each such center of population of a square degree (whether assumed to be at, or at a distance from, the center of the square degree) and the assumed parallel and meridian were determined. The population of each square degree was then multiplied by the shortest distance of its center of population from the assumed parallel of latitude, and the sums of the products, or moments, north and south of that parallel were obtained. Their difference, divided by the total population of the country, gave a correction to the latitude of the assumed center of population. In a similar manner the east and west

moments were procured, and from them a correction to the longitude of the assumed center was obtained.

The following table and the map, Plate 16, show the location and movement of the center of population from 1790 to 1900:

*Position of the center of population: 1790 to 1900.*

CENSUS.	North latitude.		West longitude.		Approximate location by important cities and towns.	Western movement in miles during preceding decade.
	°	'	°	'		
1790.....	39	16.5	76	11.2	23 miles east of Baltimore, Md.....	
1800.....	39	16.1	76	56.5	18 miles west of Baltimore, Md.....	41
1810.....	39	11.5	77	37.2	40 miles northwest by west of Washington, D. C.	36
1820.....	39	5.7	78	33.0	16 miles north of Woodstock, Va.....	50
1830.....	38	57.9	79	16.9	19 miles west-southwest of Moorefield, in the present state of West Virginia.	39
1840.....	39	2.0	80	18.0	16 miles south of Clarksburg, in the present state of West Virginia.	55
1850.....	38	59.0	81	19.0	23 miles southeast of Parkersburg, in the present state of West Virginia.	55
1860.....	39	0.4	82	48.8	20 miles south of Chillicothe, Ohio....	81
1870.....	39	12.0	83	35.7	48 miles east by north of Cincinnati, Ohio.	42
1880.....	39	4.1	84	39.7	8 miles west by south of Cincinnati, Ohio.	58
1890.....	39	11.9	85	32.9	20 miles east of Columbus, Ind.....	48
1900.....	39	9.6	85	48.9	6 miles southeast of Columbus, Ind....	14

In 1790 the position of the center of population was 39° 16.5' north latitude and 76° 11.2' west longitude, which a comparison of the best maps available would seem to place about 23 miles east of Baltimore. During the decade from 1790 to 1800 it appears to have moved almost due west to a point about 18 miles west of the same city, being in latitude 39° 16.1' north and longitude 76° 56.5' west.

From 1800 to 1810 it moved west and slightly south to a point in Virginia about 40 miles northwest by west of Washington, being in latitude 39° 11.5' north and longitude 77° 37.2' west. The southerly movement during this decade appears to have been due to the annexation of the territory of Louisiana, which contained quite extensive settlements.

From 1810 to 1820 it moved west and again slightly south to a point about 16 miles north of Woodstock, Virginia, being in latitude 39° 5.7' north and longitude 78° 33.0' west. This continued southerly movement appears to have been due to the extension of settlements in Mississippi, Alabama, and eastern Georgia.

From 1820 to 1830 it continued to move west and south to a point about 19 miles west-southwest of Moorefield, in the present state of West Virginia, being in latitude 38° 57.9' north and longitude 79° 16.9' west. This is the most decided southern movement that it has made during any decade. It appears to have been due in part to the addition of Florida to our territory, and in part to the great extension of settlements in Alabama, Mississippi, Louisiana, and Arkansas, or generally, it may be said, in the Southwest.

From 1830 to 1840 it moved still farther west, but slightly changed its direction north, reaching a point 16 miles south of Clarksburg, in the present state of West Virginia, being in latitude  $39^{\circ} 2.0'$  north and longitude  $80^{\circ} 18.0'$  west. During this decade settlement had made decided advances in the prairie states and in the southern portions of Michigan and Wisconsin, the balance of increased settlement evidently being in favor of the Northwest.

From 1840 to 1850 it moved west and slightly south again, reaching a point about 23 miles southeast of Parkersburg, in the present state of West Virginia, in latitude  $38^{\circ} 59.0'$  north and longitude  $81^{\circ} 19.0'$  west, the change of direction south being largely due to the annexation of Texas.

From 1850 to 1860 it moved west and slightly north, reaching a point 20 miles south of Chillicothe, Ohio, this being in latitude  $39^{\circ} 0.4'$  north, longitude  $82^{\circ} 48.8'$  west.

From 1860 to 1870 it moved west and sharply north, reaching a point about 48 miles east by north of Cincinnati, Ohio, in latitude  $39^{\circ} 12.0'$  north, longitude  $83^{\circ} 35.7'$  west. This northern movement was due in part to the waste and destruction in the South, consequent upon the Civil War, and in part, probably, to the fact that the census of 1870 was defective in its enumeration of the southern people, especially of the newly enfranchised negro population.

In 1880 the center of population had returned south to nearly the same latitude which it had in 1860, being in latitude  $39^{\circ} 4.1'$  north, longitude  $84^{\circ} 39.7'$  west, 8 miles west by south of Cincinnati, Ohio. This southern movement was due only in part to an imperfect enumeration in some of the Southern states in 1870. During the decade from 1870 to 1880 the Southern states made a large positive increase, both from natural growth and from migration south.

In 1890 the center of population had moved north into practically the same latitude it occupied in 1870. This northern movement was largely due to the great development in the cities of the Northwest and in the state of Washington, also to the increase of population in New England. Its position was in latitude  $39^{\circ} 11.9'$  north and longitude  $85^{\circ} 32.9'$  west, 20 miles east of Columbus, Indiana.

From 1890 to 1900 the center of population moved west  $16' 1''$  (a little over 14 miles), and south  $2' 20''$  (a little less than 3 miles)—the smallest movement that has ever been noted—and was located at a point about 6 miles southeast of Columbus, Bartholomew county, Indiana, in latitude  $39^{\circ} 9.6'$  north and longitude  $85^{\circ} 48.9'$  west, as it appears on Plate 15. The southern movement was due largely to the great increase in population of Indian Territory, Oklahoma, and Texas, while the small western movement of the center was, undoubtedly,

due to the large increase in the population of the North Atlantic states. It also shows that the population of the Western states has not increased as rapidly as in former decades.

The closeness with which the center of population, through its rapid western movement, has clung to the parallel of  $39^{\circ}$  of latitude can not fail to be noticed. The most northern point reached was at the start, in 1790; the most southern point was in 1830, the preceding decade having witnessed a rapid development of population in the Southwest and in Florida. The extreme variation in latitude has been less than 19 minutes, while the movement in longitude during the one hundred and ten years of record was a little over 9.5 degrees. Assuming the western movement to have been uniformly along the parallel of  $39^{\circ}$  of latitude, the western movement of the several decades has been as follows: 1790–1800, 41 miles; 1800–1810, 36 miles; 1810–1820, 50 miles; 1820–1830, 39 miles; 1830–1840, 55 miles; 1840–1850, 55 miles; 1850–1860, 81 miles; 1860–1870, 42 miles; 1870–1880, 58 miles; 1880–1890, 48 miles; 1890–1900, 14 miles. This is a total western movement of 519 miles since 1790. The sudden acceleration of movement between 1850 and 1860 was due to the transfer of a considerable body of population from the Atlantic to the Pacific coast, twelve individuals in San Francisco exerting as much pressure at the then pivotal point, namely, the crossing of the eighty-third meridian and the thirty-ninth parallel, as forty individuals in Boston.

The center of area of the United States, excluding Alaska, Hawaii, and other recent accessions, is in northern Kansas, in approximate latitude  $39^{\circ} 55'$  and approximate longitude  $98^{\circ} 50'$ . The center of population in 1900 was, therefore, about three-fourths of a degree south and more than thirteen degrees east of the center of area.

The median point is the point of intersection of the line dividing the population equally north and south with the line dividing it equally east and west. In short, it is the central point of population and differs from the center of population in the fact that distance from the center is not considered. Its movements from census to census bear no relation to the movements of population, since only movements by which bodies of population are transferred across the median lines have any influence upon its position. To illustrate this, a million people may move from Minnesota to Washington state without affecting its position, while the movement of a hundred persons from Michigan to Wisconsin might affect it appreciably. In 1900 the meridian of  $84^{\circ} 51' 29''$  equally divided the population of the United States east and west, and the parallel of  $40^{\circ} 4' 22''$  equally divided it north and south. The median point, therefore, was located at Spartanburg, Indiana.

In order to make a comparison with the movement of the center of population, computations were also made for the Tenth and Eleventh censuses.

The location of the median point at the Tenth, Eleventh, and Twelfth censuses is shown on Plate 16, and its position and movement in the following table:

CENSUS.	North latitude.		West longitude.		Location.
	°	'	°	'	
1880.....	39	57.0	84	7.2	16.2 miles nearly due west of Springfield, Miami county, Ohio.
1890.....	40	2.9	84	40.0	4.8 miles southwest of Greenville, Ohio.
1900.....	40	4.4	84	51.5	In Spartanburg, Ind.

The movement of the median point from 1880 to 1890 was north 5' 51" and west 32' 49". From 1890 to 1900 it moved north 1' 31" and west 11' 28". The comparison of the movements of the center of population and the median point shows that they do not move in parallel lines, as from 1880 to 1890 the median point moved west 27 miles and north 6.6 miles, while the center of population moved west 48 miles and north 9 miles. From 1890 to 1900 the median point moved west 10.8 miles and north 2.4 miles, while the center of population moved west 14 miles and south 2.5 miles.

#### GEOGRAPHICAL DIVISIONS.

For purposes of comparison continental United States was divided into five main groups or divisions which, with the states and territories included therein, are as follows:

##### NORTH ATLANTIC DIVISION.

Maine.	Massachusetts.	New York.
New Hampshire.	Rhode Island.	New Jersey.
Vermont.	Connecticut.	Pennsylvania.

##### SOUTH ATLANTIC DIVISION.

Delaware.	Virginia.	South Carolina.
Maryland.	West Virginia.	Georgia.
District of Columbia.	North Carolina.	Florida.

##### NORTH CENTRAL DIVISION.

Ohio.	Wisconsin.	North Dakota.
Indiana.	Minnesota.	South Dakota.
Illinois.	Iowa.	Nebraska.
Michigan.	Missouri.	Kansas.

##### SOUTH CENTRAL DIVISION.

Kentucky.	Mississippi.	Indian Territory.
Tennessee.	Louisiana.	Oklahoma.
Alabama.	Arkansas.	Texas.

##### WESTERN DIVISION.

Montana.	New Mexico.	Washington.
Idaho.	Arizona.	Oregon.
Wyoming.	Utah.	California.
Colorado.	Nevada.	

#### POPULATION BY STATES AND TERRITORIES.

Plates 18 and 19 show, by the length of the bars, the growth of the population of each state and territory at each census, and make clear the remarkable increase and magnitude of the population of New York and Pennsylvania, as compared with that of New Hampshire, Vermont, Delaware, and other states. Ohio and Illinois

also show large and steady increases in their population from census to census.

Plate 21 indicates the rank in population of the states and territories at each census and graphically illustrates the rapid growth of those states formed from the western territory, the most conspicuous being that of Ohio, Illinois, Missouri, Iowa, and Texas.

