

## CENSUS BULLETIN.

No. 62.

WASHINGTON, D. C.

April 30, 1901.

## THE CENTER OF POPULATION AND ITS MEDIAN POINT.

This bulletin, prepared under the direction of Mr. HENRY GANNETT, geographer, gives the location of the center of population of the United States, excluding Alaska and the recent accessions of territory, on June 1, 1900, according to the records of this office, with a discussion of the movements of the center, decade by decade, during the past century. It is a matter of special interest, as such movements summarize the net result of all the movements of population during each decennial period.

By the Twelfth Census the center of population in 1900 was in the following position:<sup>1</sup>

Latitude.....	39° 9' 30"
Longitude.....	85° 48' 54"

In ten years the center of population has moved westward 16' 1", or about fourteen miles,<sup>2</sup> and southward 2' 20", or about two and one-half miles. It rests now in southern Indiana, at a point about six miles southeast of Columbus, the county seat of Bartholomew county, Indiana. The surroundings of its location are shown upon the sketch maps accompanying this bulletin.

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, although included in the Twelfth Census, has not been included here. 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 and meridians 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 the 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 obtained. 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 obtained, and from them a correction to the longitude of the assumed center was obtained.

In 1790 the center of population was at 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' and longitude 76° 56.5'.

From 1800 to 1810 it moved westward and slightly southward to a point about 40 miles northwest by west of Washington, being in latitude 39° 11.5' and longitude 77° 37.2'. The southward 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 westward and again slightly southward to a point about 16 miles north of Woodstock, Virginia, being in latitude 39° 5.7' and longitude 78° 33'. This second southward movement appears to have been due to the extension of settlements in Mississippi, Alabama, and eastern Georgia.

From 1820 to 1830 it moved still westward and southward to a point about 19 miles southwest of Moorefield, in the present state of West Virginia, being in latitude 38° 57.9' and longitude 79° 16.9'. This is the most decided

<sup>1</sup> See first sketch map between page 2 and page 3.

<sup>2</sup> See second sketch map between page 2 and page 3.  
CP 18M

southward 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, Louisiana, Mississippi, and Arkansas, or generally, it may be said, in the southwest.

From 1830 to 1840 it moved still farther westward, but slightly changed its direction northward, reaching a point 16 miles south of Clarksburg, in the present state of West Virginia, being in latitude  $39^{\circ} 2'$  and longitude  $80^{\circ} 18'$ . 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 westward and slightly southward again, reaching a point about 23 miles southeast of Parkersburg, in the present state of West Virginia, in latitude  $38^{\circ} 59'$  and longitude  $81^{\circ} 19'$ , the change of direction southward being largely due to the annexation of Texas.

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

From 1860 to 1870 it moved westward and sharply northward, reaching a point about 48 miles east by north of Cincinnati, Ohio, in latitude  $39^{\circ} 12'$ , longitude  $83^{\circ} 35.7'$ . This northward movement was due in part to 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 southward to nearly the same latitude which it had in 1860, being in latitude  $39^{\circ} 4.1'$ , longitude  $84^{\circ} 39.7'$ . This southward movement was due only in part to an imperfect enumeration at the south in 1870. During the decade from 1870 to 1880 the southern states made a large positive increase, both from natural growth and from migration southward.

In 1890 the center of population had moved northward into practically the same latitude it occupied in 1870. This northward movement was largely due to the great development in the cities of the northwest and in the state of Washington, and also to the increase of population in New England. Its position was in latitude  $39^{\circ} 11' 56''$  and longitude  $85^{\circ} 32' 53''$ .

During the past decade the center of population has moved westward  $16' 1''$ , a little over 14 miles, and southward  $2' 20''$ , a little less than 3 miles. This is the smallest movement that has ever been noted. The slight southward movement is due largely to the great increase in population of the Indian Territory, Oklahoma, and Texas, while the great decrease in the westward movement of the center is, 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.

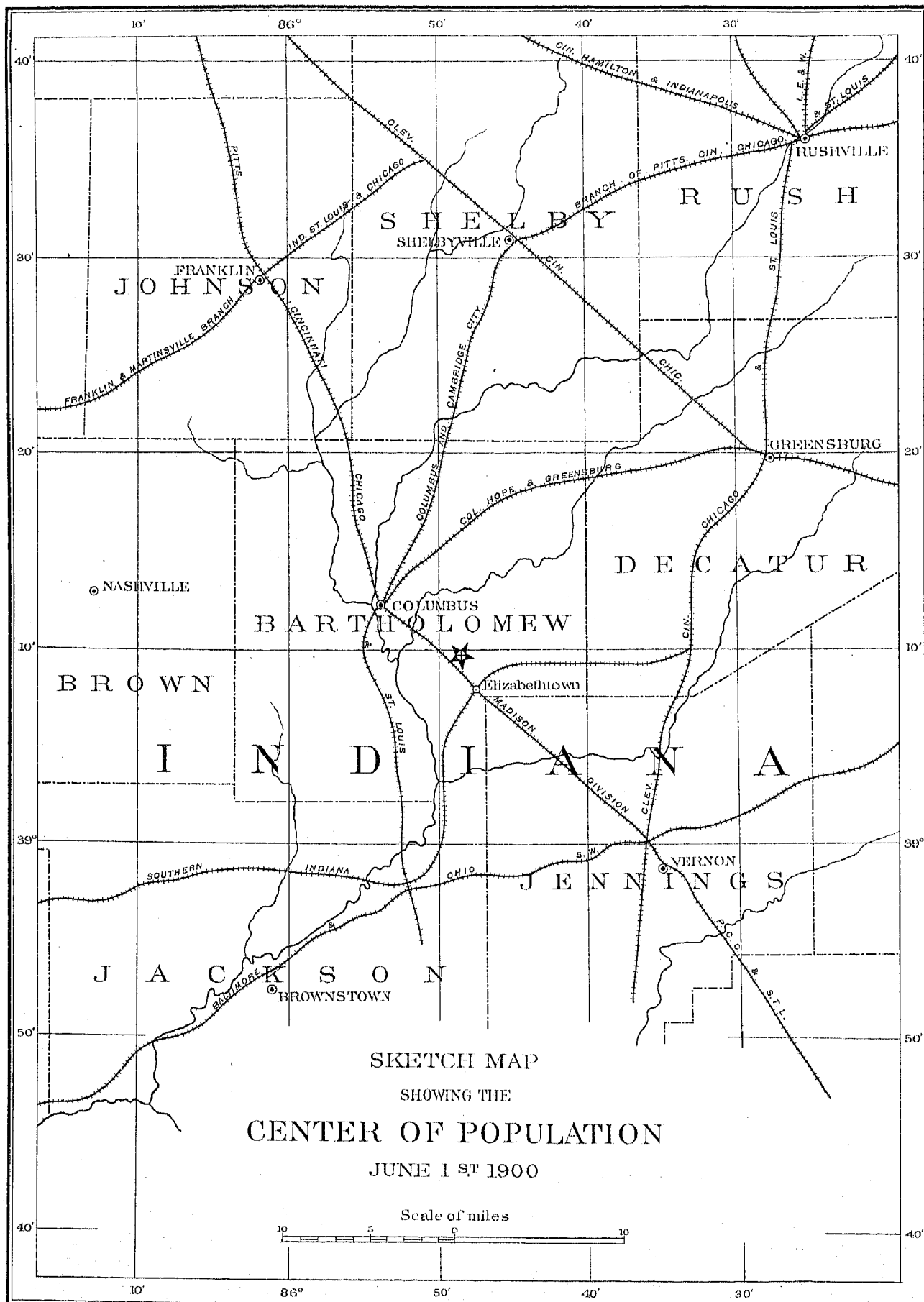
The closeness with which the center of population, through its rapid westward movement, has clung to the parallel of  $39^{\circ}$  of latitude can not fail to be noticed. The most northern point reached was at the start in 1790; the most southern point was in 1830, the preceding decade having witnessed a rapid development of population in the southwest—Alabama, Arkansas, Mississippi, and Louisiana having been admitted as states, and Florida annexed and organized as a territory. The extreme variation in latitude has been less than 19 minutes, while the hundred and ten years of record have accomplished a movement in longitude of a little over 9.5 degrees. Assuming the westward movement to have been uniformly along the parallel of  $39^{\circ}$  of latitude, the westward 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 westward 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 83d meridian and the 39th parallel, as forty individuals in Boston.

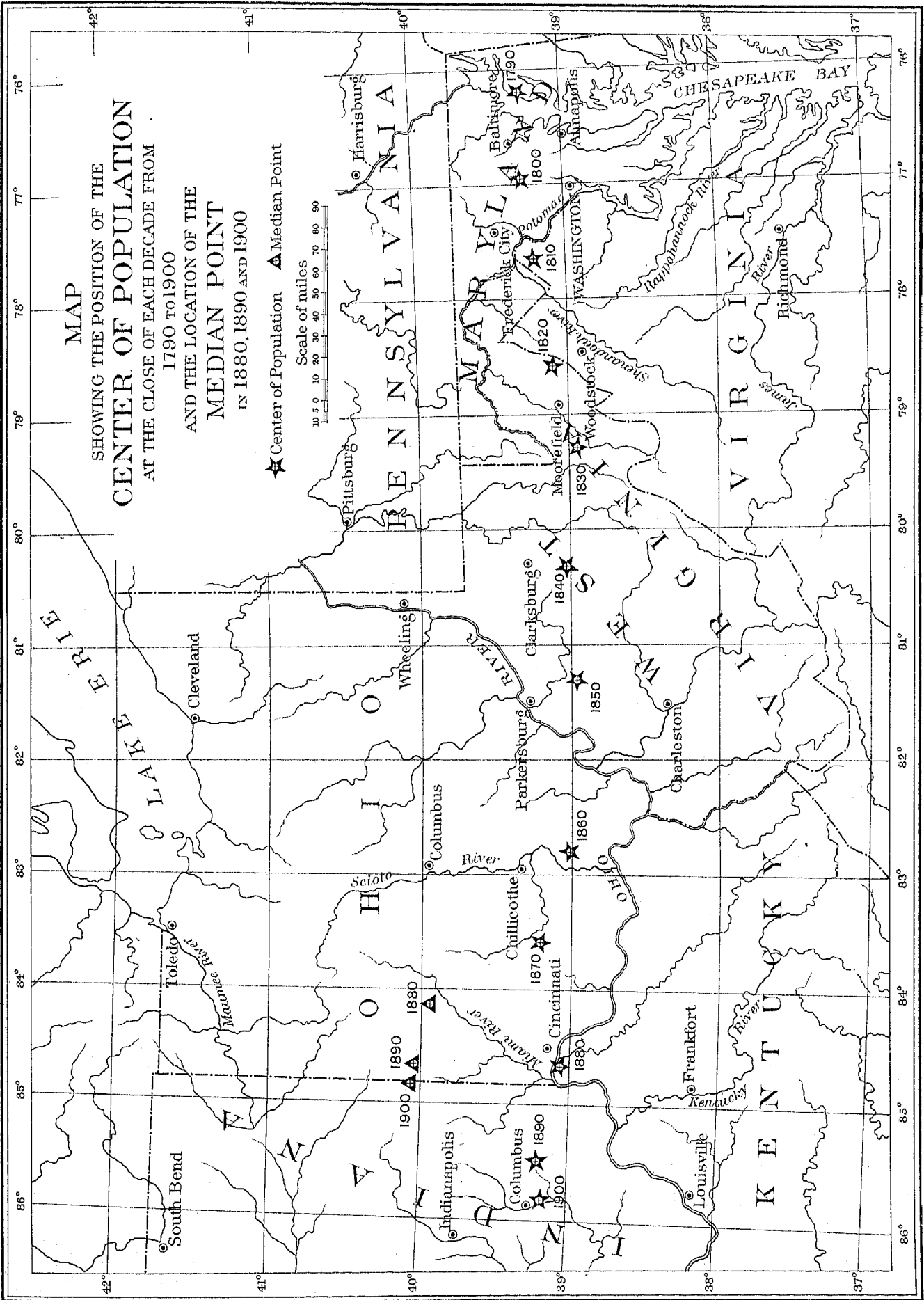
The following table and the second sketch map show the movement of the center of population since 1790:

POSITION OF THE CENTER OF POPULATION:  
1790 TO 1900.

CENSUS YEARS.	North latitude.	West longitude.	Approximate location by important towns.	Westward movement in miles during preceding decade.
1790----	$39^{\circ} 16.5'$	$76^{\circ} 11.2'$	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----	$39 9.5$	$85 48.9$	6 miles southeast of Columbus, Ind.	14

The center of area of the United States, excluding Alaska and 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 is 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 the population. It 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 the population, since only movements by which bodies of population are transferred across its parallel or its meridian 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  $40^{\circ} 04' 22''$  equally divided it north and south. The median point, therefore, is 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 following table shows the location of the median point at each census:

YEAR.	Longitude.	Latitude.	Location.
1880.....	$84^{\circ} 07' 12''$	$39^{\circ} 57' 00''$	16.2 miles nearly due west of Springfield, Miami county, Ohio.
1890.....	$84^{\circ} 40' 01''$	$40^{\circ} 02' 51''$	4.8 miles southwest of Greenville, Ohio.
1900.....	$84^{\circ} 51' 29''$	$40^{\circ} 04' 22''$	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.

*William C. Zimmerman*  
Director of the Census.

# CENSUS BULLETIN.

No. 63.

WASHINGTON, D. C.

April 26, 1901.

## MANUFACTURES.

### COKE.

Hon. WILLIAM R. MERRIAM,  
*Director of the Census.*

SIR: I transmit herewith a report on the industry of coke manufacture, prepared under my direction by Mr. EDWARD W. PARKER, of the United States Geological Survey, acting in the capacity of an expert special agent of the division of manufactures of the Census Office.

The manufacture of coke is a comparatively new industry in the United States. While coke was used to some extent for refining iron as early as 1817, its use in any considerable quantities in blast furnaces did not begin until about 1840. Coke does not appear, however, in the census returns of manufactures until 1850, the very small amount returned for that year being all credited to the state of Pennsylvania. Prior to that census, coke was probably returned as coal. The value of the coke produced was returned as \$15,250 in 1850; \$189,844 in 1860; \$1,132,386 in 1870; \$5,359,489 in 1880; \$16,498,345 in 1889, including by-products to the value of \$3,891; and the value of the product in 1899 is shown by this bulletin to have been \$35,585,445, including by-products amounting to \$952,027 in value. This value is limited to the product obtained from the distillation or combustion of bituminous coal in retorts, ovens, or pits, and does not include the ordinary gas-house coke obtained as a by-product in the manufacture of illuminating gas from coal. The quantity of coke obtained by the latter process is decreasing every year, owing to the increasing use of electricity for lighting purposes, and of water gas for coal gas.

The extraordinary development of the coke manufacture as an industry is shown by the statistics above given. This development is in keeping with the growth of the

iron manufacture, in the metallurgy of which few bituminous coals can be used without having first been coked. At the census of 1880, 77.3 per cent of the coke manufactured in the census year was consumed in blast furnaces, and at the census of 1890 this percentage had increased to 92.3. The percentage so consumed in 1899 will appear in the report on the iron manufacture.

The whole subject of coke manufacture was exhaustively treated—historically, technically, and statistically—in a special report of the Tenth Census, prepared by Mr. Joseph D. Weeks,<sup>1</sup> and it has not been thought necessary, therefore, in the accompanying bulletin to treat the subject in any other aspect than the statistical.