In 1790 Virginia was the most populous state and held this position until 1820, and, though increasing in population at each census except in 1870, steadily lost in rank until 1900 when it stood seventeenth, due principally to the separation of West Virginia in 1862. Massachusetts, second in 1790, was fourth in 1800, seventh in 1820, and, with slight changes at intervening censuses, ranked seventh in 1900. Pennsylvania, the third state in 1790, advanced to the second position in 1800, which it has held continuously, except in 1810 and 1820. New York ranked fourth in 1790, but grew so rapidly that in 1820 it displaced Virginia, as the first state, and still held first position at the Twelfth Census. North Carolina, fifth in 1790, was fifteenth; Maryland, sixth, was twenty-sixth; South Carolina, seventh, was twenty-fourth; Connecticut, eighth, was twenty-ninth; New Jersey, ninth, was sixteenth; New Hampshire, tenth, was thirty-sixth; Georgia, eleventh in 1790, was the only state that held the same rank in 1900; Rhode Island, twelfth, was thirty-fourth; and Delaware, thirteenth, was forty-sixth.

The loss in rank of a number of the original thirteen states was not caused by an actual decrease in their population, but by the remarkable growth of new states carved out of the western territory; as, for instance, Ohio in 1800 was seventeenth, and in 1900 was fourth. Illinois, twenty-second in 1810, was third; Missouri, which first appeared in 1820 as the twenty-third state, had outgrown all of the original thirteen states, except New York and Pennsylvania, and in 1900 ranked fifth; Iowa, twenty-ninth in 1840, was tenth; and Wisconsin, holding the last place, thirtieth, at the same decade, was thirteenth. Texas, admitted to the Union in 1845, ranked as the twenty-fifth state in 1850 and has had such remarkable growth that it outranked Massachusetts at the Twelfth Census, being the sixth state in population.

#### DENSITY OF POPULATION.

Diagram 2, Plate 24 and cartogram 1, Plate 27, show the density of population of each state and territory in 1900, excluding the District of Columbia, which is practically a city. The most densely populated states were Rhode Island, with 407 persons to a square mile; Massachusetts, with 349; New Jersey, with 250; and Connecticut, with 188.

Plate 25 shows the decrease and the density of increase of population from 1890 to 1900. The areas colored in blue indicate those counties in which the population has decreased, and the shades of brown,

the five different groups in which the density of increase of population ranges from less than one inhabitant per square mile to twenty-five or more per square mile. The heaviest shade, denoting the greatest increase, is found principally in the states having the greatest density of population, except in Oklahoma, Indian Territory, and Texas, and counties containing important cities.

Cartogram 5, Plate 27, shows, by states and territories, the decrease in blue, and the density of increase of population from 1890 to 1900 in five shades of brown. The only state indicating a decrease is Nevada, the Atlantic coast states showing the greatest increase, and the states of the Western and North Central divisions the smallest.

Cartogram 3, Plate 27, shows the decrease and proportion of increase of total population from 1890 to 1900, by states and territories. Maine, New Hampshire, Vermont, Delaware, Nebraska, and Kansas had the smallest increase, and Oklahoma and Indian Territory the greatest. Nevada is the only state indicating a decrease.

Plate 28 presents in blue those counties in which the population has decreased from 1890 to 1900, and, in four shades of brown, the percentage of increase in the remaining counties. Excluding the District of Columbia, there are only twelve states and territories without a county showing a decrease in population, namely: Rhode Island, Delaware, West Virginia, South Carolina, Minnesota, North Dakota, Indian Territory, Oklahoma, Montana, Wyoming, Arizona, and Utah. There are six states and territories having but one county with a decrease—Connecticut, Wisconsin, Iowa, New Mexico, Idaho, and Oregon.

The largest areas of blue, indicating a decrease in population, are found in Kansas, Nebraska, and South Dakota. The most extensive areas of shade iv, showing an increase in population of 50 per cent or over, are noted in Wisconsin, Minnesota, North Dakota, Montana, Washington, Oklahoma, Indian Territory, and Texas. There are a number of single counties in this class scattered through the other states. The map shows, in general, that those counties having the highest percentage of increase are found in the Northwest, Southwest, and Gulf states.

#### URBAN POPULATION.

The Census generally regards as the urban element that portion of the population living in cities of 8,000 inhabitants or more. In 1790 this element formed only 3.3 per cent of the population, but in 1900 it constituted 33.1 per cent, or nearly one-third of the entire population (excluding Alaska, Hawaii, Indian Territory, Indian reservations, and persons in the military and naval service of the United States stationed abroad). Diagram 1, Plate 17, represents the aggregate population from 1790 to 1900 by the total length of the bars and

the urban element by the shaded portion, showing that, while the aggregate population has increased rapidly from census to census, the urban element has increased proportionately much faster than the aggregate population. The following table, and diagram 3, Plate 17, show the percentage of urban to total population at each census:

*Urban population.*<sup>1</sup>

CENSUS.	Total population.	Urban population. <sup>2</sup>	Percentage of urban to total population.	Number of places. <sup>2</sup>	Increase in number of places.
1900 .....	375,477,467	24,992,199	33.1	545	98
1890 .....	62,622,250	18,272,503	29.2	447	161
1880 .....	30,155,783	11,318,547	22.6	286	60
1870 .....	38,538,371	8,071,875	20.9	226	85
1860 .....	31,443,321	5,072,256	16.1	141	56
1850 .....	23,191,876	2,897,586	12.5	85	41
1840 .....	17,069,453	1,453,994	8.5	44	18
1830 .....	12,866,020	864,509	6.7	26	13
1820 .....	9,638,453	475,135	4.9	13	2
1810 .....	7,239,881	356,920	4.9	11	5
1800 .....	5,308,483	210,873	4.0	6	0
1790 .....	3,929,214	131,472	3.3	6	.....

<sup>1</sup> Figures taken from Twelfth Census, Vol. I, table XXIX, page lxxxiii.

<sup>2</sup> Places having 8,000 inhabitants or more.

<sup>3</sup> Excludes Alaska, Hawaii, Indian Territory, Indian reservations, and persons in the military and naval service of the United States stationed abroad.

The greatest increase in the urban element is noted for the decade from 1880 to 1890, the number of cities having a population over 8,000 having increased during the decade from 286 to 447, an increase of 161, or 56.3 per cent.

Plate 20 shows the proportion of urban to total population at each census, by states and territories, excluding the District of Columbia, which is practically a city, and those states and territories having urban population for less than three decades. The growth of urban population in the state of Rhode Island since 1810 has been amazing, having increased from 13.1 to 81.2 per cent, showing that in this state in 1900, 8 persons out of every 10 resided in cities and towns of over 8,000 inhabitants. The increase of urban population in Massachusetts has also been remarkable; in 1790 about 5 per cent of its population were found in cities of 8,000 inhabitants and upward, while in 1900 the urban element was 76.0 per cent, an increase during the one hundred and ten years of nearly 71 per cent. At the Twelfth Census the urban element in New York formed 68.5 per cent of its population, in New Jersey 61.2 per cent, and in Connecticut 53.2 per cent, these being the only states in which more than half of the population resided in cities of 8,000 inhabitants or over.

Diagram 1, Plate 24, represents, by the length of the bars, the total population, and the black portion, the urban in each state and territory in 1900. New York, Pennsylvania, and Illinois had a greater urban population than Massachusetts, although the proportion to total population was not as large. Cartogram 2, Plate 27, also shows graphically, by shades of color, the proportion of urban to total population in 1900 in each state and territory.

Plate 22, similar to Plate 21, represents the rank of the most populous cities at each census and marks their change in rank according to population from census to census. In 1790 only thirteen places were large enough to be shown, but the growth in population of our cities has been so great that, after 1840, it is impracticable to indicate more than the fifty principal cities at each census, consequently many of the cities appearing at one census are not represented again. While few of these cities have experienced an actual decrease in population, they have lost their positions, owing to the more rapid growth of other municipalities.

The most populous city in 1790 was New York, which has held first position in every decade. Philadelphia was second from 1790 until 1830, when it was displaced by Baltimore, but in 1860 again reached second place and held this position until 1890, when Chicago advanced to second place, since which time Philadelphia has held third position. Boston, which was third in 1790, was fifth in 1900, having been passed by Chicago and St. Louis. Charleston, fourth in 1790 and sixty-eighth in order of size at the Twelfth Census, does not appear on the diagram after 1880. Baltimore, fifth in 1790, advanced to second place in 1830, and held this position until 1860, but was sixth in 1900. Northern Liberties and Southwark, sixth and tenth in rank, respectively, in 1790, were incorporated with Philadelphia after 1850. Salem, seventh in 1790, does not appear after 1860. Newport, eighth in 1790, does not appear after 1830. Providence, ninth in 1790, was twentieth in rank in 1900. Marblehead, the eleventh, does not show after 1820. The changes in rank of the cities named represent, to a certain extent, the wonderful growth of our principal cities in the last one hundred and ten years.

Some of the most conspicuous examples of rapid advance in rank of population noted on the diagram are Troy, from thirty-seventh in 1820 to nineteenth in 1830; Lowell from forty-third in 1830 to eighteenth in 1840. St. Louis first appeared in 1840 as the twenty-fourth city; in ten years it had grown so rapidly that at the Seventh Census it ranked as the eighth city, and, maintaining its rapid advance, reached fourth place in 1870, but was displaced in 1880 by Chicago and Boston. In 1890 it had again passed Boston and was in the fifth place, and in 1900, by the dropping out of Brooklyn, it again ranked as the fourth city. Brooklyn, which first appeared in 1820, rapidly increased in population until in 1860 it ranked as the third city; in 1900, owing to its annexation to New York city, it had disappeared. San Francisco and Chicago appeared for the first time in 1850, ranking twenty-fourth and twenty-fifth, respectively. Chicago's growth was so rapid that in 1860 it had reached the ninth place; in 1870, the fifth; in 1880, the fourth; and in 1890 was the second city, which position it still retained in 1900. San Francisco also advanced rapidly until in 1900 it ranked as the ninth city.

In 1850 a number of western cities appeared for the first time, among them Milwaukee and Cleveland, both of which have grown rapidly, the former ranking in 1900 as the fourteenth city, and the latter as the seventh.

From 1880 to 1890 Minneapolis, St. Paul, and Denver made remarkable advances in rank. Seattle, Portland (Oregon), Los Angeles, and St. Joseph appear in 1900 for the first time among the fifty most populous cities.

Plate 23 represents, by the length of the bars, the population at each census of the largest cities of the United States (those having at the Twelfth Census a population of more than 100,000), arranged in order of their size in 1900; the relative size and tremendous growth of New York, Chicago, and Philadelphia as compared with the other cities are well brought out. Diagram 3, Plate 24, shows, by the length of the bars, the relative size of the same cities in 1900.

Plate 26 shows, in five shades of brown, the proportion of the population in each county in cities and towns of more than 2,000 inhabitants in 1900; counties without a municipality of this size are colored in blue. The first, or lightest shade, represents counties having less than 10 per cent of their population in cities, and is found principally in the South Atlantic and North and South Central states; the second, third, and fourth classes are most numerous in the New England, Middle, and North Central states. The fifth class, 75 per cent and over, marks the counties in which are found the principal cities.

#### ELEMENTS OF THE POPULATION.

Plate 42 represents, by a series of circles, the total population and its elements at each census, from 1790 to 1900. The circles represent by their entire area the total population at each census, and the sectors into which they are divided, the proportion of each element. From 1790 to 1840 the only elements that could be shown were the white and colored. In 1850 and 1860 the foreign white were added, and from 1870 to 1900 the native white of native parents and native white of foreign parents were added. These circles show very plainly the tremendous increase of the foreign white element. In 1850 this element is first represented as nearly two-thirds the size of the colored; in 1860 it was nearly equal to the colored. In 1870, including the native white of foreign parents and the foreign white, this element was double that of the colored. The circles for 1880 and 1890 also show the great increase of the foreign element. In 1900 the native white of foreign parents and the foreign white compose 34.0 per cent of the total population.

The three squares on Plate 41 represent the total population and its three elements in 1900. The first square shows the proportion of the native white, foreign white, and colored, by sex. The nearly equal

division of the sexes in the native white and colored elements, and the excess of males in the foreign is clearly indicated. The second square shows the proportion of the native white and colored elements born in the states in which they were enumerated and the proportion born in other states; on the rectangle for the colored is also indicated the proportion born in foreign countries, which represents principally the Chinese and Japanese. The rectangle representing the foreign white population shows the proportion of persons from each of the principal foreign countries. The third square shows the proportion of each element living in cities of 25,000 population and upward. Nearly one-fourth of the native white and about half the foreign white population resided in cities of 25,000 or more inhabitants. The proportion of colored in cities of this class was 12.9 per cent, or about one-eighth.

Plate 43 represents for 1900 the constituents of population of each state and territory in percentages of the total population (exclusive of persons in the military and naval service of the United States stationed abroad not credited to any state or territory), arranged in the order of the percentage of native white of native parents. Under this arrangement, West Virginia is first, having the largest percentage of native white of native parents in 1900, and North Dakota last, with the smallest percentage. Oklahoma, Kentucky, Indiana, and New Mexico follow West Virginia, each having over 75 per cent of their total population native white of native parents. The diagram also shows that in each of twenty-nine states and territories the native white of native parents constituted more than 50 per cent of its total population. Owing to the large influx of foreigners, Rhode Island, Connecticut, and Massachusetts had relatively small percentages of native white of native parents. The preponderance of the negro element in the South is very clearly indicated by the black portion of the bar, the largest percentage being found in South Carolina and Mississippi, which had almost equal proportions of native white of native parents. In North Carolina the native white of foreign parents comprised only 0.4 per cent, and the foreign white, 0.2 per cent of the population; therefore, the proportions were too small to be indicated on the diagram.

Plate 44 is made to show the constituents of the population of cities of more than 100,000 inhabitants in 1900. St. Joseph had the largest percentage of native white of native parents, while Columbus, Indianapolis, Kansas City (Missouri), Los Angeles, and Denver follow with 50 per cent or more of their population of this element.

Plate 45 represents, by states and territories, in 1900, the constituents of the total male population of militia age—that is, between the ages of 18 and 44, inclusive. West Virginia leads with the greatest percentage of native white of native parents, Oklahoma, Indian Territory, and Kentucky following. Hawaii had the greatest

proportion of Chinese and Japanese, and North Dakota, the greatest percentage of foreign white males of militia age.

Plate 46 shows the constituents of the total male population of voting age for 1900, the states following in almost the same order as in the preceding diagram, West Virginia having the greatest proportion of native white of native parents and Hawaii the smallest.

Plate 47, composition of the total population of states and territories, including resident natives, native immigrants, and foreign born, with per cent of native emigrants in 1900, shows first, the percentage of persons living in the state who were born there; second, the percentage of persons living in the state who were born in other states; third, the percentage of persons living in the state who were of foreign birth, these three making up the total population. South Carolina had the largest percentage of resident natives and Oklahoma the smallest, while Hawaii had the greatest percentage of foreign born. The percentages of the foreign born element in South Carolina, North Carolina, Georgia, Alabama, and Mississippi were too small to be represented on the diagram.

In order to compare the number of persons born in each state who have emigrated to other states with the population of the state in 1900, the bars colored yellow were added on the right side of the diagram, and represent graphically the proportion which persons born in the state but living in other states bore to the population of the state in 1900. Vermont shows the largest proportion of persons born in the state who have emigrated to other states; the proportion of emigrants from Nevada, Virginia, and Maine was also very large.

Plate 48 represents the state of birth of the native population in 1900, by states and territories arranged in geographical order, and shows the percentage of the native population of each state who were born in that state and the percentage who were born in the states indicated by the small figures in each bar. North Carolina and South Carolina had the largest proportion of residents who were born in the state, while Oklahoma had the smallest. It will also be noted that in all the states and territories, except ten, more than 50 per cent of the native population were born in the state or territory specified.

#### NEGRO POPULATION.

The movement of the negroes, as indicated by the location of the center of this population and its median point for three censuses, 1880, 1890, and 1900, is shown on the sketch map, Plate 52. The method of obtaining the location of this center and the median point was exactly the same as used for ascertaining the location of the center of total population, as described on page 37.

In 1880 the center of negro population was located in Walker county, Georgia, latitude  $34^{\circ} 42' 14''$  north, longitude  $85^{\circ} 6' 56''$  west. From this point, in ten

years, it moved to latitude  $34^{\circ} 36' 18''$  north, longitude  $85^{\circ} 26' 49''$  west, a point in the same county, but  $22\frac{1}{2}$  miles southwest. In 1900 it had moved across the state line into Dekalb county, Alabama, a southwestern movement of 11 miles. The total western movement of the center from 1880 to 1900 was 27 miles, and its southern movement 14 miles, showing that the trend of the negro population is toward the South and West, although the number of negroes in the Northern states has increased. The median point at the three censuses was located east and south of the center of this element of population, and its movement may be said to have been nearly the same both in distance and direction.

Diagram 1, Plate 53, represents, by the length of the bars, the negro population in each state and territory having over 1,000 negroes in 1900, Georgia leading with 1,034,813, Mississippi second, Alabama third, South Carolina fourth, Virginia, Louisiana, North Carolina, and Texas following in order, each having over 500,000 negroes. The small number of negroes in the Northern and Western states is clearly indicated.

Diagram 2, Plate 53, shows for 1900, by the length of the bars, the percentage of children under 1 year of age of the native white of native parentage, and of the negroes, the states and territories being arranged in the order of the proportion of the native white of native parentage. Utah leads with the highest percentage of the white element under 1 year of age, Wisconsin, Minnesota, and Idaho following in order. It will be noted generally that the Western and Southern states had much larger percentages of children under 1 year of age than the New England states. The portion of the diagram representing the negroes under 1 year of age has a very irregular appearance owing to the small proportion of negro children in the Northern and Western states as compared with the white. It will be noted that those states showing the largest percentages of negro children under 1 year of age are in the South, and in states in which the negro element formed a large proportion of the population. Hawaii, showing the highest percentage, can not be accepted as representative, as only 9 negro children under 1 year of age were returned by the enumerators, and the entire negro population was very small. The diagram is also of interest in showing the states having the largest proportion of white children under 1 year, which, to a certain extent, indicates a high birth rate. This is also true of the negro population, and points out the states in which the climatic conditions are most favorable to this race.

Plate 54 represents the percentage of white and negro population in each of fifteen states at the censuses for which its population was returned. The shaded part represents the proportion of negro population and the uncolored portion the white. South Carolina in 1880 showed the highest percentage of negroes, then 60.7 per cent of the total. In 1900 Mississippi had the highest percentage, 58.5 per cent, South Carolina following

very closely with 58.4 per cent. The proportion of negro to white population, as represented on the diagram, has decreased since 1890 in Virginia and West Virginia, considered as one, Delaware, Maryland, District of Columbia, North Carolina, South Carolina, Georgia, Kentucky, Tennessee, Louisiana, and Texas, while it has increased in Florida, Alabama, Mississippi, and Arkansas.

Plate 55 shows by counties, in six degrees of density, the distribution of the negro population in 1900, the heavy shades indicating the counties in which the greatest numbers of negroes were found. The South Atlantic and South Central states had nearly nine-tenths of the negro population, and, therefore, the most dense settlements of this race were found in those states, especially South Carolina, Georgia, and Alabama. The counties adjoining the Mississippi river in Tennessee, Mississippi, and Louisiana also show a dense negro population. Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, Missouri, and Kansas had considerable areas of negro settlements.

Cartogram 2, Plate 72, shows, in six degrees of density, the negro population in 1900, by states and territories, the state being used as the unit. This map, compared with cartogram 1, on the same plate, indicates that the negro and foreign born elements generally are found in different parts of the United States.

Plate 56 brings out, in six shades of color, the proportion of negro to total population in 1900 in each county, and therefore clearly outlines the areas in each state upon which the negroes are most thickly settled. The heavy shades, found principally in Alabama, Georgia, and South Carolina, also along the Mississippi river in Louisiana and Mississippi, indicate those counties in which the negroes formed more than 60 per cent of the total population. The lighter shades in the Northern states show the relatively small proportion of negro population in the colder regions.

Cartogram 4, Plate 72, shows the states and territories which had the greatest proportion of negro to total population in 1900, the state being taken as the unit.

Cartogram 6, Plate 72, shows the proportional increase and decrease of negro to white population from 1890 to 1900, by states and territories, and brings out the fact that the negro population increased proportionately in nineteen states and territories, only four of these being Southern states—Arkansas, Mississippi, Alabama, and Florida. The negroes increased proportionately in most of the New England and Middle states, and a few of the North Central and Western states.

#### MIGRATION.

The total native born population in 1900 was 65,767,451 (including Alaska and Hawaii, but excluding 75,851 native born enumerated at military and naval stations

abroad). Of this number 51,979,651, or 79.0 per cent, were born in the state or territory in which they were found by the census enumerators. The remaining 13,787,800, constituting 21.0 per cent of the entire native born element, had emigrated from the state or territory in which they were born and were found in other states and territories. The proportion living in the state or territory of birth was slightly larger in 1900 than it was in 1890. These figures show to some extent the roving disposition of the native population, although it is not a true measure, as many persons enumerated in states other than those in which they were born have probably resided in more than one state since leaving their native states. It also takes no account of persons who have left their native states and subsequently returned.

Plate 49 is a very interesting diagram, as it shows, by states and territories, the percentage of persons born in each state who were living in other states and territories in 1900, the numbers in each bar corresponding with the numbers preceding the names of the states. For instance, in Maine that portion of the bar numbered 4 represents the percentage of persons born in Maine who were living in Massachusetts; number 2, the percentage of persons born in Maine who were living in New Hampshire; number 50, the percentage of persons who were born in Maine, but were living in California; and 24, the percentage of persons born in Maine who were living in Minnesota. Over 50 per cent of the native emigration of New Hampshire, New Mexico, and Nevada have gone to an adjoining state—New Hampshire to Massachusetts, New Mexico to Colorado, and Nevada to California—and it will be noted generally that adjoining states receive the greatest proportion of native emigrants.

Plate 50 represents the net results of interstate migration and all migration in 1900, by states and territories, and shows clearly their magnitude.

The states showing the greatest loss as a result of interstate migration are New York, Ohio, Virginia, and Pennsylvania; and those having the greatest gain through interstate migration are Texas, Kansas, California, and Oklahoma. The states showing the greatest loss as a result of all migration are Virginia, Kentucky, Tennessee, and North Carolina; and those showing the greatest gain as the result of all migration are New York, Massachusetts, Illinois, Texas, and California, in the order given. There are, in fact, thirty-two states and territories, including Utah and Nevada, which gained in interstate migration, and nineteen states that lost. Thirty-seven states gained and fourteen states, including Delaware and Indiana, lost as a result of all migration, while there are also fourteen states that show a loss as a result of both interstate migration and all migration. The large gain as a result of all migration for New York, Massachusetts, and Illinois is due

to the large number of foreigners who have settled in these states.

Massachusetts shows a gain and New York a loss through interstate migration, but both have gained as a result of all migration, due to the large number of foreign immigrants. Those states which have apparently lost through all migration have, nevertheless, increased in population during the decade from 1890 to 1900. Cartogram 3, Plate 76, representing for 1900 the gain or loss as the result of all migration, indicates that Maine, Vermont, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Tennessee, Kentucky, Indiana, and Ohio have lost in population as the result of all migration.