The report does, however, allude to certain interesting features in the development of the industry which have arisen since 1889, as, for instance, the introduction of retort or by-product ovens; the increasing use of coke for domestic purposes; the large increase in the practice of washing the coal before charging into the ovens; and the decreased cost of coal in 1899 because of the introduction of improved mining machinery and better methods of mining.

The modern tendency of industry to concentrate in a comparatively small number of establishments is strikingly exemplified in the coke industry, where there is an increase of only 23, or 10.6 per cent, in the number of establishments reported, as compared with 1889, while the increase in the number of tons of coke produced is 96.2 per cent, and in the value of all products, 115.7 per cent. Thus

<sup>1</sup> Tenth Census 10: pp. 1-114. Report on the Manufacture of Coke, by Joseph D. Weeks, Special Agent. See also Eleventh Census, Manufacturing Industries, Part III, Selected Industries, pp. 341-356, The Manufacture of Coke, by Joseph D. Weeks, Special Agent.

the average product per establishment has risen from 45,909 short tons in 1889 to 81,497 short tons in 1899, and the average value of all products per establishment from \$75,680 in 1889 to \$147,657 in 1899. There has been a still greater increase in the amount of capital invested, and a nearly equal increase in the number of wage-earners and in the amount paid in wages.

The report shows a capital of \$36,502,679 invested in the manufacture of coke, which represents the value of lands, buildings, ovens, machinery, tools, implements, and the live capital required to carry on the business, but does not include the capital stock of any of the corporations. The value of the products from the use of this capital was \$35,585,445, to produce which involved an outlay of \$7,085,736 for wages; \$19,665,532 for raw materials, consisting almost wholly of coal; and \$2,184,968 for miscellaneous expenses. It is not to be assumed, however, that the difference between the aggregate of these sums and the value of the product is, in any sense, indicative of the profits in the manufacture of coke during the year 1899. The census schedule takes no cognizance of the cost of selling manufactured articles, or of interest on capital invested, or of the mercantile losses incurred in the business, or of depreciation in plant. The value of the product given is the value as obtained or fixed at the establishment itself. This statement is necessary in order to avoid erroneous conclusions from the figures presented.

At the Eleventh Census the average number of persons employed during the entire year was called for, and also

the average number employed at stated weekly rates of pay. At the present census the greatest and least numbers of employees were reported, and also the average number employed during each month of the year. The average number of wage-earners (men, women, and children) employed during the entire year was ascertained by using 12, the number of calendar months, as a divisor into the total of the average numbers reported for each month. This slight difference in the method of ascertaining the average number of wage-earners during the entire year may have resulted in a variation in the number, and should be considered in making comparisons.

At the Eleventh Census the number and salaries of proprietors and firm members actively engaged in the business or in supervision were reported, together with clerks and their salaries, and in cases where salaries were not actually paid to proprietors and firm members the amount that would ordinarily be paid for similar services was estimated. At the Twelfth Census only the number of proprietors and firm members actively engaged in the industry or in supervision was ascertained, and no salaries were reported for this class. It is therefore impossible to compare the number and salaries of salaried officials of any character for the two censuses.

Very respectfully,



*Chief Statistician for Manufactures.*

## THE MANUFACTURE OF COKE.

By EDWARD W. PARKER, *Expert Special Agent.*

The statistics presented in the accompanying tables refer primarily to the manufacture of coke during the calendar year 1899, with incidental reference to the statistics collected by the Tenth and Eleventh Censuses, the former covering the fiscal year ending May 31, 1880, and the latter the calendar year 1889. As in the previous censuses, the report is limited to the product usually termed "oven coke" obtained from the distillation or combustion of bituminous coal in retorts, ovens, or pits. Ordinary gas-house coke, obtained as a by-product in the manufacture of illuminating gas from coal, is not considered.

At preceding censuses the coke included was manufactured almost exclusively for metallurgical purposes, but during the last ten years its use for domestic purposes has extended, and manufacturers now prepare it for domestic use by crushing and screening.

Since the taking of the Eleventh Census there has been another development of coke manufacture in this country for which no comparison can be made with previous censuses. This is the introduction of the retort or by-product coke oven, whereby the volatile constituents of the coal, other than gases consumed in the distillation process, are recovered. These constituents are wasted in ordinary beehive ovens. Three classes of by-product ovens, the Semet-Solvay, the Otto-Hoffman, and the Newton-Chambers, are now in successful operation in the United States. The first and second are retort ovens, the coal being distilled in a chamber heated from flues in which the gas obtained from the coal is burned. The process of coking is a distillation, rather than a combustion of the coal. The Newton-Chambers ovens are beehive ovens with apparatus for recovering the tar and ammonia contents of the coal, but consuming the gas during the process. In some instances, these by-product ovens make gases their primary product and coke their secondary product, but even then the coke produced is suitable for metallurgical purposes, and as no exact separation of the metallurgical and domestic coke is possible, the production from all the by-product coke ovens is considered in this report. The first ovens of the by-product class to be constructed in the United States were built at Syracuse, N. Y. They were completed in 1893, and produced in that year 12,850 short tons of metallurgical coke. At the close of 1899 the number of by-product ovens in existence in the United States was 1,020, and the amount of coke produced by them amounted to 906,534 short tons.

The total product of coke in 1899 from all the ovens included in this report amounted to 19,640,798 short tons, valued at \$34,633,418, as compared with an output of 10,008,169 short tons, valued at \$16,494,454, in 1889, and with 2,752,475 short tons, valued at \$5,359,489, in 1880 (Table 8). The output in 1899 increased 9,632,629

tons, or 96.2 per cent, over that of 1889, and was more than seven times that of 1880. The value of the coke produced in 1899, as compared with that of 1889, shows an increase of 110.0 per cent, and, as compared with 1880, an increase of 546.2 per cent. The average price per ton obtained in 1899 was \$0.11 (or 6.7 per cent) higher than that obtained ten years before, but \$0.19 (or 10.8 per cent) less than that obtained in 1880. The increase in the productive capacity of the ovens now in use, as compared with those in the earlier censuses, is shown in the fact that the average yield of coke per oven in 1899 was 417 short tons, while in 1889 it was 306 tons, and in 1880, 283 tons. While the production has increased 96.2 per cent, the number of active ovens has increased only 44.3 per cent.

There has been an increase in the percentage yield of the coal in coke. This has been partly due to the introduction of the by-product ovens, which yield a larger percentage of coke than the ordinary beehive ovens; partly to improved practice in manipulation of the beehive ovens; and partly to the preparation of the coal itself, by washing or otherwise, before being charged into the ovens. In 1889 the amount of coal washed, as shown by the Eleventh Census, before being charged into the coke ovens, was 968,329 short tons, whereas in 1899 the total amount of coal washed was 4,276,517 short tons (Table 9).

The present tendency toward large industries under one management is illustrated in the statistics of coke production in 1899. The total number of tons of coke produced has increased 96.2 per cent (Table 8), and the value of all products has increased 115.7 per cent (Table 1), while the number of active establishments reporting for 1899 was only 23, or 10.6 per cent, more than the number reporting for 1889. The amount of capital invested in the industry in 1899 was \$36,502,679, as compared with \$17,462,729 in 1889, and \$4,769,858 in 1880. The increase of capital in 1899 over 1889 was \$19,039,950, or 109.0 per cent. As compared with 1880, the capital invested in 1899 increased 665.3 per cent. The total amount paid in salaries and wages increased from \$4,186,264 in 1889 to \$7,883,032 in 1899, or 88.3 per cent (Table 6). The value of the coal tar, ammonia, and surplus gas obtained as by-products in retort or by-product ovens in 1899 amounted to \$952,027 (Table 13), and the total value of all products for that year to \$35,585,445 (Table 1).

The coking industry is usually carried on in direct connection with coal mining. In some instances the entire product of the mines, with the exception of coal used at the works or consumed by employees, is charged into ovens. In the preparation of this report, the mining of the coal used for coke has been considered as a separate industry and has not been included. Its value includes



the cost of mining, but this is not stated in the wages or other expenses connected with the coking operations. In a few cases the coal is transported to a distant point, and there made into coke, one instance being in Wisconsin, where the coke is made from coal mined in the Connellsville region of Pennsylvania.

In cases where all the coal mined is charged into the ovens, the value assigned to it is based either upon the average selling value of coal in the same district, or upon the cost of production plus a percentage of profit on the mining operations. Where coke is produced by proprietors of blast furnaces, etc., for consumption in their own furnaces, none being sold, the value assigned to it is based upon the average for the vicinity, or upon the cost of production plus a percentage of profit on the coking operations.

Table 1 presents the principal features of the statistics relating to the manufacture of coke in 1899, 1889, and 1880, with the percentage of increase in each of the two decades. Only active establishments are included.

TABLE 1.—COMPARATIVE SUMMARY: 1899, 1889, 1880.

ITEMS.	1899	1889	1880	PERCENTAGE OF INCREASE.	
				1889 to 1899.	1880 to 1889.
Number of establishments	(1) 241	218	126	10.6	73.0
Capital	\$36,502,679	\$17,462,729	\$4,769,858	109.0	266.1
Land	\$2,927,354	\$1,405,342	(2)	108.3	
Buildings	\$2,382,237	\$869,725	(2)	173.9	
Ovens	\$18,351,924	\$10,817,624	(2)	69.7	
Machinery, tools, and implements	\$5,927,702	\$823,790	(2)	619.6	
Live capital	\$6,913,462	\$3,546,248	(2)	95.0	
Average number of wage-earners	16,999	8,998	3,140	88.9	186.6
Total wages	\$7,085,756	\$4,072,632	\$1,197,744	74.0	240.0
Miscellaneous expenses	\$2,184,968	\$394,784	(3)	453.5	
Cost of materials	\$19,665,592	\$11,509,737	\$2,995,441	70.9	284.2
Value of products	\$55,585,445	\$16,498,345	\$5,359,489	115.7	207.8

<sup>1</sup> Not including 1 penal institution.

<sup>2</sup> Not separately reported at the census of 1880.

<sup>3</sup> Not reported at the census of 1880.

<sup>4</sup> Includes the value of by-products amounting to \$952,027.

<sup>5</sup> Includes the value of by-products amounting to \$3,891.

Table 1 shows an invested capital of \$36,502,679, which represents the value of lands, buildings, ovens, machinery, tools, and implements, and the live capital required to carry on the business, but does not include the capital stock of any of the corporations.

Table 2 presents, by states and territories, the number of active coke establishments in the United States during 1899, 1889, and 1880.

TABLE 2.—NUMBER OF ACTIVE ESTABLISHMENTS, BY STATES AND TERRITORIES: 1899, 1889, 1880.

STATES AND TERRITORIES.	1899	1889	1880	STATES AND TERRITORIES.	1899	1889	1880
The United States	241	218	126	Montana	2	2	
Alabama	15	19	3	New Mexico	2		
Colorado	9	7	1	New York	1		
Georgia	2	1	1	Ohio	5	13	15
Illinois	1	2	1	Pennsylvania	89	98	89
Indiana	1	3	1	Tennessee	8	8	4
Indian Territory	2	1		Utah	1	1	
Kansas	8	6		Virginia	5	2	
Kentucky	5	5		Washington	2	1	
Massachusetts	1			West Virginia	77	45	11
Missouri	3	3		Wisconsin	1	1	
				Wyoming	1		

Table 2 shows that in 5 states the number of establishments in 1899 was less than the number reported in

1889. In Illinois and Indiana, the industry has shown an actual decline, the production in these states in 1899 being less than it was ten years before (Table 10). In Ohio, where the number of establishments has decreased in ten years from 13 to 5, the production in 1899 was a little larger than in 1889, the decrease in the number of establishments having been due to the abandonment of their ovens by a number of small concerns. The other states in which the number of establishments was less in 1899 than in 1889, are Alabama and Pennsylvania, in both of which the industry has shown marked advances. The decrease in the number of establishments being due principally to consolidations.

Table 3 presents a summary of the ovens in active establishments during 1899 and 1889.

TABLE 3.—COMPARATIVE SUMMARY, NUMBER OF OVENS IN ACTIVE ESTABLISHMENTS, BY STATES AND TERRITORIES: 1899 AND 1889.

STATES AND TERRITORIES.	Year.	OVENS.				
		Total number.	Bee-hive.	Belgian or flue.	By-product.	Other styles.
The United States	1899	47,142	45,680		1,020	442
	1889	32,659	32,129	233		297
Alabama	1899	5,206	4,872		120	214
	1889	3,693	3,459	160		74
Colorado	1899	1,221	1,185			36
	1889	872	672			200
Georgia	1899	350	350			
	1889	(1)				
Illinois	1899	(1)	4			
	1889	12	12			
Indiana	1899	102	102			
	1889	130	130			
Indian Territory	1899	(1)				
	1889	86	86			
Kansas	1899	52	52			
	1889	290	290			
Kentucky	1899	164	164			
	1889	400			400	
Massachusetts	1899	12	12			
	1889	9	9			
Missouri	1899	203	203			
	1889	(1)				
Montana	1899	114	114			
	1889	25			25	
New Mexico	1899	235	235			
	1889	462	462			
New York	1899	26,920	26,565		355	
	1889	21,405	21,338	48		19
Ohio	1899	1,727	1,727			4
	1889	1,581	1,577			
Pennsylvania	1899	(1)	104			
	1889	1,588	1,528		60	
Tennessee	1899	(1)				
	1889	90	90			
Utah	1899	(1)				
	1889	8,231	7,979		60	192
Virginia	1899	3,140	3,140			
	1889	120	120			
Washington	1899	(1)				
	1889	74	74			
West Virginia	1899					
	1889	1,179	1,151	25		
Wisconsin	1899					
	1889					
Wyoming	1899					
	1889					
All other states and territories	1899					
	1889					

<sup>1</sup> Included in "All other states and territories."

<sup>2</sup> Includes Georgia, Illinois, Indian Territory, Montana, Utah, Virginia, Washington, and Wisconsin.

The total number of ovens has increased in Alabama from 3,693 in 1889 to 5,206 in 1899, and in Pennsylvania from 21,405 in 1889 to 26,920 in 1899. The average number of ovens to an establishment in Alabama in 1889 was 194; in 1899 it was 347, or nearly double the number in 1889. In Pennsylvania the average number of ovens to an establishment in 1889 was 218; and in 1899 it was 302. For the entire United States the average number of ovens

to an establishment increased from 150 in 1889 to 196 in 1899.

Table 4 presents the statistics relating to capital, and kind and number of ovens in idle establishments, by states and territories, for 1899 and 1889.

TABLE 4.—IDLE ESTABLISHMENTS, BY STATES AND TERRITORIES: 1899 AND 1889.

STATES AND TERRITORIES.	Year.	Number of establishments reporting.	Capital.	OVENS.			
				Total.	Bee hive.	Belgian or flue.	Other styles.
The United States	1899	14	\$511,669	669	665		4
	1889	28	444,483	1,247	1,142	65	40
Alabama	1899	1	20,000	90	90		
	1889	1	19,000	76	76		
Colorado	1899	3	17,900	22	18		4
	1889	3	12,600	48	8		40
Illinois	1899	2	83,700	126	126		
	1889	1	50,000	102	102		
Indiana	1899						
	1889	1	1,800	9	9		
Kansas	1899						
	1889	1	5,136	16	16		
Kentucky	1899	1	5,000	10	10		
	1889	1	600	2	2		
Montana	1899	1	244,000	100	100		
	1889						
New Mexico	1899	1	76,069	76	76		
	1889						
Ohio	1899	1	5,800	9	9		
	1889						
Pennsylvania	1899	4	59,200	236	236		
	1889	15	317,297	884	819	65	
Tennessee	1899						
	1889	2	16,050	58	58		
West Virginia	1899						
	1889	3	22,000	52	52		

Table 5 presents a comparative summary of the number of ovens and the capital in idle and active establishments in 1899 and 1889.