Plate 51 represents interstate migration in 1900, in hundreds of thousands, and indicates very clearly the states which have lost more population through emigration to other states than they have gained through migration from other states. New York shows a loss of 1,289,866 through emigration; Ohio, a loss of 1,114,165; and Illinois, 1,012,637. Illinois has been the greatest gainer through immigration, having received 960,946 immigrants from other states. Missouri and Texas have each gained over 800,000 persons as a result of interstate migration.

Cartogram 5, Plate 76, shows the gain or loss as the result of interstate migration in 1900. With the exception of Massachusetts, Rhode Island, Connecticut, New Jersey, West Virginia, Florida, and Michigan, all the states east of the Mississippi river have lost, while all those west have gained.

#### SEX.

Plate 29 is a very interesting and instructive map, showing the predominating sex in each county at the Twelfth Census. The areas colored in blue indicate where the females outnumbered the males, and the shades of brown the percentage of excess of males in accordance with the grouping in the legend. The areas showing an excess of females are found principally in the North and South Atlantic divisions, and Alabama and Mississippi of the South Central division, Massachusetts and the District of Columbia having had the largest proportion of females. The heavy shades of brown, indicating the greatest excess of males, are found principally in the Western states; South Dakota, Kansas, Texas, and Utah, however, show a few counties in which the females were in excess.

Cartogram 1, Plate 76, represents the predominating sex, by states and territories, the state being taken as the unit. The only states having an excess of females, as indicated by the blue color, were New Hampshire, Massachusetts, Rhode Island, New York, New Jersey, Maryland, Virginia, North Carolina, South Carolina, and Georgia, densely populated states of the Atlantic coast. The proportion of excess of males in the remainder of

the states and territories is indicated by the different shades of brown, Montana, Wyoming, and Nevada showing the greatest excess of males.

#### AGE AND SEX.

The series of diagrams, Plates 30 to 32, represent the distribution of the population of continental United States, by age and sex, in percentages of the whole number of each element. The percentage of the population in each age period is represented by the total length of the bar, the portion on the left of the heavy vertical line representing the proportion of males and that on the right the proportion of females. The lower bar represents the percentage of the population under 5 years of age, and those for the remaining age periods are superimposed in the order indicated by the figures on the left of the diagram. The age periods are the same as those given in table XXI, page xlix, Twelfth Census, Volume II.

Plates 30 and 31 are a series of small diagrams showing the percentages of the total population and each of its elements by age and sex.

The first three diagrams represent the distribution of the total population in 1900, 1890, and 1880, by age and sex. The lower horizontal bar, indicating the greatest percentage, is for children less than 5 years of age, the age groups gradually decreasing in size, except in the group for 20 to 24 years in 1880. For 1900 and 1890 the length of the bars is almost the same, the only differences being slight decreases in 1900 for each age period below 25 years, and a slight increase for 25 years and upward. Comparing the diagram for 1890 with that for 1880, we note that in the latter the age periods below 15 years are much larger than in the former, and, by comparison with 1900, a much larger decrease in these age periods from 1880 to 1890 than from 1890 to 1900 will be noted. In 1880 a larger percentage is shown for the age group from 20 to 24 years than from 15 to 19 years, a peculiarity not found in 1890 or 1900, as the percentages for each age period decrease as the age advances. The excess in this age group is due principally to an excess in the colored population. The two sexes appear to be nearly equal at each decade, although the males slightly exceed the females in a majority of age groups. In 1900 the females were in excess in the following age groups: 15 to 19, 20 to 24, 75 to 79, 80 to 84, and 85 to 89; in 1890, 15 to 19, and 80 to 84; in 1880, 15 to 19, 75 to 79, and 80 to 84 years. Age groups above 89 are not considered for 1900, while those above 84 are not shown for 1890 and 1880.

The three diagrams representing by sex the percentage of the white population in each age group for 1900, 1890, and 1880 show slight variations from the diagrams of the total population. The age groups below 25 have smaller percentages and those above 24 larger percentages in most cases, due to the large proportion of adults

among the foreign white element. For 1880 the percentage for the age group from 20 to 24 years is not larger than that for 15 to 19 years, as in the aggregate population. The females exceed the males in the age groups from 15 to 19 and 80 to 84 years for each of the three censuses; in the groups from 20 to 24 for 1900; 85 to 89 for 1900 and 1890; and 75 to 79 for 1880. Age groups above 89 are not shown for 1900 and 1890, nor above 84 for 1880.

The three diagrams representing the age and sex of the colored population show marked differences, as, comparing the two for 1880 and 1890, it will be noted that a great decrease is indicated in the percentage of children less than 5 years of age, both male and female. In 1900 the percentages of colored children less than 5 years of age and from 5 to 9 years were very nearly the same, the former being only 0.1 per cent larger, while in the other age periods the decrease was generally more rapid than for the white element, indicating that the proportion of colored children was larger, due to the greater birth rate and death rate of the colored population. For 1890 the percentage of colored children from 5 to 9 years of age was greater than below 5 years, and would argue that there were fewer children under 5 years of age than in the next group, 5 to 9 years. This irregularity is due to a slightly deficient enumeration in 1890, especially in regard to colored children under 5 years of age. The diagram for 1880 shows a greater percentage of colored males and females in the age group from 20 to 24 years than in the next lower group, from 15 to 19 years, and, as the diagram for the white population does not show an excess in the group from 20 to 24, this peculiarity in the colored element caused the same characteristic to appear in the same age group in the pyramid representing the aggregate population. The males outnumbered the females in a majority of the age groups for both 1900 and 1890, but for 1880 they were nearly equal. Age groups above 84 do not appear in these diagrams. In 1900 the females were in excess in each group below 30, with the exception of 10 to 14; they were also in excess in the age group from 80 to 84 years. In 1890 there were more females than males in the age groups from 15 to 24, 40 to 44, and 80 to 84; they were also in excess in the following groups in 1880: 15 to 24, 35 to 44, and 70 to 84.

The first three diagrams on Plate 31 represent age and sex in percentages of the native white for 1900, 1890, and 1880, and show a regular decrease in the age groups below 25 years from census to census with the exception of the age group 15 to 19 years, in 1890, and slight increases in the age groups from 25 to 69 years, with the exception that the age group from 30 to 34 years shows a decrease in percentage from 1890 to 1900. The age groups from 70 to 84 show slight increases from 1880 to 1890, and decreases from 1890 to 1900. The age periods in which the percentage of males

exceeded that of the females were by far in the majority, those above 84 years not being shown. The percentage of females was the larger in the age groups from 15 to 19, and 75 to 84, at each of the three censuses; also 20 to 24 in 1900, and 35 to 44 in 1880.

The diagrams representing the foreign white population for 1900, 1890, and 1880 show plainly that the majority of immigrants who come to this country are between 20 and 50 years of age, and that a very small proportion are less than 15 years of age. The males were largely in excess of the females in almost every age period above 24, but in the periods below 25, the sexes were nearly equal. The percentage of females was greater than that of males at each census in age groups 15 to 19, and 85 to 89; in 1900, age group 20 to 24; and in 1890 and 1880, in age group 80 to 84. Ages above 89 are not shown.

The two diagrams representing the age and sex of the native white of native parents in 1900 and 1890 are the most symmetrical, showing a gradual and nearly uniform decrease in percentage for each age group, starting with the lowest, and may be considered the normal distribution of age and sex. The proportion of males was greater than that of females in nearly every group, the only exceptions being the age groups from 75 to 89 in both decades shown, and 15 to 19 in 1890. Ages above 89 do not appear.

The single diagram representing the age and sex of Indians in 1900 shows that the two sexes were nearly equal, but the proportion of children in the lower age periods was larger than for the native white of native parents, and nearly as large as the colored. The females were in excess in all age periods above 54, the age periods above 89 not appearing in the diagram.

The first two diagrams on Plate 32 show the proportion of males and females in each age period in 1900 and 1890, for the native white of foreign parents. This element shows at both decades a large percentage of children below 15 years of age and a very rapid decrease in the percentage of the age groups above 24 years, due to the fact that 46.2 per cent of the foreign born have come to this country since 1870. A decrease from 1890 to 1900 will be noted in the percentage of the age groups below 25 years and an increase in percentage in all those above 24 years. In this element of the population the males were in excess in nearly every group, the only age periods in which the females were in excess being 15 to 29 in both 1900 and 1890. Age periods above 74 are not shown for 1900, nor above 79 for 1890.

The diagram for negroes for 1900 brings out the fact that the sexes were very nearly equally distributed at all age periods, and is peculiar in that the percentage of children under 5 years of age is almost the same as from 5 to 9 years. The proportion of children below 15 years of age is, however, larger than for the native

white of native parents. The females were in excess in a majority of age periods, under 5, 5 to 9, 15 to 44, and 80 to 89 years. Age periods above 89 do not appear on the diagram.

The group of diagrams on Plates 33 and 34 show the distribution of the aggregate population of each state and territory by age and sex groups in 1900. The percentages in the age groups from 90 to 100, and above 100 were so small as to be of little importance and were omitted on these diagrams. The states are arranged in alphabetical order and the marked differences in the proportion of the sexes for each age group in different sections of the United States are very strikingly shown where states or territories widely separated geographically are brought together.

The first two, Alabama and Alaska, present a most startling contrast, Alabama being what might be considered an average state, the population having been nearly equally divided between the sexes and the age groups gradually decreasing, while Alaska shows a large excess of males over females in each age group and that its population was largely made up of adults—in groups from 20 to 50 years of age. Arizona also had a preponderance of males in all the age periods, and the proportion of children was much larger than in Alaska.

Alabama and Arkansas may be considered as typical Southern states, while Connecticut and Massachusetts may be considered as types of the New England states.

A comparison of the diagrams for states of the North Atlantic division with those of the South Atlantic and South Central divisions shows that the females were slightly in excess in the North Atlantic and South Atlantic divisions, and the males in the South Central division, while in the North Atlantic, and especially in the New England states, the small proportion of children and comparatively large proportion of adults is indicated by the shortness of the lower bar and the slight decrease at each age period. The large proportion of persons of advanced age is especially noticeable.

The diagrams for the South Atlantic and South Central divisions present a large proportion of children and fewer persons in the mature age periods. The length of the bar for the group from 20 to 30 years of age, especially noticeable in the states of the North Atlantic division and the District of Columbia, is due in the former principally to foreign immigration and in the latter to the large number of negro females.

The North Central division shows a larger proportion of children and a smaller percentage of adults than the North Atlantic states, the western portion of this division showing an excess of males in the adult groups.

The diagrams for the Western division represent great variations in age and sex conditions. New Mexico and Utah had about the same proportions of children and adults as the South Atlantic states—the sexes in Utah being nearly equal, but in New Mexico the males

being slightly in excess. The remaining states and territories in this division show an excess of males and a large proportion of the population in the adult groups, due to immigration both foreign and interstate.

The diagram representing Hawaii indicates an abnormal percentage of males from 20 to 40 years of age, due to the large number of Japanese and Chinese laborers.

The diagrams on Plates 35 and 36 show the percentage of the native white population, by age and sex, in each state and territory at the Twelfth Census. The diagrams representing Maine, New Hampshire, and Vermont are narrow and regular, the sexes nearly equally divided, the proportion of children being small and of the advanced ages rather large. The diagrams for the remaining states of the North Atlantic division have broader bases, indicating a larger proportion of children, the sexes being about equal.

The District of Columbia shows a very small proportion of children and a large proportion of adults, especially in the group from 20 to 30 years of age, the males being in excess in a few of the groups.

The states of the South Atlantic division show slight variations from New York, New Jersey, and Pennsylvania, the sexes being equally divided, and the proportion of children about the same.

In the North Central division, the diagrams for Ohio, Indiana, Illinois, Michigan, Iowa, Kansas, and Missouri are similar to New York and Pennsylvania.

For the Northwestern group, Wisconsin, Minnesota, North Dakota, South Dakota, and Nebraska, the males were in excess and the diagrams show extremely broad bases and small tops, due to the large number of native children of foreign parents, North Dakota especially having an unusually large proportion of children in the lowest age group.

The diagrams for the South Central division are similar to those of Illinois and Iowa, except that the proportion of males and of children was a little larger for the western South Central states.

In the Western division the state diagrams show wide differences, Utah having a large proportion of children with an almost equal division of the sexes. Montana and Wyoming are very much alike, indicating a preponderance of adult males in the groups from 20 to 40 years of age. Idaho and Washington are much the same, each showing a fair proportion of children, with the male adults in excess. The diagrams for California, Colorado, and Oregon are similar to that of Connecticut, with the exception that the males are slightly in excess. Hawaii is very much like Indian Territory, both showing a large proportion of children under 5 years of age. Alaska, as represented in these diagrams, has a very irregular and lopsided appearance, the males from 20 to 50 years of age forming the largest proportion of the element.

It will be noted in this series of diagrams that in every

state and territory, except Alaska and the District of Columbia, the bar for the age group from 0 to 10 is the longest.

The diagrams on Plates 37 and 38, representing for 1900 the foreign white population, by age and sex, are so entirely different from the others that at first they seem meaningless. The most prominent feature is the small proportion of children under 10 years of age. The largest proportion of this element is generally found in the group from 30 to 40 years of age. The foreign white males outnumbered the females in all the states except Massachusetts and Rhode Island, the diagrams for Alaska, Montana, and Wyoming, showing a very large proportion of foreign white males.

The diagrams on Plates 39 and 40 represent the negro population, by age and sex, at the Twelfth Census and present a very irregular and unsymmetrical appearance, except in the Southern states, where the negroes formed a large proportion of the population. The diagrams for these states are symmetrical, the proportion of children large, and the sexes equally divided.

In Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and the District of Columbia the proportion of children was very small; the largest proportion of negroes was found in the age group from 20 to 30 years, the females greatly exceeding the males in this age period.

In Ohio, Indiana, Illinois, and Iowa the proportion of negro children was nearly the same as for the North Atlantic states, but the excess in the age group from 20 to 30 years is not so marked.

In the Western states a large proportion of the negro population was between the ages of 20 and 40, and the adult males were greatly in excess.

In the other states the negro population was very small; the diagrams are irregular, and of value only in showing the proportion of adults and the excess of males.

#### NATIVITY OF THE FOREIGN BORN.

Plate 57 represents, by the areas of the circles, the number of foreign born at each census from 1850 to 1900, exclusive of Alaska and Hawaii, and by the sectors the proportion of each of the principal nationalities. In 1850 the Irish were the most numerous and formed nearly half of the foreign born; then followed, in order, the Germans, British, Canadians, and Scandinavians. In 1860 the Irish still formed the largest proportion of the foreign born, followed by the Germans, British, Canadians, and Scandinavians, the proportion of the Scandinavians having more than doubled. In 1870 the proportion of the Irish, Germans, and British had decreased, while that of the Canadians and Scandinavians had increased. In 1880 the Irish and British elements showed further proportional decreases and the Germans took the leading position. The proportion of Canadians and Scandinavians increased, and the Slavs

appeared for the first time with a fair-sized sector. In 1890 the proportions of Irish, British, and Canadians had decreased, while the Germans, Scandinavians, and Slavs increased; the Italians then appeared for the first time as one of the principal elements. In 1900 the Germans still formed the largest proportion of the foreign element, although the proportions of Irish, Germans, and British had decreased, while the Canadians, Scandinavians, Slavs, and Italians had increased, the last two having more than doubled in number during the decade. The Chinese, according to the census returns, increased from 1860 to 1890, and decreased from 1890 to 1900.

Diagram 1, Plate 58, shows the foreign born and the number of each leading nationality, excluding Alaska and Hawaii, at each census from 1850 to 1900. Plate 59 also represents the foreign born, excluding Alaska and Hawaii, of each leading nationality at each census specified. The rapid increase of the total foreign element and the increase and decrease in each nationality can be measured by the length of the bars. The Germans increased until 1900, at which date they showed a decrease; the Irish increased in each decade except from 1880 to 1900; the rapid increase of the Scandinavians, Italians, and Slavs is well brought out, as well as the decrease of the Chinese, from 1890 to 1900.

Diagram 2, Plate 58, represents the proportion which each of the principal nationalities bears to the foreign born, excluding Alaska and Hawaii, at each census, 1850 to 1900, and shows graphically their increase and decrease. In 1850 the Irish were the principal element of the foreign born, since which time the proportion has gradually decreased until in 1900 they formed 15.6 per cent of the foreign born, as compared with 42.8 per cent in 1850. In 1860 the Germans formed a larger percentage of the foreign element than they have at any other decade. The natives of Canada and Newfoundland have greatly increased, and in 1900 formed 11.4 per cent of the foreign born, as compared with 6.6 per cent in 1850. The proportion of British, 16.8 per cent, has gradually decreased since 1850, and in 1900 they formed only 11.3 per cent of the foreign born. The proportion of Scandinavians has increased, as has that of the Italians, Russians, Poles, Bohemians, Austrians, and Hungarians. The actual increase is more clearly shown on Plate 59.

Diagram 1, Plate 60, shows, by the length of the bars, the total number of foreign born in each state and territory. New York, the leading state in this element, had nearly twice as many foreigners as Pennsylvania, the next state in order. The four states, New York, Pennsylvania, Illinois, and Massachusetts, contained 45.4 per cent of the total foreign born population of continental United States, while Michigan, Wisconsin, and Minnesota had 15.1 per cent, the seven states comprising 60.6 per cent, or three-fifths of the

total foreign born, each of these states having had over 500,000 persons of foreign birth.

The double-page map, Plate 61, represents, by counties, the distribution of the foreign born element at the Twelfth Census, and indicates that nearly nine-tenths of the foreign born element has settled north of the thirty-ninth parallel of latitude, a very small proportion of this element being found in the Southern states.

Comparing the two maps, Plates 55 and 61, density of negroes and density of foreign born population in 1900, brings out the fact that the foreign element does not settle in the regions having a large proportion of negroes.

Cartogram 1, Plate 72, shows the density of the foreign born in each state and territory in 1900, the heavy shading of Rhode Island, Massachusetts, New Jersey, Connecticut, and New York indicating the large number of foreign born in these states.

Plate 62 shows the proportion which the foreign born bear to the total population of the United States, and, while in certain respects it is similar to the density map, it brings out more clearly the counties and states in which the foreign born element formed a large proportion of the population at the Twelfth Census. The heaviest shade in the states of Wisconsin, Minnesota, North and South Dakota, and Michigan, and the counties along the Rio Grande in Texas indicates the large proportion of foreign born. Northern Illinois, Iowa, Nebraska, Montana, Washington, Massachusetts, Rhode Island, and Connecticut also show a large proportion of this element.

Cartogram 3, Plate 72, represents the proportion of foreign born to total population in each state and territory in 1900.

Cartogram 6, Plate 27, shows the numerical gain or loss in foreign born population in 1900. There are fifteen states showing a numerical loss in this element, principally in the North Central and South Central divisions, the remaining states showing an increase.

Cartogram 5, Plate 72, the proportional increase and decrease of the foreign to native born from 1890 to 1900, shows that this element has increased proportionally in only nine states and territories.

Plate 63 represents the proportion of foreign born of each leading nationality, in 1900, by states and territories arranged in geographical order. Germans formed the largest percentage of the foreign born element in twenty-two states, Kentucky, Indiana, Missouri, Maryland, and Wisconsin having the largest proportions in the order named. It is a peculiar fact that Kentucky shows a larger proportion of Germans than either Missouri or Wisconsin.

The Irish were the leading element in Delaware, District of Columbia, and Connecticut.

Canadians formed the largest percentage of the foreign

born in Maine, New Hampshire, Vermont, Massachusetts, Michigan, Rhode Island, and Montana, while Utah had the largest proportion of the natives of England, Scotland, and Wales. This element also formed the largest proportion of the foreign born in Indian Territory, North Carolina, Alabama, Virginia, Wyoming, Colorado, and Nevada, in the order specified.

Scandinavians formed the largest proportion of the foreign element in Minnesota, South Dakota, North Dakota, Washington, and Idaho.

The Italians comprised the largest proportion of the foreign born in Louisiana, and a large percentage of the foreign element in West Virginia, Nevada, Indian Territory, and Mississippi.

Oklahoma, South Dakota, North Dakota, Maryland, and Georgia had the largest percentages of Russians, while Delaware, Pennsylvania, Illinois, Wisconsin, Michigan, and Connecticut show the largest percentages of Poles.

Those states having the largest percentages of Austrians were Pennsylvania, Colorado, and Wyoming.

The largest percentages of Bohemians to total foreign born were found in Nebraska, Oklahoma, Texas, Illinois, and Iowa.

Those states having the largest percentages of Hungarians were Pennsylvania, West Virginia, Ohio, and New Jersey.

The West Indians formed the largest proportion of the foreign born in Florida, the proportion in other states being trifling.

Natives of France were found principally in Louisiana.

Mexicans comprised the largest proportion of the foreign born in Arizona, New Mexico, and Texas. The Chinese formed the largest proportion of the foreign born in Alaska, but were also found in large numbers in Hawaii, Oregon, Nevada, and California. The Japanese comprised the largest proportion of the foreign born in Hawaii; Idaho, Washington, Oregon, and Montana appeared with smaller proportions of this element.

Plate 64 shows, in 1900, what proportion the foreign born of each leading nationality formed of the total foreign born population in cities of 100,000 population and upward. The Germans formed 50 per cent or more of the foreign born in six cities, Cincinnati having the largest proportion, Milwaukee second, Louisville third, St. Louis, Columbus, and Indianapolis following in order of the percentages of their German element. The Irish comprised the largest proportion of the foreign born in Boston, New Haven, Providence, Philadelphia, Jersey City, Washington, and Worcester, these cities being arranged according to their proportions of this element. Fall River is the only city shown in this diagram in which the Canadians constituted the principal element of the foreign born population. In Scranton and Paterson the largest proportion of the foreign born population was composed of natives of England, Scot-

land, and Wales. This element also appeared in large proportions in Fall River and Providence. While the Italians did not form the largest proportion of the total foreign born in any of the cities specified in this diagram, in New Orleans they formed a larger proportion of the foreign element than they did in any other city, New Haven, Memphis, and Newark following in order. In Minneapolis, St. Paul, and Omaha the Scandinavians comprised the largest proportion of the foreign element. Baltimore had the largest proportion of Russians to the total foreign born, New York and New Haven each having over 10 per cent. Milwaukee had the largest proportion of Poles, Allegheny of Austrians, and Cleveland the largest percentage of Bohemians and Hungarians. New Orleans had the largest percentage of French, Los Angeles of Chinese and Mexicans, and San Francisco the largest percentage of Japanese.