TABLE 5.—CAPITAL, ACTIVE AND IDLE ESTABLISHMENTS: 1899 AND 1889.

ITEMS.	1899		1889	
	Active.	Idle.	Active.	Idle.
Number of establishments	1241	14	218	28
Number of ovens	47,142	669	82,659	1,247
Capital	\$36,502,679	\$511,669	\$17,462,729	\$444,483
Land	\$2,927,354	\$13,950	\$1,405,342	\$6,425
Buildings	\$2,382,237	\$62,800	\$869,725	\$18,723
Ovens	\$18,351,924	\$303,469	\$10,817,624	\$312,661
Machinery, tools, and implements	\$5,927,702	\$131,450	\$823,790	\$44,791
Live capital	\$6,913,462		\$8,546,248	\$31,883

<sup>1</sup> Not including 1 penal institution (see Table 15, note 1).

The percentage of idle to active ovens in 1889 was 3.6; in 1899 it was 1.5. In 1889 the capital invested in idle

plants represented 2.5 per cent of the total capital; and in 1899 it was 1.4 per cent.

By far the greater portion of the coke manufactured in the United States is made in the ordinary beehive ovens, of which there were 45,680 out of a total of 47,142 active ovens reported for 1899; and 32,129 out of a total of 32,659 reported for 1889 (Table 3). In 1880 and 1889, coke was reported as made in pits or mounds, these being used principally for experimental purposes. In later years, however, it has been considered better practice to have the coal shipped, in some cases long distances, to points where the experiments can be made in either beehive or by-product ovens, in order that better information may be secured as to the oven most suitable for the manufacture of coke from that particular coal. For this reason we find that no pits or mounds are reported for 1899. The Belgian or flue ovens, reported separately in 1880 and 1889, are included among "Other styles" in 1899. No by-product ovens were in use ten years ago, whereas 1,020 ovens of this type were operated in 1899, and produced 906,534 tons of coke.

Table 6 presents the number of salaried employees and wage-earners, and their salaries and wages for 1899 and 1889.

TABLE 6.—NUMBER OF EMPLOYEES, BY CLASSES, WITH SALARIES AND WAGES PAID: 1899 AND 1889.

EMPLOYEES AND WAGES.	1899	1889
Proprietors and firm members	48	( <sup>1</sup> )
Officers of corporations, managers, clerks, etc.:		
Number	915	161
Salaries	\$797,296	\$113,632
Wage-earners, average number	16,999	8,998
Total wages	\$7,085,736	\$4,072,632
Men, 16 years and over:		
Average number	16,982	8,942
Wages	\$7,071,834	\$4,064,118
Children, under 16 years:		
Average number	67	56
Wages	\$13,902	\$8,514

<sup>1</sup> Not reported separately in 1889, but, with their salaries, included in that year with officers of corporations, managers, clerks, etc.

Table 6 shows that the number of wage-earners has increased from 8,998 in 1889 to 16,999 in 1899, or 88.9 per cent. The total wages increased from \$4,072,632 in 1889 to \$7,085,736 in 1899, or 74.0 per cent.

Table 7 shows the amount and value of the coal charged into the ovens in 1899, 1889, and 1880, by states and territories, with the percentages of increase or decrease in quantity and cost.

TABLE 7.—QUANTITY AND VALUE OF COAL USED, BY STATES AND TERRITORIES: 1899, 1889, 1880.

STATES AND TERRITORIES.	COAL CONSUMED.						PERCENTAGE OF INCREASE.			
	1899		1889		1880		1889 to 1899		1880 to 1889	
	Short tons.	Cost.	Short tons.	Cost.	Short tons.	Cost.	In quantity.	In cost.	In quantity.	In cost.
The United States	30,157,829	\$18,355,252	15,795,087	\$11,110,700	4,360,110	\$2,761,657	90.9	65.2	262.3	302.3
Alabama	3,028,472	2,596,718	1,789,047	1,755,876	67,376	75,314	69.3	47.9	2,555.3	2,281.4
Colorado	817,725	496,033	323,781	399,778	29,500	29,500	152.6	24.1	997.4	1,255.2
Indiana			16,428	16,156	1,500	2,025			995.2	697.8
Kansas	26,988	26,079	21,600	9,011			24.9	189.4		
Kentucky	151,503	72,196	25,192	13,542			501.4	483.1		
Missouri	5,320	2,256	8,485	3,118			187.3	127.0		
Ohio	142,678	102,540	134,178	123,992	193,848	228,432	6.3	117.3	130.8	145.7
Pennsylvania	19,490,030	10,899,832	11,336,985	6,992,578	3,608,095	2,031,305	71.9	55.9	214.2	244.2
Tennessee	684,821	501,927	619,016	523,400	179,311	124,137	10.6	14.1	245.2	321.6
Virginia	994,635	523,979								
West Virginia	3,792,825	1,874,900	1,025,885	686,570	143,480	135,944	269.7	173.1	590.9	405.0
All other states and territories	<sup>2</sup> 1,022,832	1,258,732	<sup>4</sup> 494,540	586,684	<sup>4</sup> 132,000	135,000	106.8	114.6	274.7	384.6

<sup>1</sup> Decrease.<sup>2</sup> Includes Georgia, Illinois, Indiana, Indian Territory, Massachusetts, Montana, New Mexico, New York, Utah, Washington, Wisconsin, and Wyoming.<sup>3</sup> Includes Georgia, Illinois, Indian Territory, Montana, Utah, Virginia, Washington, and Wisconsin.<sup>4</sup> Includes Georgia and Illinois.

The principal item of expense in the manufacture of coke is the cost of the coal charged into the ovens, this being the only raw material used. The value of the coal consumed is its value at the ovens, whether mined in the immediate vicinity or transported from a distance. The coal, which is crushed or washed before coking, is taken at its value after being prepared. The amount of coal used has increased 90.9 per cent, whereas its value has increased only 65.2 per cent in the last decade. This difference has been due in great part to improvements in mining machinery and methods and in underground haulage, which have decreased the cost of production.

Table 8 presents a summary showing the number of active ovens, pits, or mounds in 1899, 1889, and 1880, together with the amount of coal used, the amount and value of the coke produced, the average yield of coke per oven, the average value of coke at the ovens per ton, and the percentage yield of coal in coke.

TABLE 8.—NUMBER OF OVENS, AND QUANTITY AND VALUE OF COKE: 1899, 1889, 1880.

ITEMS.	1899	1889	1880	PERCENTAGE OF INCREASE.	
				1889 to 1899	1880 to 1889
Ovens, active	47,142	32,659	9,738	44.3	235.4
Coal used, short tons	30,157,829	15,795,087	4,360,110	90.9	262.3
Coke produced, short tons	19,610,798	10,008,169	2,752,475	96.2	263.6
Total value of coke at ovens	\$34,633,418	\$16,494,454	\$5,359,489	110.0	207.8
Average yield of coke per oven, short tons	417	306	283	36.3	8.1
Value of coke at ovens, per ton	\$1.76	\$1.65	\$1.95	6.7	115.4
Yield of coal in coke, per cent.	65.1	63.4	63.1		

<sup>1</sup> Decrease.

The total value of the coke and its average price per ton represent the value of the coke at the ovens before any expenses of transportation, etc., have been added.

Table 9 presents a statement of the condition of the coal when charged into the coking ovens; that is, whether it was run-of-mine or slack, and whether it was washed or unwashed. This statement does not consider the crushing of run-of-mine coal which is sometimes done before coking.

TABLE 9.—QUANTITY AND COST OF DIFFERENT CLASSES OF COAL USED: 1899 AND 1889.

CLASSES.	1899		1889		AVERAGE PRICE PER TON.		PERCENTAGE OF INCREASE.	
	Tons.	Cost.	Tons.	Cost.	1899	1889	In quantity.	In cost.
Total	30,157,829	\$18,355,252	15,795,087	\$11,110,700	\$0.61	\$0.70	90.9	65.2
Run-of-mine or lump, unwashed	20,844,637	12,309,681	11,631,436	8,255,542	0.69	0.71	79.2	49.1
Run-of-mine or lump, washed	1,457,961	1,304,437	421,074	305,983	0.89	0.73	246.2	326.3
Slack, unwashed	5,036,675	2,966,800	3,195,322	2,333,697	0.69	0.78	57.6	27.1
Slack, washed	2,818,556	1,774,384	547,255	215,578	0.63	0.89	415.0	723.1

Of the coal used in the manufacture of coke in the United States during 1899, 74.0 per cent was run-of-mine, and 98.5 per cent of this mine-run coal was unwashed. Practically all the coal used in the Connellsville region of Pennsylvania (52.9 per cent of the entire coke product of the United States) is unwashed run-of-mine, the coal being charged directly from the mine, without preparation, into the ovens. Of the total amount of coal used in 1899, 26.0 per cent was slack, and of the slack coal used, 35.9 per cent

was washed. There has been a notable increase in the amount of slack coal washed before coking. The amount of unwashed slack coal used in 1899 was 57.6 per cent more than that used in 1889, whereas the amount of washed slack used in 1899 was over five times as much as that used ten years before, or an increase of 415.0 per cent.

Table 10 gives the rank of the states and territories in the production of coke, the tons of coke produced, and the percentage of total output for 1899, 1889, and 1880.

TABLE 10.—PRODUCTION AND RANK, BY STATES AND TERRITORIES: 1899, 1889, 1880.

STATES AND TERRITORIES.	RANK.			TONS OF COKE.			PERCENTAGE OF TOTAL OUTPUT.		
	1899	1889	1880	1899	1889	1880	1899	1889	1880
The United States				19,640,798	10,008,169	2,752,475	100.0	100.0	100.0
Pennsylvania	1	1	1	13,245,594	7,372,658	2,317,149	67.4	73.7	84.2
West Virginia	2	3	3	2,278,679	612,645	95,720	11.6	6.1	3.5
Alabama	3	2	6	1,787,809	1,055,823	42,035	9.1	10.5	1.5
Virginia	4	6		618,707	(1)		3.2	(1)	
Colorado	5	5	7	503,543	199,638	18,000	2.6	2.0	0.7
Tennessee	6	4	4	380,525	356,964	91,675	1.9	3.6	3.3
Massachusetts	7			330,770			1.7		
Ohio	8	8	2	83,378	75,826	109,296	0.4	0.8	4.0
Kentucky	9	12		81,095	13,021		0.4	0.1	
Montana	10	10		56,376	(1)		0.3	(1)	
Georgia	11	7	5	50,907	(1)	70,000	0.3	(1)	2.5
New Mexico	12			44,134	(1)		0.2		
Wisconsin	13	9		33,437	(1)		0.2	(1)	
Washington	14	17		30,372	(1)		0.2	(1)	
New York	15			28,416			0.1		
Utah	16	18		26,881	(1)		0.1	(1)	
Indian Territory	17	15		24,339	(1)		0.1	(1)	
Wyoming	18			15,630			0.1		
Kansas	19	11		14,476	13,910		0.1	0.1	
Missouri	20	16		2,860	5,275		0.0	0.1	
Indiana	21	14	9	2,105	8,801	1,000	0.0	0.1	0.0
Illinois	22	18	8	265	(1)	7,600	0.0		0.3
All other states and territories <sup>2</sup>					294,113			2.9	

<sup>1</sup> Included in "All other states."<sup>2</sup> Includes Georgia, Illinois, Indian Territory, Montana, Utah, Virginia, Washington, and Wisconsin.

There were 22 states in which coke was produced in 1899 as against 18 states in 1889, and 9 in 1880. At each census Pennsylvania has stood at the head of the coke-producing states, more than two-thirds of the total coke product of the United States being made in that state. But the proportion of her product to the total has decreased from 84.2 per cent in 1880 to 73.7 per cent in 1889, and 67.4 per cent in 1899. West Virginia, which was third in rank at the two preceding censuses, became second in importance in 1899; and Alabama, which was sixth in 1880 and second in 1889, now stands third. Ohio, which was second in 1880, had fallen to the eighth place in 1889, and held the same relative position in 1899. Virginia, which reported no coke product in 1880, was sixth in 1889, and fourth in 1899. Colorado, the only important coke-producing state west of the Mississippi river, now ranks fifth among the total number; and Tennessee, which stood fourth in 1880 and 1889, was sixth in 1899. Massachusetts, which had no coke product in 1880 or 1889, was seventh in importance in 1899. This was due to the establishment of 400 Otto-Hoffman ovens at Everett, near Boston. The coal from which this coke is made is brought from the Nova Scotia mines, and gas for domestic consumption is made the primary product. The coke product, however, while largely used as a locomotive fuel, is a metallurgical coke and is therefore included in the statistics of the present investigation.

Outside of the states mentioned, there was no state that produced as much as 100,000 tons of coke in 1899, or as much as 0.5 per cent of the total.

Of the 6 leading coke-producing states, five draw their coal supply from the coal fields of the Appalachian system. These 5 states in the order of their importance—

Pennsylvania, West Virginia, Alabama, Virginia, and Tennessee—contributed 93.2 per cent of the entire product of the United States in 1899. The proportion of the product of the United States coming from this field (92.5 per cent in 1880; and 93.2 per cent in 1899) has remained almost the same for twenty years; the relative decrease in Pennsylvania since 1880 and in Tennessee since 1889 being about balanced by the increase in Virginia, West Virginia, and Alabama.

Table 11 presents a statement of the amount and value of coal used; and the amount and value of coke produced in 1899, 1889, and 1880; also the amount of coal in pounds necessary to produce a ton (2,000 pounds) of coke; and the value of the coal used to a ton of coke.

TABLE 11.—COMPARATIVE SUMMARY, RELATION OF COAL USED TO COKE PRODUCED: 1899, 1889, 1880.

ITEMS.	1899	1889	1880
Total coal used, tons	30,157,829	15,795,087	\$4,360,110
Total cost of coal	\$18,355,252	\$11,110,700	2,761,657
Average cost of coal per ton	\$0.61	\$0.70	\$0.63
Tons of coke made	19,640,798	10,008,169	2,752,475
Value of coke made	\$34,633,418	\$16,494,454	\$5,359,489
Average value of coke per ton	\$1.76	\$1.65	\$1.95
Quantity of coal per ton of coke (pounds)	3,070	3,156	3,168
Average cost of coal to ton of coke	\$0.93	\$1.11	\$1.00

The amount of coal used in 1899 was 30,157,829 tons, yielding 19,640,798 tons of coke—indicating a loss in weight by the coking process of 34.9 per cent. The value of the coal used was \$18,355,252, whereas the value of the coke produced was \$34,633,418, an increase of 88.7 per cent. In 1889 the loss in weight by coking was 36.6 per cent, and the increase in value was 48.4 per cent. The amount of coal necessary to make a ton of coke was less in 1889 than in 1880, and was reduced in 1899, as compared

with 1889, indicating a greater efficiency in the coking operations.

Table 12 presents, by states and territories, the total amount of coal used and the coke produced in 1899 and 1889, together with the percentage of coal in coke in each state and territory in both years.

TABLE 12.—QUANTITY AND PERCENTAGE OF YIELD OF COAL IN COKE, BY STATES AND TERRITORIES: 1899 AND 1889.