Map 1, Plate 65, shows, in six degrees of density, the number of Germans to a square mile in each county in 1900. The large number of persons of this nationality in Connecticut, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Wisconsin, and eastern Missouri are plainly indicated by the heavy shades of brown. A considerable area of German settlement is also noted in Michigan and Texas.

Map 2 on the same plate indicates, by five shades of brown, the proportion of the natives of Germany to the total population in 1900, and shows that the German element was of importance in northern Illinois, Wisconsin, Iowa, Minnesota, eastern Nebraska, Missouri, and parts of Texas.

Map 1, Plate 66, density of Irish per square mile, represents, in six shades of color, those portions of the country in which the Irish were the most thickly congregated in 1900. The heavy shades indicate that the greatest density of Irish population was found in Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, and New Jersey, with scattered settlements through Ohio, Indiana, Illinois, and California.

Map 2, Plate 66, shows, in four shades of color, the proportion of natives of Ireland to total population in 1900, and, like map 1, indicates that portion of the country where the Irish formed an important element of the population.

Maps 1 and 2, Plate 67, show the density of the natives of Great Britain and the proportion of the British to total population at the Twelfth Census. The states of Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania have the greatest density, while the largest proportion of this nativity appears in Massachusetts, Pennsylvania, Illinois, Missouri, Colorado, Utah, Montana, and California. Utah shows a larger proportion of natives of Great Britain to total population than any other state.

Maps 1 and 2, Plate 68, represent the density of the natives of Canada and the proportion of the Canadians

to the total population in 1900. The states of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Michigan, Wisconsin, Minnesota, and North Dakota show the most dense settlements of this element, as well as the largest proportion to their total population.

Maps 1 and 2, Plate 69, show the density of the Scandinavians and their proportion to the total population at the Twelfth Census. The largest proportions of this element to total population are noted in northern Illinois, Iowa, Michigan, Wisconsin, Minnesota, North Dakota, South Dakota, and Nebraska, with considerable areas of settlement in Utah, Montana, and Washington.

The diagrams on Plates 70 and 71 present the geographical distribution of eight groups of nations in 1900 and 1890. This classification was made in order to group the foreign born on a broader basis than the simple country of birth, and the diagrams are of great interest in showing where these foreign elements have made their homes.

The number of each of these elements in 1900 and 1890, their increase, and percentage of increase are given in the following table:

GROUPS.	POPULATION, <sup>1</sup>		Increase.	Percentage of increase.
	1900	1890		
Teutons .....	3,192,637	3,119,583	73,054	2.3
Irish .....	1,615,459	1,871,509	<sup>2</sup> 256,050	<sup>2</sup> 13.7
British Americans .....	1,179,807	980,938	198,869	20.3
British .....	1,167,623	1,251,402	<sup>2</sup> 83,779	<sup>2</sup> 6.7
Slavs .....	1,109,738	510,625	599,113	117.3
Scandinavians .....	1,062,207	933,249	128,958	13.8
Greco-Latins .....	634,397	319,822	314,575	98.4
Asiatics .....	120,248	113,883	6,365	6.1

<sup>1</sup> Exclusive of Alaska, Hawaii, and persons in the military and naval service of the United States stationed abroad.

<sup>2</sup> Decrease.

Plate 70 represents the geographical distribution of certain groups of nations in 1900 and 1890 for the states in which they were numerically important. Diagram 1 shows the distribution of the Teutons, comprising natives of Germany, Austria, Holland, Belgium, Luxemburg, and Switzerland; the Germans formed the principal element of this class. The Teutons were found in greatest numbers in the states of New York, Illinois, Pennsylvania, Wisconsin, Ohio, Michigan, and New Jersey. In New York, Illinois, Pennsylvania, New Jersey, and Minnesota the number of Teutons had increased since 1890, while in Wisconsin, Ohio, Michigan, Iowa, and Missouri the number had decreased.

Diagram 2, Plate 70, shows the distribution of the Greco-Latins, consisting of the natives of France, Italy, Spain, Portugal, and Greece. The largest numbers of this element, which has almost doubled since 1890, were found in New York, Pennsylvania, California, Massachusetts, and New Jersey.

Diagram 3, Plate 70, represents the distribution of the Irish, who were found principally in the North

Atlantic and North Central divisions; the states having the largest numbers were New York, Massachusetts, Pennsylvania, Illinois, and New Jersey, in the order named. It is a noticeable fact that the number of Irish has decreased since 1890 in every state shown on the diagram, except Montana.

In diagram 4, Plate 70—distribution of Slavs, which include natives of Russia, Hungary, Bohemia, and Poland—New York also had the largest number, with Pennsylvania, Illinois, and Ohio following in order. The Slavs, like the Greco-Latins, have increased greatly since 1890. New York, Pennsylvania, and Illinois, and a number of other states, have more than doubled this element of their population in ten years.

Diagram 1, Plate 71, shows the distribution of Scandinavians, composed of natives of Norway, Sweden, and Denmark. Minnesota had the largest number, Illinois, Wisconsin, and Iowa following in order. The Scandinavian element has increased in all the states shown on the diagram, except Iowa, Michigan, Nebraska, and Kansas, which show a decrease since 1890.

Diagram 2, Plate 71, represents the distribution of the British, including the natives of England, Scotland, and Wales. Pennsylvania had the largest number, with New York, Massachusetts, Illinois, and Ohio following in order. This element has decreased in a majority of states since 1890.

In diagram 3, Plate 71, the number of British Americans, comprising the natives of Canada and Newfoundland, is shown. Massachusetts led in this element of population; Michigan, New York, and Maine also had large numbers. In the states of Iowa, Nebraska, Kansas, and South Dakota this element had decreased, although the total number in the United States had increased.

Diagram 4, Plate 71, shows the number of Asiatics, including the natives of China, Japan, and other parts of Asia. California, Oregon, New York, Washington, and Massachusetts were the only states in which this element was not insignificant. California still had the largest proportion of this element, although it has decreased greatly since 1890.

Plate 73 shows the distribution of natives of certain foreign countries in 1900. New York had the largest number of natives of Germany, Ireland, Russia, and Italy. Massachusetts led in the number of natives of Canada and Newfoundland; Pennsylvania in natives of Great Britain, and Poland; and Minnesota in the largest number of natives of Norway, Sweden, and Denmark.

Diagram 2, Plate 73, is of interest, as it shows, by the length of the bars, the percentage of each of the principal nativities living in cities of 25,000 inhabitants or more in 1900, and indicates the elements of foreign immigrants who settle in our large cities. Nearly 75 per cent of the Russians lived in cities—a larger proportion than of any other foreign nationality. Poland, Italy,

and Ireland had over 62 per cent; Bohemia, Austria, Hungary, and Germany followed in order, each having over 50 per cent.

The distribution of the foreign born population, which has been represented on the diagrams and maps previously referred to, does not include all of what may be termed the foreign element, as natives of foreign parentage have not been considered.

Diagram 1, Plate 74, represents, by the length of the bars, the distribution of the white population of foreign parentage, including foreign born whites, in each state and territory. Of this element New York had 4,304,389, forming 59.2 per cent of the total population. Illinois had 2,462,705; Pennsylvania, 2,412,292; Massachusetts, Wisconsin, Ohio, Michigan, and Minnesota each had over 1,000,000 persons of foreign extraction. The foreign element in the Southern states was very small.

The total number of whites of foreign parentage in continental United States in 1900 was 25,850,980, forming 34.0 per cent of its total population. The distribution of this population is shown in detail on the map, Plate 75, which indicates, in six shades of color, the proportion of the whites of foreign parentage to the total population in each county, the heavy shades showing where the foreign element formed the greatest proportion in 1900. The small proportion of the foreign element in the South and the preponderance of persons of foreign parentage in Wisconsin, Minnesota, and the Dakotas is clearly outlined. Massachusetts, Rhode Island, and Connecticut also had large proportions of this element.

Cartogram 4, Plate 27, shows, for each state and territory, the proportion of whites of foreign parentage to total population at the Twelfth Census in six groups, and was prepared in the same manner as Plate 75, except that in the former the county was used as the unit, and in the latter the state was the unit. The North Atlantic, North Central, and Western divisions had the greatest proportion of whites of foreign parentage; and the South Atlantic and South Central the least.

Diagram 2, Plate 74, indicates, by the length of its bars, the proportion of aliens to the total foreign born males of voting age in each specified nativity in 1900. The Chinese had the largest proportion of aliens, as they are prohibited by law from becoming citizens of the United States; the Japanese were second, and the Hungarians, Italians, Portuguese, and Austrians followed in order; the Welsh had the lowest percentage of aliens of the nativities shown on the diagram.

Diagram 2, Plate 60, represents the percentage of aliens in the total foreign born of each specified nativity in 1900. This differs from diagram 2, Plate 74, in that the percentages are based on the total foreign born instead of foreign born males of voting age.

Diagram 3, Plate 60, shows the percentage of aliens among the foreign born males 21 years of age and over in cities having 100,000 inhabitants or more in 1900. The

New England states led in this respect. In Fall River and Worcester over 44 per cent of the foreign born males 21 years of age and over were aliens; in Providence over 37.8 per cent; in Los Angeles, Boston, San Francisco, New York, New Haven, Pittsburg, and Philadelphia between 30 and 35 per cent of the foreign born males of voting age were aliens. Columbus had the lowest percentage of aliens of voting age, 5.9.

Cartogram 4, Plate 76, presents, in six degrees of density, the proportion of aliens to foreign born males 21 years of age and over in 1900. Maine and Arizona had over 55 per cent of aliens among the foreign born males 21 years of age and over.

#### CONJUGAL CONDITION.

The diagrams on Plates 32, 77, and 78 show the conjugal condition of the population and its elements in 1900.

Diagram 2, Plate 32, represents graphically, by the length of the bars, the number of single, married, widowed, and divorced, by general nativity and color, for continental United States. Single persons outnumbered the married and widowed in the total population, native white of native parents, native white of foreign parents, and negro. The foreign white element, however, had more than twice as many married as single; this is due, undoubtedly, to the fact that a greater part of our immigration consists of married adults. It will also be noted that the number of divorced is represented for the total population only, as the numbers returned for the other elements were too small to be indicated.

Plate 77 consists of a series of diagrams showing, for continental United States, the conjugal condition of the aggregate population for 1900 and 1890, and native white of native parents and native white of foreign parents for 1900, by age and sex, in proportions of the total number in each age group. The proportion of persons marrying before 15 years of age was so small as not to appear on the diagrams for the aggregate population at either census. In 1900, 1.0 per cent of the males and 10.9 per cent of the females between the ages of 15 and 19 were married. From 20 to 24 years 21.6 per cent of the males were married and of the females 46.5 per cent. In every age period, except 15 to 19, the proportion of widowed to married for females was larger than for males. It will also be noted that the proportion of widowed to total in each age group for females was more than double that for males. Comparing the two diagrams for 1900 and 1890, an increase will be noted in the proportion of widowed to married for nearly every age group for both sexes.

The diagram representing the conjugal condition of the native white of native parents shows a slightly larger proportion of married males and females in each age group than the aggregate. The native white of for-

eign parents shows a much smaller proportion of married in each age group than the native white of native parents.

On Plate 78, the first diagram, representing the foreign white population for continental United States, shows a slightly larger proportion of both married and widowed persons in most of the age groups than the native white of foreign parents. The Indians show larger proportions of married, both males and females, in each age group below 35 years, than any of the other elements, except in the case of Chinese females. The negroes show the largest proportions of widowed females for each age group, except 15 to 19 years, in which the Indians lead. The last diagram, representing the conjugal condition of the Chinese and Japanese, indicates that a very small proportion of males (30.9 per cent) and a very large proportion of females (62.9 per cent) were married.

Cartogram 2, Plate 76, indicates, by shades of color, the proportion of divorced to married persons in 1900, in each state and territory. Nevada, Oregon, New Hampshire, California, and Arizona show the largest percentage, the proportion generally being larger in the West than in the East. The returns of the enumerators can not, however, be taken as an absolutely accurate statement of the number of divorced, owing to the tendency of divorced persons to report as single or widowed; and to the fact that no return is made of the divorced persons who have married again.

#### ILLITERACY.

The enumerators of the Twelfth Census were required to secure data in regard to the illiteracy of every person 10 years of age and over. The inquiry called for an answer as to whether or not a person could read or write; therefore, the census classification of illiterates includes what might be termed two classes—first, those who can neither read nor write, and, second, those who can read but can not write. The enumerators returned a total of 58,224,600 persons 10 years of age and upward; of this number, 6,246,857, or 10.7 per cent, were reported as illiterate. In 1890 the illiterates constituted 13.3 per cent of the population 10 years of age and upward, a decrease during the past decade of 2.6 per cent in the proportion of illiterates.

On Plate 82, the proportion of illiterates among the total population 10 years of age and over in 1900 and 1890, the states are arranged in the order of the percentage of illiterates in 1900. Excluding Alaska, Louisiana shows the largest percentage at both censuses, and Nebraska the smallest. The only states and territories indicating an increase in percentage of illiterates are Arizona, South Dakota, Montana, Connecticut, Wyoming, Nevada, and Oklahoma, due principally to the inclusion of Indians in 1900, as this class was not included in the illiterate population in 1890. The Southern states,

especially, show great decreases in illiteracy, while in a number of the North Atlantic states the decrease is slight, owing to a great influx of illiterate foreigners.

Plate 83 represents, for each state and territory, in 1900 and 1890, the proportion of illiterates among the native white population 10 years of age and over, arranged in order of their illiteracy in 1900. New Mexico is first, having the largest proportion of native white illiterates at both decades, due principally to the large number of illiterates among the natives of Spanish descent; Massachusetts had the smallest percentage of illiterates in 1890, but in 1900 had been passed by five Western states—Washington, South Dakota, Nevada, Montana, and Wyoming—Washington enjoying the distinction of having the smallest percentage of native white illiterates in 1900. It will also be noted that the percentage of native white illiterates has decreased in each state and territory, except New Hampshire, which shows an increase of only 0.03 per cent. The decrease in the illiteracy of the native white population in the Southern states is much less than the decrease in illiteracy of the negro population in the same states.

Plate 84 represents, for each state and territory, the proportion of illiterates among the foreign white population 10 years of age and over for 1900 and 1890, arranged in order of their illiteracy in 1900. Hawaii leads with the greatest percentage of foreign white illiterates, 43.1 per cent in 1900, Arizona and New Mexico following with over 34 per cent, while Oregon appears with the least percentage, 4.1.

Plate 85 indicates, by states and territories, the proportion of illiterates among the negro population 10 years of age and over, for 1900 and 1890, arranged in order of their illiteracy in 1900. Louisiana had the highest percentage, 61.1 per cent of the negroes 10 years of age and over of that state being illiterate. Every state and territory except Montana shows a great decrease in the proportion of negro illiterates from 1890 to 1900, which is especially marked in New Mexico, Utah, Nevada, and North Dakota. This diagram is of great interest as a measure of the decrease in illiteracy of the negroes, and is especially significant as compared with the diagram on Plate 83, which shows the proportion of illiterates among the native white population. It will be noted that the decrease in the percentage of illiterates among the negroes had been much greater than the decrease for the native white population.

Plate 79 shows, by shades of color, the proportion of illiterates among native white males of voting age in each county in 1900. The heavy shades, indicating the largest proportions of illiterates, will be found in the South Atlantic and South Central states, and New Mexico, and the lightest shade, indicating the smallest proportion, in the North Central and Western states. The comparatively large proportion of illiterates in the North Atlantic division was due to the large number of illiterate native white males of foreign parentage.

On Plate 80, the double page map representing the proportion of illiterates among negro males of voting age in 1900, the heavy shades will be found in the South Atlantic and South Central states. It will also be noted that the percentage of illiterates among negro males of voting age was very large in all parts of the country, although the negro element in the Northern states has made rapid progress in acquiring the elements of education.

On Plate 81, males of voting age by color and nativity, and by illiteracy, for states and territories, in 1900, the shaded portion of each color represents the percentage of illiterates in each element of the population, the colored showing the greatest percentage of illiterates in each state and territory where they formed a fair proportion of the population.

#### INABILITY TO SPEAK ENGLISH.

Plate 86 represents, for 1900, by states and territories, the proportion of white persons of foreign parentage, 10 years of age and over, who could not speak English. New Mexico (33.8 per cent), Arizona (31.5 per cent), and Texas (28.0 per cent) had the largest percentages of this element, due principally to the large proportion of immigrants of Mexican birth.

Cartogram 6, Plate 76, shows for 1900, in shades of color, by states and territories, the proportion of foreign born whites 10 years of age and over who could not speak English; Arizona, New Mexico, Texas, and Florida had the greatest proportions (each of the first three having over 40 per cent) of this class of immigrants, who were principally of Spanish descent, the slowest in learning to speak English.

#### OCCUPATIONS.

The enumerators of the Twelfth Census returned 29,287,070 persons 10 years of age and over as engaged in gainful occupations, more than one-half (50.3 per cent) of the population 10 years of age and upward, and nearly two-fifths (38.4 per cent) of the total population.

Of this number, 23,957,778 were males and 5,329,292 females, or more than 4 males to each female. The male wage-earners formed four-fifths of the total male population 10 years of age and over, while the female wage-earners formed only 18.8 per cent of the total female population 10 years of age and upward.

Plate 89 represents, by six small squares, the population, or its elements, 10 years of age and over, by sex, classified as wage-earners and nonwage-earners, for continental United States in 1900. The entire area of each square, representing the population, or its elements, 10 years of age and over, is subdivided into rectangles showing the proportion of each sex, and so shaded as to indicate the proportion of wage-earners and nonwage-earners in each sex.

Diagram 1, Plate 89, is a square representing the population 10 years of age and over, in 1900, by sex, classified as wage-earners and nonwage-earners. The large proportion of male wage-earners, comprising four-fifths (80.0 per cent) of the male population 10 years of age and over, as compared with the proportion of female wage-earners forming less than one-fifth (18.8 per cent) of the total number of females 10 years of age and over, is clearly shown.

Diagram 2, Plate 89, is a square representing the population 10 years of age and over, by color and general nativity, classified as wage-earners and nonwage-earners. The increasing proportion of wage-earners in each element is clearly indicated by the shaded parts of the rectangles, the colored element showing the largest proportion of wage-earners (62.1 per cent), and the native white of native parents the smallest (45.8 per cent).

Diagram 3, Plate 89, is composed of four squares, representing the native white of native parents, native white of foreign parents, foreign white, and colored population 10 years of age and over. Each square is divided into rectangles, representing males and females, each rectangle being shaded to indicate the proportion of wage-earners and nonwage-earners. The male wage-earners largely outnumbered the female in each element. The foreign white show the largest proportion of male wage-earners to total foreign white males 10 years of age and over, and the colored the largest proportion of female wage-earners. The smallest proportion of male wage-earners is shown for the native white of foreign parents, and the smallest proportion of female wage-earners among the native white of native parents.

Wage-earners are classified by the Census, primarily, into five grand groups of occupations, as follows: (1) agricultural pursuits; (2) professional service; (3) domestic and personal service; (4) trade and transportation; (5) manufacturing and mechanical pursuits. These grand groups are subdivided into specified occupations.

Plate 90 shows, for continental United States, the proportion of males and females in each class of occupations and in certain specified occupation groups in 1900. The total length of each bar represents 100 per cent, the black portion indicating the percentage of males and the white the percentage of females, those occupations in which each sex preponderates being clearly marked by the difference in color. The first bar shows that the males formed 81.7 per cent of all wage-earners.

Taking up the occupation groups in order, we note that in agricultural pursuits males formed 90.6 per cent of the total number employed. In the three specified classes of occupations given under professional service the males were in excess among artists and teachers of art, while in the other two the females prepon-

derated. In the six classes given under domestic and personal service there is only one in which the males were in excess—laborers (not specified)—of which class they formed 95.3 per cent; the females formed at least 82.3 per cent of each of the other five classes. Under trade and transportation the males exceeded in every group except stenographers and typewriters, in which the females formed 76.6 per cent. A great variation will be noted in the proportion of the sexes for the occupations shown under manufacturing and mechanical pursuits. In several of the classes, as bleachery and dye works operatives, printers, lithographers, and pressmen, also photographers, the males formed over 86 per cent of the employees; while of dressmakers, milliners, and seamstresses, the females formed over 96 per cent. In ten of the twenty-six groups represented under manufacturing and mechanical pursuits, the females formed over 50 per cent of the wage-earners.

The proportion which each of the principal elements of the population formed of the total wage-earners, and the relative proportion of each of the grand groups in each element, for continental United States, is shown by the square diagram on Plate 87. This square represents the classification of occupations by race and nativity in 1900, and, although it appears to be complex, is really very simple in construction and easily understood. The total area of the square, representing the number of wage-earners, is divided by heavy horizontal lines into rectangles indicating the native white of native parents, native white of foreign parents, foreign white, and colored. Each rectangle is subdivided by vertical lines into sections representing each of the five grand groups of occupations, each group being given a distinctive color—agricultural pursuits, blue; professional service, pink; domestic and personal service, green; trade and transportation, gray; and manufacturing and mechanical pursuits, yellow.

Each grand group is subdivided by light horizontal lines into small rectangles or sections, representing the proportion of wage-earners in each specified occupation as numbered and described below the square. Under the grand group of agricultural pursuits, (1) represents agricultural laborers; (2) farmers, planters, and overseers; (3) all others. The grand group representing professional service is subdivided in a similar manner into small rectangles or sections, showing the proportion of (1) clergymen; (2) lawyers; (3) physicians; (4) teachers; (5) all others. The other grand groups are divided in a similar manner.

This diagram shows that the native white of native parents, with 13,875,329, had the largest proportion of wage-earners (47.7 per cent); the foreign white, with 5,736,818 (19.8 per cent); the native white of foreign parents, with 5,300,924 (18.2 per cent); and the colored, with 4,160,162 (14.3 per cent), following in order. The colored show the largest proportion engaged in agricultural pursuits (53.0 per cent), and the foreign white the

smallest (18.7 per cent). In professional service the native white of native parents had the largest proportion (5.8 per cent), and the colored the smallest (1.2 per cent). The colored also had the largest proportion employed in domestic and personal service (33.4 per cent), and the native white of native parents the smallest (13.3 per cent). In trade and transportation the native white of foreign parents formed the largest proportion (23.1 per cent), and the colored the smallest (5.4 per cent), while in manufacturing and mechanical pursuits the foreign white had the largest proportion (37.8 per cent), and the colored the smallest (7.0 per cent). Taking up each element of the population in order, it will be noted that the native white of native parents had the largest proportion engaged in professional service and the smallest proportion in domestic and personal service; the native white of foreign parents the largest proportion engaged in trade and transportation; the foreign white the largest proportion engaged in manufacturing and mechanical pursuits, and the smallest proportion in agriculture; the colored the largest proportion engaged in agricultural pursuits, and domestic and personal service, and the smallest proportion in professional service, trade and transportation, and manufacturing and mechanical pursuits.