STATES AND TERRITORIES.	1899			1889		
	Number of tons of coal used.	Number of tons of coke manufactured.	Percentage of yield in coke.	Number of tons of coal used.	Number of tons of coke manufactured.	Percentage of yield in coke.
United States..	30,157,829	19,640,798	65.1	15,795,087	10,008,169	63.4
Alabama.....	3,028,472	1,787,809	59.0	1,789,047	1,055,823	59.0
Colorado.....	817,725	503,543	61.6	323,731	199,638	61.7
Indiana.....				16,428	8,301	50.5
Kansas.....	26,988	14,476	53.6	21,600	13,910	64.4
Kentucky.....	151,503	81,095	53.5	25,192	13,021	51.7
Missouri.....	5,320	2,860	53.8	8,485	5,275	62.2
Ohio.....	142,678	83,878	58.8	134,178	75,826	56.5
Pennsylvania.....	19,490,030	13,215,594	68.0	11,336,985	7,372,653	65.0
Tennessee.....	684,821	380,525	55.6	619,016	356,964	57.7
Virginia.....	994,635	618,707	62.2			
West Virginia.....	3,792,825	2,278,679	60.1	1,025,885	612,645	59.7
All other states and territories.	11,022,832	643,632	62.9	2494,540	294,113	59.5

<sup>1</sup> Includes Georgia, Illinois, Indiana, Indian Territory, Massachusetts, Montana, New Mexico, New York, Utah, Washington, Wisconsin, and Wyoming.

<sup>2</sup> Includes Georgia, Illinois, Indian Territory, Montana, Utah, Virginia, Washington, and Wisconsin.

By the yield of coal in coke is meant the percentage of the original weight of the coal that remains in the form of coke after the process of coking is complete. The statement shows that the yield of coal in coke in 1899 was 65.1 per cent as compared with 63.4 per cent in 1889. The highest yield in both years is reported for Pennsylvania. The lowest yield in 1899 was in Kentucky (53.5 per cent), and in 1889, in Indiana (50.5 per cent). It must be stated in this connection (and the same statement should be made in regard to the amount of coal used in the manufacture of coke) that it is not possible to secure absolutely accurate information on this point, for the reason that, in many instances, the coal is not weighed before being charged into the ovens, and the amount as reported on the schedules is frequently estimated. The figures, however, may be taken as fairly representing the conditions.

Table 13 shows the quantity and value of by-products from retort or by-product ovens in 1899.

TABLE 13.—BY-PRODUCTS: 1899.

ITEMS.	Unit of measure.	Number.	Value.
Tar.....	Pounds.....	104,687,330	\$207,952
Ammonium sulphate.....	Pounds.....	11,984,931	330,921
Ammonia liquor.....	Gallons.....	1,572,325	180,642
Surplus gas sold.....	Cubic feet.....	1,171,942,697	225,022
Unclassified.....			7,490
Total value.....			962,027

TABLE 14.—PENNSYLVANIA AND WEST

DISTRICTS.	Rank according to number of tons of coke produced.	Number of establishments reporting.	Total capital.	Proprietors and firm members.	SALARIED OFFICERS.		WAGE-EARNERS.	
					Number.	Salaries.	Average number.	Wages.
1 Pennsylvania.....		89	\$20,213,147	43	518	\$481,133	9,283	\$4,516,651
2 Allegheny Mountain.....	6	10	1,267,100		52	53,027	450	172,509
3 Broad Top.....	14	4	158,096		8	7,077	103	43,199
4 Clearfield-Center.....	12	5	153,585	1	9	5,200	140	57,635
5 Connellsville.....	1	39	14,642,004	24	370	348,924	6,647	3,405,285
6 Greensburg.....	13	3	150,500		11	6,600	123	30,397
7 Irwin.....	11	4	397,410		3	1,507	156	57,213
8 Pittsburg.....	3	7	1,805,071	14	22	21,290	612	262,615
9 Reynolds-Walston.....	4	6	802,104		9	6,491	550	228,861
10 Upper Connellsville.....	5	11	887,277	4	34	81,017	602	258,937
11 West Virginia.....		77	4,452,579	1	208	126,878	3,131	890,024
12 Flat Top.....	2	35	2,325,737		106	66,126	1,849	445,780
13 Kanawha.....	10	7	479,904		11	13,669	331	74,586
14 New River.....	9	16	558,861	1	34	23,941	333	113,796
15 Upper Monongahela.....	7	16	823,529		36	15,380	832	142,977
16 Upper Potomac.....	8	3	264,458		21	7,762	286	112,876

As previously stated, the introduction of retort ovens, whereby the volatile constituents of the coal consumed in the coking are saved, has been a development of the last decade, and no statistics of this kind are available for either 1889 or 1880. These by-products consist of tar, ammonia (as sulphate or ammoniacal liquor), and surplus gas. The gas which is consumed at the ovens in the distillation of the coke is not considered a marketable product, and no statement of value of this factor could be obtained in any way, as it is not measured. Nor does the investigation extend to the consideration of the products obtained from the coal tar as a raw material. The by-products of tar, ammonia, gas, etc., represent a total value of \$952,027.

Table 14 presents the statistics of the coke-producing regions of Pennsylvania and West Virginia, divided, for the sake of convenience, into districts.

The division in Pennsylvania has been made as follows: The Allegheny Mountain district includes the ovens along the line of the Pennsylvania Railroad from Gallitzin to beyond Altoona on the eastern side of the Alleghenies. The Connellsville district is the one located in the well-known region of that name in western Pennsylvania, and covers the greater part of Westmoreland and Fayette counties from just south of Latrobe to Fairchance. The Upper

Connellsville district includes the northern portion of the Connellsville basin lying just north of the Connellsville district proper. The Clearfield-Center district is contained in the two counties from which it derives its name. The Broad Top district is located in the Broad Top coal fields, and the Greensburg, Irwin, Pittsburg, and Reynolds-Walston districts include the ovens near the towns from which their names are derived.

West Virginia is divided into five coking districts, known respectively as the Kanawha, the New River, the Flat Top, the Upper Monongahela, and the Upper Potomac. The first two are compact and continuous. They include the ovens along the Chesapeake and Ohio Railroad from Quinimont to the western limit of the coal fields. The Flat Top region includes the ovens in what is known as the Pocahontas district, including the counties of McDowell and Mercer. The Upper Monongahela and the Upper Potomac regions embrace the ovens located in the northern part of the state along the headwaters of the two rivers from which they derive their names.

Table 15 presents a detailed statement of the statistics for the industry, by states and territories, during the period covered by the present investigation.

#### VIRGINIA, BY DISTRICTS: 1899.

MATERIALS USED.				Miscellaneous expenses.	PRODUCTS.				Percentage yield of coal in coke.	Price of coke per ton.	
Total value.	Coal.		All other.		Total value.	Coke.		All other.			
	Quantity, short tons.	Value.	Value.			Quantity, short tons.	Value.	Value.			
\$11,678,079	19,490,030	\$10,899,882	\$778,247	\$1,227,259	\$22,282,358	13,245,594	\$22,099,151	\$243,207	68.0	\$1.66	1
609,580	773,543	586,513	78,067	71,891	1,058,302	506,840	1,018,540	39,762	65.5	2.01	2
131,936	161,196	120,698	11,238	6,453	199,953	107,258	197,895	2,058	66.5	1.85	3
132,508	198,110	131,010	1,468	9,224	234,527	130,865	234,527		66.1	1.79	4
8,803,833	14,974,978	8,204,585	599,248	981,346	17,128,112	10,889,335	17,075,411	52,701	69.4	1.64	5
102,152	173,811	101,757	895	6,189	247,421	110,594	247,421		63.6	2.24	6
96,106	223,457	90,864	5,742	8,416	197,694	133,085	197,694		59.6	1.49	7
713,155	951,028	675,728	37,427	58,793	1,337,803	644,467	1,189,117	148,686	67.6	1.85	8
507,449	1,097,115	503,638	3,811	44,550	892,248	613,757	892,248		55.9	1.45	9
581,360	983,792	535,509	45,851	40,397	986,298	609,898	986,298		65.3	1.62	10
1,966,682	3,792,825	1,874,960	91,722	226,603	3,529,241	2,278,679	3,470,405	58,836	60.1	1.52	11
802,129	1,861,570	757,341	44,788	150,167	1,453,598	1,198,490	1,453,598		61.2	1.28	12
166,068	323,506	154,978	11,980	14,483	364,148	190,337	364,148		58.8	1.91	13
349,263	493,160	338,889	10,874	23,461	523,996	281,135	523,996		57.0	1.86	14
345,057	607,796	335,686	9,371	33,899	655,141	302,872	596,305	58,836	59.7	1.64	15
303,325	506,793	288,066	15,259	4,593	532,358	305,845	532,358		60.4	1.74	16

TABLE 15.—COKE MANUFACTURED, BY STATES AND TERRITORIES: 1899.

ESTABLISHMENTS, CAPITAL, ETC.	The United States. <sup>1</sup>	Alabama.	Colorado.	Kansas.	Ken- tucky.	Mis- sour.	Ohio.	Pennsyl- vania.	Ten- nessee.	Virginia.	West Virginia.	All other states and territories. <sup>2</sup>
Number of establishments.....	241	15	9	8	5	3	5	89	8	5	77	17
Character of organization:												
Individual.....	15							12			2	1
Firm and limited partner- ship.....	21	1		2				16			1	
Incorporated company.....	205	14	9	6	5	3	5	61	8	5	74	15
Capital.....	\$36,502,679	\$3,855,379	\$928,874	\$44,267	\$198,553	\$1,850	\$84,690	\$20,218,147	\$607,322	\$1,252,377	\$4,452,579	\$4,863,661
Land.....	\$2,927,354	\$1,308,111	\$27,700	\$100	\$1,900	\$125	\$4,100	\$741,341	\$144,412	\$102,000	\$30,416	\$508,849
Buildings.....	\$2,382,237	\$78,751	\$85,325	\$1,057	\$17,800		\$3,770	\$1,501,105	\$44,800	\$94,000	\$389,793	\$164,236
Ovens.....	\$18,851,924	\$1,859,319	\$726,572	\$22,946	\$135,050	\$1,500	\$62,745	\$3,774,075	\$319,000	\$870,000	\$2,618,889	\$1,672,828
Machinery, tools, and im- plements.....	\$5,927,702	\$377,821	\$30,810	\$10,188	\$30,428	\$75	\$9,345	\$2,036,344	\$66,840	\$51,300	\$646,701	\$2,005,850
Live capital.....	\$6,913,462	\$256,377	\$12,467	\$4,276	\$12,755	\$150	\$4,730	\$5,507,282	\$32,270	\$125,477	\$415,780	\$511,898
Proprietors and firm members.....	48	2		4				40			1	
Salaries of employees:												
Total number.....	915	43	19	4	8		14	518	22	23	208	56
Total salaries.....	\$797,296	\$40,008	\$26,779	\$2,920	\$5,600		\$18,760	\$481,133	\$14,281	\$26,360	\$126,878	\$54,582
Officers of corporations:												
Number.....	172	11	1		2		2	93	6	1	50	5
Salaries.....	\$216,427	\$6,854	\$500		\$2,000		\$8,600	\$146,217	\$6,390	\$1,800	\$35,956	\$8,110
General superinten- dents, managers, clerks, and sales- men:												
Total number.....	743	32	18	4	6		11	425	16	22	158	51
Total salaries.....	\$580,809	\$33,149	\$26,279	\$2,920	\$3,600		\$10,160	\$334,916	\$7,891	\$24,560	\$90,922	\$46,472
Men:												
Number.....	722	32	18	4	5		7	414	15	22	158	47
Salaries.....	\$571,658	\$33,149	\$26,279	\$2,920	\$3,000		\$8,200	\$331,045	\$7,711	\$24,560	\$90,922	\$43,872
Women:												
Number.....	21				1		4	11	1			4
Salaries.....	\$9,211				\$600		\$1,960	\$3,871	\$180			\$2,600
Wage-earners, including piece- workers, and total wages:												
Greatest number employed at any one time during the year.....	20,245	1,953	586	41	148	4	77	10,864	547	912	8,816	1,297
Least number employed at any one time during the year.....	14,403	1,591	278	23	96	4	62	7,676	426	609	2,669	914
Average number.....	16,999	1,592	406	28	126	4	71	9,283	477	785	3,181	1,096
Wages.....	\$7,085,736	\$585,622	\$226,454	\$11,425	\$47,806	\$2,220	\$32,710	\$4,516,651	\$127,539	\$225,532	\$890,024	\$469,753
Men, 16 years and over:												
Average number.....	16,932	1,558	406	28	126	4	71	9,278	468	773	3,124	1,096
Wages.....	\$7,071,834	\$527,757	\$226,454	\$11,425	\$47,806	\$2,220	\$32,710	\$4,515,749	\$125,469	\$223,872	\$888,619	\$469,753
Children, under 16 years:												
Average number.....	67	34						5	9	12	7	
Wages.....	\$13,902	\$7,865						\$902	\$2,070	\$1,660	\$1,405	
Average number of wage-earn- ers, including pieceworkers, employed during each month:												
Men, 16 years and over:												
January.....	15,495	1,350	366	34	97	4	75	8,883	453	678	2,960	1,095
February.....	15,353	1,224	361	34	97	4	75	8,463	460	674	2,913	1,048
March.....	16,112	1,387	405	31	102	4	78	8,883	467	721	2,940	1,099
April.....	16,312	1,423	400	25	115	4	76	9,000	455	740	3,035	1,039
May.....	16,624	1,566	403	20	135	4	62	8,983	439	833	3,093	1,086
June.....	16,261	1,557	352	18	136	4	63	8,724	451	822	3,128	1,011
July.....	16,966	1,529	394	24	139	4	65	9,273	484	829	3,195	1,030
August.....	17,437	1,617	391	26	137	4	66	9,578	460	846	3,196	1,117
September.....	17,666	1,727	412	24	137	4	73	9,713	471	813	3,129	1,163
October.....	17,973	1,765	463	26	138	4	71	9,883	476	801	3,262	1,144
November.....	18,364	1,780	471	31	139	4	77	10,145	486	774	3,313	1,164
December.....	18,619	1,791	468	36	141	4	77	10,358	514	745	3,329	1,156
Children, under 16 years:												
January.....	58	26						4	9	12	7	
February.....	58	27						4	8	12	7	
March.....	59	26						4	10	12	7	
April.....	61	29						4	9	12	7	
May.....	65	34						4	8	12	7	
June.....	65	34						4	8	12	7	
July.....	69	36						3	10	12	7	
August.....	69	35						4	10	12	8	
September.....	77	41						6	10	12	8	
October.....	73	40						6	10	12	8	
November.....	72	39						6	10	12	5	
December.....	74	39						6	10	12	7	
Miscellaneous expenses:												
Total.....	\$2,184,968	\$180,290	\$38,446	\$12,069	\$7,893	\$125	\$2,924	\$1,227,259	\$24,736	\$37,145	\$226,603	\$427,978
Rent of works.....	\$167,695			\$260	\$50		\$220	\$32,177	\$3,940	\$20,315	\$107,390	\$3,843
Fire brick, cement, etc., used in repairing ovens.....	\$408,311	\$55,938	\$17,208	\$95	\$3,055	\$75	\$1,274	\$232,825	\$4,152	\$8,650	\$33,095	\$21,944
Taxes, not including inter- nal revenue.....	\$261,079	\$16,764	\$628	\$639	\$720	\$35	\$780	\$186,344	\$1,169	\$2,100	\$18,897	\$33,003
Rent of offices, insurance, interest, and all sundry expenses not hitherto in- cluded.....	\$1,291,287	\$74,916	\$20,610	\$11,075	\$3,668	\$15	\$650	\$763,057	\$9,450	\$6,080	\$37,221	\$364,645
Contract work.....	\$56,596	\$32,672						\$12,856	\$6,025			\$5,043
Materials used:												
Total.....	\$19,665,532	\$2,678,568	\$527,558	\$28,186	\$75,234	\$2,566	\$188,296	\$11,678,079	\$522,966	\$677,269	\$1,966,682	\$1,375,178
Coal used:												
Number of short tons.....	30,157,829	3,028,472	817,725	26,988	151,503	5,320	142,678	19,490,030	684,821	994,635	3,792,825	1,022,832
Cost.....	\$18,355,252	\$2,596,718	\$496,093	\$26,079	\$72,196	\$2,256	\$102,540	\$10,899,832	\$501,927	\$523,979	\$1,874,960	\$1,258,732
Fuel.....	\$189,184	\$6,240	\$3,850	\$1,622	\$826		\$12	\$122,156	\$3,470	\$3,080	\$8,416	\$40,118
Mill supplies.....	\$200,215	\$12,767			\$830		\$500	\$88,853	\$7,653	\$66,712	\$7,850	\$15,059
All other materials.....	\$675,720	\$13,479	\$18,269		\$830		\$1,209	\$508,261	\$9,594	\$13,673	\$65,187	\$50,268
Freight.....	\$245,161	\$44,374	\$9,406	\$485	\$1,162	\$310	\$34,035	\$63,977	\$317	\$69,825	\$10,319	\$11,001

<sup>1</sup> Exclusive of 1 penal establishment in Tennessee, operating 100 beehive ovens with an output of 54,738 tons of coke, valued at \$85,796. This institution also reports capital, \$68,400, and materials used, \$30,817, including 95,174 tons of coal costing \$28,847.

<sup>2</sup> Includes states having less than 3 establishments in order that the opera-

tions of individual establishments may not be disclosed. These establishments are distributed as follows: Georgia, 2; Illinois, 1; Indiana, 1; Indian Territory, 2; Massachusetts, 1; Montana, 2; New Mexico, 2; New York, 1; Utah, 1; Wash- ington, 2; Wisconsin, 1; and Wyoming, 1.

TABLE 15.—COKE MANUFACTURED, BY STATES AND TERRITORIES: 1899—Continued.

ESTABLISHMENTS, CAPITAL, ETC.	The United States. <sup>1</sup>	Alabama.	Colorado.	Kansas.	Ken- tucky.	Mis- souri.	Ohio.	Pennsyl- vania.	Ten- nessee.	Virginia.	West Virginia.	All other states. <sup>2</sup>
Products:												
Total value .....	\$35,585,445	\$3,726,433	\$1,213,561	\$32,270	\$161,454	\$5,520	\$255,120	\$22,282,858	\$764,890	\$1,072,684	\$3,529,241	\$2,541,905
Coke:												
Number of short tons .....	19,640,798	1,787,809	503,548	14,476	81,095	2,860	83,878	13,245,594	380,525	618,707	2,278,679	643,632
Value .....	\$34,633,418	\$3,634,471	\$1,212,101	\$30,817	\$161,454	\$5,520	\$255,120	\$22,039,161	\$764,890	\$1,071,284	\$3,470,405	\$1,988,196
Tar:												
Number of pounds .....	104,687,330	15,437,230	282,000					35,044,280		40,000	8,181,160	45,702,060
Value .....	\$207,952	\$28,428	\$1,460					\$64,429		\$150	\$15,063	\$98,422
Ammonium sulphate:												
Number of pounds .....	11,984,931							3,046,683		50,000		8,888,248
Value .....	\$330,921							\$78,999		\$1,250		\$250,672
Ammonia liquor:												
Number of gallons .....	1,572,325	371,130						890,184			214,945	95,066
Value .....	\$180,642	\$53,534						\$61,073			\$38,492	\$17,543
Gas sold:												
Number of cubic feet .....	1,171,942,697							153,201,100			160,378,200	858,363,397
Value .....	\$225,022							\$32,669			\$5,281	\$187,072
Value of all other products .....	\$7,490							\$6,037				
Comparison of products:												
Number of establishments reporting for both years .....	200	9	7	5	3	2	5	75	7	5	68	14
Value for census year .....	\$32,335,445	\$3,282,997	\$1,154,281	\$15,438	\$88,755	\$4,320	\$255,120	\$21,548,766	\$762,236	\$1,072,684	\$3,241,770	\$909,069
Value for preceding business year .....	\$23,253,879	\$2,487,727	\$1,036,778	\$9,330	\$48,032	\$1,050	\$210,488	\$14,933,787	\$507,905	\$719,616	\$2,425,402	\$523,764
Power:												
Total horse power .....	36,229	692	240	50	136		55	25,057	630	1,439	4,095	3,835
Owned:												
Engines:												
Steam:												
Number .....	350	13	5	1	4		2	220	11	17	54	23
Horse power .....	29,148	432	240	50	136		55	21,513	605	403	3,224	2,435
Gas or gasoline:												
Number .....	2							2				
Horse power .....	7							7				
Electric motors:												
Number .....	68							25		1	2	40
Horse power .....	1,462							532		90	40	800
Locomotives:												
Number .....	84	7						54	2	5	15	1
Horse power .....	5,269	210						2,817	25	941	3,676	600
Other power (pumps):												
Number .....	14							5			9	
Horse power .....	343							188			155	

<sup>1</sup> Exclusive of 1 penal establishment in Tennessee, operating 100 beehive ovens with an output of 54,788 tons of coke, valued at \$85,796. This institution also reports capital, \$63,400, and materials used, \$30,317, including 95,174 tons of coal costing \$28,847.

<sup>2</sup> Includes states having less than 3 establishments in order that the opera-

tions of individual establishments may not be disclosed. These establishments are distributed as follows: Georgia, 2; Illinois, 1; Indiana, 1; Indian Territory, 2; Massachusetts, 1; Montana, 2; New Mexico, 2; New York, 1; Utah, 1; Washington, 2; Wisconsin, 1; and Wyoming, 1.

<sup>3</sup> Includes 1 compressed air locomotive.



Twelfth Census of the United States.

# CENSUS BULLETIN.

No. 64.

WASHINGTON, D. C.

May 29, 1901.

## POPULATION OF THE UNITED STATES BY STATES AND TERRITORIES: 1900.

*The Official Count, 76,303,387.*

This bulletin, prepared under the direction of Mr. WILLIAM C. HUNT, chief statistician for population, gives the population of the United States by states and territories, according to the official count of the returns of the Twelfth Census, taken as of June 1, 1900.

By the terms of the census act, approved March 3, 1899, the Census Office was charged with the duty of enumerating the population of each of the states and organized territories, including the District of Columbia, and, in addition, the population of Alaska, Hawaii, and Indian Territory. For the purposes of this enumeration 300 supervisors' districts were established, and in 297 of these districts, comprehending all the area to be canvassed, with the exception of Alaska and Hawaii, the conduct of the work was vested in officers termed by the census act Supervisors of Census, appointed by the President and confirmed by the Senate. In the remaining 3 districts, namely, 2 in Alaska and 1 in Hawaii, the enumeration was placed in charge of special agents, appointed by the Director of the Census, under the discretion given him by the census act. For purposes of the enumeration the area comprising the 297 supervisors' districts was divided into 52,726 enumeration districts, and, similarly, that comprising the 3 districts in Alaska and Hawaii into 145 districts. The census was taken as of June 1, 1900, and was to be completed in two weeks in places of 8,000 inhabitants or more at the census of 1890, and in one month in rural districts.

By special arrangement with the Secretary of War and the Secretary of the Navy, the enumeration of persons in the military and naval service, either at stations in this country or abroad, was made in behalf of this office through the agencies of the War and Navy Departments.

The first returns of population were received June 13, 1900, and the count of population was begun shortly thereafter.

The announcement of the population of the entire country, needed for purposes of apportionment, was made on November 27, 1900, including an estimate of 14,400 persons in

the military and naval service of the United States stationed abroad, principally in the Philippines, for which no returns had at that time been received. Since that announcement a few minor changes in the population have been made, arising from complaints of faulty enumeration which upon investigation were sufficiently substantiated to warrant making the necessary corrections. The population of the United States, including that of Alaska, Hawaii, Indian Territory, and Indian reservations, taken as of June 1, 1900, is 76,303,387, distributed by states and territories as follows:

TABLE 1.—POPULATION OF THE UNITED STATES BY STATES AND TERRITORIES: 1900.

STATES AND TERRITORIES.	Population in 1900.	Indians not taxed in 1900.
The United States -----	76,303,387	129,518
States.		
Alabama .....	1,828,697	
Arkansas .....	1,311,564	
California .....	1,485,033	1,549
Colorado .....	539,700	597
Connecticut .....	908,420	
Delaware .....	184,735	
Florida .....	528,542	
Georgia .....	2,210,331	
Idaho .....	161,772	2,297
Illinois .....	4,821,550	
Indiana .....	2,516,402	
Iowa .....	2,231,833	
Kansas .....	1,470,495	
Kentucky .....	2,147,174	
Louisiana .....	1,381,025	
Maine .....	694,466	
Maryland .....	1,188,044	
Massachusetts .....	2,805,346	
Michigan .....	2,420,982	
Minnesota .....	1,751,304	1,768
Mississippi .....	1,551,270	
Missouri .....	3,106,665	
Montana .....	243,320	10,746
Nebraska .....	1,066,300	
Nevada .....	42,385	1,665
New Hampshire .....	411,588	
New Jersey .....	1,883,669	
New York .....	7,268,894	4,711
North Carolina .....	1,898,810	
North Dakota .....	319,146	4,692
Ohio .....	4,157,545	
Oregon .....	413,536	
Pennsylvania .....	6,302,115	
Rhode Island .....	428,556	
South Carolina .....	1,940,316	
South Dakota .....	401,570	10,932

TABLE 1.—POPULATION OF THE UNITED STATES BY STATES AND TERRITORIES: 1900—Continued.

STATES AND TERRITORIES.	Population in 1900.	Indians not taxed in 1900.
<i>States—Continued.</i>		
Tennessee.....	2,020,616	-----
Texas.....	3,048,710	-----
Utah.....	276,749	1,472
Vermont.....	343,641	-----
Virginia.....	1,854,184	-----
Washington.....	518,103	2,531
West Virginia.....	958,800	-----
Wisconsin.....	2,069,042	1,637
Wyoming.....	92,531	-----
Total for 45 states.....	74,607,225	44,617
<i>Territories.</i>		
Alaska.....	63,592	-----
Arizona.....	122,931	24,644
District of Columbia.....	278,718	-----
Hawaii.....	154,001	-----
Indian Territory.....	392,060	51,393
New Mexico.....	195,310	2,937
Oklahoma.....	308,331	5,927
Total for 7 territories.....	1,604,943	84,901
Persons in the military and naval service of the United States (including civilian employees, etc.) stationed abroad.	91,219	-----

As shown by the above table, 129,518 Indians not taxed were enumerated at the census of 1900, and are included in the statement of the aggregate population of the country and of the several states and territories in which they are found; but, under the provisions of the Constitution, the number of Indians not taxed living in the 45 states (44,617) should be deducted from the total population of the states and from that of each state affected thereby, for the purpose of determining the population to be used in the apportionment of representatives.

The 91,219 persons enumerated at military or naval stations abroad, including naval vessels, are distributed as follows:

TABLE 2.—PERSONS ENUMERATED AT MILITARY OR NAVAL STATIONS ABROAD: 1900.

LOCATION OF STATIONS.	Total.	Officers and enlisted men.	Civilian employees, etc.
Aggregates.....	91,219	87,538	3,681
Naval vessels.....	14,701	14,305	396
Cuba.....	11,048	9,666	1,382
Guam.....	147	147	-----
Philippines.....	62,095	60,883	1,212
Porto Rico.....	3,201	2,537	664
Tutuila.....	27	-----	27

The 396 persons reported under the heading of "civilian employees, etc.," as being on naval vessels include boys and other persons (not officers or enlisted men) on vessels loaned to certain states for use as school ships, and on vessels under the control of other departments of the government but which are operated by officers and enlisted men detailed by the Navy Department. The remaining 3,285 persons, classed under the same heading include not only civilian employees, but also officers' ser-

vants and members of the families of certain of the officers and enlisted men and of civilian employees.

No provision was made by the census act for the enumeration of the inhabitants of Porto Rico, but a census for that island, taken as of November 10, 1899, under the direction of the War Department, showed a population of 953,243. A similar enumeration, under the direction of the War Department, was made of the island of Cuba, and this census, taken as of October 16, 1899, showed a population of 1,572,797. No census of the Philippines, or of the islands of Guam and Tutuila, has been taken since they have been in the possession of the United States, although an attempt is now being made to take a partial census of the Philippines, under the direction of the civil commission, popularly known as the Taft Commission, appointed by the President April 7, 1900.

There was no enumeration made, as a part of the United States census, prior to 1890 of the Indians and other persons living in Indian Territory and on Indian reservations, or prior to 1880 of the population of Alaska. Hawaii was annexed August 12, 1898, and the census of 1900 is, therefore, the first census of the islands taken under the supervision of the United States. The Hawaiian Government, however, took a census every six years from 1866 to 1896, inclusive, and the figures derived from the census taken as of December 28, 1890, are used for comparison with similar results for 1900.

The total population in 1890, with which the aggregate population at the present census should be compared, is 63,069,756, comprising 62,622,250 persons enumerated in the states and organized territories at that census; 32,052 persons in Alaska; 180,182 Indians and other persons in Indian Territory; 145,282 Indians and other persons on Indian reservations, etc.; and 89,990 persons in Hawaii, this last named figure being taken from the census of December 28, 1890, as explained in the preceding paragraph. These figures for 1890 are compared with similar figures for 1900 as follows:

	1900.	1890.
States and organized territories.....	75,559,258	62,622,250
Alaska.....	63,592	32,052
Hawaii.....	154,001	89,990
Indian Territory.....	392,060	180,182
Indian reservations, etc.....	134,476	145,282
Total population.....	76,303,387	63,069,756

On the basis of the above figures, the aggregate population of the entire area of enumeration in 1900 is 76,303,387, which, compared with the population of equivalent areas in 1890, namely, 63,069,756, shows an increase during the decade of 13,233,631, or 21 per cent.

In order to make a direct comparison of the population in 1890 and 1900 with that comprehended by preceding censuses, it is necessary to exclude from the statements of population in 1890 and 1900 the population of those areas which have been included only recently in the Federal census, as indicated by table 3.

TABLE 3.—POPULATION OF THE UNITED STATES AT EACH CENSUS: 1790 TO 1900.

CENSUS YEARS.	States and organized territories, etc.	Indian Territory, Indian reservations, etc.	Alaska.	Hawaii.
1900.....	75,559,258	526,536	63,592	154,001
1890.....	62,622,250	325,464	32,052	89,990
1880.....	50,155,783		33,426	
1870.....	38,558,371			
1860.....	31,443,321			
1850.....	23,191,876			
1840.....	17,069,453			
1830.....	12,866,020			
1820.....	9,638,453			
1810.....	7,239,881			
1800.....	5,308,483			
1790.....	3,929,214			

Eliminating the population of Alaska, Hawaii, Indian Territory, and Indian reservations in 1900, there remains, as shown by the above table, 75,559,258, which figure can be compared with the population obtained in 1890 as a part of the general enumeration (62,622,250) and with the population returned at each census from 1790 to 1880, inclusive. There has been an increase in the population of the states and organized territories of the United States since 1890, on this basis, of 12,937,008, or 20.7 per cent, as compared with an increase from 1880 to 1890 for the same area of 12,466,467, or 24.9 per cent, as shown by table 4.