Plate 88 represents the proportion, by general nativity and race, of persons engaged in the principal occupations in 1900. The total length of the bar represents 100 per cent, and the portions colored the percentage of each of the five elements engaged in the grand group or specified occupation represented. The bars are arranged in five groups, the first bar of each group representing the proportion of each element for the grand group, followed by the bars for certain specified occupations of that group. The percentage of each element in all occupations is indicated on the first bar, the native white of native parents showing the largest proportion, 47.7 per cent, followed by the foreign white, with 19.8 per cent; the native white of foreign parents, with 18.2 per cent; the negro, with 13.7 per cent; and the Chinese, Japanese, and Indians, with 0.6 per cent. The native white of native parents predominated in agricultural pursuits, professional service, and in trade and transportation, forming more than half of the wage-earners in each of these groups. In domestic and personal service, and manufacturing and mechanical pursuits the proportion of the other elements combined is greater, although the native white of native parents formed the largest proportion in each of the principal occupation groups. In professional service it will be noted that the proportion of native white of native parents is much larger than for any other race or nativity, as they formed 64.1 per cent of the total, 75.5 per cent of the lawyers, 73.7 per cent of the physicians and surgeons, 65.6 per cent of the teachers and professors in colleges and universities, and 52.4 per cent of the clergymen. The foreign white and the native white of foreign parents formed together a rela-

tively small proportion of wage-earners in agricultural pursuits and professional service, but in manufacturing and mechanical pursuits they were the leading element. The large proportion they formed of tailors and tailoresses (86.1 per cent) is especially noticeable. These two elements also formed the largest percentage of the persons employed in domestic and personal service. The largest proportion (23.6 per cent) of the negroes will be noted in domestic and personal service, and especially in the occupation of launderers and laundresses, in which they formed 57.0 per cent of the workers.

Plates 92 and 93 represent, by the different colors on each bar, the proportion of persons engaged in each of seven classes of occupations in 1900 and 1890, by states and territories, arranged in order of the percentage of persons employed in agriculture. Comparisons may be drawn from these two diagrams as to increases or decreases in the proportions of persons engaged in the several occupation classes shown.

#### AGRICULTURAL PURSUITS.

In 1900 Mississippi had the largest percentage (76.0 per cent) of persons employed in agriculture, Oklahoma and Arkansas following with over 70 per cent.

The dark shades on cartogram 1, Plate 91, indicate the regions where agricultural pursuits formed the principal occupation of wage-earners in 1900. This industry was of great importance in nearly every state, but especially so in the South Atlantic and South Central divisions, and North and South Dakota, where the greatest proportion of wage-earners was engaged in agriculture. Plates 92 and 93 show that most of the states have changed their positions since 1890, due to slight decreases in the proportion of persons engaged in this pursuit.

#### MANUFACTURING AND MECHANICAL PURSUITS.

In the North Atlantic states (except Vermont), Delaware, and Ohio, manufactures was the most important industry, as shown by the proportion of persons engaged therein.

Cartogram 2, Plate 91, represents the proportion of wage-earners employed in manufacturing and mechanical pursuits to all wage-earners in 1900. Rhode Island, Massachusetts, Connecticut, and New Hampshire had the greatest percentage of persons engaged in these industries, over two-fifths of all the wage-earners in these states having been employed in this class of occupations. This industry was also of great importance in New Jersey, New York, Pennsylvania, and Delaware, over 30 per cent of their wage-earners following manufacturing pursuits. Plates 92 and 93 show that the proportion of wage-earners engaged in manufacturing pursuits in the Southern states was very small, although it has increased since 1890 in certain states of the South Atlantic division.

#### MINING AND QUARRYING.

In Alaska, Montana, Arizona, Nevada, Colorado, and Idaho mining and quarrying was an important industry in 1900.

Cartogram 3, Plate 91, indicates that this class of occupation was an important one in the Western division. This industry was also of consequence in Pennsylvania and West Virginia.

#### FISHING.

In 1900 Alaska led in the proportion of persons engaged in fishing. For continental United States, Maryland had the largest proportion of persons engaged in this industry.

#### TRADE AND TRANSPORTATION.

Nearly every state and territory shows a considerable percentage of persons engaged in trade and transportation.

Cartogram 4, Plate 91, represents, by shades of color, the states and territories having the largest proportion of persons engaged in occupations connected with trade and transportation, and evidences the fact that it was of importance in all the states, except a few in the South Atlantic and South Central divisions.

#### DOMESTIC AND PERSONAL SERVICE.

The District of Columbia, Alaska, and Maryland had a larger proportion of wage-earners employed in domestic and personal service than in any other class of occupations.

Cartogram 5, Plate 91, represents the proportion of persons engaged in domestic and personal service. The heaviest shade, indicating the largest proportion of persons engaged in this class of occupations, is found in every division, the Western division showing a large proportion in each state.

#### PROFESSIONAL SERVICE.

The number of persons employed in professional service formed a very small proportion of the wage-earners in each state.

On cartogram 6, Plate 91, illustrating the proportion of persons engaged in this service, the heaviest shade is scattered over the entire United States, with the exception of the South Central division, most of the states in the South Atlantic and South Central divisions showing a very small proportion of wage-earners employed in professional service.

#### DISTRIBUTION BY PARENTAGE.

The series of diagrams on Plates 94, 95, and 96 represent the distribution of wage-earners of specified parentage by their principal occupations in 1900, and

show the percentage of wage-earners of native, foreign, and negro parentage, also by parentage for certain specified nationalities. Diagrams 1, 3, and 5 on Plate 94 indicate the principal occupations of persons of native, foreign, and negro parentage. The leading occupations for each of these elements were connected with agriculture. Nearly 45 per cent of the wage-earners of native parents were farmers, planters, and overseers, and agricultural laborers; only 11.7 per cent of persons of foreign parentage were farmers, planters, and overseers, and 7.2 per cent agricultural laborers. The negroes, however, had a far larger proportion in agricultural occupations than either of the other elements, 53.7 per cent of the negro wage-earners following these pursuits. The Norwegians (diagram 1, Plate 95); Danes (diagram 3, Plate 95); Bohemians (diagram 6, Plate 96); Swedes (diagram 5, Plate 95); and Germans (diagram 4, Plate 94) had the largest proportions of wage-earners employed in agriculture, the Norwegians leading with 47.0 per cent of this element, the Danes coming next with 39.2 per cent, the Bohemians with 30.1 per cent, the Swedes with 27.2 per cent, and the Germans with 24.2 per cent.

These diagrams are very interesting in showing the occupations followed by foreign immigrants and their children. A close study of the diagrams will show that of those persons of foreign parentage the Germans (diagram 4, Plate 94); French (diagram 6, Plate 94); Scandinavians (diagrams 1, 3, and 5, Plate 95); English Canadians (diagram 2, Plate 95); British (diagram 6, Plate 95); and Bohemians (diagram 6, Plate 96) had larger proportions of their wage-earners engaged as farmers, planters, and overseers, than were employed in any other detailed occupation, although the number engaged in agriculture was relatively small as compared with those of native and negro parentage. The Irish (diagram 2, Plate 94) showed a larger percentage of laborers not specified, and servants and waiters than that of any other occupation. The French Canadians (diagram 4, Plate 95) attracted by the cotton mills of New England, had a large proportion of cotton-mill operatives. The Austrians, Hungarians, Poles, and Italians (diagrams 1, 2, 3, and 5, Plate 96) showed large percentages of laborers not specified, and miners and quarrymen. The Russians (diagram 4, Plate 96) showed the largest percentage employed as tailors and tailoresses.

#### FAMILIES.

Family, as a census term, may stand for a group of individuals who occupy jointly a dwelling place or part of a dwelling place, or for an individual living alone in any place of abode.

The following table, taken from Twelfth Census, Volume II, page clviii, gives the population, number of families, and the number of persons to a family at each census from 1850 to 1900:

CENSUS.	Total population.	Total families.	Persons to a family.
1900, entire area of enumeration.....	76,303,887	16,239,797	4.7
1900, continental United States.....	75,994,575	16,187,715	4.7
1890.....	62,622,250	12,690,152	4.9
1880.....	50,155,783	9,945,916	5.0
1870.....	38,558,371	7,579,363	5.1
1860.....	127,489,561	15,210,931	15.3
1850.....	119,987,563	13,598,240	15.6

<sup>1</sup>Families returned for free population only.

Diagram 1, Plate 97, represents, by the length of its bars, the average number of persons to a family at each census from 1850 to 1900, as given in the preceding table. No reliable data could be obtained in regard to the size of families for the censuses prior to 1850, and for 1850 and 1860 the data are for free population only. In 1850 the average size of a family was 5.6; since then it has steadily diminished, until at the census of 1900 it was 4.7, a decrease of 16.1 per cent in the past fifty years.

Diagram 2, Plate 97, shows the average number of persons to a private family in each state and territory in 1900. Texas leads with an average of 5.1 persons to a family, with North Carolina, Indian Territory, and West Virginia closely following; Alaska, with only 3.3 persons to a family, has the lowest average. It will be noted on this diagram, also on Plate 98, that the Southern states had the largest families and Maine, New Hampshire, Vermont, and the far Western states, with the exception of Utah, the smallest, Nevada having the smallest average of any state or territory appearing, except Alaska.

Plate 98 shows the average size of private families at the Twelfth Census in detail, as in preparing the map the county has been taken as the unit, the average size of a family computed in each, the counties arranged in five groups and colored in different shades, the lightest tint, group I, representing those counties where the average number of persons to a family was less than 4, and the heaviest shade, group V, where the average number of persons to a family was 5.5 or more. The largest areas of group I are found in New Hampshire, Vermont, New York, the southern part of Michigan, and the far West, while large areas of group V are found in Texas, Louisiana, Mississippi, Kentucky, West Virginia, North Carolina, Utah, and a few scattered counties in Michigan, Minnesota, North Dakota and South Dakota.

#### PROPRIETORSHIP OF HOMES.

Plate 99 represents the proportion of homes owned free, owned encumbered, and hired in 1900. With the exception of Alaska, New Mexico had the largest proportion of homes owned free and the District of Columbia the smallest; with the exception of Hawaii and

Alaska, the District of Columbia had the largest proportion of hired homes and North Dakota the smallest. Wisconsin, Vermont, and Michigan showed the largest percentage of homes owned encumbered and Indian Territory the smallest, the percentage for Alaska being too small to be represented on the diagram. Comparing the states by geographical divisions, the Western division had the largest percentage of homes owned free and the North Atlantic the smallest. The states of the North Atlantic division had the largest proportion of hired homes and those of the North Central division the smallest. The North Central division had the largest proportion of homes owned encumbered and the South Central the smallest.

Plate 100 represents the proportion of farm homes owned free, owned encumbered, and hired in 1900. New Mexico, with 86.9 per cent, led in the percent-

age of farm homes owned free, with Arizona, Utah, and Alaska closely following, Indian Territory showing the smallest percentage (25.3). Michigan, Wisconsin, and Vermont, in the order named, had the largest proportion of farms owned encumbered, while New Mexico and Arizona had the smallest, except Indian Territory, the percentage for which was too small to appear upon the diagram. Indian Territory, Mississippi, and South Carolina had the largest proportion of hired farms while Maine and Utah had smaller proportions than any of the other states. Compared by divisions, the Western states had the largest proportion owned free, and the smallest hired; the North Central states had the largest proportion owned encumbered, and the smallest owned free; while the South Central states had the largest proportion hired, and the smallest owned encumbered.