TABLE 4.—INCREASE IN POPULATION OF THE UNITED STATES AT EACH CENSUS: 1790 TO 1900.

CENSUS YEARS.	Population, excluding Alaska, Hawaii, Indian Territory, Indian reservations, etc.	INCREASE.	
		Number.	Per cent.
1900.....	75,559,258	12,937,008	20.7
1890.....	62,622,250	12,466,467	24.9
1880.....	50,155,783	11,597,412	30.1
1870.....	38,558,371	7,115,050	22.6
1860.....	31,443,321	8,251,445	35.6
1850.....	23,191,876	6,122,423	35.9
1840.....	17,069,453	4,203,433	32.7
1830.....	12,866,020	3,227,567	33.5
1820.....	9,638,453	2,398,572	38.1
1810.....	7,239,881	1,931,398	36.4
1800.....	5,308,483	1,879,269	35.1
1790.....	3,929,214		

As stated in the census report of 1890,<sup>1</sup> there was a deficiency in the enumeration of the population in the southern states in 1870, which not only gave an exaggerated rate of increase between 1870 and 1880 in the population of those states, but affected materially the rate of increase in the country at large. There is no means of ascertaining accurately the extent of these omissions, but an approximate correction in the population for 1870 was made in the census report of 1890, by which the population in 1870 was said to be 39,818,449 instead of 38,558,371, resulting in the following changes in the percentages of increase from 1860 to 1870 and from 1870 to 1880, respectively:

CENSUS YEARS.	Population.	INCREASE.	
		Number.	Per cent.
1860.....	31,443,321		
1870.....	<sup>2</sup> 39,818,449	8,375,128	26.6
1880.....	50,155,783	10,337,334	26.0

Using the corrected population for 1870, an increase of 26 per cent is shown for the decade from 1870 to 1880, or practically the same rate of increase that was attained during the preceding ten years. There was an increase in the population of the states and organized territories from 1880 to 1890 of not quite 25 per cent, and from 1890 to 1900, as previously stated, of not quite 21 per cent.

The population of states and territories as returned at each census from 1790 to 1900, inclusive, is presented in table 5, while the increase in population of states and territories at each decennial period, based upon the figures given in table 5, is presented in table 6.

<sup>1</sup> Report on Population, Census of 1890, Part 1, pages xi, xii.

<sup>2</sup> Corrected population.

TABLE 5.—POPULATION OF STATES AND

[The first column under each census year shows the order of

STATES AND TERRITORIES.		1900	1890	1880	1870	1860
1	The United States	176,803,387	<sup>2</sup> 62,622,250	<sup>3</sup> 50,155,789	38,558,371	31,443,321
2	Alabama	18 1,828,697	17 1,513,017	17 1,262,505	16 996,992	13 964,201
3	Alaska	51 63,592	( <sup>2</sup> )	( <sup>3</sup> )		
4	Arizona	49 122,931	48 59,620	44 40,440	46 9,658	
5	Arkansas	25 1,311,564	24 1,128,179	25 802,525	26 484,471	25 435,450
6	California	21 1,485,053	22 1,208,130	24 864,694	24 560,247	20 379,994
7	Colorado	31 539,700	31 412,198	35 194,327	41 89,864	38 34,277
8	Connecticut	29 908,420	29 746,258	28 622,700	25 537,454	24 460,147
9	Delaware	46 184,735	42 168,493	38 146,008	35 125,015	32 112,216
10	District of Columbia	42 278,718	39 230,392	36 177,624	34 131,700	35 75,080
11	Florida	32 528,542	32 391,422	34 269,493	33 187,748	31 140,424
12	Georgia	11 2,216,381	12 1,837,353	13 1,542,180	12 1,184,109	11 1,057,386
13	Hawaii	48 154,001	( <sup>2</sup> )			
14	Idaho	47 161,772	45 84,385	46 32,610	44 14,999	
15	Illinois	3 4,821,550	3 3,826,351	4 3,077,871	4 2,539,891	4 1,711,951
16	Indiana	8 2,516,462	8 2,192,404	6 1,978,301	6 1,680,647	6 1,350,428
17	Indian Territory	39 392,060	( <sup>2</sup> )			
18	Iowa	10 2,231,853	10 1,911,896	10 1,624,615	11 1,194,020	20 674,913
19	Kansas	22 1,470,495	19 1,427,096	20 996,096	29 864,399	33 107,206
20	Kentucky	12 2,147,174	11 1,858,635	8 1,648,630	8 1,321,011	9 1,155,684
21	Louisiana	23 1,381,625	25 1,118,587	22 939,946	21 726,915	17 708,002
22	Maine	30 691,466	30 661,086	27 648,936	23 626,915	22 638,279
23	Maryland	26 1,188,044	27 1,042,390	23 934,943	20 780,894	19 687,049
24	Massachusetts	7 2,805,346	6 2,238,943	7 1,783,085	7 1,457,351	7 1,231,066
25	Michigan	9 2,420,982	9 2,093,889	9 1,636,937	13 1,184,059	16 749,113
26	Minnesota	19 1,751,394	20 1,301,826	26 780,773	28 439,706	30 172,023
27	Mississippi	20 1,551,270	21 1,289,600	18 1,131,597	18 827,922	14 791,305
28	Missouri	5 3,106,665	5 2,679,184	5 2,168,380	5 1,721,295	8 1,182,012
29	Montana	44 243,329	44 132,159	45 39,159	43 20,595	
30	Nebraska	27 1,066,300	26 1,058,910	30 452,402	36 122,993	39 28,841
31	Nevada	52 42,335	49 45,761	43 62,266	40 42,491	41 6,857
32	New Hampshire	36 411,588	33 376,530	31 346,991	31 318,300	27 326,073
33	New Jersey	16 1,883,669	18 1,444,933	19 1,131,116	17 906,096	21 672,035
34	New Mexico	45 195,310	43 153,593	41 119,565	37 91,874	34 93,516
35	New York	1 7,268,894	1 5,997,853	1 5,082,871	1 4,382,759	1 3,880,735
36	North Carolina	15 1,893,810	16 1,617,947	15 1,399,750	14 1,071,861	12 992,622
37	North Dakota	41 319,146	41 182,719	40 135,177	45 14,181	42 4,837
38	South Dakota	37 401,570	37 328,808			
39	Ohio	4 4,157,545	4 3,672,816	3 3,198,062	3 2,665,260	8 2,339,511
40	Oklahoma	38 398,331	46 61,884			
41	Oregon	35 413,536	38 313,767	37 174,768	38 90,928	36 52,465
42	Pennsylvania	2 6,302,115	2 5,258,014	2 4,282,891	2 3,521,951	2 2,906,215
43	Rhode Island	34 428,556	35 345,506	33 276,531	32 217,353	29 174,620
44	South Carolina	24 1,340,316	23 1,151,149	21 995,577	22 705,606	18 703,708
45	Tennessee	14 2,020,616	13 1,767,518	12 1,542,359	9 1,258,520	10 1,109,801
46	Texas	6 3,048,710	7 2,235,523	11 1,591,749	19 818,579	23 604,216
47	Utah	43 276,749	40 207,905	39 143,963	39 86,786	37 40,273
48	Vermont	40 343,641	36 332,422	32 332,286	30 330,551	28 315,098
49	Virginia	17 1,854,184	15 1,655,980	14 1,512,565	10 1,225,163	5 1,596,318
50	Washington	33 518,108	34 349,890	42 75,116	42 23,955	40 11,594
51	West Virginia	28 958,800	28 762,794	29 618,457	27 442,014	
52	Wisconsin	13 2,069,042	14 1,686,880	16 1,315,497	15 1,054,670	15 775,881
53	Wyoming	50 92,531	47 60,705	47 20,789		

<sup>1</sup> Includes 91,219 persons in the military and naval service of the United States (including civilian employees, etc.) stationed abroad, not credited to any state or territory.

<sup>2</sup> 32,052 persons in Alaska, 180,182 Indians and other persons in Indian Territory, and 145,282 Indians and other persons on Indian reservations, etc.,

were specially enumerated under the law but were not included in the general report on population in 1890; Hawaii had a population in 1890 of 89,990, according to the census taken as of December 28, 1890, under the direction of the Hawaiian Government; including these persons, the total population was 63,069,756.

## TERRITORIES AT EACH CENSUS: 1790 TO 1900.

the states and territories when arranged according to population.]

1850		1840		1830		1820		1810		1800		1790		
23,191,876		4 17,069,453		5 12,866,020		9,638,453		7,239,881		5,808,483		3,929,214		1
12	771,623	12	590,756	15	309,527	19	127,901							2
														3
														4
20	209,897	25	97,574	28	80,388	26	14,278							5
20	92,597													6
														7
21	370,792	20	309,978	16	297,675	14	275,248	9	261,942	8	251,002	8	237,946	8
30	91,532	26	78,085	24	76,748	22	72,749	19	72,674	17	64,273	16	59,096	9
33	51,687	28	43,712	25	39,884	25	33,039	22	24,023	19	14,093			10
31	87,445	27	54,477	26	34,730									11
														12
9	906,185	9	691,392	10	516,823	11	340,989	11	252,433	12	162,686	13	82,548	13
														14
														15
11	851,470	14	470,183	20	157,445	24	55,211	24	12,282					16
7	988,416	10	685,866	13	343,031	18	147,178	21	24,520	21	5,641			17
														18
27	192,214	29	43,112											19
														20
8	982,405	6	779,828	6	687,917	6	564,317	7	406,511	9	220,955	14	73,677	21
18	517,762	19	352,411	19	215,739	17	153,407	18	76,556					22
														23
16	583,169	13	501,793	12	399,455	12	298,335	14	228,705	14	151,719	11	96,540	24
17	583,034	15	470,019	11	447,040	10	407,350	8	380,546	7	341,548	6	319,728	25
6	994,514	8	737,699	8	610,408	7	523,287	5	472,040	5	422,845	4	378,787	26
20	397,654	23	212,267	27	31,639	27	8,896	25	4,762					27
36	6,077													28
														29
15	606,526	17	375,651	22	136,621	21	75,448	20	40,362	20	8,850			30
13	682,044	16	383,702	21	140,455	23	66,586	23	20,845					31
														32
														33
22	317,976	22	284,574	18	269,328	15	244,161	16	214,460	11	183,858	10	141,885	34
19	489,555	18	373,306	14	320,823	13	277,575	12	245,562	10	211,149	9	184,139	35
32	61,547													36
1	3,097,394	1	2,428,021	1	1,918,608	1	1,372,812	2	959,049	3	589,051	5	340,120	37
10	869,039	7	753,419	5	737,987	4	638,829	4	555,500	4	478,103	3	398,751	38
														39
8	1,980,329	3	1,519,467	4	937,903	5	581,434	13	230,760	18	45,365			40
														41
34	13,294													42
2	2,311,786	2	1,724,083	2	1,348,233	3	1,049,458	3	810,091	2	602,365	2	434,373	43
28	147,545	24	108,830	23	97,199	20	83,059	17	76,931	16	69,122	15	63,825	44
14	668,507	11	594,398	9	531,185	8	502,741	6	415,115	6	345,591	7	249,073	45
5	1,002,717	5	829,210	7	681,904	9	422,823	10	261,727	15	105,602	17	85,691	46
25	212,592													47
35	11,380													48
														49
23	314,120	21	291,948	17	280,652	16	235,981	15	217,895	13	154,465	12	85,425	50
4	1,421,661	4	1,239,797	3	1,211,405	2	1,065,866	1	974,600	1	880,200	1	747,610	51
														52
24	305,391	30	30,945											53

<sup>3</sup> 33,426 persons in Alaska were specially enumerated under the law but were not included in the general report on population in 1880.

<sup>4</sup> Includes 6,100 persons on public ships in the service of the United States, not credited to any state or territory.

<sup>5</sup> Includes 5,318 persons on public ships in the service of the United States, not credited to any state or territory.

<sup>6</sup> Dakota territory.

TABLE 6.—INCREASE IN POPULATION OF STATES

	STATES AND TERRITORIES.	1890 to 1900		1880 to 1890		1870 to 1880		1860 to 1870	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1	The United States .....	112,937,008	20.7	12,406,467	24.9	11,597,412	30.1	7,115,050	22.6
2	Alabama .....	315,680	20.9	250,512	19.8	265,518	26.6	32,791	8.4
3	Alaska .....								
4	Arizona .....	339,930	67.0	19,180	47.4	30,782	318.7	9,658	
5	Arkansas .....	183,385	16.3	825,654	40.6	318,054	65.6	49,021	11.8
6	California .....	274,049	22.7	343,436	39.7	304,447	54.3	180,253	47.4
7	Colorado .....	126,357	30.7	217,871	112.1	154,463	387.5	5,587	16.3
8	Connecticut .....	162,162	21.7	123,558	19.8	85,246	15.9	77,307	16.8
9	Delaware .....	16,242	9.6	21,885	14.9	21,593	17.3	12,799	11.4
10	District of Columbia .....	48,326	21.0	52,768	29.7	45,924	34.9	56,620	75.4
11	Florida .....	137,120	35.0	121,929	45.2	81,745	43.5	47,324	33.7
12	Georgia .....	373,978	20.6	295,178	19.1	358,071	30.2	126,823	12.0
13	Hawaii .....								
14	Idaho .....	74,762	88.6	51,775	158.8	17,611	117.4	14,999	
15	Illinois .....	995,199	26.0	748,480	24.8	537,980	21.2	827,940	48.4
16	Indiana .....	324,058	14.8	214,103	10.8	297,664	17.7	330,209	24.5
17	Indian Territory .....								
18	Iowa .....	319,572	16.7	287,281	17.7	430,595	36.1	519,107	76.9
19	Kansas .....	41,373	2.9	431,000	48.3	631,697	173.4	257,193	239.9
20	Kentucky .....	288,539	15.5	209,945	12.7	827,679	24.8	165,327	14.3
21	Louisiana .....	263,038	23.5	178,641	19.0	213,031	29.3	18,913	2.7
22	Maine .....	33,380	5.0	12,150	1.9	22,021	3.5	1,364	0.2
23	Maryland .....	145,654	14.0	107,447	11.5	154,049	19.7	93,845	13.7
24	Massachusetts .....	566,403	25.3	455,858	25.6	325,734	22.4	226,285	18.4
25	Michigan .....	327,093	15.6	456,952	27.9	452,878	38.2	434,946	58.1
26	Minnesota .....	440,160	33.8	521,053	66.7	341,067	77.6	267,683	155.6
27	Mississippi .....	261,670	20.3	158,003	14.0	303,675	36.7	36,617	4.6
28	Missouri .....	427,481	16.0	510,804	23.6	447,085	26.0	539,293	45.6
29	Montana .....	99,400	75.2	93,000	237.5	18,564	90.1	20,595	
30	Nebraska .....	7,390	0.7	606,503	134.1	329,409	267.8	94,152	326.5
31	Nevada .....	16,099	11.1	16,505	28.5	19,775	46.5	35,634	519.7
32	New Hampshire .....	35,058	9.3	29,539	8.5	28,691	9.0	7,773	5.2
33	New Jersey .....	438,736	30.4	313,817	27.7	225,020	24.8	234,061	34.8
34	New Mexico .....	29,727	19.4	34,023	28.5	27,691	30.1	1,642	1.8
35	New York .....	1,265,257	21.1	914,982	18.0	700,112	16.0	502,024	12.9
36	North Carolina .....	275,863	17.1	218,197	15.6	328,389	30.7	78,739	7.9
37	North Dakota .....	129,520	70.9	876,350	278.4	120,996	183.2	9,344	193.2
38	South Dakota .....	55,079	16.8						
39	Ohio .....	485,229	13.2	474,254	14.8	532,802	20.0	825,749	13.9
40	Oklahoma .....	320,407	518.2	61,834					
41	Oregon .....	95,518	30.4	188,999	79.5	88,845	92.2	38,458	73.8
42	Pennsylvania .....	1,044,020	19.9	975,123	22.8	760,940	21.6	615,736	21.2
43	Rhode Island .....	83,050	24.0	68,975	24.9	59,178	27.2	42,733	24.5
44	South Carolina .....	189,167	16.4	155,572	15.6	289,971	41.1	1,898	0.3
45	Tennessee .....	263,098	14.3	225,159	14.0	283,839	22.6	148,719	13.4
46	Texas .....	813,187	36.4	648,774	40.4	773,170	94.5	214,364	35.5
47	Utah .....	67,047	32.2	63,942	44.4	57,177	65.9	46,513	115.5
48	Vermont .....	11,219	3.4	136	(*)	1,735	0.5	15,453	4.9
49	Virginia .....	198,204	12.0	143,415	9.5	287,402	23.5	371,155	23.8
50	Washington .....	162,194	46.4	274,274	365.1	51,161	213.6	12,361	106.6
51	West Virginia .....	196,006	25.7	144,337	23.8	176,443	39.9	442,014	
52	Wisconsin .....	376,036	22.3	371,333	28.2	260,827	24.7	278,789	35.9
53	Wyoming .....	29,865	49.2	39,916	192.0	11,671	128.0	9,118	

\* Inclusive in 1900 of 91,219 persons in the military and naval service of the United States (including civilian employees, etc.) stationed abroad, not credited to any state or territory, but exclusive of 63,562 persons in Alaska, 154,001 persons in Hawaii, 392,060 persons in Indian Territory, and 134,476 persons on Indian reservations, credited to states and territories as follows: Arizona, 23,881; California, 2,874; Colorado, 1,145; Idaho, 2,625; Iowa, 385; Kansas, 2,026; Minnesota, 9,408; Montana, 11,770; Nevada, 1,673; New Mexico, 11,990;

New York, 5,784; North Dakota, 6,907; Oklahoma, 16,090; Oregon, 4,251; Pennsylvania, 31; South Dakota, 17,683; Utah, 1,797; Washington, 6,519; Wisconsin, 6,126; and Wyoming, 1,961.

\* The population of the United States in 1830 included 5,318 persons, and, similarly, the population of the United States in 1840 included 6,100 persons, on public ships in the service of the United States, not credited to any state or territory.

## AND TERRITORIES AT EACH CENSUS: 1790 TO 1900.

1850 to 1860		1840 to 1850		1830 to 1840		1820 to 1830		1810 to 1820		1800 to 1810		1790 to 1800		
Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
8,251,445	35.6	* 6,122,423	35.9	* 4,203,433	32.7	* 3,227,567	33.5	2,398,572	33.1	1,931,398	36.4	1,379,269	35.1	1
192,578	25.0	180,867	30.6	281,229	90.9	181,626	142.0	127,901						2
														3
														4
225,553	107.5	112,323	115.1	67,186	221.1	16,115	112.9	14,273						5
287,397	310.4	92,597												6
84,277														7
89,855	24.1	60,814	19.6	12,303	4.1	22,427	8.1	13,306	5.1	10,940	4.4	13,056	5.5	8
20,084	22.6	13,447	17.2	1,337	1.7	3,999	5.5	75	0.1	8,401	13.1	5,177	8.8	9
23,393	45.3	7,975	18.2	3,878	9.7	6,795	20.6	9,016	37.5	9,930	70.5	14,093		10
52,979	60.6	32,968	60.5	19,747	56.9	34,730								11
151,101	16.7	214,793	81.1	174,569	33.8	175,834	51.6	88,556	35.1	89,747	55.2	80,138	97.1	12
														13
														14
860,481	101.1	375,287	78.8	318,738	202.4	102,234	185.2	42,929	349.5	12,282				15
362,012	36.6	302,550	44.1	342,835	99.9	195,853	133.1	122,658	500.2	18,879	334.7	5,641		16
														17
482,699	251.1	149,102	345.8	43,112										18
107,206														19
173,279	17.6	202,577	26.0	91,911	13.4	123,600	21.9	157,806	38.8	185,556	81.0	147,278	199.9	20
190,240	36.7	165,351	146.9	136,672	63.4	62,332	40.6	76,851	100.4	76,556				21
45,110	7.7	81,376	16.2	102,338	25.6	101,120	33.9	69,630	30.4	76,986	50.7	55,179	57.2	22
104,015	17.8	113,015	24.0	22,979	5.1	39,690	9.7	26,804	7.0	38,998	11.4	21,820	6.8	23
236,552	23.8	256,815	34.8	127,291	20.9	87,121	16.6	51,247	10.9	49,195	11.6	44,058	11.6	24
351,459	88.4	185,387	87.3	180,628	570.9	22,743	255.7	4,134	86.8	4,762				25
165,946	2,730.7	6,077												26
184,779	30.5	230,875	61.5	239,030	175.0	61,173	81.1	35,096	87.0	31,502	356.0	8,850		27
499,968	73.3	293,342	77.8	243,247	173.2	73,869	110.9	45,741	219.4	20,345				28
														29
23,841														30
6,857														31
8,097	2.5	33,402	11.7	15,246	5.7	25,167	10.3	29,701	13.8	30,602	16.6	41,973	29.6	32
182,480	87.3	116,249	31.1	52,463	16.4	43,248	15.6	32,013	13.0	34,413	16.3	27,010	14.7	33
31,969	51.9	61,547												34
783,341	25.3	668,478	27.5	510,313	26.6	545,796	39.8	413,763	43.1	369,998	62.8	248,931	73.2	35
123,583	14.2	115,620	15.3	15,432	2.1	99,158	15.5	83,329	15.0	77,397	16.2	84,352	21.4	36
14,837														37
859,182	18.1	460,862	30.3	581,564	62.0	356,469	61.3	350,674	152.0	185,395	408.7	45,865		38
														39
39,171	294.7	13,294												40
594,429	25.7	587,753	34.1	375,800	27.9	298,775	28.5	289,867	29.5	207,726	34.5	167,992	38.7	41
27,075	18.4	38,715	35.6	11,631	12.0	14,140	17.0	6,123	8.0	7,809	11.3	297	0.4	42
35,201	5.3	74,109	12.5	13,213	2.3	73,444	15.6	87,626	21.1	69,624	20.1	96,518	33.8	43
107,084	10.7	173,507	20.9	147,306	21.6	259,081	61.3	161,096	61.6	156,125	147.8	69,911	195.9	44
391,623	184.2	212,592												45
28,893	253.9	11,380												46
														47
978	0.3	22,172	7.6	11,296	4.0	44,671	18.9	18,086	8.3	63,430	41.1	69,040	80.8	48
174,657	12.3	181,864	14.7	28,392	2.3	146,039	13.7	90,766	9.3	94,400	10.7	132,590	17.7	49
11,594														50
470,490	154.1	274,446	886.9	30,945										51
														52
														53

\* Exclusive of persons on Indian reservations.

† Decrease; exclusive of persons on Indian reservations.

‡ Decrease.

§ North and South Dakota combined. Apportioning the population of Dakota territory in 1880, North Dakota (36,909 in 1880) increased 145,810, or 395.1

per cent, and South Dakota (98,268 in 1880) increased 230,540, or 234.6 per cent.

¶ Dakota territory.

‡ Less than one-tenth of 1 per cent.

§ Decrease; due to loss of territory, West Virginia having been set off from Virginia December 31, 1862.

In order that the aggregate population returned at the census of 1900 may be compared with the population of equivalent areas in 1890, as stated on page 2, it is necessary to add 447,506 persons, specially enumerated, to the population of the states and organized territories in 1890, giving a total population of 63,069,756, distributed by states and territories, arranged geographically, as follows:

TABLE 7.—POPULATION OF STATES AND TERRITORIES, ARRANGED GEOGRAPHICALLY: 1890 AND 1900.

STATES AND TERRITORIES.	1900	1890		
		Total.	Included in general enumeration.	Specially enumerated.
The United States.....	176,303,387	63,069,756	62,622,250	447,506
North Atlantic division.....	21,046,695	17,406,969	17,401,645	5,424
Maine.....	694,466	661,086	661,086	—
New Hampshire.....	411,588	376,530	376,530	—
Vermont.....	343,611	332,422	332,422	—
Massachusetts.....	2,805,346	2,238,947	2,238,943	4
Rhode Island.....	428,556	345,506	345,506	—
Connecticut.....	903,429	746,258	746,258	—
New York.....	7,268,891	6,003,174	5,997,853	5,321
New Jersey.....	1,883,666	1,444,933	1,444,933	—
Pennsylvania.....	6,302,115	5,258,113	5,258,014	99
South Atlantic division.....	10,443,480	8,857,922	8,857,920	2
Delaware.....	184,735	168,493	168,493	—
Maryland.....	1,188,044	1,042,390	1,042,390	—
District of Columbia.....	278,718	230,392	230,392	—
Virginia.....	1,854,181	1,655,980	1,655,980	—
West Virginia.....	958,800	762,794	762,794	—
North Carolina.....	1,893,810	1,617,949	1,617,947	2
South Carolina.....	1,240,316	1,151,149	1,151,149	—
Georgia.....	2,216,331	1,837,353	1,837,353	—
Florida.....	528,542	391,422	391,422	—
North Central division.....	20,333,004	22,410,417	22,362,279	48,138
Ohio.....	4,157,545	3,672,329	3,672,316	13
Indiana.....	2,516,462	2,192,404	2,192,404	—
Illinois.....	4,821,550	3,826,352	3,826,351	1
Michigan.....	2,420,982	2,093,890	2,093,889	1
Wisconsin.....	2,069,042	1,693,330	1,686,880	6,450
Minnesota.....	1,751,394	1,310,283	1,301,826	8,457
Iowa.....	2,231,853	1,912,297	1,911,896	401
Missouri.....	3,106,665	2,679,185	2,679,184	1
North Dakota.....	319,146	190,983	182,719	8,264
South Dakota.....	401,570	348,600	328,808	19,792
Nebraska.....	1,066,300	1,062,656	1,058,910	3,746
Kansas.....	1,470,495	1,428,108	1,427,096	1,012
South Central division.....	14,080,047	11,170,137	10,972,893	197,244
Kentucky.....	2,147,174	1,858,635	1,858,635	—
Tennessee.....	2,020,616	1,767,618	1,767,618	—
Alabama.....	1,828,697	1,513,401	1,513,017	384
Mississippi.....	1,551,270	1,289,600	1,289,600	—
Louisiana.....	1,381,625	1,118,588	1,118,588	—
Texas.....	3,048,710	2,235,627	2,235,623	4
Oklahoma.....	398,331	78,475	61,834	16,641
Arkansas.....	1,311,564	1,128,211	1,128,179	32
Indian Territory.....	392,060	180,182	—	180,182
Western division.....	4,091,349	3,102,269	3,027,613	74,656
Montana.....	243,329	142,924	132,159	10,765
Wyoming.....	92,531	62,555	60,705	1,850
Colorado.....	539,700	413,249	413,193	1,056
New Mexico.....	195,310	160,282	153,593	6,689
Arizona.....	122,931	88,243	69,620	28,623
Utah.....	276,749	210,779	207,905	2,874
Nevada.....	42,335	47,355	45,761	1,594
Idaho.....	161,772	88,548	84,355	4,193
Washington.....	518,103	257,232	249,390	7,842
Oregon.....	413,536	317,704	313,767	3,937
California.....	1,485,053	1,213,398	1,208,150	5,248
Alaska.....	63,592	—	—	63,592
Hawaii.....	164,001	89,990	—	89,990

<sup>1</sup> Includes 91,219 persons in the military and naval service of the United States (including civilian employees, etc.) stationed abroad, not credited to any state or territory.

The increase in the population of the several states and territories since 1890, based upon the figures given in table 7, is shown in the first two columns of table 8, in com-

parison with the increase as shown in table 6, reproduced in the last two columns of table 8:

TABLE 8.—INCREASE IN POPULATION OF STATES AND TERRITORIES, ARRANGED GEOGRAPHICALLY: 1890 TO 1900.

STATES AND TERRITORIES.	Increase, including in 1890 population specially enumerated.		Increase, excluding in 1890 population specially enumerated. <sup>1</sup>	
	Number.	Per cent.	Number.	Per cent.
The United States.....	13,233,631	21.0	12,987,008	20.7
North Atlantic division.....	3,639,726	20.9	3,639,285	20.9
Maine.....	33,380	5.0	33,380	5.0
New Hampshire.....	35,058	9.3	35,058	9.3
Vermont.....	11,219	3.4	11,219	3.4
Massachusetts.....	566,399	25.3	566,403	25.3
Rhode Island.....	83,050	24.0	83,050	24.0
Connecticut.....	162,162	21.7	162,162	21.7
New York.....	1,265,720	21.1	1,265,257	21.1
New Jersey.....	438,736	30.4	438,736	30.4
Pennsylvania.....	1,044,002	19.9	1,044,020	19.9
South Atlantic division.....	1,585,558	17.9	1,585,560	17.9
Delaware.....	16,242	9.6	16,242	9.6
Maryland.....	145,654	14.0	145,654	14.0
District of Columbia.....	48,326	21.0	48,326	21.0
Virginia.....	198,204	12.0	198,204	12.0
West Virginia.....	196,006	25.7	196,006	25.7
North Carolina.....	275,861	17.1	275,863	17.1
South Carolina.....	189,167	16.4	189,167	16.4
Georgia.....	378,978	20.6	378,978	20.6
Florida.....	137,120	35.0	137,120	35.0
North Central division.....	3,922,587	17.5	3,928,190	17.6
Ohio.....	485,216	13.2	485,229	13.2
Indiana.....	324,058	14.8	324,058	14.8
Illinois.....	995,198	26.0	995,199	26.0
Michigan.....	327,092	15.6	327,093	15.6
Wisconsin.....	376,712	22.2	376,036	22.3
Minnesota.....	441,111	33.7	440,160	33.8
Iowa.....	319,556	16.7	319,572	16.7
Missouri.....	427,480	16.0	427,481	16.0
North Dakota.....	128,163	67.1	129,520	70.9
South Dakota.....	52,970	15.2	55,079	16.8
Nebraska.....	3,044	0.3	7,390	0.7
Kansas.....	42,887	3.0	41,873	2.9
South Central division.....	2,909,910	26.1	2,699,004	24.6
Kentucky.....	288,539	15.5	288,539	15.5
Tennessee.....	253,098	14.3	253,098	14.3
Alabama.....	315,296	20.8	315,680	20.9
Mississippi.....	261,670	20.3	261,670	20.3
Louisiana.....	263,087	23.5	263,038	23.5
Texas.....	813,183	36.4	813,187	36.4
Oklahoma.....	319,856	407.6	320,047	518.2
Arkansas.....	183,353	16.3	183,385	16.3
Indian Territory.....	211,878	117.6	—	—
Western division.....	989,080	31.9	993,750	32.8
Montana.....	100,405	70.3	99,400	75.2
Wyoming.....	29,976	47.9	29,865	49.2
Colorado.....	120,451	30.6	120,357	30.7
New Mexico.....	35,028	21.9	29,727	19.4
Arizona.....	34,688	39.3	39,930	67.0
Utah.....	65,970	81.3	67,047	32.2
Nevada.....	25,020	210.6	25,099	211.1
Idaho.....	73,224	82.7	74,762	88.6
Washington.....	160,871	45.0	162,194	46.4
Oregon.....	95,832	30.2	95,618	30.4
California.....	271,665	22.4	274,049	22.7
Alaska.....	31,540	98.4	—	—
Hawaii.....	64,011	71.1	—	—

<sup>1</sup> See table 6.

<sup>2</sup> Decrease.

As shown by table 8 (columns 1 and 2), there has been an increase of 21 per cent in the population of the entire area of enumeration in 1900 as compared with the population of the same area in 1890, representing a total numerical increase of 13,233,631. Excluding the population of Alaska, Hawaii, Indian Territory, and Indian reservations in 1890 and 1900, there has been an increase in the population of the states and organized territories during the decade, as shown by table 8 (columns 3 and 4), of



12,937,008, or 20.7 per cent, as compared with an increase of 12,466,467, or 24.9 per cent, for the equivalent area from 1880 to 1890.

Among the several states and territories, Oklahoma shows the largest percentage of increase since 1890. The territory of Oklahoma was opened to settlement in May, 1890, and at the census taken one month later, in June, 1890, had a population of 78,475, including 16,641 Indians and other persons specially enumerated but not included in the general report on population at that census. At the census of 1900 it had a population of 398,331, or an increase since 1890 of 407.6 per cent; in other words, its population in 1900 is more than five times as large as the entire population returned in 1890.

The second largest percentage of increase in population since 1890 is found in Indian Territory, being somewhat more than 100 per cent. The population of Indian Territory was specially enumerated in 1890, but no part of the population thus enumerated was included in the general report on population. There were 180,182 Indians and other persons enumerated in Indian Territory in 1890, but this number has been increased to 392,060 in 1900, showing an increase of 211,878, or 117.6 per cent, during the ten years.

The population of Idaho has increased 82.7 per cent since 1890, while the population of Montana has increased 70.3 per cent, and that of North Dakota 67.1 per cent. The 5 states and territories named are the only ones in which the population has increased more than 50 per cent during the ten years from 1890 to 1900, but Wyoming has increased its population during the same period by 47.9 per cent and Washington its population by 45 per cent.

Nevada is the only state which shows an actual decrease in its population since 1890, but for this state there was a much larger decrease reported for the preceding decade, or 26.5 per cent from 1880 to 1890 as against 10.6 per cent from 1890 to 1900. The smallest percentage of increase during the ten years is that shown by Nebraska, being less than one-half of 1 per cent, while for the same period there has been an increase of only 3 per cent in the population of Kansas, 3.4 per cent in that of Vermont, and 5 per cent in that of Maine.

There has been a gain during the decade of not quite 10 per cent in the population, respectively, of Delaware and New Hampshire, and of between 10 and 40 per cent in the population of each of the remaining states and territories, the largest percentage among this class being that for Arizona, or 39.3 per cent, and the smallest percentage that for Virginia, or 12 per cent.

The gross area (land and water surface) of the United States, exclusive of Alaska and Hawaii, is 3,025,600 square miles. The United States at the first census, in 1790, comprised only the territory between the Atlantic ocean and the Mississippi river, representing a gross area of 827,844 square miles. There was no change in the gross area of the country at the census of 1800, but in 1803 there were added by the Louisiana purchase more than a million square miles, making the gross area of the country at the census of 1810, 1,999,775 square miles. In 1819

our territory was increased by the purchase of the Floridas from Spain to 2,059,043 square miles, which represented the gross area of the country at the censuses of 1820, 1830, and 1840. Between 1840 and 1850, there was a large acquisition of territory from Mexico, so that at the census of 1850 the gross area of the United States comprised 2,980,959 square miles. By the Gadsden purchase in 1853 our territory was further increased to 3,025,600 square miles, which constitutes the present area of the country, exclusive of the areas of Alaska and Hawaii. The territory of Alaska, comprising 590,884 square miles, was purchased from Russia in 1867, and the territory of Hawaii, comprising 6,449 square miles, was acquired by annexation in 1898. Including Alaska and Hawaii, the entire area of enumeration at the present census comprises 3,622,933 square miles.

The gross area (land and water surface) which the country, exclusive of Alaska and Hawaii, had at the date of each census, from 1790 to 1900, inclusive, is summarized in table 9.

TABLE 9.—GROSS AREA OF THE UNITED STATES, EXCLUSIVE OF ALASKA AND HAWAII, AT EACH CENSUS: 1790 TO 1900.

CENSUS YEARS.	Gross area in square miles.	CENSUS YEARS.	Gross area in square miles.
1900.....	3,025,600	1840.....	2,059,043
1890.....	3,025,600	1830.....	2,059,043
1880.....	3,025,600	1820.....	2,059,043
1870.....	3,025,600	1810.....	1,999,775
1860.....	3,025,600	1800.....	827,844
1850.....	2,980,959	1790.....	827,844

The area in square miles, including land and water surface, of the several states and territories at the census of 1900 is presented in table 10.

TABLE 10.—AREA OF THE UNITED STATES IN SQUARE MILES, BY STATES AND TERRITORIES: 1900.

STATES AND TERRITORIES.	Gross area.	Water surface.	Land surface.
Total.....	3,622,933	155,562	12,970,038
Alabama.....	52,250	710	51,540
Alaska.....	590,884		
Arizona.....	113,020	100	112,920
Arkansas.....	53,850	805	53,045
California.....	158,360	2,380	155,980
Colorado.....	108,925	280	103,645
Connecticut.....	4,990	145	4,845
Delaware.....	2,050	90	1,960
District of Columbia.....	70	10	60
Florida.....	58,680	4,440	54,240
Georgia.....	59,475	495	58,980
Hawaii.....	6,449		
Idaho.....	84,800	510	84,290
Illinois.....	56,650	650	56,000
Indiana.....	36,850	440	36,410
Indian Territory.....	31,400	400	31,000
Iowa.....	56,025	550	55,475
Kansas.....	82,080	380	81,700
Kentucky.....	40,400	400	40,000
Louisiana.....	48,720	3,300	45,420
Maine.....	33,040	3,145	29,895
Maryland.....	12,210	2,350	9,860
Massachusetts.....	8,315	275	8,040
Michigan.....	58,915	1,485	57,430
Minnesota.....	83,365	4,100	79,265
Mississippi.....	46,810	470	46,340
Missouri.....	69,415	680	68,735
Montana.....	146,050	770	145,280
Nebraska.....	77,510	670	76,840
Nevada.....	110,700	960	109,740
New Hampshire.....	9,305	300	9,005
New Jersey.....	7,815	290	7,525
New Mexico.....	122,580	120	122,460
New York.....	49,170	1,550	47,620
North Carolina.....	52,250	3,670	48,580
North Dakota.....	70,795	600	70,195
Ohio.....	41,060	300	40,760
Oklahoma.....	89,080	200	88,880
Oregon.....	96,030	1,470	94,560
Pennsylvania.....	45,215	230	44,985

<sup>1</sup> Exclusive of Alaska and Hawaii.

TABLE 10.—AREA OF THE UNITED STATES IN SQUARE MILES, BY STATES AND TERRITORIES: 1900—Continued.

STATES AND TERRITORIES.	Gross area.	Water surface.	Land surface.
Rhode Island	1,250	197	1,053
South Carolina	30,570	400	30,170
South Dakota	77,650	800	76,850
Tennessee	42,050	300	41,750
Texas	265,780	3,490	262,290
Utah	84,970	2,780	82,190
Vermont	9,565	430	9,135
Virginia	42,450	2,325	40,125
Washington	69,180	2,300	66,880
West Virginia	24,780	135	24,645
Wisconsin	56,040	1,590	54,450
Wyoming	97,890	315	97,575
Delaware bay	620	620	
Raritan bay and lower New York bay.	100	100	

The density of population of the United States, exclusive of Alaska and Hawaii, according to the census of 1900, is 25.6, that is, there are in the United States in 1900, on the average, 25.6 inhabitants to the square mile, using land surface only. At the census of 1790 there were less than 5 inhabitants to the square mile, so that the density of the population of the country has increased in 110 years more than fivefold, although the land area of the country in 1900, exclusive of Alaska and Hawaii, is more than three and one-half times what it was in 1790.

The density of population of the several states and territories at each census is shown in detail in table 11.

TABLE 11.—DENSITY OF POPULATION OF STATES AND TERRITORIES AT EACH CENSUS: 1790 TO 1900.

[The density of population is obtained by dividing the population of each state and territory and of the United States by its total land area in square miles at each census. In computing density of population for the United States, the areas and population of Alaska and Hawaii in 1900, of Alaska in 1890, and of Indian Territory in 1860, 1870, and 1880 are not considered. The area of Indian reservations, outside of Indian Territory, is included in the area of the states and territories in which they are severally situated, and in that of the United States, prior to 1890, although the population of these Indian reservations was not ascertained, and, for this reason, can not be considered in figuring density of population at the censuses prior to 1890.]

STATES AND TERRITORIES.	1900	1890	1880	1870	1860	1850	1840	1830	1820	1810	1800	1790
The United States	25.6	21.2	17.3	13.3	10.8	7.9	8.4	6.4	4.8	3.7	6.6	4.9
Alabama	35.5	29.4	24.5	19.3	18.7	15.0	11.5	6.0	2.5			
Alaska	0.1											
Arizona	1.1	0.8	0.4	0.1								
Arkansas	24.7	21.3	15.1	9.1	8.2	4.0	1.8	0.6	0.3			
California	9.5	7.8	5.5	3.6	2.4	0.6						
Colorado	5.2	4.0	1.9	0.4	0.3							
Connecticut	187.5	164.0	128.5	110.9	95.0	76.5	64.0	61.4	56.8	54.1	51.8	49.1
Delaware	94.3	86.0	74.8	63.8	57.3	46.7	39.8	39.2	37.1	37.1	32.8	30.2
District of Columbia	4,645.3	3,839.9	2,990.4	2,195.0	1,251.3	861.5	485.7	442.6	367.1	266.9	156.6	
Florida	9.7	7.2	5.0	3.5	2.6	1.6	1.0	0.6				
Georgia	37.6	31.2	26.1	20.1	17.9	15.4	11.7	8.8	5.8	4.3	2.8	1.4
Hawaii	23.9											
Idaho	1.9	1.1	0.4	0.2								
Illinois	86.1	68.8	55.0	45.4	30.6	15.2	8.5	2.8	1.0	0.1		
Indiana	70.1	61.1	55.1	46.8	37.6	27.5	19.1	9.6	4.1	0.7	( <sup>1</sup> )	
Indian Territory	12.6	5.8										
Iowa	40.2	34.5	29.3	21.5	12.2	3.5	0.2					
Kansas	18.0	17.5	12.2	4.5								
Kentucky	59.7	46.5	41.2	33.0	28.9	24.6	19.5	17.2	14.1	10.2	5.5	1.8
Louisiana	80.4	24.6	20.7	16.0	15.6	11.4	7.8	4.7	3.4	1.7		
Maine	23.2	22.1	21.7	21.0	21.0	19.5	16.8	13.4	10.0	7.7	5.1	3.2
Maryland	120.5	105.7	94.8	79.2	69.7	59.1	47.7	45.3	41.8	38.6	34.6	32.2
Massachusetts	348.9	278.5	221.8	181.3	153.1	123.7	91.8	75.9	65.1	58.7	52.6	47.1
Michigan	42.2	36.5	28.5	20.6	13.0	6.9	3.7	0.2	0.1	0.1		
Minnesota	22.1	16.5	9.9	5.6	2.2	( <sup>2</sup> )						
Mississippi	33.5	27.8	24.4	17.9	17.1	13.1	8.1	2.9	1.6	0.4	0.2	
Missouri	45.2	39.0	31.5	25.0	17.2	9.9	5.6	2.1	1.0	0.3		
Montana	1.7	1.0	0.3	0.1								
Nebraska	13.9	13.8	5.9	1.6								
Nevada	0.4	0.4	0.6	0.4	0.1							
New Hampshire	45.7	41.8	38.5	35.3	36.2	35.3	31.6	29.9	27.1	23.8	20.4	15.8
New Jersey	250.3	193.8	151.7	121.5	90.1	65.7	50.1	43.0	37.2	32.9	28.3	24.7
New Mexico	1.6	1.3	1.0	0.8	0.4	0.3						
New York	152.6	126.1	106.7	92.0	81.5	65.0	51.0	40.3	28.8	20.1	12.4	7.1
North Carolina	39.0	33.3	28.8	22.1	20.4	17.9	15.5	15.2	13.2	11.4	9.8	8.1
North Dakota	4.5	2.7	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )							
Ohio	102.0	90.1	78.5	65.4	57.4	48.6	37.3	28.0	14.3	5.7	1.1	
Oklahoma	10.3	2.0										
Oregon	4.4	3.4	1.3	1.0	0.6	( <sup>4</sup> )						
Pennsylvania	140.1	116.9	95.2	78.3	64.6	51.4	38.3	30.0	23.3	18.0	13.4	9.7
Rhode Island	407.0	318.4	254.9	200.3	160.9	136.0	100.3	89.6	76.6	70.9	63.7	63.4
South Carolina	44.4	38.2	33.0	23.4	23.3	22.2	19.7	19.3	16.7	13.8	11.5	8.3
South Dakota	5.2	4.5	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )							
Tennessee	43.4	42.3	36.9	30.1	26.6	24.0	19.9	16.3	10.1	6.3	2.5	0.9
Texas	11.6	8.5	6.1	3.1	2.3	0.8						
Utah	3.4	2.6	1.8	1.1	0.2	0.1						
Vermont	37.6	36.4	36.4	36.2	34.5	34.4	32.0	30.7	25.8	23.9	16.9	9.4
Virginia	46.2	41.3	37.7	30.5	24.0	21.9	19.1	18.7	16.4	15.0	13.6	11.5
Washington	7.7	5.3	1.1	0.4	0.1							
West Virginia	38.9	31.0	25.1	17.9								
Wisconsin	38.0	31.1	24.2	19.4	14.2	5.6	0.5					
Wyoming	0.9	0.6	0.2	0.1								

<sup>1</sup> 0.02.

<sup>2</sup> 0.03.

<sup>3</sup> Dakota territory, 1880, 0.9; 1870, 0.1; 1860, 0.03.

<sup>4</sup> 0.04.

Excluding the District of Columbia, which is in effect a municipality, Rhode Island, with 407 inhabitants to the square mile in 1900, is the most densely settled state in the Union, while Massachusetts comes next, with not quite 349 inhabitants to the square mile. New Jersey, with a little more than 250 inhabitants to the square mile in 1900, is the third state in point of density of population, while Connecticut, with somewhat more than 187 inhabitants to the square mile, occupies fourth place. Four other states have more than 100 inhabitants to the square mile in 1900, namely, New York, with 152.6 inhabitants; Pennsylvania, with 140.1 inhabitants; Maryland, with 120.5 inhabitants; and Ohio, with 102 inhabitants to the square mile.

Alaska has, on the average, but one-tenth of 1 person to the square mile in 1900, and, similarly, Nevada has only four-tenths of 1 person to the square mile. Wyoming has not quite 1 inhabitant to the square mile in 1900, while Arizona has an average to the square mile of 1.1 inhabitants; New Mexico of 1.6 inhabitants; Montana of 1.7 inhabitants; and Idaho of 1.9 inhabitants.

The newly acquired territory of Hawaii shows an average density of population in 1900 of not quite 24 persons, ranking in this respect between Maine, with 23.2 persons, and Arkansas, with 24.7 persons to the square mile.

A handwritten signature in cursive script, reading "William C. Zimmerman". The signature is written in dark ink and is positioned above the printed title.

*Director of the Census.*